



OWNERSHIP STRUCTURE AND FINANCIAL PERFORMANCE OF SELECTED QUOTED CONSUMER GOODS FIRMS IN NIGERIA

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ABSTRACT:

This study examined the effect ownership structure has financial performance of selected quoted consumer goods firms in Nigeria over a period of twelve (12) years. This study adopted an ex-post facto longitudinal/panel research design. The population of this study consists of all the fifteen (15) consumer goods firms quoted on the Nigerian Exchange Group as at 31st December 2022. The data used in the analysis were carefully sourced from the annual reports of the selected consumer goods firms. This study utilized the Panel Ordinary Least Square (POLS) and Granger Causality techniques to analyse the data. The result of Granger Causality test revealed that within the period reviewed, ownership structure controlled by firm size has no significant effect on return on assets, return on equity, net profit margin, and gross revenue of consumer goods firms quoted on the Nigerian Exchange Group. In view of the findings, executive members on the board should not be encouraged to have large shareholding because it contributes negatively to return on assets. Again, appointment into the board should be on the bases of experience not on friendship, rendering it powerful with regard to impact on performance.

1. INTRODUCTION

The ownership structure of firms is a concept that explains the percentage of equity ownership/stockholding by each class of shareholders. It is oriented towards long-term stability of firms and guarantee of its independence. The ownership structure has been found to lead to agency problem between management/financial managers and owners of the business. This arises because of the conflict of interest in making decisions relating to governance, resource allocation, profit, survival, returns as well as accountability. Management has multiple objective functions to optimize



which might conflict with those of the shareholders. Potential conflicts of interest arise between corporate managers and dispersed shareholders when managers do not have an ownership interest in the firm (Amin & Hamdan, 2018). As such shares held by the managers in a firm help to align the interests between shareholders and managers. When the manager's interest coincides more closely with those of shareholders', the conflicts between the shareholders can entrench the controlling power over the firm's activities, leaving external or small shareholders with difficulty in controlling the actions of such ownership. Conflict of interest among shareholders and managers cannot be eliminated but can only be reduced/minimized through corporate laws, policies, control mechanism and other alternative ways to provide incentive to managers. Such incentives may be performance based compensation, direct influence, threat of retrenchment or takeover.

The correlation between ownership structure and firm performance has been an important topic and the scholars pay sustaining interest on it (Benjamin, Love, & Dandago, 2020). The debate of whether there is a relationship between ownership structure and firm performance is an on-going theme. The results of researches on the nexus between ownership structure and firm performance are quite different. The conclusion of previous studies are usually hinged to five findings: positive relationship, negative relationship, no significant relation, no significant effect, while some combine the revelation of positive, negative, no significant relationship together. In addition, the variables for arriving at a mixed result are different across countries, laws and macroeconomic environment.

1.1 Objective of the Study

In broad term, this study intends to examine the effect ownership structure has on financial performance of selected quoted consumer goods firms in Nigeria.

1.2 Research Hypothesis

H₀: Ownership structure has no significant effect on the financial performance of selected quoted consumer goods firms in Nigeria.

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Ownership Structure

Distribution of ownership (companies' stock) among the entity's owners (shareholders) is called the ownership structure. The ownership structure of firms is a concept that explains the percentage of equity ownership/stockholding by each class of shareholders. Yahaya and Lawal (2018) avers that



ownership structure remains an important factor employed in structuring the governance systems of corporate entities. In fact, ownership structure clearly determines amongst others, the voting capacity of holders of equity shares in any given company. By extension, decisions at the corporate level/board meetings are sometimes influenced by their respective ownership structure, thus making it a significant corporate governance mechanism that influences firms' behaviour (Fan & Leung, 2020) and by extension, the company's performance – positively or negatively (Nnabuife, Igomu, Apochi, Adah & Igomu, 2017; Amin & Hamdan, 2018).

2.1.2 Managerial Ownership

Managerial ownership refers to an ownership fraction or stake in a firm that is held by managers (Ibrahim, 2012). Managerial ownership is not only meant to increase the equity of the organization but also to serve as incentives to managers to align managers' interests with those of the interests of the organization. Managerial ownership is measured by natural logarithm of equity held by managers as shareholders in a firm.

2.1.3 Institutional Ownership

Institutional ownership refers to an ownership fraction or stake in a firm that is held by large financial organizations, pension funds or endowments. Institutions generally purchase large blocks of a firm's outstanding shares and can exert considerable influence upon its management (Ironkwe, & Emefe, 2019). Therefore, institutional shareholders are usually professionals and they normally use their expertise in monitoring the management in ensuring that their interests align with those of the organization's interests. Institutional ownership is measured by natural logarithm of equity held by various institutions as investors in the firm.

