

# Financial Policy and value of Listed Firms in Nigeria Consumer Goods Industry

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## ABSTRACT

The use of financing policy towards achieving value optimisation remains elusive among Nigerian firms. This study empirically evaluates the effect of financing policy decisions on the value of quoted Nigeria Consumer Goods Sector. The study employed scientific method to obtain data from annual reports of twenty-six selected companies operating in the sector. The two variants of Panel model, namely; Random Effect and Fixed Effect Models were employed at 5% level of significance. The findings through suitable RE Model revealed that total debt-to-equity (-0.0033: p-value 0.7359), total debt-to-total asset (-15.6582: p-value 0.0580) and dividend payout ratio (-2.7584: p-value 0.7466) of firms in the sector exert insignificant negative effect on firms' value while price-earnings ratio (3.01E-07: p-value 0.0196) yield significant positive impact on value of firms. The study affirms that, in terms of financial policy, only investment decisions exert significant positive influence on value optimisation of companies in the selected sector.

**Keywords:** Financial, Policy, Optimisation, Value, Fixed Effect Model, Random Effect Model

## INTRODUCTION

Corporate organisations periodically make three major classes of financing decisions that determine structures as reflected on their statement of financial positions. The first decision relates to the total amount of investment as well as the distributions of this total amount among different classes of assets. This investment decision determines the size of the firm and the structure of its asset. The second decision is concerned with the relative proportion of equity versus debt capital to be used in financing the firm. This decision is often termed as financing decision. The decision determines the structure of the sources side of the statement of financial position by establishing relative sizes of liabilities and shareholders' worth. The third decision is the choice of the proportion of the equity which should be raised through the retention of earnings and the proportion to be raised through the sale of new share. This decision determines the dividends that will be distributed and the composition of the shareholders' worth portion of the statement of financial position.

Theoretically, the Relevance Traditional Approach provides that the value of a firm is hinged upon its financing decisions while Modigliani and Miller infer opposite view by asserting that the firm's value is independent of its financing decisions rather investment policy. The belief among the economists exclusively is that the method of financing does not have any effect on the value of the firm and is therefore irrelevant [1,2]. By contrast, finance men are of opinion that firm share price or its cost of capital is dependent on financing decision of such firm. The

recent incidence of Covid-19 pandemic further put pressure on management to make financial decisions that will at increase or at least favourably maintain the value of firms during and after the period. However, in this current period achieving optimal firm value through financial policy seems difficult. For instance, major stock market indexes in both developing and developed economies have crashed at unprecedented rate [3,4] further aggravating problems of financing decisions by corporate organisations.

Meanwhile, financial management has been observed by [5] as an important and enabling factor for the optimization of firm value or shareholders wealth. However, irregular movement of share prices of firms at time can suffix even when there is existence of effective financial management practices among companies most especially in unstable economy like Nigeria. Consequently, the use of financial policy towards achieving value optimisation remains elusive among Nigerian firms. Thus, current study is poised to examine the effect of various financing decisions of quoted firms in Nigerian Consumer Goods Sector on the firms' value. Due to dearth of data on the study variables of interest during COVID-19 period among Nigerian firms in the selected sector the study covers pre COVID-19 period.

## LITERATURE REVIEW

### Conceptual Discourse

The capital structure is how the company makes up its funding, and comes from the equity or debt capital in the short and/or

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long term. Regardless of the source of funding, a positive return is only expected because of the application of resources [6]. Thus, finance managers are expected to choose the best option for a given resources to be funded and strike the right balance between available alternatives that can reduce cost and increase earnings for the shareholders. According to extant literature, financial leverage of the company can be calculated as the ratio of permanent third-party funds (debt) and own resources (equity). The higher the proportion of debt in the capital structure of the composition, the more leveraged a company is, in other words, the higher its debt ratio [7,8]. According to [6], the formation of the capital structure is not limited to having, or not, debt capital financing the firm's investments; the process is more complex; and there are other issues to consider, such as the deadline for payment of the debt, the characteristics of the debt and contracts, the transaction costs involved in the process and the information asymmetry.

