



EQUITY AND DEBTS ON FINANCIAL PERFORMANCE OF LISTED CONSUMER GOODS SECTOR IN NIGERIA

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ABSTRACT: *The study examined the effect of equity and debts on the financial performance of the listed consumer goods sector in Nigeria for eleven years (2011 – 2021). Data from the published records of 16 listed companies in the consumer goods sector were used. The dependent variable was proxied by Market price per share (MPS) and return on assets (ROA) while equity and debts were proxied by equity-to-asset ratio, short-term debt-to-asset ratio, and long-term debt-to-asset ratio as independent variables. Data were analysed using descriptive and inferential statistics (panel regression with fixed effects) at $\alpha=0.05$ level of significance. The results had a significant effect on equity and debt on MPS (Adj. $R^2 = 0.0708$, $p < 0.05$) and ROA (Adj. $R^2 = 0.108$, $p < 0.05$). The study concluded that equity and debts affected the financial performance of companies listed in the Nigerian consumer goods sector. The study recommended that managers of listed consumer goods companies should pay attention to funding management, especially equity funds and short-term debt to improve their profitability for sustainable growth.*

KEYWORDS: Capital structure, Equity capital, Financial Performance, Long term debt, Market price per share, Return on assets, Short term debt

JEL Classification Code: G110



INTRODUCTION

Background to the study

The financing of a company is critical to its performance and sustainability. The performance of a listed company is judged by various performance factors. The performance of a company attracts various investors to invest in them. Some of the performance indicators that are commonly used are accounting-based (return on asset, return on equity, Sales growth, and profitability) and market-based (Tobin's Q and market price per share) (Rashid, 2018). Investors invest in a particular company for the reason of earning dividends or increased market capitalisation on the stock. The market value is a combination of stock price and share units held by the company (Menon, 2016). The daily stock market price is determined by demand and supply traded on the floors of the Nigerian Stock Exchange. Due to demand and supply on the Exchange, the stock price fluctuates downward or upward. Investors participate in stock trading through authorised stock brokers registered with Nigerian Stock Exchange. The stock brokers act on behalf of investors subject to the market information about the company. The market is also affected by economic challenges in an economy as was witnessed in 2007-2008 during the period of global economic crisis. The performance of a company justifies the debt introduced into the company's financing (Usman, 2019). The equity and debts if reviewed properly by some investors may affect their stock trading decision on the Stock Exchange.

The return made by the company against the debt provided and how long it will take to pay the debt may scare the investors from buying such stock. Price performance on the stock Exchange determines the wealth of a shareholder (capital gain) if he does not add to his shareholding from the acquisition date. A company with good and positive performance will attract more investors to trade on its stock which can influence its price positively. Return on asset (ROA) is a performance factor that is determined by a company's profitability against its total assets (Asaolu, 2021). A company with a higher profit will have a better ROA while a company with a loss will result in a negative ROA which may discourage investors from disposing of their shares, hence, the stock price will be affected negatively (Phan & Tran, 2019). This will also affect the wealth of such investors due to lower wealth maximisation. The market capitalisation of a stock is determined by a company's performance on the stock market, which notifies an investor whether or not to invest in a certain stock subject to valuation (Carini, Comincioli, Poddi & Vergalli, 2017).

The financing decision is critical to a company's performance in achieving its wealth maximisation objective. The components of a company consist of equity, current liabilities, and non-current liabilities (Kakanda, Bello, & Abba, 2016; Etale & Yalah, 2022). This information is very key to knowing how the company is doing and its sustainability into the foreseeable future. Lack of or insufficient capital may cripple the operations of a company from making a profit or taking some opportunities in the marketplace. The capital also determines the position of a company among its peers in the industry. There is usually a conflict between equity holders and debt providers due to financial performance (Meckling & Jensen, 1976). Equity holders are compensated with dividend payments and stock appreciation in terms of stock price increases while debt providers are satisfied with interest payments on their funds provided (Etale and Oweibi, 2020). Short-term debt is sourced to fund a company's working capital while long-term debt is sourced to fund capital projects. There is a challenge where the debt obtained is not judiciously utilised by the company (Olaoye, Akintola, Soetan & Olusola, 2020).