2.1.4 Ownership Concentration

Ownership concentration refers to an ownership fraction or stake in a firm that is held by shareholders with the controlling interest or with large stake. Ownership concentration affords the shareholders the motivation and ability to monitor and control management decisions (Amin & Hamdan, 2018). Therefore, concentrated shareholders use their large stake in reducing conflicts between managers and the organization by being more proactive in monitoring and protecting their investments. Ownership concentration is measured by natural logarithm of equity held by block holders as investors in the firm.



2.1.5 Family Ownership

Family ownership is prevalent in most countries around the world. In the US, families present one-third of the S&P 500 and account for 18% of outstanding equity (Alipour & Amjadi, 2020). Families also have a strong incentive to decrease agency costs and increase the firm value. Concentrated shareholders have a strong economic incentive to monitor managers and decrease agency costs (Demsetz & Lehn, 2019). Since families usually invest most of their private wealth in the company and it is not well-diversified, families are more concerned with the firm's survival and have a strong incentive to monitor management closely. Monitoring costs tend to be lower in companies controlled by family than by non-family.

2.1.6 Financial Performance

Financial performance is used to describe the state of affairs of a firm. In analysing financial performance, emphasis should be made in formulating an adequate description of the concept of a financial performance which uncovers the different dimensions upon which firms financial performance should be evaluated. In terms of measurement, several scholars measures financial performance differently. Demstz and Lehn (2019), measured financial performance as accounting profit rate, Uadiale (2010) measured financial performance by return on equity as the proportion of profit after tax to issued share capital and return on capital employed (ROCE) plus reserves. Kechi (2011) measured financial performance by return on assets (ROA) and profit margin (PM), Fazlzadeh et al. (2011) measured financial performance as the net income to total assets and ordinary income to total assets. Uwaloma and Olamide (2012) measured financial performance as Return on Equity (ROE).

2.1.7 Ownership Structure and Firm Performance

One of the most important trademarks of the modern corporation is the separation of ownership and control. Modern corporations are typically managed by professional executives who own only a small fraction of the shares. The link between ownership structure and performance has been the subject of an important and ongoing debate in the corporate finance literature (Demsetz & Lehn, 2019). When owners of a privately held company decide to sell shares, and when shareholders of a publicly held corporation agree to a new secondary distribution, they are, in effect, deciding to alter the ownership structure of their firms and, with high probability, to make that structure more diffuse.



2.1.8 Ownership Concentration and Firm Performance

Ownership concentration enhances the ability of dominant shareholders in monitoring the managers. It aligns the interests of dominant shareholder with those of minority shareholders if his control rights are equal to his cash flow rights (Bennedsen & Nielsen, 2010). It ensures that dominant shareholder will not expropriate firm resources because any discount in price may cost him more than his private benefits (Bozec & Laurin, 2008).

2.1.9 Institutional Ownership and Firm Performance

Theoretical concerns regarding the role of institutional shareholders in corporate governance are inspired by discussions of institutional investors' activism. It is suggested that institutional investors are the most effective device in supervision of management activities. As the minority shareholders are not part of the board, they feel satisfaction if institutional investors are present in the board thus helps in mitigating agency problems of ownership dispersion (Cornett, 2008). Institutional investors are highly activated by performing trustee activities to attain higher investment performance. Depending upon contribution and power of the institutional shareholders, they may cause growing stock liquidity and enhanced market valuation which signals other investors about the higher performance of firm (Kyereboah-Coleman, 2007). Moreover, institutional ownership may play an effective role in moderating the entrenched behaviour of ultimate controller in group firms and therefore is expected to have a strong positive relationship with firm performance.

3. MATERIAL AND METHOD

This study adopted an ex-post facto longitudinal/panel research design. The combination of time series with cross-section data made possible by the use of panel data regression technique, usually improves the degree of freedom and quantity of data which may not be possible when using only one of them. The population of this study consists of all the fifteen (15) consumer goods firms quoted on the Nigerian Exchange Group as at 31st December, 2022. A purposive/judgement sampling technique which is a type of non-probability sampling technique was utilized in selecting the sample size of ten (10) out of the fifteen (15) consumer goods firms which includes Cadbury, Dangsugar, Flourmill, Guinness, Honyflour, Unilever, Nigerian Breweries, Nestle, Northern Nigeria Flour Mill, and PZ. The data used in the analysis were secondary in nature and extracted from the annual reports of the selected consumer goods firms quoted on the Nigerian Exchange Group from 2011 to 2022, and which have operated on the exchange for a least period of ten years. All the data are on annual basis.



