



ISSN  
2671-3462 (print)  
2671-3470 (online)

Economy, Business & Development (2023) 4(1), 19-33  
DOI: 10.47063/ebd.00012

RESEARCH PAPER

Journal homepage: <https://journals.ukim.mk/index.php/ebd>

## CAPITAL STRUCTURE, CORPORATE GOVERNANCE AND COST EFFICIENCY IN SELECTED LISTED FINANCIAL FIRMS IN NIGERIA

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### **Abstract**

*The study analyzed the cost efficiency of a subset of Nigerian listed financial firms and looked at the impact of corporate governance on the subset of listed financial enterprises. Additionally, it evaluated how corporate governance affected the chosen listed financial organizations in Nigeria taking into consideration capital structure and cost efficiency. They were with the intention of supplying details on the interactions between capital structure, corporate governance, and cost efficiency in a number of Nigerian financial organizations between 2005 and 2020 which is the post-consolidation period and the time the country was affected by the infamous virus that shook the whole world. The objective of this study is to examine the capital structure, and corporate governance on cost efficiency of selected listed financial firms in Nigeria. The study used secondary data from 20 quoted, carefully chosen financial firms in Nigeria and used a descriptive survey design. These data were analyzed using Stochastic Frontier Analysis (SFA) and the findings indicated that the deposit money banks in Nigeria had an average cost of efficiency of 54.6%. The capital structure was significantly impacted by corporate governance factors such as board size ( $t= 2.285, p0.05$ ) and board expertise ( $t=-2.311, p0.05$ ). Finally, the outcome demonstrated that elements of corporate governance such as board size ( $t=-2.807, p 0.05$ ), board independence, and board composition, which acted as intermediary variables between corporate governance and cost-effectiveness, were both statistically significant at the 5% level. According to the study's findings, there was a significant association between cost-effectiveness, corporate governance, and capital structure.*

**Keywords:** Financial firms, corporate governance, cost-effectiveness, capital structure, Nigeria

**JEL codes:** G21, G34, G32

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## Introduction

The capital structure of a company is the breakdown by the type of capital (money) employed in the enterprise. It just outlines how a business raises money from a variety of sources to finance its overall operations and expansion. It consists of the long-term debt, certain short-term debt, common stock, and preferred equity of the organization.

The two basic types of capital are, respectively, equity capital and loan capital. Each has its own benefits and drawbacks and choosing the appropriate capital structure in terms of the risk/reward ratio for shareholders is a crucial component of wise business management. Hence, a company's capital structure is defined as the composition or arrangement of its obligations. Owolabi & Inyang (2012).

One of the three financing decisions that financial managers must make, along with investment, financing, and dividend decisions, is capital structure (Karadeniz, Kandir, Balcilar&Onal, 2009). The capital structure of a corporation is simply a blend of different instruments. Generally, a business can choose from a large selection of alternate financing options. It is capable of issuing both substantial and modest sums of debt. Lease financing, the use of warrants, the issuance of convertible bonds, the signing of forward contracts, and bond swap trading are all options. It has the capacity to issue an enormous range of securities in an infinite number of combinations. It's common to use the term "capital structure decision" to refer to the choice of long-term financing strategy. The separation of ownership and management authority, as well as managers' predisposition to put their own interests ahead of the company's, are all aspects of the agency issue (Jensen & Meckling, 1976). Financial leverage pressure can reduce agency costs and boost business value by pressuring managers to generate cash flow to cover interest charges and motivating managers to avoid liquidation at all costs because doing so would result in the loss of their wages and perks (Jensen, 1986). Williams, 1987 opined furthermore, the incremental benefits of higher leverage can balance the management agency costs caused by overinvestment problems and a lack of future development potential (Harvey et al., 2004).

To foster a climate that is favorable for conducting business, the Nigerian government and private sector have made considerable investments. As a result, some companies have thrived admirably while others have experienced sharp performance drops. In the previous ten years, several companies have even been delisted from the Nigerian Stock Exchange. A key endeavor to salvage these struggling and closing businesses has put a strong emphasis on financial reorganization. The emergence of a thriving private business sector is widely considered as one of the crucial elements in the process of economic growth and development. Making financial judgments is even more difficult when the economy of the country where the company works is frequently hazy.

