Capital Structure and Dividend Policy of Listed Conglomerate Companies in Nigeria: A Panel Data Analysis

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Abstract: **This study examined the relationship between capital structure and dividend policy of listed conglomerate companies in Nigeria. An ex-post facto research design was used because secondary data were extracted from annual report and account of the companies for the period of eight years (2012 - 2019), robust GLS regression analysis was used to analyze the data. The findings revealed that debt to equity ratio has a negative and significant relationship with dividend payout ratio, debt to asset ratio has a negative and significant effect on dividend payout ratio of listed conglomerate companies in Nigeria. Firm size, and age have positive and significant relationship with dividend payout ratio. However, Return on assets (ROA) has a positive but non-significant relationship with dividend payout ratio. The study conclude that debt serve as a monitoring mechanism to the absentee owners, hence its influence on the capital structure of business organization cannot be underestimated because of tax advantages. It is therefore recommended that management should only accept debt covenant that will enable them to pay dividend to shareholders.**

Key words: **Capital structure, Dividend payout ratio, Panel data analysis.**

I.INTRODUCTION

The influence of debt in financing modern business organization cannot be underestimated because of its tax advantages, however, capital structure decisions influences other corporate decisions in an attempt to create value for all stakeholders, and hence an organizations may suffer increased costs and decreased financial performance if they do not adopt suitable capital structures. This decision is important not only because of the need to maximize shareholders wealth, but also important because of the need to operate in the foreseeable future.

Dividend policy is also considered to be one of the most important financial decisions that corporate managers encounter because of its potential implications on share prices (signaling effect), the financing of internal growth and the equity base through retentions together with its gearing and leverage (Ishaku, 2015 and Andiema & Atieno, 2016). Besides, in supports of the bird-in-hand theory of Gordon (1963) investors' desire high current dividends to meet their socioeconomic needs leading to have a high interest on the organizational dividend policy.

As such dividend decisions became important because it determine what funds flow to investors and what funds are retained by the firm for future profitable investment opportunities to be finance internally. More so, dividend provide information to stakeholders concerning the company's performance, because firm investments determine future earnings and future potential dividends which may influence the cost of capital (DeAngelo, DeAngelo and Skinner, 2000).

However, In Nigeria, conglomerate companies are on their growing phase and as well performing significantly in contributing to the economic growth and development of this country, the companies in this sector are highly levered and are therefore un able to pay dividend hence the need to renegotiates debt covenants to enable the board of these companies consider dividend payment. As such this study examined the relationship between capital structure and dividend policy of listed conglomerate companies in Nigeria. Thus the study is organized as follows; next section contained the review of existing literature, section three contained methodology adopted. Section four presents discussion of results and the last section contained conclusion and recommendations.

II. LITERATURE REVIEW

Studies on capital structure and dividend policy includes but not limited to the following studies

Ang and AliFatemi (1997) investigated the relationship between capital structure and dividend policies of publicly traded firms in Indonesia. The findings revealed that the sample firms seem to have good access to different sources of funds, especially banks and the equity market. The findings revealed no evidence that asymmetric information with the banks is a significant problem. There is, however, some support that the firms operate as if there exist an optimal debt ratio. Overall, the findings is consistent with a world of large profitable firms that have good access to major alternative sources of funds, and yet, these firms are willing, for financing at the margin, to use their superior information to their advantage.

Manos (2001) determined the relationship between payout policies and capital structure decisions in the context of

emerging markets. The study used a sample of Indian firms using weighted Least Squares regression analysis. The study investigate how affiliation with an Indian business house impacts on the dividend and capital structure decisions of firms. The impact of group-affiliation on the payout decision is tested by maximum likelihood qualitative and limited dependent variable techniques. The analysis of the impact of group-affiliation on the capital structure decision is conducted using Ordinary Least Squares methods and incorporates group-level characteristics as explanatory variables, and the findings revealed a significant relationship

Faulkender, Milbourn & Thakor (2006) also present an integrated theory of capital structure and dividend policy in which both financial policy choices are driven by the same underlying factors and jointly examined as implicit governance mechanisms to allocate control over real (project choice) decisions between managers and investors. Between these two extremes is a continuum of control allocations determined by different debt-equity ratios and different dividend payout ratios. Higher debt-equity ratios and higher dividend payouts lead to greater investor control. However, despite the absence of agency or asymmetric information problems, control matters because of a divergence of beliefs between the manager and investors that could lead to disagreement over the value-maximizing project choice.

Aggarwal and Kyaw (2010) posits that multinational firms are large and diversified and should have higher debt capacity. In contrast, debt capacity of such firms is expected to be lower because of the additional risks of foreign operations. However, the findings revealed that compared to domestic companies, multinational companies have significantly lower debt ratios with such debt ratios decreasing with increasing multinationality.