The specification of the model involves the determination of the dependent and independent variables included in a model. It expresses the mathematical relationship that exists between the dependent and the independent or explanatory variables. This research adopted the model of Coleman and Nicholas-Biekpe (2006) with slight modifications. In the model, the researchers expressed performance as a function of corporate governance (measured by ownership structure, board composition, CEO duality and CEO tenure of office). They also included two control variables namely firm size and debt structure. The original model is stated as follows:

$$Y_{i,t} = \beta_0 + \beta_1 G_{i,t} + \beta_2 BSE_{i,t} + \beta_3 BDT_{i,t} + \varepsilon_{i,t} \text{ ----- 3.1}$$

Where:

$Y_{i,t}$ represents firm performance variables which are: return on capital employed, earnings per share, return on assets and return on equity at time t.

$G_{i,t}$ is a vector of corporate governance variables which include: board size, board composition which is defined as the ratio of outside directors to total number of directors, a dummy variable (CEO) to capture if the board chairman is the same as the CEO or otherwise.

In order to determine the effect of ownership structure on the financial performance indicators of consumers' goods firms, the above model is therefore modified. In doing this, this research work developed four models which are stated as follows:

$$ROA_{it} = f(OWNS_t, FMS_t) \text{ ----- 3.2}$$

$$ROE_{it} = f(OWNS_t, FMS_t) \text{ ----- 3.3}$$

$$NPM_{it} = f(OWNS_t, FMS_t) \text{ ----- 3.4}$$

$$GRV_{it} = f(OWNS_t, FMS_t) \text{ ----- 3.5}$$

These models were represented in a log-linear econometric format to obtain the coefficients of the elasticity of the variables, while reducing the possible impact that any outlier may have. In the log-linear regression, the coefficients are easy to interpret as the problem of different units have been solved and the interpretation becomes easy in elasticity terms. Thus:

Model 1

$$LogROA_t = a_0 + a_1 LogOWNS_t + a_2 LogFMS_t + \varepsilon_t \text{ ----- 3.6}$$

Model 2

$$LogROE_t = a_0 + a_1 LogOWNS_t + a_2 LogFMS_t + \varepsilon_t \text{ ----- 3.7}$$

Model 3

$$LogNPM_t = a_0 + a_1 LogOWNS_t + a_2 LogFMS_t + \varepsilon_t \text{ ----- 3.8}$$

Model 4



LogGRV_t = a_0 + a_1LogOWNS_t + a_2LogFMS_t + ε_t -----3.9

Where:

ROA = Return on Asset

ROE = Return on Equity

NPM = Net Profit Margin

GRV = Gross Revenue

OWNS = Ownership Structure

FMS = Firm Size

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

The mean data of the selected consumer goods firms as computed by E-views 10.0 software via the criteria of Mean plus SD Bound are condensed in this sub-section. The annual reports of the consumer goods firms spanning from 2011 to 2022 provided the data used in the analysis. The average data return on assets, return on equity, net profit margin, gross revenue, ownership structure, and firms' size are presented in Table 1.

Table 1: Return on Assets, Return on Equity, Net Profit Margin, Gross Revenue, Ownership Structure and Firms Size from 2011 to 2022

Table with 7 columns: Year, Return on Assets (%), Return on Equity (%), Net Profit Margin (%), Gross Revenue (N'000), Ownership Structure (%), Firms' Size (N'000). Rows include years from 2011 to 2022.

Source: Annual Reports, 2011 to 2022; and output data from E-views 10.0.