A corporation can be said to be inefficient if it has technical inefficiency, uses more input than is necessary for a given level of output, or uses the inappropriate combination of inputs given their costs (allocative inefficient). A firm's costs are compared to those of the best-performing firm for a given level of output under identical conditions as part of a cost-efficiency study. It is derived from a cost function in which the number of outputs produced, the price of the inputs used, external influences, random errors, and efficiency affect a firm's overall expenses (Shen, Liao, and Weyman-Jones, 2008).

A company that is highly cost-effective will outperform its competition in terms of resource consumption. Yet, the financial resources that are available are frequently determined by a corporation's capital structure, and the effective use of those resources can significantly affect how successfully a firm works in both the short and long term. Considering this, the study's main focus is on how capital structure, corporate governance, and cost efficiency are related.

The required data were analyzed using Stochastic Frontier Analysis (SFA), explaining that cost efficiency is a function of (capital structure, and corporate governance) from 2005 to 2020. The top ten (10) deposit

money banks in Nigeria (as of the 2022 World Bank Rating) and the top ten (10) insurance companies were employed in this analysis (as of capital base). To provide solutions, the following research questions will be covered in this study:

This study is structured in the following order: literature review, methodology, data analysis, conclusion, and recommendation.

- (i) What are the different cost-efficiency levels of specific Nigerian listed banking corporations?
- (ii) To what extent does corporate governance impact the capital structure of particular listed financial companies in Nigeria?
- (iii) What influence does capital structure have on a certain listed financial enterprise's cost-effectiveness in Nigeria?

## Literature Review and Theoretical Background

A corporation's capital structure exposes all the financial resources that are necessary for it to function. Loan capital, common share capital, and preferred share capital are the usual components of the capital structure, which outlines how a firm finances its operations. If a business keeps the proportion of various sources of funding constant, the weighted average cost of capital will remain constant. In addition to the magnitude of dividends and the cost of equity, the weighted average cost of capital also affects the market value of the stock. There must be more investigation into this connection or relationship (Akinsulire, 2014).

Unquestionably, the most important step for a new company is raising capital (Brigham and Daves, 2004). Whether or not the business is successful can be greatly influenced by the approach chosen to raise capital. This claim may be valid for all organizations; the capital structure a company chooses to use relies on several factors, including the managers' goals, the state of the economy, how they see their own and the organization's futures, as well as other specifics. The management accords both the disadvantages and benefits of using both debt and equity as a high priority.

When management takes a decision, it must consider the debt and equity connected to the different costs and benefits. However, there are many different perspectives on capital formations. By considering all available funding choices and beginning with the least expensive one, management must accomplish this (Myers, 1984).

An operating income (EBIT) percentage change that is bigger than the change in sales typically results from operating leverage, which tends to magnify the effect of changing sales (Akintoye, 2008). In practice, companies often raise the necessary funds through their capital structures, preferred stock, and common equity.

Since it involves a strategic trade-off between risk and expected return, the optimal capital structure policy must seek a reasonable and informed balance between risk and return. Tax laws, financial flexibility, managerial conservatism, and business risk. The business must consider all forms of attack. These factors are crucial in determining the desired capital structure, even when operating circumstances may cause the actual capital structure to differ from the ideal capital structure (Muritala, 2012). Choosing the appropriate financial structure is crucial for any firm organization, he stated. The decision is made based on an organization's ability to manage its competitive environment and the need to optimize returns for a variety of organizational components. The prevailing theory asserts that there is an ideal capital structure, which Modigliani and Miller first proposed in 1958, that balances the risk of bankruptcy with the tax

advantages of debt. Once established, this capital structure should provide shareholders with greater returns than an all-equity corporation would.

There isn't a single definition that everyone agrees on. The definition fluctuates depending on the country under consideration's legal structure and cultural setting (Armstrong and Sweeney, 2002). The definitions may also change depending on the viewpoints of the policymaker, researcher, practitioner, or theorist (Solomon, 2010). Corporate governance as a concept can be viewed from at least two different perspectives: the narrow view, which is concentrated on internal corporate structures where an enterprise receives its fundamental orientation and direction, and the broad view, which is seen as the hub of both a market economy and a democratic society (Oyejide & Soyibo, 2001). When considering corporate governance, Olayiwola (2002) emphasizes that the narrow perspective only considers issues pertaining to shareholder protection, management control, and the well-known principal-agency problems of economic theory. Corporate governance is the process of establishing, improving, and preserving sustainable value while defending the needs of the external environment.