Similarly, Al-Najjar (2011) examined the relationship between capital structure and dividend policy in Jordanian market using the estimation of both single equation models and structure equation models and examine the joint determinants of capital structure and dividend policy. The findings revealed a positive relationship between debt-to-asset ratio on the one hand, and asset tangibility, profitability, market-to-book, liquidity, firm size, and industry classification on the other hand. The findings further revealed a negative relationship between debt-to-asset ratio and profitability. However, a positive relationship was found between dividend payout ratio, profitability, asset tangibility, and market-to-book and industry classification.

In the same vein, Rehman (2016) examined the relationship between capital structure, dividend policy and firm value of non- financial listed firms on KSE using cross sectional time series regression analysis for the period eight years (2006-2013) in Pakistan. Fixed effect Model was used and findings revealed significant impact of capital structure and dividend policy on dependent variable (tobin's Q). Three independent variables (TDTA as leverage ratio, SG as profit sustainability

ratio and EQ as shareholders equity) of capital structure, while one independent variable (EPS as profitability ratio) of dividend policy has significant impact on dependent variable (tobin's Q). However, the FATO as performance ratio of capital structure and DPO as cash flow indicator ratio of dividend policy are not significantly related with depended variable (tobin's Q).

However, Andiema & Atieno (2016) examined the impact of firm's dividend policies on capital structure and the resulting effect on shareholders' value. The study adopted the descriptive cross sectional research design targeting 32 management and investment department staff members from 11 banks listed in the NSE using purposive sampling. Structured questionnaires and data sheets were used to collect both primary and secondary data respectively. The data were analysed using descriptive and inferential statistics. The findings revealed that dividend policies and capital structure decisions significantly affected the shareholders' value of banks listed by the NSE.

Abuhommous (2018) determined the relationship between financing and investment decisions, where the effect of financial constraints on the firm's investment decision is examined. In particular, the study focuses on how financial constraints affect different firms by investigating the extent to which the reliance on internal cash flow is affected by firm characteristics such as size, age, dividend payout ratio, and market listing. The findings revealed that Jordanian firms are financially constrained, however these constraints do not appear to be related to firm characteristics. Findings confirmed that Jordanian firms use debt rather than equity to finance their investment. Further, the results show that Jordanian firms follow the pecking order theory, where profitability and liquidity have a negative impact on the level of debt. Size and market to book value have a positive impact, supporting the view that there are significant constraints on debt financing since indicators of the financial health of the firms affect their capital structure ratio. There is also evidence that ownership structure affects the firm's access to debt. The findings further revealed that profitability and market to book value have a positive impact on dividend policy, implying that firms with better access to capital or credit pay dividends.

Similarly, Gunawan, Pituringsih and Widyastuti (2018) examined the effect of capital structure, dividend policy, company size, profitability and liquidity of the company's value of manufacturing in Indonesia Stock Exchange for the period 2014 to 2016. The data was analyzed using multiple regression, the findings revealed that the capital structure, dividend policy, company size, profitability and liquidity and significant positive effect on firm value. In order to increase the value of the company, then the company is expected to maintain the condition of an optimal capital structure through the use of debt.

At the same time, Ghasemi, Nazrul; and Muhamad, (2018) investigated the two-way causal relationships existing

between payout decisions and debt policies of listed companies in Malaysia. The study consider a sample size of 267 listed firms on the Main board of Bursa Malaysia for the period 2006–2014. Simultaneous equations model (SEM) was used in analyzing the data. The findings revealed that when dividend is treated as endogenous, a positive relationship between dividend and leverage exist. However, leverage is found to have a simultaneous negative impact on dividends. The findings further revealed that liquidity and performance positively affect dividends, although they have a negative effect on leverage. Additionally, the study documents an inverse relation between tangibility and debt, a direct relation between reputation and debt, and also confirms that larger firms tend to pay out a higher percentage of dividends per share.

However, Chakraborty, Shenoy and Kumar (2018) evaluate the determinants of dividend payout among the companies in the Indian auto components sector listed on major Indian bourses. The study explore the relationship between dividend policy (dividend pay-out ratio) of the companies and the profitability, capital structure, investments, liquidity and cash flows. ANOVA, correlation analysis and regression analysis was used and the findings revealed that the dividend policy of the companies in the Indian auto components sector is largely influenced by the operating profit, cash from operations, proportion of cash from operations used for financing the investment activities and the proportion of equity in the capital structure of the companies.