4.1.1 Descriptive Statistics of Data

Table 2 shows the descriptive statistics of the variables. It shows the total number of observations, mean, median, maximum, minimum, standard deviation and sum of mean deviation. The mean values of the independent variables: ROA, ROE, NPM, GRV, OWNS, and FMS are 0.122727, 0.282984, 0.229430, 1829818, 0.145484, and 1.08E+0 respectively. The median of the study variable are 0.08786, 0.17585, 0.36925, 129216, 0.00457, and 701672 for ROA, ROE, NPM, GRV, OWNS, and FMS respectively. The maximum values of the series are 0.524030 for ROA, 1.872810 for ROE, 2.283530 for NPM, 71123824 for GRV, 7.661670 for OWNS, and 3.80E+08 for FMS, while the minimum values are -0.173790, -0.187870, -12.85960, -12832256, 1.00E-05, and 1719101 ROA, ROE, NPM, GRV, OWNS, and FMS respectively. The standard deviation of the variables are 0.132664 for ROA, 0.327165 for ROE, 1.318028 for NPM, 1862652 for GRV, 0.721331 for OWNS, and 1.02E+0 for FMS. The measure of asymmetry of the distribution of the series around its mean that is, skewness of all the variables are positive with the exception of NPM suggesting that all the variables in the model are not negatively skewed towards normality. The Kurtosis that measures the peakedness of the distribution of the variables are more than 3.0. This evidences that all the variables are leptokurtic in nature. The p-values of the Jarque-Bera for all the variables are significant at 5% level meaning that all the variables are normally distributed and free from any outlier that may affect the regression output.

Table 2: Descriptive Statistics of Data

	Mean	Median	Maximum m	Minimum	Std. Dev.	Skewness	Kurtosis	Jarque- Bera	P- value	Obs
ROA	0.122727	0.08786	0.524030	-0.173790	0.132664	0.750470	3.636184	13.28776	0.0013	120
ROE	0.282984	0.17585	1.872810	-0.187870	0.327165	1.802084	7.411940	162.2762	0.0000	120
NPM	0.229430	0.36925	2.283530	-12.85960	1.318028	-8.320037	82.71596	33157.63	0.0000	120
GRV	1829818	129216	71123824	-12832256	1862652	0.991881	3.101177	19.72774	0.0000	120
OWNS	0.145484	0.00457	7.661670	1.00E-05	0.721331	9.597138	99.95177	48840.33	0.0000	120
FMS	1.08E+0	701672	3.80E+08	1719101	1.02E+0	1.250645	3.488246	32.47418	0.0000	120

Source: Output data from E-views 10.0

To determine the effect of ownership structure on financial performance of quoted consumer goods firm, this study applied a panel data analysis.



4.1.2 Panel Co-integration Test

The co-integration relationship between the variables were estimated using the Kao's and Pedroni residual co-integration tests as it applies to panel data.

4.1.3 Kao Residual Co-integration Test

The structural criteria for estimation the Kao panel Co-integration test is based on Engle-Granger. Kao (1999) noted that the null hypothesis of no co-integration for panel data exists in two test. The first is a Dickey-Fuller types test while the other is an Argumented Dickey-Fuller type test. Table 3 depicts the Kao's co-integration test for ownership structure and financial performance of quoted consumer goods firms in Nigeria. The p-values of the t-statistics for models 1 (return on assets) and model 3 (net profit margin) are significant at 5% level of significance, which is the rejection of the null hypothesis of no co-integration for two financial performance indices (return on assets and net profit margin) of selected consumer goods firms and ownership structure. Put differently, return on assets and net profit margin are related in long run with ownership structure and firm size selected consumer goods firms, while return on equity and gross revenue are not related in the long run with financial performance of consumer goods firms in Nigeria within the period studied.

Table 3: Kao Residual Co-integration Test

Models Estimated	Argumented Dickey-Fuller	
	t-Statistic	Prob.
ROA → OWNS + FMS	-1.839013	0.0330
ROE → OWNS + FMS	0.694021	0.2438
NPM → OWNS + FMS	-4.211893	0.0000
GRV → OWNS + FMS	0.108787	0.4567

Source: Computer output data using E-views 10.0

Notes: The ADF is the residual-based ADF statistic. The null hypothesis is no co-integration. (*) and (**) indicate that the estimated parameters are significant at the 1% and 5% level respectively.

4.1.4 Panel OLS Analysis of Ownership Structure and Financial Performance

This analysis of the panel OLS relationship between ownership structure and financial performance of the selected consumer goods firms in Nigeria was analysed. The pooled OLS, fixed and random effect were the estimation approach used. The fixed and random effect estimations, period fixed and random effect specification were performed. This is based on the fact that all the consumer goods firms operate in the same country with no difference in industry attributed specific conditions and ratios. The results of the panel OLS estimations for the models are detailed in Tables 4 – 7. The



global and relative utility of the models were adopted in interpreting the output of the regression estimates.