2009 (Zabihollah).

Corporate governance, according to a 1992 study by the Cadbury Committee, is seen as the foundation for running and managing businesses. Corporate governance refers to the system of rules, processes, and policies that direct and control an organization.

Striking a balance between the interests of a company's many stakeholders, such as shareholders, management, customers, suppliers, financiers, the government, and the local community, is typically the goal of corporate governance. One idea of economic efficiency related to this is Pareto optimality, which has origins in welfare economics.

Pareto efficiency is achieved when resources are allocated so that one economic agent gains while preserving the welfare of all other agents (that is without making the other individual worse off). Pareto efficiency has important policy repercussions as a result, especially for wealth redistribution. Pareto efficiency makes logical in theory, but it's hard to measure in practice. Profit maximization (or, conversely, cost minimization) is a better theory of economic efficiency, although it is more frequently linked with completely competitive markets than with monopolies due to the deadweight loss brought on by monopoly pricing and output limits.

Efficiency improvements for businesses in a competitive market occur when they generate only normal profits over the long term and increase output to adapt to shifting consumer demands. The position of the cost curves over time will largely determine whether this output is sold for the same, higher, or lower price (Griffiths & Wall, 2000). Yet, efficiency is typically linked to increases in welfare. Another component of economic efficiency is allocation efficiency, which happens when a corporation allocates its inputs to maximize its benefits (profits, revenue, and output) based on the objective function of the organization. To effectively allocate resources, it is important to consider both productive efficiency and Pareto efficiency. But even without allocative efficiency, Pareto efficiency is still possible. At the company level, allocation-efficient outcomes occur when the price is equal to marginal costs in a highly competitive market. Allocation efficiency also addresses the issue of the ideal input mix and the standard of the output generated. The term "X-efficiency," which describes production efficiency by linking inputs to outputs, was first used by Leibenstein in 1966. It is a cost-effective way of describing how well a company uses the resources at its disposal to create results. It especially refers to the internal organizational structures of businesses and how they respond to external forces. Under these circumstances, both competitive pressures and motivational factors may have an impact on X-efficiency (such as moral and bureaucratic inertia and human errors). In several of his writings, Leibenstein repeatedly claimed that X-efficiency was superior to allocative efficiency, implying that the latter impact was negligible.

Capital structure theories offer theoretical underpinning for financial decision-making at the firm level that connects financial strategy to cost-effectiveness. The five most popular capital structure theories are the Modigliani-Miller theory, trade-off theory, agency cost theory (Asymmetric Information Model), signaling model, and pecking order theory. This study clearly mimics a situation in which a principal (a superior) delegated decision-making authority to an agent (the subordinate), who was compensated for performing a task on the principal's behalf. As can be seen from the aforementioned, this study is based on the Agency cost theory.

**Modigliani-Miller Theory:** Modigliani and Miller put out two theories in 1958. The basic premise proposed by Modigliani and Miller is that the capital structure of the firm is independent of the firm's worth. This indicates that regardless matter how many different debt and equity ratios were applied, the business value would remain constant. They asserted in their second claim that the expected return on equity should be linearly connected to the firm's capital structure, moving in the same direction as the debt-to-equity ratio. This means that even if businesses reduced their equity while increasing their debt levels, the cost of capital would not alter overall because the cost of borrowing increases as a result of increased risk associated with increased borrowing. The anticipated return on equity would therefore decrease, while the cost of capital would remain constant (Gwatizo, 2009, Yinusa, 2014). Modigliani and Miller's hypothesis was based on ideal capital market conditions. Modigliani and Miller assumed that there would be no taxes, transaction costs, or distress costs for there to be an effective capital market. These arguments mainly contended that MM's presumptions did not match the actual facts. The fundamental assumptions of the irrelevance of capital structure on the firm theory by MM (1958) are too realistic rather than elastic because there are no taxes and no transaction or distress costs, according to Kraus and Litzenberger (1973), Myers (1984), Jensen and Mecking (1976), and others. Some analysts assert that corporations pay corporate taxes that serve as a buffer against their profits since they do so when they borrow money for their capital frameworks, they are required to pay loan holders a fixed interest rate. A tax shield benefit of using debt in the capital structure minimizes the amount of corporation tax owed by firms. This suggests that there are tax benefits for firms using debt as part of their capital structure. It is therefore unrealistic for MM (1958) to make the perfect capital market assumption, in which there are no taxes. MM (1963) changed the assumption that there are no taxes by including corporation taxes in their model.

