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FIRM CHARACTERISTICS AND FINANCIAL PERFORMANCE: EVIDENCE FROM LISTED CONSUMER GOODS COMPANIES IN NIGERIA

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Abstract

This study investigates firm-specific characteristics affecting the financial performance of listed consumer goods companies in Nigeria. The research design used in this study was the ex-post facto research design. The study samples sixteen (16) consumer goods companies listed in the Nigerian Exchange Group (NGX) as of December 2022. Secondary data was obtained from the annual reports of the selected listed consumer goods companies for the period of six years (2017-2022). Descriptive, correlation and panel multiple regression were utilized for data analysis using STATA 14 analytical software. The study found that firm size has a positive and significant impact on the financial performance of consumer goods companies proxied by ROA. The study also found that financial leverage and the age of a firm have a negative and significant impact on the financial performance of consumer goods companies. However, the study recommends that consumer goods companies in Nigeria should not only rely on their age, size and reputation alone. They should rather devise new means of penetrating the market through diversification.

Keywords: Firm characteristics, Financial performance, Consumer goods, Nigeria, NGX

Introduction

The subject of financial performance has received significant attention from scholars in the various areas of business and strategic management. It has also been the primary concern of business practitioners in all types of organizations since financial performance has implications for an organization's health and ultimately its survival. High performance reflects management effectiveness and efficiency in making use of the company's resources and this in turn contributes to the country's economy at large (Abdullahi et al, 2019). However, the performance of consumer goods companies could be affected by both internal and external factors.

The internal factors are those management controllable factors which account for the inter-firm differences in profitability. On the other hand, external factors are uncontrollable factors which affect a firm's decision and which management has no control over. However, factors such as

growth in money supply, interest rate, inflation rate and gross domestic product are macroeconomic or market-specific factors which are out of the control of management. Generally, a firm's performance can be estimated using firm attributes as a major determinant of a consumer goods company's financial performance. These attributes are firm size, leverage, age, as well as the institution and political environment which play vital roles besides firm-specific factors of organization behaviour (Kazeem, 2015).

Previous studies have shown that firm-specific characteristics such as managerial efficiency, dividend policy, capital structure, firm age, and firm size have an impact on firm financial performance. Some scholars reported statistically negative relationships between the variables (Aribaba et al, 2022; Olaniyan, et al, 2020; Meher & Zewudu, 2020) and, in some studies, they reported a positive relationship between firm characteristics and financial performance (Ayuba & Mathias, 2023; Bhattarai, 2020; Abdullahi, et al, 2019; Almajali & Shamsuddin, 2019). Several explanations have been suggested to be responsible for the inconsistencies. Some argued that the challenge results from the adoption of either publicly available information or survey results as these sources are restricted in scope. The majority of these works, however, focused on either only financial institutions or non-financial institutions. However, most literature focuses on factors influencing the performance of insurance companies rather than consumer goods companies (Ayuba & Mathias, 2023; Meher & Zewudu, 2020; Bhattarai, 2020).

Similarly, the outcome of the studies conducted in developed and some developing countries may not apply to consumer goods companies in Nigeria simply because the environment in which the firms operate differs in terms of supervision, regulation and operation. To this end, the relationship between the firm characteristics and financial performance of consumer goods companies in Nigeria calls for an empirical investigation. Therefore, the present study investigates the influence of firm-specific characteristics (Financial Leverage, Firm Size and Firm Age) on the financial performance (ROA) of consumer goods companies in Nigeria.

Literature Review and Hypothesis Development

Financial Leverage and Financial Performance

Financial leverage is the use of borrowed money (debt) to finance the purchase of assets with the expectation that the income or capital gain from the new asset will exceed the cost of borrowing (Ezechukwu & Amahalu, 2017). Thus, studies conducted on the relationship between financial

leverage and financial performance produced mixed results. For instance, Joe, et al (2022) examined firm attributes and financial performance of listed consumer goods firms. To achieve the objectives of the study, the ex-post facto research design was adopted. The findings reveal that leverage has a significant effect on the return on assets of listed consumer goods firms in Nigeria. Aribaba, et al (2022) examined the effect of firm attributes on the financial performance of Nigerian-listed oil and gas companies and found a significant positive relationship between leverage and financial performance. Similarly, Bhattarai (2020), Abdullahi, et al (2019), and Almajali and Shamsuddin (2019) all found a positive relationship. Meanwhile, Meher and Zewudu (2020) and Cekrezi (2015) found a significant negative association between leverage and financial performance.