4.1.5 Return on Assets and Ownership Structure

The Hausman test in Table 4 suggests that the random effect estimation is preferred to fixed effect due to insignificant p-value of the Chi-square. There is an insignificant negative relationship between return on assets and ownership structure, whereas there is an insignificant relationship between return on assets and firms’ size. A percentage increase in ownership structure will lead to 0.81%, depreciation in return on assets of selected consumer goods firms. On the other hand, a unit increase in firms’ size will lead to a 9.36 factor appreciation in return on assets. If ownership structure and firms’ size are held constant, return on assets would be estimated to be 27.34%.

Table 4: Panel OLS of Ownership Structure and Financial Performance: ROA

Variables	Pooled OLS		Fixed Effect		Random Effect	
	Coefficient	Prob.	Coefficient	Prob.	Coefficient	Prob.
C	0.016300	0.1907	0.019434	0.0721	0.018049	0.2734
OWNS	-0.005738	0.5519	-0.008867	0.3055	-0.008136	0.3412
FMS	2.96E-11	0.6698	1.23E-10	0.0695	9.36E-11	0.1485
ROA(-1)	0.693940	0.0000	0.591346	0.0000	0.627105	0.0000
R-squared	0.632244		0.762660		0.576763	
Adjusted R-squared	0.621836		0.730520		0.564784	
S.E. of regression	0.073227		0.061815		0.061974	
Sum squared resid	0.568392		0.366826		0.407116	
Log likelihood	133.5151		157.6009			
F-statistic	60.74493		23.72941		48.15020	
Prob(F-statistic)	0.000000		0.000000		0.000000	
Durbin-Watson stat	2.254061		2.089556		2.133111	
Hausman Specification Test						
	Chi-Sq. Statistic		3.544144			
	P-value		0.315100			

Source: Output Data using E-view 10.0.

Note: Periods included: 12; Cross-sections included: 10; Total Number of Observations: 120

The adjusted R-square value of 0.576763 is an insinuation that only 57.68% changes in return on assets was as a result of joint variation in ownership structure and firms’ size. The F-statistic which determines if the changes in the dependent variable is significant or not, showcases that the



forementioned magnitude of changes in return on assets was significantly (less than 0.05) explained by ownership structure and firms’ size. The traditional Durbin Watson test of autocorrelation showed a value of 2.12 which implies that there is no autocorrelation in the model.

4.1.6 Return on Equity and Ownership Structure

As can be seen in Table 5, ownership structure has insignificant negative relationship with return on equity based on the result of the Hausman test which indicated the suitability of the random effect estimation. On the other hand, there is positive but insignificant relationship between ownership structure and return on equity. A percentage increase in ownership structure leads to 1.487% depreciation in return on equity of selected consumer goods firms. Holding ownership structure and firms’ size constant would result in 1.75% decrease in return on equity. From the adjusted R-square, 76.30% variation in return on equity of selected consumer goods firms was attributed to ownership structure and firms’ size. There is no need to worry about the significant of this variation as the p-value (0.00) and the F-statistic (113.60) showed that ownership structure and firms’ size were significant in explaining the changes in return on equity. The Durbin Watson is 1.62 shows no element of autocorrelation in the model.

Table 5: Panel OLS of Ownership Structure and Financial Performance: ROE

Variables	Pooled OLS		Fixed Effect		Random Effect	
	Coefficient	Prob.	Coefficient	Prob.	Coefficient	Prob.
C	-0.016988	0.5040	-0.017892	0.4663	-0.017539	0.5511
OWNS	-0.014864	0.4687	-0.014860	0.4770	-0.014870	0.4652
FMS	2.13E-10	0.1539	1.19E-10	0.4572	1.70E-10	0.2625
ROE(-1)	0.901829	0.0000	0.942342	0.0000	0.920889	0.0000
R-squared	0.762759		0.801317		0.769551	
Adjusted R-squared	0.756044		0.774412		0.763029	
S.E. of regression	0.155025		0.149075		0.147868	
Sum squared resid	2.547470		2.133437		2.317693	
Log likelihood	51.01265		60.76780			
F-statistic	113.6009		29.78321		117.9905	
Prob(F-statistic)	0.000000		0.000000		0.000000	
Durbin-Watson stat	1.670058		1.599298		1.627457	
Hausman Specification Test						
	Chi-Sq. Statistic		1.291121			
	P-value		0.731200			



Source: Output Data using E-view 10.0.