The continued existence of any company is not predicated on its investment on short-term basis rather on its long-term investment strategies. A company that has liquidity problem will no doubt have to devise a short-term investment strategy in order to see the company through the liquidity problems. Thereafter, the company will need to undertake long-term investments which are the prerequisite to the concept of on-going concern basis [9]. Hence, capital budgeting is the process by which an organisation evaluates and selects long-term investment projects with the expectation of realising future benefits over a reasonable long period of time. The capital budgeting process involves project identification, project evaluation which is based on cost-benefit and comparison with management set standard, project selection – particularly where there are generally mutually exclusive projects begging for allocation of available scarce resources, project execution which is the implementation stage, project monitoring as the goal to ensure that implementation is on course (not off track), cost saving and quality driven and post audit [10].

Dividends are distribution made out of a company's earnings after the obligations of all fixed income holders have been met. Dividend policy, therefore, refers to the set of rules or norms that a company follows to decide how much of its profit it will pay out to shareholders [9]. However, the choice of paying dividends is ultimately decided by the board of directors of the company, and once dividend has been declared it becomes a debt to the firm and cannot be overturned easily. It is important to re-emphasize that the payment is made out of company's earnings and hence reduces the amount of retained earnings that could be used for internal financing. The payment of dividend is made in lieu of maximizing shareholders' wealth. Shareholders wealth includes both market price of the shares and the current dividend.

### Theoretical Framework

The contemporary issue regarding the relevance of financing decisions on firm's value has been much theoretically debated in finance literature based on different approaches. The Traditional Approach states that debt is generally cheaper than equity as a source of investment finance implying that a firm's average cost of capital becomes lower as it increases its debt relative to equity. Thus, as the firm's average cost of capital reduces with increases in its debt to equity ratio, the corresponding company market value schedule rises and therefore the optimal leverage is determined at the point where the firm's weighted average cost of capital is minimized and the value of the firm is maximized. In contrast to

the traditional view, [11] (M-M Hypothesis) as observed in [12] states that, the market value of any firm is independent of its capital structure; hence, the firm's average cost of capital is also independent of its capital structure. This implies that the firm does not have an optimal debt-equity ratio and thus any degree of leverage is as good as any other. However, operation of MM Hypothesis is determined by the existence perfect capital market assumptions and situations.

The Static Trade-off theory states that the combination of debt related costs, such as those of bankruptcy and agency for instance, and a tax advantage of debt yields an optimal capital structure at less than a 100% debt financing. This is particularly so because the tax advantage that accrue to the firm is traded off against the costs of using more debt. In general, therefore, market imperfections such as taxes, bankruptcy costs, and asymmetric information and financial distress affect the firm's capital structure. [13] In [12] contended that debt maturity in the literature has been modeled based on the same market imperfections as used to model optimal capital structure.

The Pecking Order Theory states that businesses adhere to a hierarchy of financing sources by which internal financing is preferred to external financing. Pecking Order Theory (POT, henceforth) was developed on the choice of capital structure finance by Myers in 1984. According to Ferreira and Brazil (1997) as texted in [8], the POT, which is also known as the theory of Hierarchy of Funding Sources is aimed at explaining an order of fund raising sources firms' use. The rule of the approach is that the company use internal financing (such as retained earnings) first in financing its needs. If external financing is required, debt is issued with safest security issued first before the equity. However, the firm should consider equity only when the firm's debt capacity is exhausted. This approach tries to appoint an order of the funding sources, in which the initial option would be self-funding, following by the securities for trade (debt) they hold. Finally, there is the use of equity shares (Ferreira and Brazil, 1997).

