

# Corporate Leverage Management and Dividend Policy of Firms in the Consumer Goods Industries in Nigeria

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**Abstract:** The study was designed to examine the effect of corporate leverage management on dividend policy of firms in the consumer goods industries in Nigeria. This study adopted ex-post facto research design. It uses annual time series data extracted from the Annual Report and Accounts of consumer goods companies under study. The data covered from 2006 -2020. For the data analysis, the study uses descriptive statistics as well as statistical correlations and regression analysis where dividend policy as the dependent variable, long term debt to total asset, Debt to equity ratio and debt to capital ratio as independent variables. The result therefore, revealed there is positive but weak ( $r = 0.201919$ ) relationship between long term debt to total asset and dividend policy for the year. Another one revealed that the Debt equity ratio on dividend policy in Nigeria has negative ( $-0.0556$ ) but significant ( $p>0.015$ ) contribution on dividend policy for the year well Debt capital ratio on dividend policy in Nigeria has negative ( $-7.987574$ ) but significant ( $p>0.0103$ ) contribution on dividend policy for the year. It implies that organisations that have a higher level of leverage are face more insecurity and may suffer bankruptcy and cannot pay dividend to investors as supposed. The study recommends that Consumer goods organization management should keep away from depending long term liability in financing its activities to avoid low asset turnover. Secondly, Management of consumer goods companies should consider sinking fund account necessary to provide for the repayment of their debt before the maturity period. Finally, Consumer goods organization management should ensure that leftover debt capital is immediately paid off.

**Keywords:** corporate leverage, dividend policy, debt, total asset, equity ratio

## I. INTRODUCTION

### 1.1 Background to the study

Nigerian consumer goods firms are important sectors that contribute and thriving positively to the nation's economy by creating employment and companies' growth. They also produce home accessories, beverages, and drinks for entertainment and social well being of the Nigerian communities. Their activities catch the interest of both foreign and domestic investors. They also contribute to the growth of Nigeria economy. Therefore, it becomes imperative to know how this sector finances its operation as well as what it is paying back to its equity investors in the form of dividend.

Dividends play an important role in corporate finance, owing to their connection to capital structure. Dividends are traditionally and predominantly paid by retained earnings, which would otherwise have to be covered by financial loans and/or other forms of external financing. A typical scenario would be when a capital shortage resulting from significant dividend payouts compelled business executives to arrange costly working capital, investments, and debt payments. Alternatively, financial management may need to issue new stock or take on additional debt. The real-world situation encourages companies to examine several options and tactics, such as balancing dividend payments, debt leverage, and stock issue. This is undoubtedly one of the most important duties that financial managers must complete.

That policy contains a wealth of information and holds a special place in the hearts of some stakeholders. Because this data not only provides a clear image of the current situation but also allows for a forecast of the company's future offerings (Jhankhany and Gorbanian, 2006). However, the most essential reasons for adopting a dividend policy derived from a company's dividend policy. This topic can help distinct groups of investors make economic decisions that are of specific importance to them. Because the causes and factors derived from stemming not only help to understand company behavior, but also serve as a tool for forecasting the future course of this industry.

Some analysts argue that the dividend policy cannot hold in theory because investors can dispose of part of their shares or portfolio if they need urgent cash. The dividend irrelevance theory states that dividend payouts have a negligible impact on a stock's price. Even though some argue that dividend policy is unimportant, it is a source of income for shareholders. Company executives are frequently the largest stockholders, so they stand to benefit the most from a generous dividend program. A dividend policy is usually seen as an important aspect of a company's overall strategy (Chen, 2020). According to academics, proxies for dividend policy are dividend yield, dividend per share, dividend payout ratio, and other related characteristics.

The mix of finance includes both equity financing and debt financing. Seyed and Fatemeh (2012) emphasized that debt-

funded projects raise the firm's liabilities and risk, whereas projects financed with equity have less risk and obligation. The higher a company's financial leverage is the more debt financing it employs. Financial leverage is the amount of money or debt that a corporation needs to fund its needs, or the ratio of equity to debt that a firm utilizes to fund its operations. The level to which a company uses fixed-income products such as debt and preferred equity is also referred to as financial leverage. Interest payments rise as a company's debt and preferred equity grow, lowering earnings per share (EPS). As a result, there is a higher risk of stockholder return (Jensen, 2001).

We can also show that financial leverage has a positive or negative impact on dividend policy. Nonetheless, cooperative governance paints a gloomy picture of business ownership or control through terms of financial leverage. As a result, the managers failed to meet their major objectives in their battle with the firm's owner. Business development and growth have been used to tackle this issue in order to optimize profit. To achieve high commercial value, firms and investors amalgamate loan and equities strategic options. Financial management decides on capital structure to improve investor return in the field of business funding (Raza 2013). Financial leverage affects company dividend policy since it can modify a firm's dividend policy. Furthermore, the terms that lenders apply to payouts have an impact on dividend distribution. The long-term debt-to-total-assets ratio is used as an indicator of leverage (Mohammad & Jhafari, 2013).