**Trade-Off Theory:** According to the capital structure trade-off theory, a firm's goal leverage is determined by three opposing forces:

- (i) taxes
- (ii) financial hardship expenses (such as bankruptcy costs), and
- (iii) agency conflicts

### *Empirical Review*

#### *Review of Studies from Developed Countries*

Jakata and Mutasa's (2014) study on the connection between stock prices, bank performance, and the creation of shareholder value looked at this issue. DEA and SFA were employed in Zimbabwe to increase bank productivity. Sensitivity analysis was used to determine the factors that had the most effects on stock prices when measured against conventional accounting measures of performance. Bank efficiency, log Total Assets, ROE, and ROA are some of these factors. According to the study's findings, any improvements in bank efficiency will result in higher shareholder value, as implied by rising stock prices.

For the study of Hoque and Rayhan (2012) on data envelopment analysis of the banking sector in Bangladesh, information was acquired from the annual reports of 24 banks in Bangladesh. The two types of Data Envelopment Analysis that were used were constant return to scale and variable return to scale,

and output-oriented DEA was used because the study aimed to maximize output. The results showed that the bank with the highest efficiency score was also the most efficient.

Yeh (2011) conducted a study on capital structure and cost-effectiveness in the nation's banking industry using 44 Taiwanese banks. He applied the stochastic frontier approach to assessing cost efficiency as the indicator of firm performance in addition to employing two-stage least squares to estimate two simultaneous equations that are then used to analyze the relationship between capital structure and firm performance. The findings demonstrate that the manager chooses the optimum capital structure to address the agency issue and enhance performance. Reducing management share ownership will reduce agency costs and increase firm performance.

#### *Review of Studies from Developing Countries*

Tutu (2017) investigated how corporate governance impacted the effectiveness and productivity of Ghanaian insurance companies. A panel of fourteen (14) life insurers and fifteen (15) non-life insurers was utilized in the study to assess the efficacy and productivity of insurers in Ghana between 2005 and 2014. The survey indicates that the cost productivity of Ghana's insurance industry has increased by an average of 3%. Cost productivity increase peaked between 2008 and 2009 at 43%. The study implies that life insurers employ management expertise to improve the company and foster productivity growth, while non-life insurer managers and policymakers implement policies that will put them in a position to benefit from technological spillovers.

Nitoi and Spul-Bar (2015) examined the cost-effectiveness of banks in six developing Central and Eastern European countries between 2005 and 2011 using a heteroscedastic stochastic frontier model. They discovered that when there is high macroeconomic stability, commercial banks function more effectively. Moreover, banks that take on more risk, as well as those with less liquidity, a lower solvency rate, and a higher credit risk, are less efficient than lending institutions that are more conservative.

Ngan (2014) used a stochastic frontier analysis method to assess the cost and profit efficiency of 45 Vietnamese commercial banks from 2007 to 2012. He stressed the connection between risk and asset quality considerations and the cost and profit inefficiencies of the banks. Also, it seems that cost inefficiencies are highly tied to bank ownership, mergers, and concentration. The results suggest that mergers and acquisitions may cause cost inefficiencies and heighten bank competition within the banking sector.

#### *Review of Studies from Nigeria*

Adeyemi and Oboh (2011) examined the empirical effects of corporate capital structure (financial leverage) on market value using a sample of companies listed on the Nigerian Stock Exchange. Both primary and secondary data were gathered for the analysis, and both descriptive and inferential statistics were applied. 150 respondents and 90 firms, respectively, were chosen as the sample sizes for the primary and secondary samples. Descriptive statistics were used to evaluate the primary data, and chi-square was used to infer the perceived relationship between capital structure and firm value. The results showed a relationship between a company's capital structure choice and its market value in Nigeria. In order to raise their market values, the report advises listed companies in Nigeria to manage and organize their capital structures strategically.

