

CAPITAL STRUCTURE, CORPORATE GOVERNANCE AND COST EFFICIENCY IN DEPOSIT MONEY BANKS IN NIGERIA

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Abstract

The study analysed cost efficiency of selected listed financial firms in Nigeria and investigated the influence of corporate governance of selected listed financial firms. It also assessed the mediating role of corporate governance on the relationship between capital structure and cost efficiency of selected listed financial firms in Nigeria. There were with the view to providing information on the relationship among capital structure, corporate governance and cost efficiency in deposit money banks in Nigeria, between 2005 and 2020. The study adopted a descriptive survey design, and employed secondary data of 15 quoted deposit money banks. Data on corporate governance variables such as size, membership, independence and shareholding status; efficiency variables such as assets, profit, share capital; and capital structure variables such as long and short term debts were collected from the annual audited financial statements of the firms and analysed using the stochastic frontier analysis with percentages, t-statistics and probability model. The result showed that average cost of efficiency of the deposit money banks in Nigeria was 54.6%. Also corporate governance variables, such as board size ($t= 2.285, p<0.05$) and board expertise ($t=-2.311, p<0.05$) exhibited significant effect on capital structure. Finally, the result showed that corporate governance variables such as board size ($t=-2.807, p <0.05$), board independence ($t= -2.438, p<0.05$) and board mix ($t=2.5, p < 0.05$) served as intervening variables between corporate governance and cost efficiency were all significant at 5% level. The study concluded that notable relationship existed among capital structure, corporate governance and cost efficiency

Keywords: Capital Structure, Corporate Governance, Cost Efficiency, Deposit Money Banks, Nigeria

Introduction

Capital structure, otherwise known to as financial structure is the means by which an organization is financed. It is the mix of debt and equity capital maintained by a firm. Managers and providers of fund are more concerned about how an organization is financed; this is because if a wrong mix of finance is employed, the performance and survival of business enterprise may be seriously affected. (Onaolapo & Kajola, 2010).

Capital structure is the composition of a firm's liabilities and owners' equity. Capital structure decisions are one of the three financing decisions namely: investment, financing and dividend decisions that finance managers have to make (Karadeniz, Kandir, Balcilar & Onal, 2009). The capital structure of a firm is actually a mix of different securities. In general, a firm can choose

among many alternative capital structures. It can issue a large amount of debt or very little debt. It can arrange lease financing, use warrants, issue convertible bonds, sign forward contracts or trade bond swaps. It can issue dozens of distinct securities in countless combinations. However, it attempts to find the particular combination that maximizes its overall market value (Liang, Liand Song, 2014; Abdessalam, 2014). The choice of the long term financing mix is often called the capital structure decisions.

Since the company's cost of capital is seen as a function of its capital structure, the choice of optimal capital structure or adequate and appropriate financing and investment reduce company's cost of capital and increase its market value (Modares & Abdoallahzadeh, 2008).

Different companies have different capital structure, but the financing resources of companies based on their financial policies are divided into two: internal financial resources and external financial resources. Internal financial resources are mainly made up of the company's funds from accumulated earnings, while the external financial resources are made up of the company's funds from debt and inventory (Ahmadpour & Yahyazadehfar 2010; Pouraghajan, Malekian, Emamgholipour, Lotfollapour & Bagheri, 2012).

A firm's capital structure can be examined by the rights and features that illustrate its assets' effect with altered levels of strength and governance activities. Williamson 1988 denotes that both debt and equity are financing and corporate governance instruments. Debt can be used as corporate governance tool to strict the management yet the equity allows more flexibility and decision making power. Therefore since everything included in capital structure is also corporate governance instrument, everything in corporate governance must be taken into account as debt equity mixture and their impacts. For example investors are curious about the functions of capital structure and how the contracts are done to ensure better corporate administration and deploy check forces for administration control (Zingales, 2000)..