In company's financial securing, investment and payment of dividends are to be counted management decisions. These decisions must be performed accurately and planned, because they influence stock value directly (Asif, 2011). Because they are successful in influencing the Company's payouts, financial leverage has an impact on dividend policy. In addition, the terms that lenders impose on dividends apply to dividend distribution (Mohammad & Jhafari, 2013). As a measure of leverage, we employ the long-term debt-to-total-assets ratio, debt-to-equity ratio, and debt-to-capital ratio. Companies that have a higher level of financial leverage pay lower interest rates.

### *1.2 Statement of the Problem*

Many people accept that if greater dividends are given, there will be less money available to pay off debt and use as working capital. Corporations must make crucial financial decisions such as determining the percentage of equity and debt that will make up its capital structure. This includes deciding what portion of corporate profits will be retained for reinvestment and what fraction will be given as dividends.

Investors in the Nigerian consumer goods sector should keep a watch on the debt levels on the financial position of companies. A corporation may suffer bankruptcy during a business slump as a result of financial leverage's influence on solvency, whereas a less leveraged company may avoid bankruptcy due to stronger liquidity.

Despite the fact that a plethora of studies have been conducted in both emerging and developed countries in an attempt to determine the effect of financial leverage (long-term debt-to-total-assets ratio, debt-to-equity ratio, and debt-to-capital ratio) and corporate dividend policy, no consensus has been achieved. Researchers have come to conflicting conclusions as a result of a dividend policy decision. Some studies have found that dividend policy decisions are meaningless, while others have found that dividend policy decisions are critical to a company's development and growth.

Nigerian consumer goods manufacturers have shown mixed results on the effect of financial leverage and dividend policy on their sales and profits. If the problems are not resolved, they may escalate into an agency problem, which would have a negative impact on the overall development and growth of Nigerian consumer goods. It is therefore critical to perform integrative research on the subject, bridging the gaps that have been found.

### *1.3 Objective of the Study*

The primary objective of this study is to examine the contribution of corporate leverage management on dividend policy of firms in the consumer goods industries in Nigeria. The specific objectives are to:

1. Examine the relationship between long-term debt-to-total-assets ratio and dividend policy of firms in the consumer goods industry in Nigeria
2. Determine the effect of debt-to-equity ratio on dividend policy of firms in the consumer goods industry in Nigeria
3. Determine the effect of debt-to-capital ratio on dividend policy of firms in the consumer goods industry in Nigeria

### *1.4 Research Questions*

The following research questions will be considered in the study.

1. What is the relationship between long-term debt to total assets ratio and dividend policy of firms in the consumer goods industry in Nigeria?
2. What is the effect of debt-to-equity ratio to dividend policy of firms in the consumer goods industry in Nigeria?
3. What has been the effect of debt-to-capital ratio to dividend policy of firms in the consumer goods industry in Nigeria?

### *1.5 Statement of Hypotheses*

In order to address the issue raised above, the following null hypotheses shall be proved:

1. There is non positive relationship between Long-term debt to total assets ratio and dividend policy of firms in the consumer goods industry in Nigeria
2. Debt-to-equity ratio has non significant effect to dividend policy of firms in the consumer goods industry in Nigeria

- Debt-to-capital ratio has non significant contribution to dividend policy of firms in the consumer goods industry in Nigeria

## II. REVIEW OF RELATED LITERATURE

### 2.1 Conceptual Framework

#### 2.1.1 Corporate Leverage Management

The existence of the debt in a company's capital structure is called financial leverage (Pandey, 2008). It reveals the borrowings the company has in its capital structure. The amount of fixed-income securities a corporation utilizes, such as debt and preferred equity, is referred to as financial leverage. The higher a firm's earnings leverage is, the more indebtedness it employs. Hefty economic power entails high-interest payments, which have a detrimental influence on the company's earnings per share. In order to amplify profits at significant levels, leverage is used with a concentration over the use of permanently associated costs. It's a two-edged blade that produces highly favorable results when things go smoothly and the polar opposite when things go wrong. If financial leverage permits us to increase our profits, then skillfully managing long-term debt, debt-equity, and financing mix will produce the best results.

#### 2.1.2 Long-Term Debt to Total Assets Ratio

Long term debts are debt liabilities with a term of more than a year. "Long-term debt" in accounting refers to a company's loans and other liabilities that are not due within a year of the financial position date. It could be a bank loan, mortgage bonds, debentures, deferred tax, pension obligations or other long-term liabilities (Accounting Coach, 2016). Long-term debt is defined as debt owed to investors for more than a year and is classified as a non-current financial statement.

The long-term debt-to-total-assets ratio is a measure of how much of a company's assets are financed by long-term debt, which includes loans and other financial commitments that last longer than a year. This ratio is a broad indicator of an organization's ultimate financial health, including its ability to satisfy its financial responsibilities for existing loans (Will, 2020). The Long-Term Debt-to-Total-Assets Percentage Formula is equal to LTD/TA. LTD stands for Long-Term Debt while TA stands for Total Assets over a Longer Duration. The long-term debt-to-total-assets ratio, also known as the coverage or solvency ratio, is used to evaluate a company's leverage. The proportion's outputs reveal how much of a company's assets would have to be liquidated to pay off long-term debt. The ratio can be recalculated over time to illustrate trends in a company's decision to finance assets with debt rather than equity, as well as its ability to repay debt.