Onaolapo and Kajola (2010) used 30 non-financial companies that were listed on the Nigerian Stock Exchange for a period of 7 years to investigate the capital structure and company performance. In order to create and assess panel data for the selected firms, the ordinary least squares estimate method is used. Yet, their findings showed that a firm's debt ratio served as a proxy for its capital structure. The firm's financial statistics are considerably harmed by its debt ratio (ROA and ROE). The outcomes validated the Agency Cost Theory and agreed with past empirical research.

The study used secondary data from 1999 to 2004 as seen in the work of Salawu (2008) that was collected from the chosen annual reports and accounts of 50 non-financial quoted corporations. The

pooled OLS model, the fixed effect model, and the random effect model were all used in the analysis. The results showed that profitability had a favorable link with short-term debt and equity as well as a negative relationship with long-term debt. The results also showed that profitability and the ratio of total debt to total assets did not correlate well. The conclusion indicated that a Nigerian business would need outside capital. A significant portion (60%) of Nigeria's debt is made up of short-term debt.

## Methodology

### Research Design

The objective of this study is to empirically access the connection between capital structure, corporate governance, and cost efficiency of financial firms in Nigeria. The top ten (10) deposit money banks in Nigeria (as of the 2022 World Bank Rating) and the top ten (10) insurance companies were employed in this analysis (as of capital base). The data was secondary in nature and mostly derived from the annual reports and financial statements of the banks.

### Model Specification and Measurement of Variables

Cost Efficiency = f (Capital Structure, Corporate Governance)

$$Y_{it} = \beta_0 + \beta_1 X_{1it} + \beta_2 X_{2it} + \mu$$

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.)

## Results

### Statistical Properties of the Data

This study's objective is to empirically explore the connection between capital structure, corporate governance, and cost-effectiveness in Nigerian deposit money banks from 2005 to 2020, which is the post-consolidation period and the time when the country was affected by the infamous virus that shook the entire world. The top ten (10) deposit money banks in Nigeria (as of the 2022 World Bank Rating) and the top ten (10) insurance companies were employed in this analysis (as of capital base). The data was secondary in nature and mostly derived from the annual reports and financial statements of the banks. The variable's variance is higher than the mean and median. The board composition and board expertise exhibited negative skewness values of -0.0034 and -0.052, respectively,

Table 4.1: Connection between capital structure, corporate governance, and cost-effectiveness

	COST	BS	BI	BE	BC	DEBT EQUITY
Mean	0.489972	17.49500	0.474100	0.502667	0.513733	9.192233
Median	0.479255	17.00000	0.470000	0.500000	0.535000	8.000000
Maximum	0.991846	31.00000	0.990000	0.990000	0.990000	94.28000
Minimum	0.000171	10.00000	0.000000	0.000000	0.000000	0.330000
Std. Dev.	0.279512	3.621860	0.296927	0.272972	0.289868	8.162564
Skewness	0.042151	0.889603	0.125639	-0.003494	-0.052037	4.633114
Kurtosis	1.948403	3.938484	1.822266	1.970195	1.845644	43.73024
Observations	300	300	300	300	300	300

Source: Author's Computation (2022)

### Correlation matrix of the variables

Understanding how closely connected the explanatory variables are is crucial when estimating the model. High levels of correlation among the independent variables caused the standard error to be either underestimated or overestimated, which may affect how effectively and forcefully the t-value is applied. Table 4.2 displays the correlation statistics between the explanatory variables. It was evident that the explanatory variables did not meaningfully correlate with one another. As a result, the multi-collinearity problem

Table 4.2: Correlation Statistics

Correlation						
Probability	COST	BS	BI	BE	BC	DEBT_EQUITY
COST	1.000000					
	-----					
BS	-0.105607	1.000000				
	0.0678	-----				
BI	0.055914	0.019798	1.000000			
	0.3345	0.7327	-----			
BE	-0.045498	0.043263	0.108225	1.000000		
	0.4324	0.4553	0.0612	-----		
BC	-0.053099	0.019737	0.026268	0.091388	1.000000	
	0.3594	0.7335	0.6504	0.1142	-----	
DEBT_EQUITY	0.007824	-0.065391	-0.029101	0.059656	0.045410	1.000000
	0.8927	0.2589	0.6156	0.3031	0.4332	-----

Source: Author's Computation (2022)