### Empirical Discussion

The extant literature provides that numerous research studies in the field of finance has been conducted on the long-term debate on the effect of financing policy decisions on firms value or performance. Although the issue is still contemporaneous but mixed findings have been found on whether there exist relationship between firm value and its financing policy decisions or financing policy decisions determine organization firm value. Recent evidence in this regard has been provided by [5,14,15]. Study provides empirical evidence of relationship between leverage and corporate performance of 14 major and diverse business sectors in Czech Republic. The cross-sectional analysis of the published data indicates that leverage (debt ratio) has a substantially negative effect on corporate performance when the return on equity (ROE) is used as an indicator of corporate performance in the Czech Republic over the period covered by the study. The results of the study regression analysis confirmed negative relationship between the company profitability and the use of debt in majority of business sectors in the country. The study found opposite relationship in one business sector only (Mining and quarrying) where positive relationship between the company profitability and leverage was confirmed. The study affirms that corporate leverage and performance varies across industries.

[15] Applied random effect model to analyze ten years multivariate

panel data obtained from Karachi Stock Exchange (KSE) 100 index listed securities in Pakistan. The findings of the study indicate that capital structure shows a negative relationship with the Returns on Assets which implies that listed firms when increasing the overall capital base may also consider full utilization of the additional resources. Return on equity is impacted by the leverage ratio of debt to capital where a negative relationship is present that indicates increase in leverage may reduce the returns generated by the firm on its equity. In addition, the capital structure of the business was also found as significant variables impacting Tobin's Q negatively related. The finding implies that an increase in capital structure for listed firms translate into an increment of book value of assets that the firm choose in its financial records. [5] analyzed the impact of funding decisions, investment decisions and dividend decision policies of listed firms in Indonesian Stock Exchange Market on firms' value. The authors discovered both funding/financing decision and dividend decision policies of firms in Indonesia have significant impact on their value while investment decisions failed significantly to impact firms' value.

In Nigeria, the study by [16] examined the influence of capital structure on profitability of listed banks in Nigeria. The study found a significant positive relationship between total debt to total assets and financial performance. More so, the findings of the study also showed that total debt to total equity has a significant positive relationship with financial performance. [17] Examined the relationship between capital structure and profitability of quoted manufacturing companies in Nigeria. Using data extracted from the Nigerian Stock Exchange fact book and annual reports of the selected companies. The study showed that there is negative relationship between total debt to total assets ratio and financial performance.

Lastly, Dahiru (2016) investigated the impact of capital structure on financial performance of listed manufacturing firms in Nigeria. The study used Generalized Least Square (GLS) multiple regression to analyze the secondary data extracted from the annual reports and accounts of the 31 sampled firms for the period 2009 to 2014. The study found that total debt to total assets and long-term debt to total assets have significant negative impact on the financial performance of listed manufacturing firms in Nigeria while short-term debt to total assets has significant positive impact on Nigerian manufacturing firms' financial performance. From the above-cited literature, the researcher discovered that many previous studies in Nigeria largely focus on financing decision at a goal while ignoring key investment decision and dividend decision in their respective analysis. Therefore, the current study is aimed at providing research response to such knowledge gap.

## Methodology

This research study adopts ex-post facto research design. In this design, an investigation begins after fact has already occurred without interference from the researcher. The population of this study consists of all companies in Consumer Goods Sector listed on The Nigerian Stock Exchange (NSE, henceforth). According to NSE (2019), there are 28 companies quoted as Consumer Goods companies. The author employed Krejcie and Morgan (1970)'s sample size determination formula as observed in [7] to determine appropriate sample size. The result yields twenty-six (26) as sample size. In other words, 26 companies in Nigeria Consumer Goods Sector were selected for further analysis. Krejcie and Morgan (1970) as employed in [9] sample size determination is stated as follows:

$$S = \frac{X^2 NP(1-P)}{d^2 (N-1) + X^2 P(1-P)}$$

Where  $s$  = sample size;  $X^2$  = table value of chi-square at 1 degree of freedom for desired confidence level (0.95) = 3.84;  $N$  = population size (10);  $P$  = population proportion (0.5); and  $d$  = level of precision expressed as a proportion (0.05). The result yields a sample size of 26 companies.