A business can increase its asset base by raising loans or equity capital. The long-term debt-to-total-assets ratio indicates how much of the net capital is financed by long-term debt. A larger percentage ratio indicates that the business is more leveraged and has fewer assets on its financial position. In other words, if it filed for bankruptcy, it would have to sell additional assets to

pay off its debt. To service the loans, the company would have to start generating sales and cash flow over a longer length of time (MyAccountingCourse.com, 2021).

#### 2.1.3 Debt-To-Equity Ratio

The debt-equity ratio is a measure of the relative contribution of the creditors and shareholders or owners in the capital employed in business. Simply stated, ratio of the total long term debt and equity capital in the business is called the debt-equity ratio (Economic Times, 2020). It is calculated using the formula, total liability/equity

This financial tool assesses how much borrowed capital (debt) can be paid off with shareholder contributions in the event of a liquidation. It's a metric for calculating a company's financial strength and leverage that's usually derived using data from the previous fiscal year. The debt-to-equity ratio assesses the financial stability of a corporation. The proportion of debt and equity financing used by a company is shown by this ratio. Lenders and creditors actively monitor it, and it can provide early warning if organization is drowning in debt (Accounting Tools, 2022).

A low debt-to-equity ratio is advantageous from an investment standpoint because it reduces risk during times of rising interest rates. As a result, it attracts additional capital for further investment and business expansion. A company's financial leverage is measured using the debt-to-equity (D/E) ratio. In corporate finance, the D/E ratio is a crucial measure. It is a metric that indicates how much a company relies on debt to fund its operations (Jason, 2021).

Pilbeam (2010) stated that the greater DER of a firm will encourage the more of a firm's earnings have to be devoted to interest payment of the firm's debt, and consequently less money is available for shareholders. It indicates that the higher level of DER leads to the composition of debt is also higher and certainly reflected a lower ability of firms' to pay dividends (Gill, Biger, & Tibrewala (2010)). This condition encourages the company has to pay its obligations instead of distributing its profits in the form of dividends.

#### 2.1.4 Debt-To-Capital Ratio

The debt to capital ratio is a metric that determines how much debt is used to fund a company's activities. Because it emphasizes the relationship between debt and equity, this ratio is a risk indicator. Riskier companies are those with a higher risk-to-reward ratio. A drop in revenue might put the company's cash in jeopardy (MyAccountingCourse.com, 2021). Investors use the debt-to-capital ratio to analyze a company's risk based on its financial structure. The company's debt-to-equity ratio is high, indicating that it is largely reliant on debt to support its operations. Debt loan financing, on the other hand, allows stockholders to receive above-average profits. The debt to capital ratio formula is calculated by dividing the total debt of a company by the sum of the shareholder's equity and total debt.

Debt-to-capital ratio is a liquidity ratio that measures a company's total liabilities against its total capital (Lake, 2020). This ratio is a crucial metric for business owners and investors to understand since it can provide information about a company's capital structure, solvency, and level of financial leverage at given point time. The debt-to-capital ratio (D/C ratio) measures the financial leverage of a company by comparing its total liabilities to total capital. In other words, the debt-to-capital ratio formula measures the proportion of debt that a business uses to fund its ongoing operations as compared with capital. The D/C ratio is the proportion of a company's total debt to its total capital, which includes both debt and equity (Hargrave, 2020).

### 2.1.5 Dividend policy

A dividend policy is a framework by which a firm structures its dividend payments to shareholders. Current earnings and non-capital reserves could be used to pay the dividend. The company's board of directors is in charge of determining how much of the company do earnings should be distributed as dividends and how much should be reinvested as retained earnings (Nzewi, 2009). Dividend policy is referred to as the decision taken by an organization to distribute part or all of its profit to its shareholders in the form of dividend or to reinvest a fraction of its profit back to the business (Al-Malkawi, 2005). It is the standard process followed by company executives when deciding how much to pay out in dividends. The term "the dividend policy" refers to a profit allocation to firm owners as well as a guideline for paying a particular percentage of profit to investors as dividends. In a nutshell, it shows how a business divides its profits between retained earnings and dividends. Stock, stock repurchases, stock splits, regular dividend payments, and, most crucially, cash are all examples of dividends.

## 2.2 Theoretical Review

### 2.2.1 Trade-off Theory

This study anchored trade-off theory because it states that there exist advantages to gain within a capital structure till the optimal capital structure is reached. The classical version of this theory was propounded by Kraus and Litzenberger (1973). Trade off theory argued for the existence of an optimum capital structure, by integrating several imperfections to capital markets disregarded by Modigliani and Miller (1963) hypotheses, but incorporating the assumptions of symmetric information and market efficiency. According to the tradeoff theory, the optimal financing mix corresponds with the level of leverage at which the costs and benefits of financing through debts are exactly balanced. A firm can increase its overall value through merits from tax shield from increasing her financial leverage (Modigliani and Miller, 1963) nevertheless higher financial leverage could as well result to a higher expected financial distress cost which leads to decrease in firm's value.