#### The Cost Efficiency of Selected listed financial firms in Nigeria

According to the distribution of cost efficiency of the selected listed financial organizations in Nigeria, the cost efficiency index for the sampled firms ranged from 21 to 99 percent (Table 4.3). The cost-effectiveness is average at 54.6 percent, or 22.52. This figure demonstrated that the companies could only reduce their input costs by 54.6% while still being able to turn a profit. The production of the selected firm is, on average, 45.4 percent below the highest possible level, which is a more significant finding than the average cost efficiency level. As a result, if the average company in the sample were to achieve cost-effectiveness, it might realize a save of 45.4% efficiency of its input costs. It implies that Nigerian financial institutions have significantly improved in terms of lending, asset quality, and profitability over the sampling period. Indicating that most of the sampling point were economically advantageous given the state of technology, and a bigger percentage (58%) had cost efficiency indices above 80%. To demonstrate the cost efficiency of the tested organizations more clearly, the predicted cost efficiencies are given in Figure 4.1. The graph shows that the modal cost efficiency varies between 80 and 99 percent. According to the sample frequency distribution, 27.1% of the sampled businesses exhibited cost efficiencies that were grouped between 80 and 100 percent. This implied that the businesses' cost-efficiency is only minimal. The typical derivation is 22.5%. These efficiency values are higher than those seen in older publications from the same industry. For instance, equivalent values are 21.6%, 80.29%, and 89.4%, respectively, in Portugal (Barros, 2004), Taiwan (Chen, 2007), and the United States (Anderson et al., 1999). It has been noticed that the predicted increases in banking and insurance efficiency were not brought about by the liberalization initiative. According to Fukuyama and Matousek (2011), the reform program in the banking and insurance industries has a favorable effect on their effectiveness in other nations.

Table 4.3: Distribution of Cost Efficiency

Distribution of Cost Efficiency	
Efficiency (%)	Frequency
20≤30	35



30≤40	41
40≤50	49
50≤60	42
60≤70	42
70≤80	49
80≤90	58
>90	39
Mean	0.5462
S.D	0.2252
Var	0.0507
Min	0.2119
Max	0.9999
Total	355

Source: Author's Computation (2022)

Table 4.4 showed that conventional alliance insurance is the most cost-effective company among those surveyed, with an average value of 0.947. Second place went to Fidelity Bank, which had a cost-effective of 0.895. As a result, it was proven that Fidelity Bank is Nigeria's most economically efficient bank. In a similar way, regular alliance insurance is the most affordable insurance provider. However, the weighted average of each firm's cost-effectiveness showed that NIGER INSURANCE had the lowest cost-effectiveness, with a mean value of 0.159. In comparison to large banks, the table shows that medium-sized banks appear to have the highest average cost efficiency. However, there is no consensus in the empirical literature on the relationship between business size and efficiency because of divergent findings.