Moreover, the study employs simple random sampling to systematically select the required 26 companies. This is done by randomly picking each company one by one from a box containing tags of all the companies. The list of companies selected is contained in the Appendix section of the paper. The study employed balanced panel data for a period of 10 years spanning from 2008 to 2018. The secondary data on all key variables were obtained from Annual Reports of sampled companies.

## Model Specification

This study employs panel linear model to empirically evaluate the effect of financing decisions on the value of listed companies in Nigeria. The relationship between variables of interest is modeled based on theoretical foundation and empirical validation from previous studies such as [5,11,12,14,15]. The functional relationships between firm's performance (in term of ROA) and the independent variables are specified in panel forms following statistical procedures in Gujarati (2004). These are in terms of Fixed Effects Model (FEM) and Random Effects Model (REM) and stated below as:

$$\text{Firm's Value} = f(\text{Financing Policy}) \quad (1)$$

$$ROA_{it} = f(DEQ_{it} + DTA_{it} + PER_{it} + DPR_{it}) \quad (2)$$

$$ROA_{it} = \beta_{1i} + \beta_2 DEQ_{it} + \beta_3 DTA_{it} + \beta_4 PER_{it} + \beta_5 DPR_{it} + u_{it} \text{ (FEM)} \quad (3)$$

Where; ROA = Return on Asset; DEQ = Total Debt to Equity ratio; DTA = Total Debt to Total Asset; PER = Price Earnings Ratio; DPR = Dividend Payout Ratio;  $\beta_1$  = intercept constant;  $\beta_2 - \beta_5$  = slope coefficients of regressors;  $u_{it}$  = error term;  $t$  = Time dimension;  $I$  = individual firm; for  $i = 1, 2, \dots, 26$  cross-section units and periods  $t = 1, 2, \dots, 10$ . A priori Expectation is such that  $\beta_2 - \beta_5 > 0$ . The intercept,  $\beta_{1i}$  as a measure of FEM implies that although the intercept may differ across the 26 sampled companies each company's intercept does not vary over time; that is, it is time invariant.

Furthermore, the study relies on Equation 3 to develop Random Effects Model. However, instead of treating  $\beta_{1i}$  in the equation, the researcher assumes that the intercept is a random variable with a mean value of  $\beta_1$  and the intercept value for each consumer goods producing company is expressed as;

$$\beta_{1i} = \beta_1 + \epsilon_i \quad i = 1, 2, \dots, 26 \quad (4)$$

Where;  $\epsilon_i$  is a random error term with a mean value of zero and variance of  $\sigma^2_{\epsilon}$  (Gujarati, 2004).

By substituting equation 4 into equation 3, the researcher obtains;

$$ROA_{it} = \beta_1 + \beta_2 DEQ_{it} + \beta_3 DTA_{it} + \beta_4 PER_{it} + \beta_5 DPR_{it} + \epsilon_i + u_{it} \quad (5)$$

$$ROA_{it} = \beta_{1i} + \beta_2 DEQ_{it} + \beta_3 DTA_{it} + \beta_4 PER_{it} + \beta_5 DPR_{it} + w_{it} \text{ (REM)} \quad (6)$$

Where;  $w_{it} = \epsilon_i + u_{it}$

$w_{it}$  = composite error term;  $\epsilon_i$  = cross-section, or individual-specific error component; and  $u_{it}$  = combine time series and cross-section

error component. Finally, it is important to state that two variables (DEQ and DTA) represent financing decision, while the other two independent variables (PER and DPR) represent investment decision and dividend decision respectively.