Agency costs are important in corporate governance. The agency problem involves the separation between the ownership and managing power and the tendency of managers to maximize personal utility rather than corporate value (Jensen & Meckling, 1976). Pressure arising from financial leverage can reduce agency costs and increase corporate value by forcing managers to strive to increase cash flow to offset interest expenses (Jensen, 1986) and motivating managers to avoid liquidation at all costs, since it would lead to the loss of their salaries and perks (Williams, 1987). Additionally, the incremental gains associated with higher leverage can counter managerial agency costs resulting from over-investment problems and limited future growth opportunities (Harvey, Watkins, & Mansell, 2004). Berger & Patti (2002) employed cost efficiency as an indicator of firm performance for verifying the agency problem, because cost efficiency can control external environmental factors, which in turn can influence firm value. Environmental factors which are not part of agency costs are outside managerial control. Traditionally, the firm performance indicators adopted in the agency problem can be classified into three types: financial indicators such as the return on equity and economic value added, stock market returns and their volatility and the Tobin's Q which mixes market and accounting values (Cho, 1998; Harvey, Watkins, & Mansell, 2004; Himmelberg, Hubbard, & Palia, 1999; Yermack, 1996). However, these traditional performance measures do not represent actual firm performance because they do not explain the effect of variation in exogenous market factors which are beyond the control of managers, and do not reflect true performance (Chen & Yen, 1998).

Cost efficiency is defined as a bank selecting a mix of inputs, and composing these inputs at a minimum cost to produce the output; if it's observed total costs are lower than those of other banks producing the same output, the bank will be labelled as cost efficient (Berger & DeYoung,

1997). Studies between Cost Efficiency and Capital Structure appear to be varied and inconclusive. Lipton & Lorsch (1992) found that there is significant relationship between capital structure and board size. Berger & Lubrano (2006) found that firms with larger board size translates into strong pressure from the corporate board to make managers pursue lower leverage or debt ratio rather than have larger boards. It is in the light of the above argument that the study intends to assess Capital Structure, Corporate Governance and Cost Efficiency in deposit money banks in Nigeria

The Nigerian government and the private sector have invested heavily in creating an enabling environment for doing business and indeed, some companies have performed well while some are greatly experiencing decline in terms of performance, and even some delisted from the Nigerian Stock Exchange in the last decade. Momentous strategy to revive this ailing and liquidating firms have focused on financial restructuring. It is widely recognized that the emergence of a dynamic private business sector is a critical ingredient in the process of economic growth and development. In this respect, a critical issue is to examine and understand how firms in developing countries finance their activities (Salawu, 2008). In addition, financial decision becomes more difficult when the economic conditions of the country where the firm operates are typically uncertain.

A firm is said to be inefficient either by producing less than maximum output from a given set of inputs or using more than the minimum input required for a given level of output (technical inefficient) or by utilizing the wrong mix of input given their prices (allocative inefficient). The cost efficiency analysis measures the extent to which a firm's cost is close to the best performed firm for a given level of output in the same condition. It is derived from a cost function in which the total costs of a firm depend on the certain amount of outputs, prices of inputs involved, environmental variables, random errors and efficiency (Shen, Liao & Weyman-Jones, 2008).

Cost efficiency on the other hand has effect on firm finances and operation. A highly cost effective organization will outperform its counterpart in utilization of resources. However, firm capital structure tends to dictate the availability of financial resources and effective allocation of such resources might significantly impacts firm operation performance both in the short run and long run. It is against this background that this study is focusing on the relationship between capital structure, corporate governance and cost efficiency.

Research Questions

This study will endeavor to provide answers to the following research questions:

- i. What are the different levels of cost efficiency of deposit money banks in Nigeria?
- ii. To what extent does corporate governance influence capital structure of deposit money banks in Nigeria
- iii. What is the effect of capital structure on cost efficiency of deposit money banks in Nigeria

Conceptual Review

Capital Structure

A company's capital structure shows all the sources of finance a company is utilizing to finance its operation. Capital Structure refers to how a company finances its operation and it is usually made up of: Preference share capital, Ordinary share capital, and debt capital. If a company maintains the proportion of these sources of finance, the weighted average cost of capital will remain unchanged, i.e it will be constant. The market value of equity is not dependent on the size of dividends and the cost of equity alone, but it also depends on the weighted average cost of capital. This relationship or connection needs to be investigated in greater details (Akinsulire, 2014).