Recent developments in Nigeria call for caution in the industry due to the forex deregulation of the Naira and inflation which impact the cost of production. This may affect the return on investment and the ability of companies to repay debts if good revenue is not generated to cover costs. The review of the working capital of companies in the consumer goods sector between 2006 and 2021 showed a low current ratio of less than 2:1 for most of the companies (Fijabi, Owolabi, & Ajibade, 2022). The general objective of the study was to review the effect of equity and debts on the financial performance of the listed Nigerian consumer goods sector. The specific objectives sought to evaluate the effect of equity and debts on the market price per share (MPS) and determine the effect of equity and debts on the return on asset (ROA) of the listed Nigerian consumer goods sector.

Hypotheses development

Some empirical reviews were carried out on equity, debts, and performance of the listed consumer goods sector to formulate hypotheses for this paper. Etale and Yalah (2022) in their review of ownership structure on firm performance of the listed Nigerian consumer goods sector revealed that controlling ownership had a positive insignificant effect on financial performance while non-controlling ownership had a positive significant effect on financial performance. Other studies include Kakanda et al. (2016); Aziz and Abbas (2019); Oke (2021); Menon (2016); Basit and Irwan (2017).

Considering the literature reviews carried out, the following hypotheses were framed:

Ho1: Equity and debts have no significant effect on the market price per share of the listed consumer goods sector in Nigeria.

Ho2: Equity and debts have no significant effect on the return on assets of the listed consumer goods sector in Nigeria

LITERATURE REVIEW

Conceptual review

Performance

The Oxford English Dictionary (OED) defines performance as how well or poorly an activity is well or poorly carried out in linguistic terms. According to Rashid (2018), efficiency and effectiveness are directly related to performance. Performance is the level at which each individual within the organisation or the level at which the organisation as a whole performs or operates (Taouab & Issor, 2019). Organisational performance refers to an organisation's success or effectiveness, and its management style to achieve goals (Bratianu & Bejinaru, 2019). Organisational performance is defined by its long-term viability and sustainability (Bratianu & Bejinaru, 2019).

Return Asset (ROA)

Return on asset (ROA) is an important accounting-based performance indicator. It is described as a percentage of profitability divided by total assets after interest and taxes ((Alhassan & Anwaru Islam, 2021). It describes the efficient utilisation of a company's total assets in



generating profitability (Olaoye, Adekanbi & Oluwadare, 2019). Return on assets measures profits from all assets of a company used to generate profits, implying that a high return on assets indicates profitability while a low return on assets indicates low profitability (Osamor & Adebajo, 2020). Return on assets (ROA) is computed as follows:

$$\text{ROA} = \text{“Profit after Tax / Total assets”}$$

Market price per share

It is a market-based performance indicator. It is the daily price on which a single share of a company's stock is traded on the floor of the Nigerian Exchange (NGX). Market price per share in an efficient market system provides investors with a good measure of performance and value (Adebisi & Lawal, 2015; Menon, 2016). The capital market is the meeting point where the supplier of funds (public) and user of funds (companies) carry out business transactions, sharing risk and transferring wealth (Almumani, 2014). In such transactions, companies receive equity funds from the public as a finance source while the public receives some specific ownership rights known as shares or bonds having invested their funds (Olaoye et al. 2020). Some factors that influence stock price movement include dividend, net profit, operating earnings, book values, retained earnings, size, earnings per share, leverage, earnings and yield, market capitalisation, dividend cover, and undistributed profits (Adebisi & Lawal, 2015). The markets covered are the USA, India, Greece, Kuwait, Pakistan, Bangladesh, Nigeria, the UK, and Jordan.

Equity and Debts

Equity and debts as contained in the financial statement are divided into three categories which are equity, non-current liabilities (long-term debt), and current liabilities (short-term debt). Equity and debts show various ways of raising money to fund a company's operations to achieve its set objectives of wealth maximisation. Care must be exercised to ensure that a short-term fund is not obtained for a long-term project otherwise the fund will be exhausted without completing the project. Equity and debts show the sources of the fund generated for a company's general operations and possible expansion ambitions. (Ohaka, Edori, & Ekweozor, 2020). The structure shows which of the components is mostly used by a company.

Equity capital

This is considered the owner's fund of a company because the fund is raised through ordinary shareholding in the stock market. This can be through initial public offering, rights issues, bonus issues, and ploughing back of profit (retained profit). Ordinary share equity is issued if equity is used for working capital. The shareholder anticipates dividend payment when profit is made by the company and capital gain is achieved through sales or an exit strategy when its market valuation rises (Fijabi et al. 2022). The providers of equity capital are regarded as owners of the company. In the event of any risk, they are settled last. They also receive the benefits of dividend payments when the company is doing well. They also enjoy capital gain when the stock price rises in the market. Attention is paid to return on assets to ensure that the company is operating at a profit to compensate for its risk in the company.