The trade-off theory assumes that a firm chooses how much debt financing and how much equity financing to use by balancing the benefits and costs. An important purpose of this

theory is to clarify the fact that firms usually are partly financed with debt and partly with equity. However, this theory does not elucidate the conservative nature of companies when using debt financing and it does not answer the question as to why leverage is consistent in most countries despite having divergent taxation systems. Further, the empirical relevance of this theory has often times been debated. We anchored this research on the trade-off theory because this is mostly the practice, business employ this as it offers an alternative way to increase profits by financing a portion of the business by issuing stock or through loans. It also helps to explore the implication of mix of equity and debt in financing a firms operation.

### 2.3 Empirical Review

According to Orajekwe and Okegbe (2020) study examined the relationship existing between financial leverage and the dividend policy of quoted oil and gas firms in Nigeria. The research work adopted for the study ex-post facto research design. Secondary data spanning 2011 to 2018 was sourced and collated from annual reports and accounts of oil and gas firms in Nigeria and Nigeria Stock Exchange fact book. The data was analyzed employing descriptive statistics and the least square regression technique. The study revealed that a significant relationship exists between long term debt and dividend payout ratio; total debt and dividend payout ratio while no significant relationship exists between short term debt and dividend payout ratio of quoted oil and gas firms in Nigeria. Given the integral role the Oil and Gas sector plays in Nigeria, this paper showed the centrality of the capital structure and dividend policy in ensuring the stability of corporations in the Nigerian Oil and Gas industry.

Although, Haomin (2020) find out the relationship between financial leverage and firm performance. This paper uses a sample of Chinese listed companies covering the period 2010-2019, to study the impact of financial leverage on firm performance, measured by return on assets (ROA). By using OLS and 2SLS methods to take linear regression, this research shows that the relationship between financial leverage and firm performance is significantly negative, while operating leverage positively moderates this relationship. In addition, by further researches, this study shows that the moderating role of operating leverage could be insignificant in real estate industry. This research is of certain significance for enterprises' financing decision-making and risk management. It suggests that high debts are harmful to a firm's performance, since it could introduce extra financial risks and agency costs; nonetheless, control the selling, general and administrative expense could be a good way to solve this problem. Based on all the researches above, some suggestions come up: Firstly, firms should maintain a proper capital structure. Moreover, management could adjust operating leverage to release the negative consequence of debt. Finally, real estate enterprises could afford higher financial leverage than other enterprises. At the end of this paper, the limitations of this paper are listed, and suggestions for future researches are put forward.

Furthermore, Umer & Muhammad (2018) identify the relationship between financial leverage and the performance of Textile Composite Companies of Pakistan. Pakistan Textile Composite Companies which are listed in PSX (100-index) are selected. 5-year data is collected from 2011-2015 and top 16 companies is selected as a sample. Using descriptive statistics, correlation analysis and regression model to identify the results. Results show that financial leverage has negative and significant effect on firm ROE and financial leverage has positive and significant effect on firm ROA. Further study indicates that the high interest rate and more amount of debt decreases the value of equity and has negative impact on firm performance. On the other hand, the amount of debt has positive impact on firm ROA. Results show that financial leverage has positive impact on firm performance if the amount of debts do not exceed from the amount of equity.

But, Anifowose, Soyebó, Tanimójo, (2020) empirically examined the effect of financial leverage on firms' performance, a study of listed Pharmaceutical firms' in Nigeria. Using annual panel data for a period of 16 years ranges from 2003 to 2018 with the application of econometric techniques. The empirical results show that Debt Equity Ratio (DER) have positive relationship, while Debt Ratio (DR) and Interest Coverage Ratio (ICR) has negative relation with Return on Assets (ROA) and Return on Equity (ROE). This evidence that financial leverage has significant effects on profitability and efficiency of firms' performance, especially quoted Pharmaceutical Companies in Nigeria

Notwithstanding, Julius and Lucky (2020) investigated the effect of financial leverage on value of firms in Nigeria. The independent variables for the study are long – term debts, medium term debts and short term debts while the dependent variable is the value of the firm. To guide the study three (3) hypotheses were formulated. The first hypothesis sought to find out whether significant relationships exist between long term debts of firms and the overall value of the organization. The second is to test whether there is significant effect of medium term borrowing on the value of the selected firms and lastly, whether short term debts has effect on the value of Nigeria firms. The Pearson correlation coefficient and Ordinary Least Squares (OLS) regression analysis were used to test the hypotheses. The study made use of secondary sources of information in carrying out the analysis. From the findings of the study, the results obtained showed that long term debt has a significant positive effect on the value of our sampled companies' performance. Medium term debt and short term debts have significant positive influence on our sampled quoted companies' value and were statistically significant. This was confirmed by the results of the findings in this research. Positive impact implies that increases in the value of one variable tend to be associated with increases in the value of the selected firms. The researcher also found out that the use of leverage enhances the value of the firm. Therefore, it was recommended that firms should go ahead and finance their operations with long term debt, medium term debts and short term debts when the need arises in order to ensure that value is enhanced.