Note: Periods included: 12; Cross-sections included: 10; Total Number of Observations: 120

4.1.7 Net Profit Margin and Ownership Structure

The result in Table 6 shows the preference of the random effect estimation which envisages that ownership structure and firms’ size have insignificant positive relationship with net profit margin of selected consumer goods firms in Nigeria. A unit increase in ownership structure and firms’ size result in 0.0039 and 2.260 factors appreciation in net profit margin of selected consumer goods firms. When ownership structure and firms’ size are held constant, net profit margin would be valued at -00157. The result in Table 4.11 shows the adjusted R-square value to be 0.014014, an insinuation that 0.14% negative change in net profit margin was as a result of variation in ownership structure and firms’ size. The F-statistic which determines if the changes in the dependent variable is significant or not, showcases that the aforementioned magnitude of changes in net profit margin was significantly (less than 0.05) explained by ownership structure and firms’ size. The traditional Durbin Watson test of autocorrelation showed a value of 1.94, which is still within the range of no autocorrelation in the model.

Table 6: Panel OLS of Ownership Structure and Financial Performance: NPM

Variables	Pooled OLS		Fixed Effect		Random Effect	
	Coefficient	Prob.	Coefficient	Prob.	Coefficient	Prob.
C	-0.015700	0.9286	-0.079515	0.6698	-0.015700	0.9293
OWNS	0.003946	0.9816	-0.028241	0.8776	0.003946	0.9818
FMS	2.26E-09	0.0647	2.89E-09	0.0327	2.26E-09	0.0672
R-squared	0.030585		0.104965		0.030585	
Adjusted R-squared	0.014014		-0.004803		0.014014	
S.E. of regression	1.308760		1.321189		1.308760	
Sum squared resid	200.4037		185.0273		200.4037	
Log likelihood	-201.0431		-196.2533			
F-statistic	1.845665		0.956242		1.845665	
Prob(F-statistic)	0.162488		0.499009		0.162488	
Durbin-Watson stat	1.941230		1.890200		1.941230	
Hausman Specification Test						
	Chi-Sq. Statistic		1.576668			
	P-value		0.454600			

Source: Output Data using E-view 10.0.



Note: Periods included: 12; Cross-sections included: 10; Total Number of Observations: 120

4.1.8 Gross Revenue and Ownership Structure

As can be seen in Table 7, ownership structure has significant negative relationship with gross revenue of consumer goods firms as dispelled by the fixed effect estimation, while there is a positive insignificant relationship between firms’ size and gross revenue of selected consumer goods firms. A percentage increase in ownership structure leads to N2,556,863 depreciation in gross revenue of selected consumer goods firms. Holding ownership structure and firms’ size constant would result in N1,491,084 million appreciation in gross revenue. From the adjusted R-square, 83.42% variation in gross revenue was attributed to ownership structure and firms’ size. There is no need to worry about the significant of this variation as the p-value (0.00) and the F-statistic (43.17) vehemently showed that ownership structure and firms’ size was significant in explaining the changes in gross revenue. The Durbin Watson of 2.25 showed that there is no element of autocorrelation in the model.

Table 7: Panel OLS of Ownership Structure and Financial Performance: GRV

Variables	Pooled OLS		Fixed Effect		Random Effect	
	Coefficient	Prob.	Coefficient	Prob.	Coefficient	Prob.
C	1408877.	0.2368	1491084.	0.2071	1411532.	0.2239
OWNS	-2646223.	0.0137	-2556863.	0.0194	-2642498.	0.0106
FMS	0.017064	0.0751	0.011783	0.2367	0.016785	0.0695
GRV(-1)	0.887693	0.0000	0.916322	0.0000	0.889306	0.0000
R-squared	0.824908		0.853948		0.826219	
Adjusted R-squared	0.819952		0.834170		0.821301	
S.E. of regression	8073721.		7748397.		8033606.	
Sum squared resid	6.91E+15		5.76E+15		6.84E+15	
Log likelihood	-1903.500		-1893.526			
F-statistic	166.4649		43.17678		167.9878	
Prob(F-statistic)	0.000000		0.000000		0.000000	
Durbin-Watson stat	2.254668		2.324278		2.258352	
Hausman Specification Test						
	Chi-Sq. Statistic		10.947099			
	P-value		0.0120000			

Source: Output Data using E-view 10.0.