In the same vein, Sudiani & Wiksuana (2018) examined the effect of capital structure, investment opportunity set, dividend policy and profitability on the value of manufacturing companies listed on the Indonesia Stock Exchange for a period 2013-2016. Purposive sampling was used to select 24 manufacturing companies, secondary data were extracted from the annual report and account of the companies, and a multiple linear regression analysis was used in analyzing the data. The findings revealed that investment opportunity, dividend policy, and profitability have a significant influence on the firm value, however, capital structure does not have an influence on the value of manufacturing companies in the Indonesia Stock Exchange.

More so, Gunawan, Pituringsih & Widyastuti (2018) analyzed the effect of capital structure, dividend policy, company size, profitability and liquidity on the company's value of 15 manufacturing companies listed on Indonesia Stock Exchange. The data was analyzed using multiple regressions, the findings revealed that the capital structure, dividend policy, company size, profitability and liquidity have a significant positive effect on firm value.

Similarly, Zahid (2020) examined the impact of corporate finance on the firm performance of 187 manufacturing and food sectors of PSE, BSE, DSE and CSE in South Asian countries. Panel data regression model was used in analyzing the data covering a time span of ten years (2007-2016). Two

ratios of firm financial performance are considered to measure the impacts with two ratios each for measurement of capital structure and dividend policy. The findings revealed a highly positive impact of dividend policy on firm performance where capital structure has a highly negative impact on firm performance.

None of the studies reviewed consider debt to equity ratio and debt to asset ratio as proxies for capital structure however it is important to determine the extent at which debt is used in financing the business hence an addition to the stock of literatures.

2.1 Theoretical Framework

Theory of capital structure can be traced to Miller's and Modigliani's, and the major capital structure theories adopted in this research work are: trade-Off theory, pecking order theory, while dividend policy theories include bird in the hand theory, dividend signaling and information asymmetric theory and agency costs theory. Considering the objective of this study which is to examine the relationship between capital structure and dividend policy therefore the use of agency theory is considered relevant because Easterbrook (1984) identified two agency cost; the cost of monitoring of managers and the cost of risk aversion on the part of managers. Al-Malkawi (2005) also assert that managers are bound to conduct some activities which could be costly to shareholders such as undertaking unprofitable investments that would yield excessive returns to them, and unnecessarily high management compensation. These cost are borne by shareholders, therefore shareholders of firms with excess free cash flow would require high dividend payment instead. Agency cost may also arise between shareholders and bondholders, while shareholders require more dividends, bondholders require less dividends to shareholders by putting in place debt covenant to ensure availability of cash for their debt repayment. This study adopts agency theory as the theoretical basis for explaining capital structure and dividend policy.

III. RESEARCH METHODOLOGY

Ex-post facto research design was used; data for the study were extracted from the annual reports and accounts of all the six conglomerate companies listed on the Nigerian stock exchange for the period of eight years (2012 - 2019). The dependent variable is the dividend policy which is proxies by dividend payout ratio (DPR) obtained by dividing the dividend per share (DPS) by the earning per shares (EPS). It is consistent with the studies of (Kurawa and Ishaku, 2014). The independent variables is capital structure represented by debt to equity ratio and debt to asset ratio. In line with previous studies return on asset, firm age and size are used as control variables and the data were analysed using GLS regressions analysis.

IV. DISCUSION OF RESULT

4.1. Descriptive Statistics

Table 4.1 provides summary of statistics for the variables of the study. The summary statistics include measures of central tendency, such as mean, measures of dispersion (the spread of the distribution) such as the standard deviation, minimum and maximum of both the dependent variable and explanatory variables. The table shows the summary statistics of the dependent and independent variables in order to effectively appreciate the nature of the results.

Table 4.1 Descriptive statistics

Variables	Obs.	Mean	StdDev.	Min	Max
DPR	48	0.577	0.1717	0	0.641
DER	48	1.1565	2.358	0.0004	11.2256
DAR	48	0.14836	0.1893	0.0002	0.7763
FSIZE	48	10.4674	0.5424	9.8497	11.435
AGE	48	49.75	24.318	8	88
ROA	48	0.1080	0.6837	-0.2157	4.716

Source: Generated by the Author from the Annual Report Data of the companies.