Absolutely, nothing is more important to a new business than raising capital (Brigham & Daves, 2004). The way such fund is raised can have an enormous impact on the success or otherwise of such firm. This argument may be applicable to all businesses, how a firm chooses the combination of its debt and equity (capital structure) depends on several factors such as objectives of the managers, the economy, perception and future of the managers and the organization, the firm characteristics etc. The cost and benefits attributed to the use of both debt and equity is very paramount to the management. Management must base their decision taking into consideration the debt and equity associated with the various costs and benefits. This however, is one side of several arguments of capital structures. In doing this, management have to consider all methods of financing available and use the least expensive source first (Myers, 1984).

The effect of different capital structure and differing business risk are reflected in a firm's income statement. Operating leverage tends to magnify the effect of fluctuating sales and produce a percentage change in operating income (EBIT) larger than the changes in sales (Akintoye, 2008). In practice, firms tend to use capital structure, preferred stock and common equity with which the enterprise plans to raise needed funds. Since capital structure policy involves a strategic trade-off between risk and expected return, the optimal capital structure policy must seek a prudent and informed balance risk and return. The firm must consider its business risk, tax provisions, financial flexibility and managerial conservatism or aggressiveness. While these factors are crucial in determining the target capital structure, operating conditions may cause the actual capital structure to differ from the optimal capital structure (Muritala, 2012). He further argued that an appropriate capital structure is a critical decision for any business organization. The decision is not only because of the need to maximize returns to various organizational constituencies, but on an organization's ability to deal with its competitive environment. The prevailing argument, originally developed by Modigliani and Miller in 1958 is that an optimal capital structure exists which balances the risk of bankruptcy with the tax savings of debt. Once established, this capital structure should provide greater returns to stakeholders than they would receive from an all-equity firm.

Corporate governance is a complex issue. It has no accepted single definition. The definition varies based on the framework and cultural situation of the country under consideration (Armstrong and Sweeney, 2002). Also, the differences in definition can be as a result of the different viewpoint from the different perspectives of the policy-maker, researcher, practitioner, or theorist (Solomon, 2010). Corporate governance, as a concept, can be viewed from at least two perspectives that is narrow view which is concerned with the structures within a corporate entity where an enterprise receives its basic orientation and direction and the broad view which is regarded as being the heart of both a market economy and democratic society (Oyejide & Soyibo, 2001). Olayiwola (2002) emphasizes that the narrow view perceives corporate governance in terms of issues relating to shareholders protection management control and the popular principal-agency problems of economic theory. Corporate governance can be defined as the process affected by a set of legislative, regulatory, legal, market mechanisms, listing standards, best practices and efforts of all corporate participants including auditors and financial advisors which create a system of checks and balances with the goal of creating, enhancing, and enduring sustainable value while protecting the interest of external environment. (Zabihollah, 2009). According to the Cadbury Committee report (1992), corporate governance is perceived as the system by which companies are directed and controlled. Corporate governance is the system of rules, practices and processes by which a company is directed and controlled. Corporate governance essentially involves balancing the interests of a company's many stakeholders, such as shareholders, management, customers, suppliers, financiers, government and the community

In an organizational setting, corporate governance is among the key factors that influence the health of the system and the strength to survive economic shocks. The main factors that support the ability of any country's financial system include good corporate governance, effective marketing discipline, strong prudential regulation and supervision, accurate and reliable financial reporting systems, a sound disclosure regimes and an appropriate savings deposit protection system. (Mork, Shleifer & Vishny: 1989). In the work of Isele & Ugoji (2009), corporate governance is the process by which managers provide leadership and direction, create enabling climate and link systematized collaborative efforts to work groups. Managers in this sense must be capable of cultivating conceptual thinking and setting achievable goals and objectives to be met as well as prioritizing activities and arriving at appropriate decisions. All these definitions show that corporate governance has no consensus definition different scholars view it in different ways but pointing to the same point. Conclusively, the scholars' divergent views are just a matter of saying the same thing in a different way.

Corporate governance is a set of mechanisms, both institutional and market based, designed to mitigate agency problems that arise from the separation of ownership and control in a company, protect the interest of all stakeholders, improve firm performance, and ensure that investors get an adequate return on their investment (Shleifer & Vishny, 1997). Corporate governance mechanisms are classified into two namely, internal and external mechanisms.