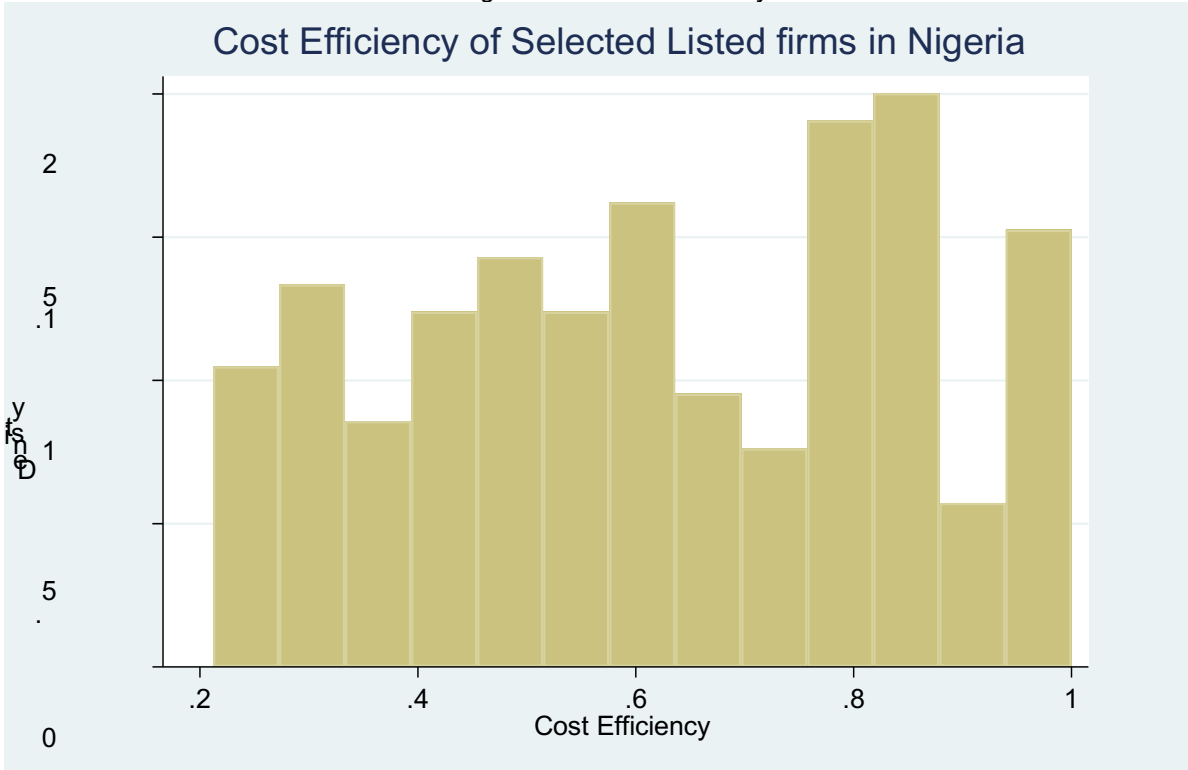
Table 4.4: Average Cost Efficiency of the firms

	Average Cost Efficiency
ACCESS BANK	0.526
DIAMOND BANK	0.609
FBN	0.295
ECO BANK	0.494
FCMB	0.343
FIDELIY BANK	0.895
GTBANK	0.833
STANBIC BANK	0.458
Skye bank	0.584
STERLING BANK	0.728
UBA	0.688
UNION BANK	0.676
UNITY BANK	0.539
WEMA BANK	0.431
ZENITH BANK	0.673
AIICO INSURANCE PLC	0.824
CONTINENTAL REINSURANCE COMPANY PLC	0.579
CORNERSTONE INSURANCEPLC	0.614
CONTINENTAL REINSURANCE COMPANY PLC	0.293
CUSTODIAN & ALLIED INSURANCE PLC	0.344
LAW UNION & ROCK INSURANCE PLC	0.296
LINKAGE ASSURANCE PLC	0.605
MANSARD INSURANCE (GUARANTY TRUST ASSURANCE) PLC	0.558

MUTUAL BENEFITS ASSURANCE PLC	0.453
NIGER INSURANCE CO. PLC	0.159
PRESTIGE ASSURANCE CO. PLC	0.765
REGENCY ALLIANCE INSURANCE PLC	0.201
ROYAL EXCHANGE PLC	0.682
SOVERIGN TRUST INSURANCE PLC	0.265
STANDARD ALLIANCE INSURANCE PLC	0.947
WEST AFRICAN PROVINCIAL INSURANCE COMPANY-WAPIC (INTERCONTIN	0.575
	0.546

Source: Author's Computation (2022)

Figure 4.1: Cost Efficiency



Source: Author's Computation (2022)

*The Influence of corporate governance on the capital structure of selected listed financial firms*

The explanatory variables in this model have frequently been used to estimate the effect of corporate governance on capital structure. The board's independence (BI), size (BS), composition (BC), and expertise (Board) are among these factors (BE). Table 4.5's estimated coefficients provide an example of how corporate governance affects capital structure. The capital structure was represented by the debt-to-equity ratio. Since the ratio of the dependent variable was taken into consideration, a generalized linear model was employed to estimate the model.

**Board Composition:** This revealed that the composition of the governing boards had less of an impact on the capital structure of the businesses. As a result, board composition is not a significant predictor of capital structure in the country's financial industry.

**Board Expertise:** The calculated coefficient of board expertise, employed as a proxy for corporate governance, demonstrated a positive connection with capital structure at the 5% level of significance. Given that board expertise is a vital component of good governing board performance, this is in line with priori predictions. A well-educated board with deep industry knowledge is expected to be innovative, demonstrate solid judgment, and be open to new ideas. As a result, it is anticipated that they will operate more productively, which will improve their monitoring responsibilities.