Non-current liabilities (Long term debt)

This refers to debt incurred for more than a year and it is applied to long-term projects for the company. A debt is incurred when a company seeks external financial assistance and interest is paid on the principal at the time of prepayment (Abdioglu, 2019). Creditors through their debt offering also partake of the company's associated risk exposure which incurs interest to be paid to them as a return on their investment. Debt has the advantage of being deductible from the company's profit, that is, it is an allowable expense against the profit (Ikpesu & Eboiyehi, 2018; Olaoye et al. 2020). The disadvantage of the debt option is the company's obligation to repay with interest subject to specific repayment terms and schedules. Failure to meet the obligation may result in the forfeiture of any of the collaterals pledged for the debt.

Current liabilities (Short term debt)

This refers to debts incurred and payable within a year. It refers to trade payables, dividends payable, and other payables that have a short duration of less than one year. The company's current assets should be enough to settle these liabilities so that the company can carry on its business without interruption. The expected current ratio for a financially healthy company is 2:1. Management should review its collection and credit policies to ensure effective working capital for the company's operations. (Gârleanu & Pedersen, 2018).

THEORETICAL REVIEW

The study reviewed two theories but it was anchored on the pecking order theory.

Trade-off theory

This theory was propounded by Myers (1984). The theory suggests to a company how much equity and debt financing it requires for its funding by weighing the costs and benefits. Organisations decide on their optimal debt level by making the best use of their interest tax protection minus debt costs to arrive at the debt benefits (net debt benefits). Aside from the tax benefits, the theory explained why companies take a modest and cautious approach to debt concerns. This is obvious in high-risk firms, firms with very strong development potential, and firms with intangible assets that will use less debt due to high financial distress costs (Rugui & Omagwa, 2018). Companies with assets with a secondary market and a higher tax benefit may be able to issue more debt.

Debt, on the other hand, has no net tax benefit, as Fama and French (1993) discovered. In equilibrium, debt is not friendly for profitability as it outweighs any interest tax savings or other debt benefits (Alao & Sanyaolu, 2020). Every firm has optimal leverage with which it manages its operations to achieve the desired objective. This ratio is the point at which the tax benefits exceed the costs of borrowing (Lucky & Agilebu, 2019). The absence of information asymmetry gave rise to the pecking order theory based on disagreements between insiders and outsiders caused by information gaps (Basit & Irwan, 2017)

Pecking order theory

The theory was propounded by Donaldson (1961). It speaks to well-defined order of preference for its financing sources. According to him, the first preference is internal or retained earnings



followed by debt. Viable organisations with sufficient internal financing borrow the least. The most preferred external financing source is bank borrowing and corporate bonds if retained earnings are insufficient (Ajibola, Wisdom & Qudus, 2018). Pecking Order Theory begins with information asymmetry, in which managers are more knowledgeable about the organisation than other stakeholders (Ayako, Githui, & Kungu, 2015).

The choice of type of financing for a company be it internal or external (equity or debt) is affected by Asymmetric information either management or the board wants to make a decision that favours its side. (Ikpesu & Eboiyehi, 2018). According to the hypothesis, corporations prioritise their sources of finance, with stock serving as the last resort. They use debt financing after their equity has been depleted, which is referred to as the financial growth cycle.

Relevance

It informs the public about a firm's performance which motivates the firm to improve to receive a positive image. It helps the company to show a preference for internal finance first before extending its tentacle to seek external finance.

Empirical studies

Etale and Yalah (2022) in the study of the relationship between ownership structure and financial performance of the listed Nigerian consumer goods sector, the result revealed a mixed result. The controlling ownership structure had a positive insignificant effect on return on assets with a p-value of 0.1371 but the non-controlling ownership structure had a positive significant effect on return on assets with a p-value of 0.0346.

The financial and combined leverage had no significant impact on the return on assets while operating leverage had a significant impact on the return on assets in the study carried out on the food and fertiliser sector in Pakistan by Ali (2020).