Research on cost efficiency in developing countries like Nigeria has received little attention despite rapid growth in the literature over the years. This is rather unfortunate given the increase presence of the financial firms in the country. Financial firms play an inevitable role in transforming risks, size and maturity of financial instruments. In doing so, they convert deposits into productive investment. Indeed, economies with a sophisticated financial system are more capable of evaluating assets whose real life is difficult to determine. Accordingly, an efficient financial firm is necessary for a vibrant economic performance.

The concept of economic (productive) efficiency is rooted in neo-classical microeconomic theory, which focuses on resource allocation and utilization. It advocates for non-wastage of resources by emphasizing cost reduction while producing the maximum possible level of output for a given technology and available inputs. Thus, a firm that is economically efficient may possess competitive advantage over rival firms producing less efficiently in the same industry. The main driving force behind economic efficiency is value creation. Accordingly, in the process of transforming inputs into some output value, a change that increases value is an efficient change and one that decreases value is an inefficient change. For purposes of policy intervention efficiency has often been used to evaluate the effectiveness of policy alternatives. A related concept of economic efficiency is Pareto optimality, which has foundations in welfare economics. Pareto efficiency occurs when an allocation of resources from one economic agent to the other makes one agent better off without compromising the welfare of another economic agent (that is without making the other individual worse off). Therefore Pareto efficiency has important implications for public policy, especially in the redistribution of income. Although theoretically plausible, Pareto efficiency is difficult to measure in practice. (Jakata & Mutasa, 2014)

Economic efficiency is better explained by profit maximization (or analogously, cost minimization) but is often associated with perfectly competitive markets than with monopoly because of deadweight loss associated with monopoly pricing and output restrictions. For firms operating in a competitive industry, efficiency gains accrue when firms earn only normal profits in the long-run and respond to changes in consumer preferences by increasing output. Whether this output is sold at the same, higher or lower price depends in large measure on the position of the cost

curves in the long-run (Griffiths & Wall, 2000). In general however, efficiency is associated with welfare improvements. Economic efficiency also encompasses allocative efficiency, which occurs when a firm's inputs are allocated in such a way as to maximize its benefits (profits, revenue and output) depending on the firm's objective function. Allocative efficiency is thus concerned with informing resource allocation decisions by taking into account both productive efficiency as well as Pareto efficiency. However, it is still possible to achieve Pareto efficiency without allocative efficiency. At firm level, allocative efficient outcomes occur when price is equal to marginal costs in a perfectly competitive market. Allocative efficiency also addresses the issue of the right mix of inputs and quality of output produced.

Finally, X-efficiency, introduced by Leibenstein (1966) refers to efficiency in production by linking inputs to outputs. It is an economic expression for the effectiveness with which an organization uses its given set of inputs to produce outputs. Specifically, it refers to the internal organization of firms and its response to external factors. Under such circumstances, both motivational factors (e.g., moral and bureaucratic inertia and human errors) and competitive pressures may affect X-efficiency. In many of his writings, Leibenstein repeatedly argued that X-efficiency was superior to allocative efficiency, implying that the latter effect was trivial.

Empirical Review

Review of Studies from Developed Countries

Jakata and Mutasa (2014) researched into how stock prices and bank efficiency are linked to shareholder value creation DEA and SFA were applied to bank efficiency in Zimbabwe. Sensitivity analysis was used to determine which factors between bank efficiency, log Total Assets, ROE and ROA have the greatest influence on stock prices as compared to the traditional accounting measures of performance. The study concluded that any improvements in bank efficiency will result in improvements in shareholder's value which is inferred in improved stock prices

Yeh (2011) studied capital structure and cost efficiency in the Taiwanese banking industry, utilizing 44 Taiwanese banks. He adopted the stochastic frontier approach to determine cost efficiency as the firm performance indicator, and it also used two-stage least squares to estimate two simultaneous equations that are then used to examine the relationship between capital structure and firm performance. The results found that optimal capital structure is selected by the manager to combat the agency problem and thus improve performance yielding results consistent with agency theory and thus reducing managerial share ownership will decrease agency cost and increase firm performance.