Nevertheless, Zachary, James, & James (2019) investigated the effect of financial structure on performance of selected companies listed at (NSE), Kenya. The specific study objective was to determine the effect of leverage on the performance of Companies listed on the Nairobi Securities Exchange (NSE). Causal or explanatory research design was employed in the study due to the nature of problem and available. Quantitative data was used. Multivariate tests using panel data model examined the effects of the independent variable on company's financial performance. Data was collected for 30 selected companies for the period 2007-2015. The study adopted positivist philosophy as it focused on objectivity and fits a quantitative study with objective of testing hypotheses. Various diagnostic tests including, Auto-correlation test, Normality test, Heteroscedasticity test, Unit root test and Test for pooling were carried out. Regression coefficients were used to test for significance using t-statistic at 5% level of significance and conclusions drawn. The coefficient of determination ( $R^2$ ) was used to rank the explanatory variable's contribution to the response variable. The study utilized secondary panel data contained in the annual reports and financial statements of selected companies. The research contributed to the existing literature of international business and finance by jointly testing the effects of leverage on performance of selected companies listed at the (NSE), Kenya. Breach-Pagan Lagrange multiplier (LM) test was used showing that there were no panel effects (implying that ordinary least square should be used (pooling)). Therefore, the data was pooled. The study found out that Leverage had significant positive effect on financial performance of selected companies listed at NSE, Kenya. The recommendations of the study were that managers of the selected companies listed at NSE, Kenya could utilize the various sources of finance since financial structure has a positive effect on the performance of the listed firms. The proportion of leverage could be increased in financing the companies due to its high contribution to performance.

However, Odum and Odum (2017) investigated the influence of leverage on dividend payout of selected manufacturing companies in Nigeria. The study used a sample of 50 quoted companies that have dividend history and consistently published their audited annual financial report from 2011 to 2015. A pooled regression analysis was adopted in the study. The result revealed that long term leverage has a significant positive effect on firm's dividend policy. The study went further to reveal that interaction of age and profitability was significant in influencing dividend payout within the period under study. The study recommended among others that leverage structure and dividend consistency can be a consideration when choosing stocks for dividend purposes in Nigeria and that the investors should consider the financial leverage if the selected companies are old.

According to, Okoye, Amahalu, Nweze and Obi (2016) assessed the effect of financial leverage on dividend policy on conglomerates listed on the floor of the Nigerian Stock Exchange (NSE) from 2010 to 31st December, 2015. Nine quoted conglomerates were selected for this study. Panel Data

was employed in this study. The researchers made use of Ex-post facto research design in conducting the research. The study made use of secondary data obtained from fact books and annual report and accounts of the selected quoted consumer goods firms in Nigeria as at 31st December 2015. The relevant data obtained were subjected to statistical analysis using STATA 13. Pearson’s coefficient of correlation and Multiple Regression Analysis were the statistical tools used in this study. In order to verify the quality of the data used, Variance Inflation Factor (VIF) was employed to test for multicollinearity among the variables. In addition, the robust regression test was used to correct the problem of Heteroskedasticity among the variables in the model while Hausman test was used to determine the fixed effect and random effect of the variables used in this study. The results of this study revealed that financial leverage (proxy by short term debt, long term debt and total debt) has statistically significant effect on dividend policy of quoted conglomerates in Nigeria at 5% significance level. The researchers recommend that debt financing in the financial mix of the consumer goods firms should be done at an optimal level so as to ensure proper utilization of the firms’ assets.

Orajekwe and Okegbe (2020) on the dividend policies of publicly traded oil and gas companies in Nigeria. Odum and Odum (2017) looked at the dividend payout of a few Nigerian industrial enterprises. Okoye, Amahalu, Nweze, and Obi (2016) examined conglomerate dividend policies.

As a result, consumer goods enterprises have the potential to play a significant role in Nigeria's future economic growth. As a result, this area demands a lot of attention. This study intends to fill the void left by the lack of research on Nigeria's consumer goods industries in terms of corporate leverage management and its effects on the sector dividend policy over the last ten years.

III. METHODOLOGY

3.1 Research Design

This study was designed to use descriptive, co-relation and regression. It helps researcher in testing independent and dependent variables and experimental design. The choice of *ex-post facto* research design was adopted because the research will help to provide a plan that could elicit information on past event which will assist us to employ the right econometric data analysis tools (Onyekwelu, 2020).

Source of Data Collection

Consumer goods industry annual reports and accounts were used. The annual reports of the companies were used to extract time series data for a period of fifteen (15) years, from 2006 to 2020.

Population and Sample Size of the Study

The population of this study is made up of all ten (10) consumer goods industries registered on the Nigerian Stock Exchange as of July 31, 2021 and three were chosen for the study: NEWCO, Guinness Plc, and Nigerian Breweries Plc, due to lacked financial reporting, it was eliminated.

Data Collection Techniques

Data on Long-term debt to total assets ratio, Debt-to-equity ratio, Debt-to-capital ratio and dividend policy were extracted from the Annual Report and Accounts of consumer goods companies under study.