Olaoye et al. (2020) examined the capital structure and financial performance of quoted manufacturing companies in Nigeria with a research design of ex-post facto and revealed that the capital structure of listed industrial enterprises had a positive association with their performance. Leverage had a significant positive effect on profitability with a p-value of 0.0000 in the study of the relationship between leverage and profitability of Nigerian consumer goods manufacturing firms carried out by Alao and Sanyaolu (2020). The study of Ohaka et al. (2020) is in tandem with the two studies.

There was a negative significant effect of debt financing on firm performance in Pakistan's non-financial sector as revealed in the study of Aziz and Abbas (2019), This is in tandem with the study of Oke (2021) which reported a negative sign of capital structure on the financial performance of listed consumer goods manufacturing firms. The findings of Usman (2019) also revealed a non-significant effect of short-term and long-term debts on the financial performance of the listed Nigerian consumer goods sector but a contrary result with the equity which was significant.

The study of the relationship between capital structure proxies by short-term debt, term debt, and long-term debt showed a negative insignificant effect on the return on assets of manufacturing firms listed in Nigeria which was carried out by Ajibola et al. (2018). This is in tandem with the study of Kong, Musah, and Agyemang (2019).



Equity debt had a negative impact on the ROA and ROE of the Malaysian industrial sector in the study carried out by Basit and Iewan (2017). ROA was not affected by the total debt ratio and total equity ratio. Total debt had a positive impact on ROE but total equity did not affect ROE.

The study of the relationship between firm size, capital structure, and financial distress of non-financial companies listed in Kenya showed a negative significant effect of debt on financial distress. There was a direct relationship between the firm size and financial distress, that is, as the firm size increases, the effect becomes more positive and significant. The study was carried out by Muigai and Muriithi (2017).

There was no significant influence on earnings per share by capital structure in Indian automobile firms in the study carried out by Das (2017). It was concluded that more companies may be required for subsequent studies.

Menon (2016) examined the impact of capital structure on stock prices with evidence from Oman. The findings revealed a negative relationship between debt and market price per share, that is, increasing debt to total capital had a negative effect on the market price per share. There was a positive influence of equity on the market price per share and debt-equity ratio. The results were statistically significant at a 1% level of significance. The results were in agreement with the Net income Approach which showed the influence of capital structure on firm value.

In summary, there were mixed outcomes from the studies on the effect of equity and debts on the performance of listed consumer goods in various climes. The studies of Olaoye et al. (2020), Alao and Sanyaolu (2020), Ohaka et al. (2020), Kong, Musah, and Agyemang (2019) from Ghana, Ajibola et al. (2018) were in tandem with the report that capital structure had a significant effect on the performance of consumer goods sector in Nigeria. The following studies had contrary views on the relationship between capital structure and the performance of the consumer goods sector in Nigeria: Ali (2020); Azziz and Abbas (2019) from Pakistan; Muigai and Muriithi (2017) from Kenya, Das (2017) from India. The studies of Basit and Irwan (2017) from Malaysia, and Menon (2016) from Oman had mixed results from their review of the relationship between capital structure and stock prices of the consumer goods sector with evidence from the Oman Exchange.

METHODOLOGY

Research Design

The research design adopted for this study was ex post facto. Secondary data from published annual reports and accounts of companies listed in the consumer goods sector of Nigerian Exchange (NGX). In the course of carrying out this study, the relevant data of all the 16 listed Nigerian consumer goods companies for eleven years were reviewed (2011 – 2021), and this was considered as the population. The population list consists of “Cadbury Ng, Champion Breweries, Dangote Sugar, Flour Mills of Nigeria, Guinness Ng, Honeywell Flour Mill, International Breweries, Mcnichols Consolidated, Nascon Allied, Nestle Ng, Nigerian Breweries, Nigerian Enamelware, Northern Nigeria Flour Mill, PZ Cussons, Unilever Ng, and Vitafoam Ng”. The researcher made use of the entire population considering the sector’s population size.



The published annual reports and accounts of 16 listed consumer goods companies were sourced from their websites and some publications on the website of Nigerian Exchange (NGX), they were reviewed to obtain the required data for analysis. This sector was chosen considering its importance to the economy and the generality of the citizenry.