Hoque and Rayhan (2012) conducted study on data envelopment analysis of banking sector in Bangladesh, data was collected from the annual reports of 24 banks in Bangladesh. The two types of Data Envelopment Analysis (constant return to scale and variable return to scale), and since the study attempted to maximize output, the output oriented DEA was used and the result found that most efficient bank is one that obtained the highest efficient score.

Review of Studies from Developing Countries

Tutu (2017) studied the effects of Corporate Governance on efficiency and productivity performance of insurance firms in Ghana. The study employed a panel data of fourteen (14) life insurers and fifteen (15) non-life insurers to assess the efficiency and productivity of insurers in Ghana between the years from 2005 to 2014. The study found that there has been an average a 3% cost productivity growth in the Ghanaian insurance industry. Productivity growth peaked between 2008 and 2009 at 43% cost productivity growth. The study recommends for managers

and policy makers of non-life insurers to adopt policies that will position them to benefit from technological spillovers, whereas the life insurers leverage the managerial expertise to improve the firm to drive productivity growth.

Nitai and Spul-Bar (2015), examined Banks' Cost Efficiency in Central and Eastern Europe using a heteroscedastic stochastic frontier model in six emerging countries from Central and Eastern Europe over the period 2005 – 2011. They found that a high macroeconomic stability supports the efficiency of commercial banks. Also, banks which undertake higher risks are more inefficient, and banks with less liquidity, lower solvency rate and higher credit risk are more inefficient than more cautious credit institutions.

Ngan (2014), used stochastic frontier analysis approach to measure the cost and profit efficiency for data of 45 Vietnam commercial banks over the years from 2007 –2012. He highlighted the risk and asset quality factors related to cost and profit inefficiency of the banks. Besides, cost inefficiency seems to be strongly related to bank concentration, mergers and bank ownership. The result suggest that mergers and acquisition can gain potential cost inefficiency and foster banks' competition in the banking system

Review of Studies from Nigeria

Onaolapo and Kajola (2010) investigated capital structure and firm performance using 30 non-financial firms listed on the Nigerian Stock Exchange for a period of 7 years. Panel data for the selected firms are generated and analyzed using the ordinary least square as a method of estimation. Their result however showed that a firm's capital structure surrogated by debt ratio. Debt ratio has a significant negative impact on the firm's financial measures (ROA and ROE). The findings were consistent with prior empirical studies and provide evidence in support of Agency cost theory

Adeyemi and Oboh (2011) tested the empirical effects of corporate capital structure (financial leverage) on the market value of a selection of firms listed on the Nigerian Stock Exchange. Both primary and secondary data were obtained for analysis, employing both descriptive and inferential statistics for analysis. A sample size of 150 respondents and 90 firms were selected for both primary and secondary respectively. Descriptive statistics was used to analyze the primary data, while chi-square was used to draw inference of perceived relationship between capital structure and firm value. The results suggested that a positively significant exists between a firm's choice of capital structure and its market value in Nigeria. The study suggested that listed firms in Nigeria should strategically plan and manage their capital structure in order to maximize their market values.

Theoretical Review

The capital structure theories provide theoretical underpinning to observe financial decision at firm level relating financial policy to cost efficiency. Generally, capital structure theories can be classified into five: the Modigliani-Miller theory, the tradeoff theory, Agency cost theory (Asymmetric Information Model), Signaling Model, Pecking Order theory. From the foregoing this study rests on the Agency cost theory because it models clearly, a situation in which a principal (a superior) delegated decision making authority to an agent (the subordinate) who receives reward in return for performing some activity on behalf of the principal.

Modigliani-Miller Theory: The pioneer seminal work by Modigliani and Miller (1958, 1963) on the irrelevance of capital structure on firm value and supported by Miller (1977) laid the foundation for the capital structure puzzle. Modigliani and Miller (1958) postulated two propositions.