**Board Independence:** Although not statistically significant, the estimated board independence coefficient had a positive impact on capital structure.

The sign of the coefficient of board independence indicates that the variable can improve capital structure and improve the debt-equity ratio of the financial firms, despite the significant status suggesting that board independence is not a significant factor influencing the capital structure of the surveyed firms.

**Board Size:** Research proved that a key factor in corporate governance that affected capital structure in the study area was board size. The encouraging evidence points to the fact that this component significantly and favorably impacted capital structure.

*Table 4.5: The Influence of corporate governance on the capital structure of selected listed financial firms  
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 mediating role of corporate governance in the relationship between capital structure and cost efficiency of the firm*

As proxies for capital structure measurements, debt-equity ratios, short-debt ratios, and long-debt ratios were used. As proxies for the results of the corporate governance model test, the board's independence, size, makeup, and expertise were taken into consideration. Table 4.6 displays the multivariate results, which is what one might anticipate given the conclusions of prior studies. Absolute, incremental, and extra-fit indices were employed to assess the validity of the model conception in relation to the observational data. The model's GFI, AGFI, NFI, and CFI values were all greater than 0.90, and its CMIN = 4.745 ( $p = 0.99 > 0.05$ ) value suggested a more robust model. The fewer the values, the better the model fits in terms of RMR's verification standards. According to the test findings of the fit indices reported in Table 4.6, the model exhibited a satisfactory fit. Because their values are lower than those of the independent model and lower than those of the saturated model, the test results show that AIC, BCC, BIC, and CAIC are good default models. In conclusion, the model fits the data well, according to the results of the fit index test.

This correlation between capital structure and cost efficiency of the financial businesses is also mediated by board experience, which adds 0.031 to the relationship, in a manner similar to how capital structure and cost efficiency of the enterprises are. In a similar vein, board size adds around 0.025 to the correlation between capital structure and cost efficiency, while board independence adds about 0.015 to the relationship between capital structure and cost efficiency.

Also, whereas short-term debt has shown a negative link with cost-effectiveness, long-term debt demonstrated a favorable correlation with cost-effectiveness, (-0.001). Debt-equity ratios and cost-effectiveness have a good relationship.

## Conclusion

The goal of this study is to examine the relationships among capital structure, corporate governance, and cost efficiency in a sample of listed financial institutions in Nigeria. Its goals included assessing the capital structure and cost-effectiveness of a sample of Nigerian listed financial organizations, as well as the impact of corporate governance on those companies' capital structures. It also sought to understand how corporate governance mediated these relationships.

The study concluded that the surveyed businesses have average cost effectiveness, with the banking sector being more efficient than the insurance sector.

According to the study's findings, the capital structure of the tested firms is influenced by corporate governance. It was believed that a strong and knowledgeable board of directors would make wise choices that would improve the management of the companies. 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 the cost efficiency level of its cost input, then the average firm 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 the same amount of goods and services with the same conditions. Board expertise as the measure of corporate governance had a positive effect on capital structure. This is in line with a prior expectation, given that board expertise is an important factor in the sound performance of the governing board. Board size had a positive on the capital structure of the firms and was significant. This shows 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. Board expertise served as a mediating variable between the capital structure and cost efficiency of the firm by contributing positively to the relationship between the capital structure and cost efficiency of the financial firms. Similarly, board independence enhanced the relationship between capital structure and cost efficiency by also contributing positively to the relationship between capital structure and cost efficiency.

Finally, it can be said that corporate governance has a major impact on the relationship between capital structure and cost-effectiveness.

## Recommendations

- (i) This study's findings unmistakably demonstrate that board competency served as a mediating factor between capital structure and cost-effectiveness. As a result, people of distinction with strong professional credentials should be selected to serve on the board of directors.

- (ii) The relationship between capital structure and cost-effectiveness was also made stronger by board independence. This demonstrates the significance of board independence, and it is wise to support it.
- (iii) It is important to maintain the percentage of independent non-executive board members and make adequate safeguards to guard against any loss of their independence.
- (iv) Because the quality of the company's earnings will rise when independent outside directors make up the majority of the board, shareholders' interests are better protected. Because growth could result in inefficiency, board size should be kept to a minimum.

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