H_1: Financial Leverage has no significant relationship with the financial performance of listed consumer goods companies in Nigeria

Firm Size and Financial Performance

Almashhadani and Almashhadani, (2022) assert that firm size can be concluded as how large a company is reflected by its total asset, sales, or market equity capitalization. According to Cahyanti et al., (2022), firm size is a picture of large or small companies that appear in the value of total assets, and it's measured by the logarithm of total assets. Prior studies on firm size and financial performance provided mixed results. The study of Joe, et al (2022) on firm attributes and financial performance of listed consumer goods firms found a significant effect on the return on assets of listed consumer goods firms in Nigeria. Abdullahi, et al (2019) reported that firm size has a positive relationship with financial performance. Kartika, et al (2016) studied the effect of the size of the firm, current ratio, operating cash flow and financial ratios on earnings per share of the 19 companies listed during the for the years from 2010 to 2014 period. The finding showed that firm size has a positive influence on EPS. Aribaba, et al (2022) findings revealed that there is a negative relationship between Firm Size and the financial performance of listed oil and gas companies in Nigeria.

H_2: Firm Size has no significant relationship with the financial performance of listed consumer goods companies in Nigeria

Firm Age and Financial Performance

According to Ilaboya (2016), they defined a firm's age as "the number of years of incorporation of the company". Wang (2011) defined Firm Age as the number of years that the enterprise has experienced from its establishment to the point of investigation, while if the enterprise dies at the point of investigation, it is also called the life of the enterprise. Extant literature suggests that a firm's financial performance is a function of its age, and this relationship is supported by the studies of Ayuba and Mathias (2023). The result shows that the firm age has a significant positive effect on financial performance. Similarly, John, et al (2023) examined firm age and financial performance: The Firm life-cycle theoretical perspective of private limited companies in Uganda and established a positive relationship between firm age and financial performance. In contrast, Yilun (2020) assessed the relationship between firm size, firm age, and firm profitability in China stock market. The research revealed a negative relationship between firm age and profitability.

H_3: Firm Age has no significant relationship with the financial performance of listed consumer goods companies in Nigeria

Theoretical Framework

Life Cycle Theory

According to this theory, like products, organizations go through four life-cycle stages: start-up, growth, maturity, and stagnation, and each stage has distinctive characteristics that affect their financial performance (Ryu & Won, 2022; Can et al., 2023). The theory delineates that firms in the birth or introduction stage are small and struggling as they face a high cost of capital (Matemilola et al., 2019). In the growth stage, firms are older and larger than those in the birth stage, and they make long-term and large-scale investments and have higher sales growth rates than mature and declining ones. They enjoy lower costs of raising external capital than those in the birth stage (Akbar et al., 2019). On the other hand, in the decline stage, firms experience stagnation and suffer from falling returns because of external challenges. They try to improve their short-term performance by recovering or closing lines of business as profitability declines (Yang et al., 2022).

Methodology

The research design used in this study was the post facto research design. This research design is justified because the event under study had already taken place and the data are already in existence. The study relied on a sample size of sixteen (16) consumer goods companies listed in the Nigerian Exchange Group (NGX) as of December 2022. Secondary data was obtained from the annual reports of the selected listed consumer goods companies for the period of six years (2017-2022). To achieve the study objective, quantitative analysis (descriptive, correlation and panel multiple regression) was utilized using STATA 14 analytical software.

Variables, Measurement and Model Specification

This study used Return on Asset (ROA) as a proxy for financial performance (dependent variable) while three (3) firm-specific characteristics (Financial leverage, size and age of firm) were employed as the independent variables.

Table 1: Variables and Measurement

Variables	Abbreviation	Measurement	Source
Dependent Variable			
Return on Asset	ROA	Profit after tax/ total assets	Joe et al (2020)
Independent Variables			
Firm Size	SIZE	Natural logarithm of total sales	Ilaboya, (2016)
Firm Age	FAG	Natural logarithm of year of incorporation	Ayuba and Mathias (2023)
Financial Leverage	LEV	Ratio of total debt to total assets	Aribaba, et al (2022)

Thus, the model was estimated as follows:

$ROA = \beta_0 + \beta_1 LEV_{it} + \beta_2 SIZE_{it} + \beta_3 FAG_{it} + u_{it}$

Where:

ROA= Return on Asset

LEV= Leverage

SIZE= Firm Size

FAG= Firm Age

$\beta 0$ =Constant slope to be estimated

$\beta 1 - \beta 5$ =Intercept to be estimated

U = error term

Result and Discussion

This section presents the results from the analysis of data and its interpretation.