Model Specification

In carrying out this analysis, the Eviews 9 version was used to run descriptive statistics, correlation, fixed/random effects, and regression with the aid of a balanced panel. Accounting and market-based performance measures of market price per share and return on assets were proxies of dependent variables. The independent variables were represented by equity capital ratio, short-term debt ratio, and long-term debt ratio.

$$Y = a + bX$$

Y = dependent variable

$$Y = y1, y2$$

X = independent variable

$$X = x1, x2, x3$$

Where:

y1 = market price per share (MPS)

y2 = return on asset (ROA)

x1 = equity capital ratio (ECR)

x2 = long-term debt to asset ratio (LDAR)

x3 = short-term debt to asset ratio (SDAR)

$$MPS = f(ECR, LDAR, SDAR) \dots \dots \dots (i)$$

$$ROA = f(ECR, LDAR, SDAR) \dots \dots \dots (ii)$$

$$MPS_{it} = \beta_0 + \beta_1 ECR_{it} + \beta_2 LDAR_{it} + \beta_3 SDAR_{it} + \mu \dots \dots \dots \text{Model 1}$$

$$ROA_{it} = \beta_0 + \beta_1 ECR_{it} + \beta_2 LDAR_{it} + \beta_3 SDAR_{it} + \mu \dots \dots \dots \text{Model 2}$$

β_0 = intercept

μ = stochastic variable

i = Cross-sectional

t = Time series



Model 1

$$\text{MPS} = f(\text{ECR}, \text{LDAR}, \text{SDAR}) \dots\dots\dots \text{Equation 1}$$

Model 2

$$\text{ROA} = f(\text{ECR}, \text{LDAR}, \text{SDAR}) \dots\dots\dots \text{Equation 2}$$

Measurement of Variables

Variables	Abbreviation	Formula	Reference
Return on Assets	ROA	Net income/Total assets	Etim, Ihenyen, and Nsima (2020); Matar and Eneizan, (2018); Aguguom, (2020); Alhassan and Anwaru Islam (2021)
Market price per share	MPS	The current price stated for a stock on the Nigerian Stock Exchange (NGX)	Phan and Tran, (2019); Dangol and Jeetendra (2016)
Equity capital	ECR	Total assets minus Non-current liabilities and Current liabilities	Olaoye et al. (2020)
Non-current liabilities (long-term debts)	LDAR	Liabilities that are due more than a year	Asaolu (2021)
Current liabilities (Short term debts)	SDAR	Liabilities that are due within a year	Abdullahi, Garba, and Inusa (2017)

Source: Researcher's compilation 2023

RESULTS AND DISCUSSION OF FINDINGS

Descriptive Analysis

This study consisted of annual data for eleven years (2011-2021) for sixteen listed consumer goods on the Nigerian Exchange Group (NGX). Table 4.1 below showed the descriptive statistics of explanatory variables represented by ECR LDAR, SDAR. The dependent variables were measured by MPS and ROA.

**Table 4.1: Descriptive Analysis**

	PRICE	ROA	ECR	LDAR	SDAR
Mean	99.38875	5.646989	44.58466	15.20756	40.96301
Median	17.27500	4.525000	45.21000	11.67000	38.40500
Maximum	1556.500	26.49000	83.74000	58.14000	149.7500
Minimum	0.460000	-20.54000	0.000000	0.680000	3.730000
Std. Dev.	290.5645	8.175490	16.66801	11.56149	21.00386
Skewness	4.033260	-0.078486	-0.275180	1.288678	1.661806
Kurtosis	18.56914	4.145069	3.018487	4.645031	9.717655
Jarque-Bera	2254.758	9.796033	2.223743	68.55854	411.9374
Probability	0.000000	0.007461	0.328943	0.000000	0.000000
Sum	17492.42	993.8700	7846.900	2676.530	7209.490
Sum Sq. Dev.	14774850	11696.76	48618.94	23391.90	77203.34
Observations	176	176	176	176	176

Source: *Researcher's computation, 2023 (E-view output)*

Table 4.1 above revealed that the mean price is 99.38875, the median price is 17.27500, the minimum price is 0.46 and the maximum price is 1,556.500 while the standard deviation is 290.5645. ROA has a mean of 5.646989, median of 4.525000, minimum negative value of – 20.54000, maximum value of 26.49000, and standard deviation of 8.175490. ECR has a mean of 44.58466, median of 45.21000, minimum of 0.000000, maximum of 83.74000, and standard deviation of 16.66801. LDAR has a mean of 15.20756, median of 11.67000, minimum of 0.680000, maximum of 58.14000, and standard deviation of 11.56149. SDAR has a mean of 40.96301, median of 38.40500, minimum of 3.730000, maximum of 149.7500, and standard deviation of 21.00386.