Table 4.1 shows the mean of 0.577 for DPR meaning that the average dividend payout ratio of the companies under study is approximately 58 kobo with the minimum and maximum of 0 and 64 kobo respectively, meaning that on average the Dividend payout ratio of listed conglomerates companies in Nigeria 58 kobo with minimum and maximum of 0 and 64 kobo respectively. The mean of debt to equity ratio is 1.1565 meaning that the average debt to equity ratio of the listed conglomerates companies in Nigeria is approximately 1.16 with the minimum and maximum of 0.004 and 11.23 respectively. Debt to asset ratio has a mean of 0.14836, a minimum of 0.0002 and maximum of 0.7763 firm size, measured by the logarithm of total assets has a mean of 10.4674, with the minimum and maximum of 9.8497 and 11.434 respectively, firm age measured as the number of years from date of incorporation has a mean of 50 years with a minimum and maximum of 8 and 88 years respectively. ROA has a mean of 0.1080 meaning that on average the ROA of the companies under study is 11kobo with the minimum and maximum of -0.2157 and 4.716 respectively.

4.2. Correlation Matrix

The correlation between the dependent and independent variables is presented in Table 4.2. The correlation matrix table shows the relationship between all pairs of variables in the regression model; the relationship between all the explanatory variables individually with explained variable and the relationship between all the independent variables themselves. This gives an insight into the magnitude of the pairs of the independent variables.

Table 4.2 Correlation Matrix of the Dependent and Independent Variable

VAR	Dpr	der	dar	fsize	age	roa	vif
dpr	1.000						
der	-0.118	1.000					1.09
dar	-0.164	0.686	1.000				1.19
fsize	0.395	-0.204	-0.317	1.000			1.12
age	0.4695	0.232	0.269	-0.317	1.000		1.08
roa	-0.009	0.008	-0.044	-0.043	0.011	1.000	1.01

Source: Generated by the Author from the Annual Report Data of the companies.

Table 4.2 shows the correlation coefficients on the relationship between the dependent variable (DPR) and independent variables (der, dar, fsize, age and roa). The values of the correlation coefficient range from -1 to 1. The correlation results presented in table 4.2 also indicate that the explanatory variables debt to equity ratio, debt to asset ratio and return on assets are negatively correlated with dividend payout ratio. However, firm size and company age are positively correlated with Dividend payout ratio (DPR).

4.3 Regression Results on capital structure and Dividend payout ratio

Table 4.3 Robust GLS Regression

Robust GLS Regression				
dpr |	Coefficient	Std. Err.	t	P>|t|
cons |	-1.5841	0.5082	-3.12	0.003
der |	-0.0116	0.0049	-2.34	0.024
dar |	-0.1717	0.0757	-2.27	0.028
fsize |	0.1391	0.0447	3.11	0.003
age |	0.0039	0.00132	3.03	0.004
roa |	0.0011	0.0046	0.25	0.807
Number of obs			48	
F-value			2.51	
Prob > F			0.0555	
R-squared			0.458	
VIF Mean			1.1	
Hettest			0.0000	
Generated by the Author from the Annual Report Data of the companies				

The robust regression results displayed in table 4.3 reveal the cumulative R^2 within (0.458) is the multiple coefficient of determination which gives the proportion or percentage of the total variation in the dependent variable explained by the explanatory variables jointly. Hence, it signifies that 45.8% of total variation in dividend payout ratio of listed conglomerates companies in Nigeria is accounted by the explanatory variables, the F-statistics value shows 2.51 and the P-value is 0.055 meaning the model is fit and significant at 5% significant level. Debt to equity ratio has a negative and significant relationship with dividend payout ratio, Debt to assets ratio has a negative and significant relationship with dividend payout ratio, firm size and age shows a positive and significant relationship with dividend payout ratio. However, return on assets exhibit a positive but not significant relationship with dividend payout ratio. These findings are consistent with findings of (Rehman, 2016; Opeyemi, Olusegun, Olukayode & Olusola, 2018; Ghasemi, Nazrul; and

Muhamad, 2018; and Zahid, 2020). However, the findings is contrary to the findings of Faulkender, Milbourn & Thakor (2006) and Al-Najjar (2011) whose findings revealed a positive relationship between dividend payout ratio, profitability, asset tangibility, market-to-book and industry classification.

V. CONCLUSION AND RECOMMENDATIONS

This study examined the relationship between capital structure and dividend payout ratio of listed conglomerates companies in Nigeria, based on the findings the study concludes that debt serve as a monitoring mechanism to the absentee owners, hence its influence on the capital structure of business organization cannot be underestimated because of its tax advantages. However, debt to equity ratio and debt to assets ratio exhibit a negative and significant effect on dividend payout ratio of listed conglomerates companies in Nigeria. It is therefore recommended that management should only accept debt covenant that will enable them to pay dividend to shareholders.

Nevertheless, this study concentrates only on the debt to equity ratio, debt to asset ratio, dividend payout ratio and consider listed conglomerate companies in Nigeria, therefore, future studies may consider dividend yield in financial sector of the Nigerian economy.

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