Method of Data Analysis

The company's annual report for fiscal years 2010 through 2021 provided secondary data. The data were analyzed using descriptive statistics, co-relation and regression analysis. Hypotheses were tested using E-view analytical software. To explain the relationship between corporate leverage management and dividend policy, a linear regression model was designed and tested. The following was the model:-

3.2 Model Specification:

To examine the contribution of corporate leverage management on dividend policy of firms in the consumer goods industry in Nigeria. The following model was adopted because it corresponded to the study's variables:

$$DPS = f(\beta_0 + \beta_1 LTDTAR + \beta_2 DER + \beta_3 DCR) + e$$

DPS = (Dividend per Share) measures dividend policy in the consumer goods Industry in Nigeria.

f = Function of

LTDTAR = (Long-Term-Debt to Total Ratio) represents the independent variable

DER = (Debt-To-Equity Ratio) represents the independent variable

DCR = (Debt-To- Capital Ratio) represents the independent variable

β = Beta

e = (error term) measures the probability of statistical error encountered

3.3 Description of Variables

Detail Of Variables	Acronym	Description
<b>Independent</b>		
Long-Term-Debt to Total Ratio	LTDTAR	Long Term Debt/Total Asset. Long-term debt is defined as debt owed to investors for more than a year and is classified as a non-current financial statement.
Debt-To-Equity Ratio	DER	Total debts/Equity. The debt-equity ratio is a measure of the relative contribution of the creditors and shareholders or owners in the capital employed in business.
Debt-To- Capital Ratio	DCR	Total debt /Shareholder’s equity and total debt. Debt-equity ratio is the total long term debt and equity capital in the business.
<b>Dependent</b>		
Dividend policy (Dividend per share) (DPS)	DIPO	Dividend policy denotes an allocation of profit to company owners and guide for paying certain percentage of profit to investors as dividends.

Source: Authors Compilation, 2022

*Decision Rule:*

Reject Ho if P-value > 0.05 and accept alternative hypothesis

IV. DATA PRESENTATION AND ANALYSIS

4.1 Data Presentation

The data presented in the table below shows the long term debt to total asset, debt equity ratio, debt capital ratio and dividend per share of consumer goods industries in Nigeria. Reference to appendix one

4.2 Data Analysis

The raw data collected from the annual report of companies understudy were analyzed using descriptive statistics, correlation analysis and regression. The results are presented in tables below.

Table 1: Descriptive Statistics

	DPS	LTDTA	DER	DCR
Mean	2.845111	0.202807	1.956558	0.610680
Median	1.840000	0.166500	1.332900	0.573200
Maximum	10.00000	0.880800	7.887700	0.887400
Minimum	0.400000	0.005100	0.604900	0.428400
Std. Dev.	2.598637	0.175911	1.677888	0.123250
Skewness	0.895543	2.502583	2.412581	0.747808
Kurtosis	2.920782	9.995656	8.022475	2.704278
Jarque-Bera	6.026751	138.7329	90.95144	4.358095
Probability	0.049126	0.000000	0.000000	0.113149
Sum	128.0300	9.126300	88.04510	27.48060
Sum Sq. Dev.	297.1281	1.361564	123.8735	0.668380
Observations	45	45	45	45

Source: E-view 8

Dividend per share, long-term debt to total asset, debt to equity, and debt to capital have mean values of 2.84511, 0.202807, 1.956558, and 0.610680, respectively, whilst the median values are 1.840000, 0.166500, 1.332900, and 0.573200. The standard deviations are 2.598637, 0.175911, 1.677888, and 0.123250, which are not particularly volatile, while the Jarque-Bera statistic of 0.049126, 0.000000, 0.000000, and 0.113149 reveals a normal distribution of the time series data for dividend per share and debt to capital, but an abnormal distribution for long term debt to total asset and debt to equity. The skewness coefficient of the variables (dividend per share and debt to capital) is much less than one, according to the tables that accompany the figures above (1). All-time series data has a normal frequency distribution when this is the case, and long-term debt to total asset and debt to equity are both greater than one (1). It confirms the unusual frequency distribution of the time series data. The Kurtosis coefficients of DPS and DCR are all less than three (3), indicating that the frequency distribution of the variables is quite normal; however, the Kurtosis coefficients of LTDTA and DER are all greater than three (3),

indicating that the frequency distribution of the variables is aberrant.

4.3 Test of Hypotheses

*Hypothesis One:*

Re – statement of hypotheses in both Null and Alternative

**Ho<sub>1</sub>:** There is non positive relationship between Long-term debt to total assets ratio and dividend policy of firms in the consumer goods industry in Nigeria

**Ha<sub>1</sub>:** There is positive relationship between Long-term debt to total assets ratio and dividend policy of firms in the consumer goods industry in Nigeria

Table 2: Co-Relation Analysis

	Dividend policy	Long term debt to total asset
Dividend policy	1.000000	0.201919
Long term debt to total asset	0.201919	

Source: E-view 8

From the table 2 above, it reveals that there is positive but weak relationship between Long term debt to total asset (LTDTA) and dividend policy (DPS) for the year. As a result, we reject null hypothesis which argues that Long term debt to total asset has non positive relationship with dividend policy of firms in the consumer goods industry in Nigeria.