### Description of Variables

**Return on Asset (ROA)** - The ROA, according to this study, is calculated by dividing the net income of each period over the total assets of the companies. That is,

$$ROA = \frac{\text{Profit before Interest and Tax}}{\text{Total Assets}}$$

Where Total Asset = Fixed Assets + Intangible Assets + Current Assets

**Total Debt to Equity Ratio (DEQ)** - Total Debt to Equity Ratio is a proxy for estimating the level of leverage of a company. DEQ is calculated as;

$$\text{Debt to Equity} = \frac{\text{Total Debt}}{\text{Total Equity}}$$

Where Total Debt = Long-term debt + Current Liabilities

Total Equity = ordinary shares + capital reserves + retained profits

**Total Debt to Total Asset Ratio (DTA)** - Total Debt to Total Asset Ratio is another important proxy for estimating the level of leverage of a company. In line with literature, DTA is calculated as;

$$\text{Debt to Equity} = \frac{\text{Total Debt}}{\text{Total Assets}}$$

**Price Earnings Ratio (PER)** - This ratio indicates the level of growth of the company. PER is one of the most commonly used proxy variables for a firm's investment opportunity set (Adam and Goyal, 2007). It has been empirically employed by [5] to measure relative impact of investment policy decision on the value of firms. Accordingly, PER is measured as:

$$P/E \text{ Ratio} = \frac{\text{Market Price per Share}}{\text{Earnings Per Share}}$$

Average market price of each of selected company share was used to represent market price per share.

**Dividend Payout Ratio (DPR)** - This is the percentage of a company Profit after Tax (PAT) that is paid out as dividends to shareholders. It is a good measure of a firm dividend policy decision [5].

$$\text{It is determined as: } DPR = \frac{\text{Total Ordinary Dividend Paid}}{\text{Profit after Tax}}$$

The study employed Panel (OLS) Regression technique given the nature of the data obtained. The technique has two forms, namely, Random Effects Model (RE) and Fixed Effects Model (FE). These two models were used to estimate equation 3. Hausman specification test was conducted to detect the most appropriate model between FE and RE models. In addition, necessary tests were conducted most especially heteroscedasticity and autocorrelation to avoid spurious regression and as well not violating Ordinary Least Square (OLS) assumptions. All analyses were conducted at 5% level of significance.

### Presentation and Interpretation of Result

This section presents the results from the analysis of balanced panel data collected on three sampled listed companies operating in three different sector of Nigeria economy between 2009 and 2018, yielding 30 observations. (Table 1).

The information in Table 1 presents Fixed Effect (FE) and Random Effect (RE) for the impact of financing policy decisions on the value of twenty-six (26) quoted companies that operate in Nigeria Consumer Goods sector. In both models, Total Debt-to-Equity ratio (DEQ) was found insignificant at 5% level in influencing performance of manufacturing companies. The coefficient of DEQ was larger in RE indicates than in FE model. Beta value measures the degree to which predictor (DEQ) variable affects the dependent variable (ROA). The beta coefficients when FE and RE are employed are -0.005 and -0.003 respectively. The result implies that a unit (1%) change in Total Debt-to-Equity ratio will lead to a fall

**Table 1:** Panel Model Results (Fixed Effect Model and Random Effect Model) Dependent Variable: ROA

Panel Model	Fixed Effect			Random Effect		
	Coefficient	Std. Error	Prob.	Coefficient	Std. Error	Prob.
Constant	4.684	13.444	0.730	20.016	6.653	0.005
DEQ	-0.0058	0.009	0.550	-0.003	0.009	0.7359
DTA	7.597	19.809	0.704	-15.658	7.881	0.058
PER	2.05E	1.47E	0.001	3.01E	1.21E	0.019
DPR	-1.252	8.369	0.882	-2.758	8.443	0.746
R <sup>2</sup>	0.35			0.25		
Prob. (F-statistics)	0.004			0.006		
Akaike Info	8.254276					
Schwarz	8.495127					
Breuch-Pagan				Chi2 (2)= 2.6; Prob > chi2 = 0.3487		
Durbin-Watson	1.675181			1.828962		
Hausman Test	chi2(2) 2.603990 Prob > chi2 = 0.2720					

Source: Author's Computation from E-View Output, 2020

in Return on Asset of Nigerian listed companies by 0.5% ( $-0.005 \times 100$ ) share for FE and 0.3% for RE respectively. However, both coefficients were found to be insignificant at 5% levels. This result implies that either decrease or increase effect of total debt-to-equity ratio has no significant impact on return on asset of manufacturing companies in Nigeria when both FE and RE are employed.