Note: Periods included: 12; Cross-sections included: 10; Total Number of Observations: 120



4.1.9 Granger Causality Effect Result

To examine the effect of ownership structure and firms’ size on financial performance (return on assets, return on equity, net profit margin, and gross revenue) of selected consumer goods firms, the granger causality test was utilized. The idea of using granger causality over the panel ordinary least square regression is premises on the fact that the granger causality test is structured to depict the ability of one variable to predict another. This is unlike the OLS that only reveals relationship but cannot unveil the predicting power of one variable on the other. Tables 8 – 11 reveal the results of the granger causality test. As can be seen in Tables 8 – 11 demonstrate that ownership structure controlled by firms’ size have no significant effect on financial performance measured by return on assets, return on equity, net profit margin, and gross revenue as causality does not run from ownership structure and firms’ size to return on assets, return on equity, net profit margin, and gross revenue at a significant level of 5%.

Table 8: Granger Causality Test on Ownership Structure and ROA

Null Hypothesis:	Obs	F-Statistic	Prob.	Remarks
OWNS does not Granger Cause ROA	110	0.01077	0.9175	No Causality
ROA does not Granger Cause OWNS		0.87044	0.3529	No Causality
FMS does not Granger Cause ROA	110	0.00309	0.9558	No Causality
ROA does not Granger Cause FMS		0.91332	0.3414	No Causality

Source: Output Data using E-views 10.0

Table 9: Granger Causality Test on Ownership Structure and ROE

Null Hypothesis:	Obs	F-Statistic	Prob.	Remarks
OWNS does not Granger Cause ROE	110	0.00187	0.9656	No Causality
ROE does not Granger Cause OWNS		1.09684	0.2973	No Causality
FMS does not Granger Cause ROE	110	1.04164	0.3097	No Causality
ROE does not Granger Cause FMS		3.15083	0.0787	No Causality

Source: Output Data using E-views 10.0

Table 10: Granger Causality Test on Ownership Structure and NPM

Null Hypothesis:	Obs	F-Statistic	Prob.	Remarks
OWNS does not Granger Cause NPM	110	0.12820	0.7210	No Causality
NPM does not Granger Cause OWNS		0.13312	0.7159	No Causality
FMS does not Granger Cause NPM	110	2.28602	0.1335	No Causality
NPM does not Granger Cause FMS		0.33368	0.5647	No Causality



Source: Output Data using E-views 10.0

Table 11: Granger Causality Test on Ownership Structure and GRV

Null Hypothesis:	Obs	F-Statistic	Prob.	Remarks
OWNS does not Granger Cause GRV	110	0.10912	0.7418	No Causality
GRV does not Granger Cause OWNS		1.92488	0.1682	No Causality
FMS does not Granger Cause GRV	110	0.54381	0.4625	No Causality
GRV does not Granger Cause FMS		3.62834	0.0595	No Causality

Source: Output Data using E-views 10.0

4.2 Test of Hypothesis

4.2.1 Decision Criteria: If the p-value of F-statistic in granger causality test is less than 0.05, the null hypothesis is rejected. On the other hand, if the p-value of F-statistic in granger causality test is greater than 0.05, the null hypothesis is accepted.

4.2.2 Restatement of Research Hypothesis

Ownership structure has no significant effect on the financial performance of selected quoted consumer goods firms in Nigeria.

Financial Performance Variables:

Variable 1; ROA = Return on Asset

Variable 2; ROE = Return on Equity

Variable 3; NPM = Net Profit Margin

Variable 4; GRV = Gross Revenue

Table 12: Test of Hypothesis

Hypotheses	Estimated Equation	F-Statistic	P-Value	Decision
Variable 1	ROA → OWNS + FMS	0.01077	0.91750	Accept H ₀ & Reject H ₁
Variable 2	ROE → OWNS + FMS	0.00187	0.96560	Accept H ₀ & Reject H ₁
Variable 3	NPM → OWNS + FMS	0.12820	0.72100	Accept H ₀ & Reject H ₁
Variable 4	GRV → OWNS + FMS	0.10912	0.74180	Accept H ₀ & Reject H ₁

Source: Granger Causality Output from Table 4.13 – 4.16

From the hypothesis result testing in Table 12, all the financial performance variables were accepted as the p-values (0.91750), (0.96560), (0.72100), and (0.74180) respectively in the Granger Causality



output in Table 12 are higher than 0.05 (insignificant at 5% level of significance) which is in line the hypothesis decision rule, hence the conclusion that ownership structure has no significant effect on the financial performance of selected quoted consumer goods firms in Nigeria.

The Kao co-integration test in Table 3 divulges that return on assets and net profit margin are related in long run with ownership structure and firm size of selected consumer goods firms, while return on equity and gross revenue are not related in the long run with financial performance of consumer goods firms in Nigeria within the period studied. This may be attributed to the different technology adopted by firms in the production process coupled with variation in the macroeconomic fundamentals, especially the deteriorating nature of the Naira against other currency of the world such as the US Dollar, Euros, and British pounds among others.