Results of the descriptive statistics showed positive skewness of MPS, LDAR, and SDAR while ROA and ECR showed negative movements hence the distribution was concluded to be highly skewed (-1 and +1). The coefficient of the kurtosis of MPS, ROA, ECR, LDAR, and SDAR indicated leptokurtic since the kurtosis values are more than 3.00, hence they are normally distributed.

Table 4.2: Correlation Matrix of the Variables

	MPS	ROA	ECR	LDAR	SDAR
PRICE	1	0.4468021326 384566	- 0.2596101800378 293	0.1648288467 535861	0.1040352128356 031
ROA	0.446802132 6384566	1	0.1420895260081 253	0.0341568839 9159316	0.2294711977313 836



ECR	-0.259610180 0378293	0.1420895260 081253	1	-0.2228452688 321648	-0.7676333213875 234
LDAR	0.164828846 7535861	0.0341568839 9159316	0.2228452688321 648	1	-0.4013217437004 095
SDAR	0.104035212 8356031	-0.2294711977 313836	-0.7676333213875 234	-0.4013217437 004095	1

Source: *Researcher's computation, 2023 (E-view output)*

Table 4.2 above revealed the relationship among the explanatory variables. The table showed an inverse relationship between ECR and MPS but LDAR and SDAR showed a positive relationship with MPS. The table also showed a positive relationship between ECR and LDAR with ROA but SDAR showed an inverse relationship with ROA.

Table 4.3: Regression results for MPS

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	938.1173	429.4552	2.184436	0.0303
ECR	-11.43025	4.627775	-2.469924	0.0145
SDAR	-6.460374	3.908685	-1.652825	0.1002
LDAR	-4.239888	4.668308	-0.908228	0.3650

R-squared	0.093832	Mean dependent var	99.38875
Adjusted R-squared	0.078026	S.D. dependent var	290.5645
S.E. of regression	278.9984	Akaike info criterion	14.12275
Sum squared resid	13388501	Schwarz criterion	14.19481
Log-likelihood	-1238.802	Hannan-Quinn criter.	14.15198
F-statistic	5.936741	Durbin-Watson stat	0.151659
Prob(F-statistic)	0.000708		

Source: *Researcher's computation, 2023 (E-view output)*

$$MPS_{it} = \beta_0 + \beta_1 ECR_{it} + \beta_2 LDAR_{it} + \beta_3 SDAR_{it} + \mu \dots \dots \dots \text{Model 1}$$

$$MPS_{it} = 938.117 - 11.430 ECR_{it} - 4.240 LDAR_{it} - 6.460 SDAR_{it} + \mu \dots \text{Model 1}$$

Table 4.3 revealed that the combined independent variables of ECR, LDAR, and SDAR had a significant effect on the MPS of the listed Nigerian consumer goods sector with F-statistics of 5.936741 and p-value of 0.000708 less than 0.05 level of significance hence the null hypothesis



which stated that equity and debts had no significant effect on MPS of listed Nigerian consumer goods sector was rejected and the alternate hypothesis which stated that equity and debts had a significant effect on MPS of listed Nigerian consumer goods sector was accepted. The result also showed that ECR had a negative significant effect on the MPS of the listed consumer goods sector in Nigeria (-11.43025; p-value=0.0145) while SDAR and LDAR had a negative insignificant effect (-6.460374, p-value=0.1002; -4.29888, p-value=0.3650) on the MPS. The adjusted R-squared (R^2) revealed that only 7.80% of independent variables (ECR, LDAR, SDAR) accounted for changes in MPS hence more factors should be sourced for subsequent research. A unit of ECR introduced would result in a drop of 11.43025 of MPS of companies listed in the consumer goods sector of Nigerian Exchange Group (NGX). A unit of LDAR introduced would result in a drop of 6.460374 of MPS of listed consumer goods sector companies in Nigeria. Also, a unit of SDAR introduced would result in a drop of 4.239888 of MPS.