Furthermore, the coefficient of DTA (total debt-to-total asset ratio) was larger in FE than in RE model. The beta coefficients when FE and RE are employed are 7.597 and -15.658. The result implies that a unit (1%) change in Total Debt-to-Total Asset ratio will lead to an increase in Return on Asset of Nigerian listed Consumer Goods producing companies by almost 7.6%. for FE and 1 unit (1%) change in Total Debt-to-Total Asset ratio will also cause a decrease in Return on Asset of Nigerian listed companies by 15.68% ( $0.013578 \times 100$ ) using RE. However, both coefficients were also found to be insignificant at 5% levels. This result implies that either decrease or increase effect of total debt-to-total asset ratio has no significant impact on the value of listed companies in Nigeria when both FE and RE are employed.

Furthermore, the finding about Price Earnings ratio (PER) from two models indicate that the more investment activities of listed companies will significantly lead to increase in the value of the companies. This is revealed by positive signs of PER beta coefficients for both RE (2.05) and RE (1.21) and their respective probability values (FE: 0.0017; RE: 0.0196). The coefficients of Dividend Payout Ratio (DPR) variable from two models imply negative and insignificant effect of dividend policy decisions on value of firms in Nigeria. Although the levels of variation explained by proxies of capital structure in return on asset of manufacturing companies in Consumer Goods sector are low (FE - 35%; RE - 25%) but the probability values of F-tests for both FE and RE signify that the four independent variables employed by the study are relevant to explain variation in return on asset of listed companies in Nigeria. The F - statistics measures overall joint significance of both models. Meanwhile,  $R^2$  in FE (35%) is relatively higher than RE.

In this analysis, Hausman Test was performed to determine the model that is more efficient. The results of Hausman test are  $\chi^2(2)$  is 2.60 and Prob >  $\chi^2$  is 0.2720. This implies that Random Effect (RE) is more efficient than Fixed Effect (FE). These two methods differ mostly on inferential aspect. With fixed-effects model, a researcher can only make inference about a group of measurements while inference can be made about the population through sample drawn when using random effect. In this case, Hausman test reveals that random effect is appropriate. Moreover, panel data according to Gujarati is subject to problems that plague cross-sectional data (e.g. heteroscedasticity) and time series data (e.g. autocorrelation). In other words, these problems need to be addressed. The non-significance of Breusch-Pagan /Cook-Weisberg test for heteroskedasticity in the Table (Random Effect) indicates acceptance of null hypothesis of constant variance for the model. Lastly, Durbin-Watson statistics of 1.833 reveals that there is no serial correlation among the disturbance terms of study preferred Random Effect model.

### Discussion of Findings

The findings from the study illustrate that out of the three important decisions in financial management as regards corporate governance of listed Consumer Goods producing companies in Nigeria only investment decision policies of such companies have

significant impact on optimisation of value of firms. This implies that financing and dividend policy decisions of listed companies in Nigeria Consumer Goods sector have no significant impact on their values or performances for the period covered by the study. The result is to some extent in line with large number of previous studies such as [17-21]. More importantly, the findings from the study validate and provide empirical justification for MM Irrelevant Approach on financing and dividend policies as well as Static Trade-off theory and Pecking Order Theory. In this manner, the current study holistically provides important information about practical significance of long-term financing policy decisions of corporate organisations from three perspectives. Thus, facilitates better understanding of roles of financing policies of Consumer Goods producing companies in the Nigeria context. However, the use of generalized least square estimation method could have provided ground for the generalisation of study findings to wider population including other developing countries experiencing or has experienced in recent period. This clearly provides impetus for future research in such aspect.

### CONCLUSION AND RECOMMENDATION

The study evaluates the effect of various financing policy decisions of corporate organisations in Nigeria on the value of firms. From the findings of data analysed, the current study affirms that only investment policies of Consumer Goods producing companies in Nigeria have significant positive impact on the value of firms while financing or funding policies and dividend exert negative but insignificant effects. The study therefore recommends that corporate organisations in Nigeria Consumer Goods Sector should increase their investment activities through appropriate strategies by identifying, evaluating, and investing on business opportunities to some extent increase the value of firms. (Tables 2-5)

Table 2: Random Effect Model.