On the relationship between ownership structure and return on assets, Table 4 shows that there is an insignificant negative relationship between return on assets and ownership structure, whereas there is an insignificant relationship between return on assets and firms' size. This is in line with the previous studies of Jinadu et.al. (2018), Reem, Allam, and Wajeesh (2015), and Mwathi (2009). However, it disagrees with the works of Yahaya and Lawal (2018), Abdul (2016), Davis (2014), Amran and Ahmad (2013), Pathirajawasam and Wickremasinha (2012), Gugong, Arugu and Dandago (2014) on the positive association between ownership structure and return on assets of firms studied. On the insignificant effect of ownership structure on return on assets as shown in table 8 divulges that ownership structure has no significant effect on return on assets. This is in tandem with Jinadu et al. (2018) and Alabdullah (2016). On the hand, it refutes the results of Ukolobi and Jeroh (2020), Khadash and Washali (2019), Yahaya and Lawal (2018), Abdul (2016), Reem, Allam, and Wajeesh (2015), and Davis (2014) on the significant effect of ownership structure on return on assets.

Table 5 showcase that ownership structure has insignificant negative relationship with return on equity. This may be hinged to the equity contributions towards the growth of the firms. This result supports the works of Abosede and Kajola (2011). Similarly, it did not accept the findings of Yahaya and Lawal (2018), Saseela and Thirunavukkarasu (2017), Amran and Ahmad (2013), Mirza and Javed (2013), Gugong, Arugu and Dandago (2014) on the positive association between ownership concentration and return on equity of selected firms. With regards to the granger causality output in Table 9, return on equity was found to have not been significantly affected by ownership structure within the period studied which is in consonance with Ironkwe and Emefe (2019) and Alabdullah (2016). Nevertheless, it did not affirm the results of Ukolobi and Jeroh (2020), Panda and Bag (2019), Yahaya and Lawal (2018), Saseela and Thirunavukkarasu (2017),



and Mirza and Javed (2013) on the significant effect of ownership structure on return on equity of firms.

Table 6 points towards insignificant relationship between ownership structure and net profit margin. This may be attributed to relatively low turnover of consumer goods firms in Nigeria when compared with their counterparts in developed countries of the world such as USA, United Kingdom, Germany, and Japan among others. The granger causality test in Table 10 could not attribute a significant effect of ownership structure on net profit margin and this confirms the study of Yahaya and Lawal (2018). On the issue of gross revenue, Table 7 provides evidence of an insignificant negative relationship between gross revenue and ownership with is linking to the work of Ukolobi and Jeroh (2020). Firms' size was found to have no significant effect on the four variables of performance (return on assets, return on equity, net profit margin, and gross revenue). This is in affirmation to Abdul (2016) that total assets of the firms do not guarantee improve gross revenue as firms may face other macroeconomic uncertainties that may affect their net earnings.

CONCLUSION AND RECOMMENDATIONS

The effect of ownership structure on firm performance cannot be ignored as it has received considerable attention by scholars. Thus, this study established the effect of ownership structure on financial performance of consumer goods firms quoted on the Nigeria Exchange Group from 2011 to 2022. Data analysis was done with the aid of granger causality technique amidst peculiarity of our business environment, the study concluded and asserts that within the period reviewed, ownership structure controlled by firm size has no significant effect on return on assets, return on equity, net profit margin, and gross revenue of consumer goods firms quoted on the Nigerian Stock Exchange. In view of the findings of this study, the following recommendations beneficial to stakeholders are put forward:

1. It is revealed that higher ownership structure is related to lower performance. Hence, executive members on the board should not be encouraged to have large shareholding because it contributes negatively to return on assets. Again, appointment into the board should be on the bases of experience not on friendship, rendering it powerful with regard to impact on performance.
2. Executive members should not be encourage to earn more stake in the ownership structure of the firms as it is negatively related with return on equity. As board members ownership increases, they are less likely to transfer the firm resources away from value maximization.



3. Shareholders are encourage to inject more equity in the firms through investment in physical assets via mechanised factory equipments, product storage/delivery facilities will enhance availability and efficiency in service delivery which in turn, lead to increased net profit margin.
4. Shareholders of consumer goods firms should invest in human capital to improve funds' coping ability and resilience during periods of extreme stress. Investment in technological development and human capital may increase the speed and quality of human beings, which can lead to increased gross revenue.

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