Table 4.4 – Hausman Test

Dependent Variable: PRICE

Method: Panel Least Squares

Periods included: 11

Cross-sections included: 16

Total panel (balanced) observations: 176

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	294.2545	214.0446	1.374734	0.1712
ECR	-2.316061	2.381787	-0.972405	0.3323
SDAR	-1.331219	1.892537	-0.703405	0.4828
LDAR	-2.437878	2.226699	-1.094840	0.2753
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.886061	Mean dependent var	99.38875	
Adjusted R-squared	0.872998	S.D. dependent var	290.5645	
S.E. of regression	103.5495	Akaike info criterion	12.21965	
Sum squared resid	1683432.	Schwarz criterion	12.56192	
Log-likelihood	-1056.329	Hannan-Quinn criter.	12.35847	
F-statistic	67.82943	Durbin-Watson stat	0.675948	
Prob(F-statistic)	0.000000			

Source: Researcher's computation, 2023 (E-view output)



Table 4.4 showed the result of the Fixed/Random effect carried out on the Hausman test to decide on the model to adopt. The p-value of the result showed 0.000000 less than a 5% level of significance, hence, the null hypothesis (Random effect) was rejected and the alternate hypothesis for Fixed effect was accepted.

Table 4.5: Regression result for ROA

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	53.02671	11.88350	4.462212	0.0000
ECR	-0.464024	0.128056	-3.623614	0.0004
SDAR	-0.476297	0.108158	-4.403729	0.0000
LDAR	-0.472186	0.129177	-3.655331	0.0003
R-squared	0.123565	Mean dependent var	5.646989	
Adjusted R-squared	0.108279	S.D. dependent var	8.175490	
S.E. of regression	7.720197	Akaike info criterion	6.948022	
Sum squared resid	10251.45	Schwarz criterion	7.020078	
Log-likelihood	-607.4259	Hannan-Quinn criter.	6.977247	
F-statistic	8.083220	Durbin-Watson stat	0.467273	
Prob(F-statistic)	0.000046			

Source: *Researcher's computation, 2023 (E-view output)*

$$ROA_{it} = \beta_0 + \beta_1 ECR_{it} + \beta_2 LDAR_{it} + \beta_3 SDAR_{it} + \mu \dots \dots \dots \text{Model 2}$$

$$ROA_{it} = 53.027 - 0.464 ECR_{it} - 0.472 LDAR_{it} - 0.476 SDAR_{it} + \mu \dots \text{Model 2}$$

Table 4.5 revealed that the combined independent variables of ECR, LDAR, and SDAR had a significant positive effect on the ROA of the listed Nigerian consumer goods sector with F-statistics of 8.083220 and p-value of 0.000046 less than a 5% level of significance, hence the null hypothesis which stated that equity and debts had no significant effect on return on asset of listed consumer goods sector in Nigeria was rejected but alternate hypothesis which stated that equity and debts had a significant effect on ROA was accepted. The result also showed that all the independent variables (ECR, SDAR, and LSAR) had a negative significant effect on ROA (-0.464024, p-value=0.0004; -0.476297, p-value=0.0000; -0.472186, p-value=0.0003) The adjusted R-squared (R^2) revealed that only 10.83% of independent variables (ECR, LDAR, and SDAR) accounted for changes in ROA, hence more factors should be sourced for subsequent research. A unit of ECR introduced would result in a drop of 0.464024 ROA. A unit of SDAR introduced would result in a drop of 0.476297 in ROA. Also, a unit of LDAR introduced would result in a drop of 0.472186 in ROA. This result is in tandem with Ajibola et al. (2018).

**Table 4.6: Hausman test for ROA**

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	21.31678	11.81842	1.803691	0.0732
ECR	-0.094561	0.131510	-0.719040	0.4732
SDAR	-0.208032	0.104496	-1.990815	0.0482
LDAR	-0.192813	0.122947	-1.568265	0.1188

Effects Specification

Cross-section fixed (dummy variables)

R-squared	0.561227	Mean dependent var	5.646989
Adjusted R-squared	0.510921	S.D. dependent var	8.175490
S.E. of regression	5.717460	Akaike info criterion	6.426597
Sum squared resid	5132.228	Schwarz criterion	6.768865
Log-likelihood	-546.5406	Hannan-Quinn criter.	6.565420
F-statistic	11.15643	Durbin-Watson stat	0.867087
Prob(F-statistic)	0.000000		

Table 4.6 showed the result of the Fixed/Random effect carried out on the Hausman test to decide on the model to adopt. The p-value of the result showed 0.000000 less than a 5% level of significance hence null hypothesis (Random effect) was rejected and the alternate hypothesis (Fixed effect) was accepted.