Dependent Variable: ROA				
Method: Panel Least Squares				
Date: 4/20/20 Time: 07:56				
Sample: 2009 2018				
Periods included: 10				
Cross-sections included: 26				
Total panel (balanced) observations: 260				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	20.01686	6.653092	3.008656	0.0059
DEQ	-0.003329	0.009760	-0.341052	0.7359
DTA	-15.65828	7.881755	-1.986648	0.0580
PER	3.01E-07	1.21E-07	2.493235	0.0196
DPR	-2.758403	8.443971	-0.326671	0.7466
R-squared	0.254416	Mean dependent var	7.454026	
Adjusted R-squared	0.135122	S.D. dependent var	7.020221	
S.E. of regression	6.528722	Akaike info criterion	6.741311	
Sum squared resid	1065.605	Schwarz criterion	6.974844	
Log likelihood	-96.11967	Hannan-Quinn criter.	6.816020	
F-statistic	2.132686	Durbin-Watson stat	1.839453	
Prob(F-statistic)	0.006514			

Source: E-View Output, 2020

**Table 3:** Fixed Effect Model Dependent Variable: ROA.

Method: Panel Least Squares				
Date: 4/20/20 Time: 07:57				
Sample: 2009 2018				
Periods included: 10				
Cross-sections included: 26				
Total panel (balanced) observations: 260				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.684715	13.44579	0.348415	0.7307
DEQ	-0.005809	0.009580	-0.606326	0.5502
DTA	7.597799	19.80919	0.383549	0.7048
PER	2.05E-07	1.47E-07	1.395287	0.0017
DPR	-1.252575	8.369899	-0.149652	0.8823
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.352725	Mean dependent var	7.454026	
Adjusted R-squared	0.183870	S.D. dependent var	7.020221	
S.E. of regression	6.342061	Akaike info criterion	6.733248	
Sum squared resid	925.1000	Schwarz criterion	7.060194	
Log likelihood	-93.99872	Hannan-Quinn criter.	6.837841	
F-statistic	2.088927	Durbin-Watson stat	1.528128	
Prob(F-statistic)	0.004104			

**Table 4:** Hausman Test Correlated Random Effects - Hausman Test.

Equation: Untitled			
Test cross-section random effects			
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	2.603990	25	0.2720

E-View Output, 2020

**Table 5:** List of Selected Companies in Nigeria Consumer Goods Industry.

i. Cadbury Nigeria (CADBURY)
ii. Dangote Flour Mills (DANGFLOUR)
iii. Dangote Sugar Refinery (DANGSUGAR)
iv. Flour Mills of Nigeria (FLOURMILL)
v. FTN Cocoa Processors (FTNCOCOA)
vi. Golden Guinea Breweries (GOLDBREW)
vii. Guinness Nigeria (GUINNESS)
viii. Honeywell Flour Mill (HONYFLOUR)
ix. International Breweries (INTBREW)
x. Livestock Feeds (LIVESTOCK)
xi. McNichols (MCNICHOLS)
xii. Multi-Trex integrated Foods (MULTITREX)
xiii. Nascon Allied Industries (NASCON)
xiv. Nestle Nigeria (NESTLE)
xv. Nigerian Breweries (NB)
xvi. Nigerian Enamelware (ENAMELWA)
xvii. Northern Nigeria Flour Mills (NNFM)
xviii. Okomu Oil Palm (OKOMUOIL)
xix. Presco (PRESCO)
xx. PZ Cussons Nigeria (PZ)
xxi. 7-UP Bottling Company (7UP)
xxii. Unilever Nigeria (UNILEVER)
xxiii. Union Dicon Salt (UNIONDICON)
xxiv. Vitafoam Nigeria (VITAFOAM)
xxv. ABC Transport (ABCTAN)
xxvi. Morison Industries (MORISON)

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