*Hypothesis Two:*

Re – statement of hypotheses in both Null and Alternative

**Ho<sub>2</sub>:** Debt-to-equity ratio has non significant contribution to dividend policy of firms in the consumer goods industry in Nigeria.

**Ha<sub>2</sub>:** Debt-to-equity ratio has significant contribution to dividend policy of firms in the consumer goods industry in Nigeria.

Table 3: Regression Analysis Results

Dependent Variable: DIVPO				
Method: Least Squares				
Date: 03/14/22 Time: 05:58				
Sample: 1 45				
Included observations: 45				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
DER	-0.556346	0.220418	-2.524045	0.0154
C	3.933633	0.565443	6.956726	0.0000
R-squared	0.129040	Mean dependent var	2.845111	
Adjusted R-squared	0.108785	S.D. dependent var	2.598637	
S.E. of regression	2.453222	Akaike info criterion	4.676108	
Sum squared resid	258.7867	Schwarz criterion	4.756404	
Log likelihood	-103.2124	Hannan-Quinn criter.	4.706041	
F-statistic	6.370802	Durbin-Watson stat	0.441522	
Prob(F-statistic)	0.015375			

Source: E-view 8

Table 3 reveals that DER on dividend policy in Nigeria has negative but significant contribution on dividend policy for the year. The t-statistic is -2.524045 more than two (2) and P-Value 0.0154 less than 0.05. We reject null hypothesis and accept alternate, which argues that Debt-to-equity ratio has significant contribution to dividend policy of firms in the consumer goods industry in Nigeria. Adjusted R<sup>2</sup> indicates that debt to equity ratio predict 10% of variation in dividend policy was explained by the independent variable and about 90% of the effect is explained by other factors.

#### Hypothesis Two:

Re – statement of hypotheses in both Null and Alternative

**H<sub>01</sub>:** Debt-to-capital ratio has no significant contribution to dividend policy of firms in the consumer goods industry in Nigeria.

**H<sub>a1</sub>:** Debt-to-capital ratio has no significant contribution to dividend policy of firms in the consumer goods industry in Nigeria.

Table 4: Regression Analysis Results

Dependent Variable: DIVPO				
Method: Least Squares				
Date: 03/14/22 Time: 06:01				
Sample: 1 45				
Included observations: 45				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
DCR	-7.987574	2.975671	-2.684293	0.0103
C	7.722963	1.853016	4.167779	0.0001
R-squared	0.143519	Mean dependent var		2.845111
Adjusted R-squared	0.123601	S.D. dependent var		2.598637
S.E. of regression	2.432745	Akaike info criterion		4.659344
Sum squared resid	254.4846	Schwarz criterion		4.739640
Log likelihood	-102.8352	Hannan-Quinn criter.		4.689277
F-statistic	7.205431	Durbin-Watson stat		0.383336
Prob(F-statistic)	0.010280			

Source: E-view 8

In table 4 reveals that DCR on dividend policy in Nigeria has negative but significant contribution on dividend policy for the year. The t-statistic is -2.684293 more than two (2) and P-Value 0.0103 less than 0.05. We reject null hypothesis and accept alternate, which argues that Debt-to-capital ratio has significant contribution to dividend policy of firms in the consumer goods industry in Nigeria. Adjusted R<sup>2</sup> indicates that Debt-to-capital ratio predict 12% of variation in dividend policy was explained by the independent variable and about 88% of the effect is explained by other factors.

#### 4.4 Discussions of Findings

*Discussion of Result One:* The correlation result in Table 2 indicates that LTDTA and dividend policy in Nigeria has

positive and weak relationship for the year. This study agrees with Orajekwe and Okegbe (2020) on their study on the relationship existing between financial leverage and the dividend policy of quoted oil and gas firms in Nigeria; same with Umer & Muhammad (2018) on the relationship between financial leverage and the performance of Textile Composite Companies of Pakistan and work done by Haomin (2020) on relationship between financial leverage and firm performance.

*Discussion of Result Two:* From the regression table two also, it can be ascertained that the coefficient and the significant value of dividend policy are -0.0556 and 0.0154 respectively. Therefore, we state that the contribution DER and dividend policy of consumer goods firms listed on the Nigeria Stock Exchange during the period under study is negative and significant. This result is in line with Enekwe, Agu, which found debt-equity ratio (DER) have negative relationship with Return on Assets (ROA) and contra with Eziedo (2014); Anifowose, Soyeb, Tanimajo, (2020) that found debt-equity ratio (DER) have positive relationship with financial performance.

*Discussion of Result Three:* In the test of the hypothesis three, the regression analysis result indicates that debt to capital ratio (DCR) on dividend policy has negative but significant contribution on dividend policy of the sampled consumer goods industries in Nigeria for the year. The result is in line with the findings of Okoye, Amahalu, Nweze and Obi (2016) on the effect of financial leverage on dividend policy on conglomerates listed on the floor of the Nigerian Stock Exchange (NSE).