DISCUSSION OF FINDINGS

The regression results in Table 4.3 on the relationship between the equity/debts and financial performance of listed Nigerian consumer goods firms showed that the joint equity and debts items had a positive significant effect on the market price per share with F-statistics of 5.936741 and p-value of 0.000708 less than 5% level of significance hence the null hypothesis stating that equity and debts had no significant effect on the market price per share was rejected while the alternate hypothesis which stated that equity and debts had a significant effect on the market price per share was accepted. This is in agreement with the results of Menon (2016) at a 1% level of significance. There was a negative relationship between equity and MPS which is not in agreement with the work of Menon (2016) where there was a positive relationship between equity and share prices and the debt-equity ratio. There was an adverse relationship between



short-term debt and long-term debt which is in tandem with the work of Menon (2016) with an inverse relationship between debt and share prices.

Table 4.5 revealed a significant positive relationship between equity/debts on return on asset (ROA) with F-statistics of 8.083220 and p-value of 0.000046, hence the null hypothesis which stated that equity and debts had no significant effect on ROA was rejected while the alternate hypothesis which stated that the equity and debts had a significant effect on ROA was accepted. All the items of equity and debts (equity to capital ratio, short-term debt to capital ratio, and long-term debt to capital ratio) were negatively significant on ROA. This is not in agreement with the works of Ohaka et al. (2020), and Alao and Sanyaolu (2020). This is in tandem with the work of Basit and Irwan (2017) in which equity debt had a negative impact on ROA. The works of Azziz and Abbas (2019) from Pakistan, Ajibola et al. (2018), Uremadu and Onyekachi (2018) from Nigeria and support this work which stated that there was a negative relationship between debt financing and firm performance while Oke (2021) from Nigeria also reported a negative relationship between capital structure and financial performance of listed Nigerian consumer goods manufacturing firms. This work is not in agreement with the work of Usman (2019) which stated that short-term debts and long-term debts had no significant effect on the financial performance of the listed Nigerian consumer goods sector. The mean of equity, short-term debt, and long-term debt revealed that the distribution was in support of the pecking order theory, equity had 44.58, the long-term debt had 15.21, and short-term debt had 40.96.

CONCLUSION

We conclude that:

- i. Equity to capital ratio had a negative significant effect on the market price per share while it showed a negative significant impact on ROA
- ii. Short-term debt to capital ratio had a negative insignificant effect on the market price per share but it showed a negative significant effect on ROA
- iii. Long-term debt to capital ratio had a negative insignificant effect on the market price per share but it had a negative significant impact on ROA
- iv. Equity and debts jointly had a significant effect on the market price per share and return on asset respectively with F-statistics probability of 0.000708 and 0.0000 respectively
- v. The adjusted R^2 of 0.0780 revealed that 92.2% of variations that affected the market price per share of the listed consumer goods sector were outside the equity and debts. Attention should be paid to those factors outside the equity and debts.
- vi. The adjusted R^2 of 0.1083 revealed that 89.17% of variations that affected the return on assets of the listed consumer goods sector were outside the equity and debts. Attention should be paid to those factors outside the equity and debts.



RECOMMENDATION

We recommend the following which might be useful to the management, investors, shareholders, policymakers, the government, and other stakeholders:

- i. The managers of listed consumer goods in Nigeria should pay attention to the profitability of its operation as it impacts its equity capital to assets ratio as it showed a negative impact on both MPS and ROA respectively. This will erode the return on assets and confidence of investors to invest in the company's shares which will affect its market price per share.
- ii. The result showed a negative impact of the short-term debt-to-assets ratio for both price and return on assets respectively. The management of companies in the listed consumer goods sector in Nigeria should pay attention to their working capital as the current ratio for most of the companies was less than 2.0. There is a need to improve their collection system and credit sales. Only five companies out of sixteen (16) had a current ratio of more than 2.0 for some years, not all the eleven years (Mnichols 2011, 2012. 2018-2021; Nascon 2012; NNFM 2014 2016; PZ 2011-2015; Unilever Ng 2017 2021).
- iii. Long-term debt showed an adverse effect on both market price per share and ROA of the listed Nigerian consumer goods sector. It may be necessary to obtain debt for long-term projects but the managers should consider the terms of the loans to ensure that it does not erode the benefits derivable from the projects.
- iv. Pecking order should be considered to identify the financing option that is best for the company to ensure that the company enjoys the best benefit that yields better returns to realise the objective of wealth maximisation.

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