Modigliani and Miller posited in their first proposition that the capital structure of the firm is independent of the value of firm. This implies that any number of different mixes of debt and equity would result in the same firm value. They stated in their second proposition that the expected return on equity move in the same direction with the debt-equity ratio i.e the return on equity is linearly related with the capital structure of firm. This implies that if firms increase their debt level and reduces their equity, the overall cost of capital would remain the same because as the firm borrows more their chances of not meeting up (default risk) with repayment increases therefore pushes up the borrowing cost. This would make the expected return on equity to fall and keep the cost of capital to remain constant (Gwatizo, 2009, Yinusa, 2014). The proposition of Modigliani and Miller was based on the assumption of perfect capital market conditions. The perfect capital market critical properties assumed by Modigliani and Miller were: no taxes, no transaction or distress costs, perfect information is available to all and there is no room for asymmetric information thereby the existence of efficient capital market. One of the major strength of this theory is that it relates different scenarios where financing decisions are not relevant for the value of the firm. Similarly, the MM theorem laid the foundation for other theories of capital structure (Michalca, 2011, Yinusa, 2014).

After the path breaking work of Modigliani and Miller (1958), later referred to as MM, several criticisms were raised against the Modigliani and Miller theory of irrelevance of capital structure to the value of firms. These criticisms largely asserted that the assumptions of the MM does not conform to practical reality. Kraus and Litzenberger (1973), Myers (1984) and Jensen and Mecking (1976) noted that the no taxes and no transaction or distress cost as underlying assumptions of the irrelevance of capital structure on the firm theory by MM (1958) is too realistic rather than being elastic. These researchers opined that firms pay taxes at the corporate level and these taxes serve as shield against their profit, i.e as firms employ debt in their capital structure they are under obligations to pay fixed interest to debt holders. This provides a tax shield advantage of using debt in the capital structure thereby reduces the amount of tax payable by firms at the corporate level. This suggests that there is corporate tax benefit of using debt in the capital structure. Therefore, the assumption of no taxes under the perfect capital market assumption of MM (1958) is not plausible. However, MM (1963) relaxed the assumption of no taxes by introducing corporate taxes in their model. They concluded that for firm to maximize its value, equity must be ignored in their capital structure while debt must be employed 100%.

Trade-Off Theory: The trade-off theory of the capital structure suggests that three competing forces drive a firm's target leverage:

- (i) Taxes
- (ii) Cost of financial distress (bankruptcy costs) and
- (iii) Agency conflicts

Research Design

This aim of this study is to empirically examine the influence of capital structure, corporate governance and cost efficiency in deposit money banks in Nigeria over the period of 2005 – 2020, being the post consolidation period and a time when the country experienced the notorious virus that shook the whole world. This study adopted fifteen (15) top rated banks in Nigeria according to World Bank Rating (2022) and the data was secondary in nature and gathered mainly from the annual reports and accounts of the banks.

Model Specification and Measurement of Variables

Cost Efficiency = f (Capital Structure, Corporate Governance)

$$Y_{it} = \beta_0 + \beta_1 X_{it} + \beta_2 X_{2it} + \mu$$

Where:

Y = Dependent Variable = Cost Efficiency as determined by DEA score

X1 = Independent Variable = Debt/Equity Ratio; Long term debt/Equity Ratio; and Short term debt/ Total Asset, CEO Duality, Board Independence, Audit Quality, Ownership Concentration, etc)

Discussion of Findings

Dependent Variable: Debt-Equity ratio

Variable	Coefficient	z-Statistic	Prob.
BC	0.081	0.144	0.885
BE	0.095	2.854	0.004
BI	-0.023	-0.043	0.965
BS	0.016	2.311	0.021
C	0.474	8.402	0.000
LR statistic	35.608		
Pearson SSR	29.819		
Log likelihood	-62.466		
Deviance	29.819		
Restr. Deviance	30.118		
Prob(LR statistic)	0.0006		

Source: Author's Computation (2022)

The reported statistics comprised of mean, median, standard deviation, kurtosis and skewness. The distribution of the data aided the decision on the variable transformation. The value of the variable mean and median shows that all the variable exhibited low degree of disparity between their mean and median. Cost efficiency reported mean of 0.489, board size(17.495), board independence(0.474), board expertise(0.502), board composition(0.513), debt_equity (9.192), while the variables reported the following medians cost efficiency (0.479), board size (17.000), board independence(0.4700), board expertise (0.500), board composition(0.535000), DEBT_EQUITY (8.000). The median and mean statistics of the variables implied that the data of the variables were less dispersed and tend to be cluster around their mean. The standard deviation of the variable reported low degree of dispersion compared to their mean and median .The skewness showed that all the variables exhibited positive skewness except board expertise and board composition with skewness value of -0.0034 and -0.052 respectively.