## V. SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

### 5.1 Summary of Findings

From our empirical results, it was found that:

1. There is positive but weak relationship between Long term debt to total asset (LTDTA) and dividend policy for the year.
2. Debt equity ratio (DER) on dividend policy in Nigeria has negative but significant contribution on dividend policy for the year.
3. Debt capital ratio (DCR) on dividend policy in Nigeria has negative but significant contribution on dividend policy for the year.

### 5.2 Conclusion

This study looked into the contribution of corporate leverage management on dividend policy of firms in the consumer goods industries in Nigeria. Data was chosen based on publicly available annual financial information as a criterion. Descriptive statistics and regression analysis were used to evaluate time series data from 2006 to 2020. We infer that there is a positive but weak relationship between Long term debt to total asset (LTDTA) and dividend policy for the year while debt to equity ratio and debt to capital ratio are negatively and significant contribution on dividend policy based on the



outcomes of the regression study. This analysis also shows that the independent variables for and dividend policy have influence.

### 5.3 Implications

The findings imply that organisations that have a higher level of leverage are faces more insecurity. The companies may suffer bankruptcy and cannot pay dividend to investors as supposed.

### 5.4 Recommendations

In line with the findings of the study, the researcher recommends that:

1. Consumer goods organization management should keep away from depending long term liability in financing its activities to avoid low asset turnover.
2. Management of consumer goods companies should consider sinking fund account necessary to provide for the repayment of their debt before the maturity period.
3. Consumer goods organization management should ensure that leftover debt capital is immediately paid off.
4. Management of consumer goods companies should employ financial skilful personnel who can manage their debt wallet and advise them when necessary.

### 5.5 Contribution to knowledge

1. This study, the contribution of corporate leverage management on dividend policy of firms in the consumer goods industries in Nigeria contribute to the idea of debt to capital ratio which has not been used.
2. None specifically examined the contribution of corporate leverage management on dividend policy of firms in the consumer goods industries in Nigeria, 2020.
3. Model specification used in this study is another contribution to the study.

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APPENDIX ONE

Data for LTDTA, DER, DCR and DPS of consumer goods industry in Nigeria

COMPANIES	YEARS	LTDTA =N=	DER =N=	DCR =N=	DPS =N=
NB PLC	2020	0.1669	1.2973	0.4704	1.76
	2019	0.2287	1.2477	0.5466	2.33
	2018	0.2102	1.3329	0.5688	3.73
	2017	0.1251	1.1483	0.5345	3.58
	2016	0.1549	1.2173	0.5490	4.60
	2015	0.1228	1.0710	0.5172	4.70
	2014	0.1808	1.0313	0.5084	5.75
	2013	0.0763	1.2496	0.5555	5.75
	2012	0.2829	1.7142	0.6315	3.00
	2011	0.2633	2.0304	0.6700	3.00
	2010	0.1690	1.2799	0.5616	3.54
	2009	0.1692	1.2973	0.5647	1.80
	2008	0.1667	2.2397	0.5230	4.85
	2007	0.1982	1.0968	0.6913	1.59
2006	0.4284	1.0871	0.5208	1.20	
GUINNESS PLC	2020	0.0729	0.9736	0.4933	4.47
	2019	0.1422	0.8054	0.4461	1.52
	2018	0.1488	0.7497	0.4284	1.84
	2017	0.2696	2.4007	0.7059	0.64
	2016	0.2060	2.2883	0.6958	0.50
	2015	0.2274	1.5288	0.6045	3.20
	2014	0.3250	1.9366	0.6594	3.20
	2013	0.1961	1.6295	0.6197	7.00
	2012	0.2261	1.5409	0.6044	8.00
	2011	0.1665	1.2881	0.5629	10.00
	2010	0.1640	1.4137	0.5857	8.25
	2009	0.1516	1.3431	0.4963	7.25
	2008	0.1704	0.9855	0.5732	6.00
	2007	0.4475	0.9212	0.4794	4.50
2006	0.4153	0.6049	0.6513	4.00	
NEWCO PLC	2020	0.0051	1.7519	0.8333	0.43
	2019	0.0571	2.7065	0.7302	0.43
	2018	0.0540	2.2141	0.6888	0.43
	2017	0.0490	3.0827	0.7550	0.45
	2016	0.0651	2.2183	0.6892	0.45
	2015	0.0619	2.8469	0.7400	0.45
	2014	0.1043	1.4839	0.5974	0.45
	2013	0.1522	0.8610	0.4626	0.45
	2012	0.1608	0.9056	0.4752	0.43
	2011	0.1661	0.9714	0.4927	0.42
	2010	0.1573	0.7318	0.5103	0.40
	2009	0.0053	6.1361	0.8589	0.40
	2008	0.0753	7.8877	0.8874	0.43
	2007	0.8808	7.3932	0.8808	0.43
2006	0.8592	6.1032	0.8592	0.43	

Source: Adjusted data from NB Plc, Guinness Plc and NEWCO Plc.