Descriptive Statistics

The summary statistics of the explained and the explanatory variables are presented in Table 2 where minimum, maximum, mean, and standard deviation of the data for the variables in the study are described.

Table 2: Descriptive statistics

Variables	Obs	Mean	Std.Dev	Min	Max
Roa	96	3.9711	8.4909	-43.34	26.49
Lev	96	58.5906	18.0006	4.28	99.51
Size	96	7.6288	0.7771	5.62	8.68
Fag	96	1.6353	0.2471	1	1.9867

Source: STATA output, 2024

Table 4.1 shows a detailed account of the descriptive statistics for the explained and explanatory variables respectively.

The mean values of all the variables as shown in the table range from a minimum of 4.28 for leverage to a maximum of 8.68 for firm size. The average financial performance as proxied by ROA for listed consumer goods companies during the study period is about 3.9711 with a standard deviation of 8.4909. This implies that there exists a significant variation among the values of profitability across the listed consumer goods companies in Nigeria during the period. Concerning leverage, the mean value is 58.5906. This implies that there were large differences among the values of leverage as measured by total liabilities to total assets across the sample of listed consumer goods companies under the study and this is confirmed by its standard deviation of 18.0006. Therefore, this study is conducted to determine the extent to which the variation in factors affects the financial performance of listed consumer goods companies in Nigeria.

Finally, the age of the firm, its average value is 1.6353 with a standard deviation of 0.2471. This implies that there is moderate variation among the values of age due to its standard deviation. The mean value of size is 7.6288 with a standard deviation of 0.7771. This shows that there is a large variation across the sample of listed consumer goods companies in Nigeria. Hence, the highly deviated size may have a significant impact on the financial performance of listed consumer goods companies in Nigeria as this will be reflected in our regression result.

Correlation Matrix

The correlation coefficient represents the linear association or relationship between two variables (explained and explanatory) and also between the explanatory variables themselves. The most widely used type of correlation coefficient is Pearson(r) which is also called linear or product-moment correlation. The correlation values are derived from the Pearson correlation. The table below shows a correlation matrix with the top values displaying the Pearson correlation coefficient between all pairs of variables. Observing the pattern of the correlation between the explained and explanatory variables, it is however deduced that the relationships between most of the explanatory variables are less minimal and could be neglected as there is no problem with the singularity of data (that is, there is no interdependency among the independent variables). Table 3 shows the correlation between the dependent variable which is Return on assets (ROA) and the independent variables which are the age of the Financial Leverage (LEV) firms (FAG) and the firm size (FSZE).

Table 3: Correlation Matrix

	Roa	Lev	Size	Fag
Roa	1			
Lev	-0.1240	1		
Size	0.1537	0.1340	1	
Fag	-0.4122	0.0470	0.2645	1

Source: STATA output, 2024

Robustness tests

This section presented the result of the robustness test conducted to improve the validity of the statistical inferences for the study. The problem of multicollinearity is discussed based on the result generated for the study. The tolerance value and VIF are employed in this study to test for multicollinearity of the explanatory variable. The result of the multicollinearity test revealed that the mean VIF is 1.06. More so, the result of the Breush-pagan heteroskedasticity test reveals that there is no presence of heteroskedasticity in the model because the probability of the chi-square is 0.443. This signifies the absence of heteroskedasticity and the existence of homoscedasticity in the model, which is the ideal condition of the test. In the homoskedastic model, it is assumed that the variance of the error term is constant for all values of the independent variable. Similarly, the result of the Hausman test reveals that the variables are not correlated because the chi-square probability

is not significant (0.3426) when Roa was used as a proxy for financial performance, thus the result is interpreted by the Random Effect Model.

Regression Analysis

This section presents the summary of the multiple regression results obtained from the model using Random effect regression. The result shows the individual impact between the independent variables (Lev, Size and Fag). More so, the result shows the overall impact between the dependent variable and the independent variables. The summary is presented in Table 4.6 as follows:

Table 4: Regression Result

Dependent Variable: Financial Performance (ROA)		
	Coefficients	Estimates (and t-ratios)
Independent Variables	FE Regression	RE Regression
LEV	-0.1219 (0.030)*	-0.095 (0.041)*
SIZE	-3.6551 (0.485)	2.975 (0.042)*
FAG	-3.222 (0.916)	-16.445 (0.000)*
CONSTANT	45.3633 (0.332)	13.739 (0.244)
R^2	0.0016	0.2591
Prob	0.106	0.000*
Significance at 1% (*), 5% (**) and 10% (***)		

Source: STATA output, 2024

The outcome of the Hausman test suggests that the most appropriate model is the Random Effect model. This is because the ch^{i2} value of this test is 0.3426 which is not significant. Therefore, the Hausman specification test proved that the random effects model is more appropriate for this study. The random effect has three significant variables which include Leverage (LEV) firm size (FSZE), and age of the firm (AGE). Therefore, this result interpretation is based on a random effect regression model.