Distribution of cost efficiency of the deposit money banks in Nigeria. (Table 4.3) revealed that cost efficiency index ranges 21-99 percent for the sampled firms. Cost efficiency average is 54.6percent $\pm$ 22.52. This value indicated that, to operate efficiently, the firms could only reduce their input costs by 54.6% without decreasing their outputs. More so, the mean level of cost efficiency also indicated that on the average, the selected firm's output falls 45.4percent short of the maximum possible level. The implication is that if the average firm in the sample was to achieve cost

efficiency level of its cost input, then the average firms could realize a 45.4 percent cost of saving. Suggesting that an average financial institution could improve its cost efficiency by approximately 45.4 percent to match its performance with the best practice financial institution producing same amount of goods and services with the same conditions. It is an indication that Nigerian financial institution experienced a substantial improvement in terms of lending, asset quality and profitability during the sampled period. Larger percentage (58%) of the sampling point have cost efficiency indices greater than 80 percent meaning most of them were cost efficient given the existing technology. To showcase a better description of cost efficiencies among the sampled firms, the predicted cost efficiencies are presented in Figure 4.1 The figure indicated that the modal cost efficiency bracket is 80-99 percent. The sample frequency distribution indicated a clustering of cost efficiencies in the region of 80-100 percent, representing 27.1 percent of the sampled firms. This implied that the firms are slightly cost efficient.

The explanatory variables included in this model have been commonly used in estimating effect of corporate governance on capital structure. Such variables include board independence (BI), board size (BS), board composition (BC) and board expertise (BE). The results of the influence of corporate governance on capital structure are depicted by estimated coefficients presented in Table 4.5. Capital structure was proxy by debt-equity ratio. Generalized linear model was adopted in estimating the model owing to the ratio measure of the dependent of variable.

Board Composition: The estimated coefficient for board composition with respect to capital structures had a positive sign and not significant at 5 percent level. This implied that the governing board composition contributed less to the capital structure of the firms. Thus, board composition is not a critical determinant of capital structure in the financial sector of the country.

Board Expertize: The estimated coefficient of board expertise as the measure of corporate governance had positive sign for capital structure and statistical significant at 5 percent level of significance. This is in line with apriori expectation, given that board expertise is an important factor for sound performance of the governing board. Educated board with high-level of industry experience are expected to be receptive to improved techniques and tend to exhibit good judgement and also the use of innovations in day to day business activities. As such they are expected to have higher level of productivity which will in turn improve their oversight functions

Board Independence: The estimated coefficient for board independence exhibited positive influence on capital structure and also not significant. The sign of the coefficient of board independence indicates that the variable can enhance capital structure and also improve the debt-equity ratio of the financial firms but the significant status implied that board independence is not a critical factor influencing capital structure of the surveyed firms.

Board size: The estimated coefficient for board size had positive sign with capital structure of the firms and significant at 5 percent level. This showed that board size was a strong factor of corporate governance that affects capital structure in the study area. The positive sign implies that this factor contributed positively and significantly to capital structure

Summary

There are evidences that relationship exist among capital structure, corporate governance and cost efficiency in selected listed financial firms in Nigeria. The study in its investigation found that in reference to the analysis of cost efficiency of selected listed financial firms in Nigeria, it revealed that the sampled firms averagely operate efficiently and the firms could only reduce their input costs by 54.6% without decreasing their outputs. The implication is that if the average firm in the sample was to achieve cost efficiency level of its cost input, then the average firms could realize

a 45.4 percent cost of saving. Suggesting that an average financial institution could improve its cost efficiency by approximately 45.4% to match its performance with the best practice financial institution producing same amount of goods and services with the same conditions. Board expertise as the measure of corporate governance had positive effect on capital structure. This is line with aprior expectation, given that board expertise is an important factor in sound performance of the governing board.