The overall R^2 (0.2591) which is the multiple coefficient of determination gives the percentage or proportion of total variation in the dependent variables measured by ROA explained by the independent variables jointly. Hence, the result of R^2 signifies that 25.91% of the total variation in the profitability measured by ROA is caused by leverage, size and age of consumer goods companies. This indicates that the model is fit and the explanatory variables are properly selected,

combined and used. This model is also significant as indicated by probability 0.000 at a 1% level of significance.

Test of Hypothesis

Leverage and Financial Performance

Table 4.4 shows that the coefficient value for leverage is 0.1219 with a p-value of 0.030 which is therefore significant at a 1% level of significance. This signifies that leverage is negatively and significantly influencing the financial performance of listed consumer goods companies in Nigeria. This implies that the higher the level of leverage, the lower the financial performance of listed consumer goods companies proxied by ROA. The negative effect of the value of leverage is consistent with our a priori expectation, implying that every one-point increase in the value of leverage causes financial performance to decline by 0.1219. Literature on capital structure confirmed that the firm‟ value will increase up to an optimum point as leverage increases and then declines if leverage is further increased beyond the optimum level. It can be concluded that consumer goods companies with high leverage (using leverage beyond a level) will have an adverse impact on their financial performance. This finding is in harmony with the findings of Meher and Zewudu (2020), and Cekrezi (2015) but contrary to those of Olaniyan, et al (2020) and Aribaba, et al (2022). Hence hypothesis one is rejected.

Firm Size and Financial Performance

The random effects regression result revealed that firm size as shown in table 4.6 has a coefficient value of 2.975 with a significant value of 0.042. This signifies that firm size has a positive and strong influence on the financial performance of listed consumer goods companies in Nigeria, that is, the greater the size of a firm, the higher the reported ROA. This implies that for every one-unit increase in firm size, the ROA will increase by 2.975. This result is consistent with those of Joe, et al (2022), Abdullahi, et al (2019) and Aadmassie (2019) but contrary to Aribaba, et al (2022). Therefore, the hypothesis is rejected.

Age of Firm and Financial Performance

The age of consumer goods companies in Nigeria is measured by the natural logarithm of difference between the observation year and establishment year shows a coefficient of -16.445 with a p-value of 0.000 which is statistically significant at 1%. This shows that the age of consumer goods companies is negative and significant in explaining and predicting the financial performance of listed consumer goods companies in Nigeria within the study period. The relationship which is

not in line with the expected sign might be a result of arguments put forward by Liagoras and Skandal (2008) that older firms are prone to inertia and bureaucratic ossification that goes along with age, they might have developed routines which are out of touch with in market condition Our finding is in line with the findings of Yilun (2020) but contrary Ayuba and Mathias (2023), Aribaba, et al (2022) and Abdullahi, et al (2019).

Conclusion and Recommendation

This study investigates firm-specific characteristics affecting the financial performance of listed consumer goods companies in Nigeria for the period 2017-2022. To achieve this objective, Panel data techniques (fixed effects and random effects models) were utilized to investigate the impact of firm-specific characteristics on the financial performance of listed consumer goods companies in Nigeria. Hence, the study concludes that firm size has a positive and significant impact on the financial performance of consumer goods companies proxied by ROA. This means that the size of consumer goods companies is positive and significant in explaining the financial performance of listed consumer goods companies in Nigeria within the period under review. The study also concludes that the leverage and age of firms have a negative and significant impact on the financial performance of consumer goods companies. This implies that the larger the firm, the lower the financial performance and the older the firm the lower the financial performance.

In the light of the analysis and findings, the following suggestions are proffered

i. The management of consumer goods companies should caution their decisions concerning leverage. The financing decision should be more of equity than debt to avoid high leverage and low profitability through issuing more shares in the market and declining loans and debentures.

ii. Consumer goods companies in Nigeria should not only rely on their age, size and reputation alone. They should devise new means of penetrating the market by diversifying into new geographical markets and developing a greater array of product offerings. Not only that, the investors should be aware of the reputation effect as this can be misleading.

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