Conclusion

The focus of this study is to examine the relationship among capital structure, corporate governance and cost efficiency in deposit money banks in Nigeria. It sought to analyse the cost efficiency of selected listed firms in Nigeria, investigate the influence of corporate governance on capital structure of selected listed financial firms and also access the mediating role of corporate governance on the relationship between capital structure and cost efficiency of deposit money banks in Nigeria.

From the findings of this study, it was observed that the surveyed firms exhibit average cost efficiency, while banking sector is more cost efficient than the insurance sector. It was also concluded from the findings of this study that corporate governance determines the capital structure of the sampled firms. It implied that strong and well informed governing board will take reasonable decision which can induce efficiency in the management of the firms. Finally, it can be deduced that corporate governance played significant role on the relationship between capital structure and cost efficiency.

Recommendations

From the findings of this study, the following recommendations are worthwhile:

- (i) It is evident from the findings of this study that board expertise served as a mediating variable between capital structure and cost efficiency. In view of this fact, people of good quality with sound professional background should be elected as member of governing board
- (ii) Similarly, board independence enhanced the relationship between capital structure and cost efficiency. This is an indication of importance of board independence, therefore independence of the board should be encouraged
- (iii) The percentage of independent non- executive directors on the board should be maintained and adequate provisions should be made not to allow for the impairment of their independence. The interests of shareholders are better protected when the board is dominated by independent outside directors as this will improve earnings quality
- (iv) Board size should be kept within limit as its increase might allow for inefficiency

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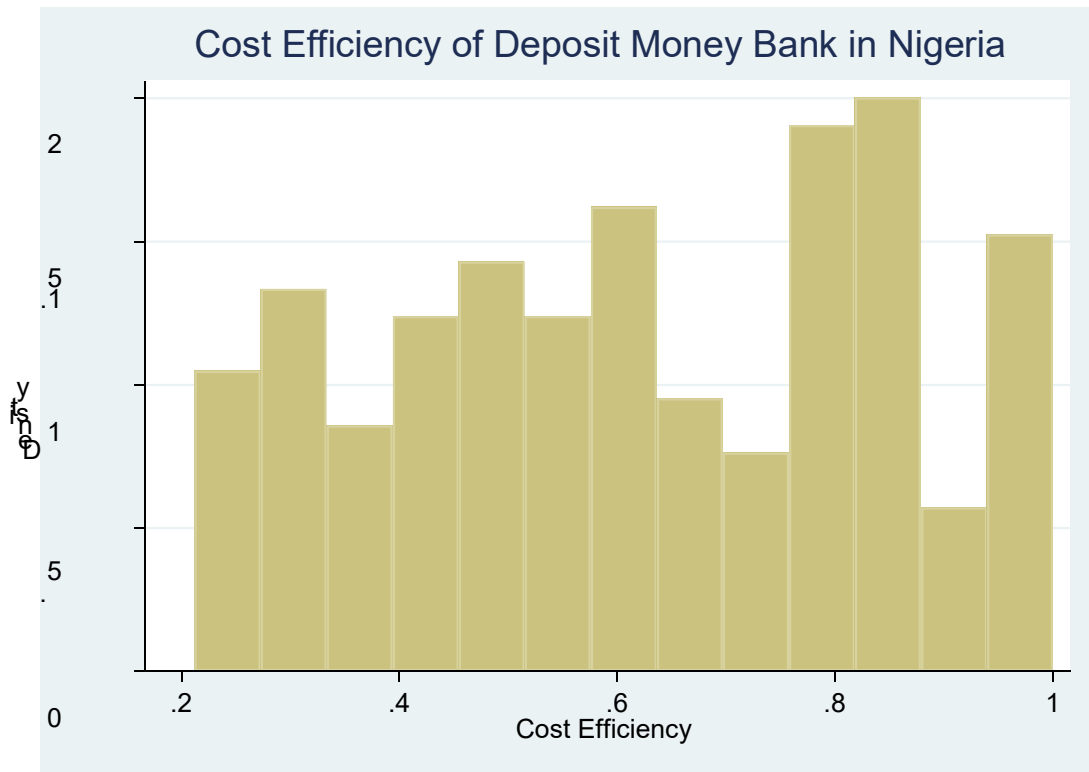
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Cost Efficiency

Source: Author's Computation (2022)