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Corporate Financing Alternatives and Performance of Listed Manufacturing Firms in Nigeria

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ABSTRACT
The paper examined the effect of corporate financing alternatives on performance of quoted manufacturing firms in Nigeria from 2013 to 2022. The regressor is corporate financing alternatives measured by Equity Financing (EQF), Debt Financing (DEF) and Retained Earnings (RTE) while the regressed is financial performance measured by return on asset (ROA). The paper controlled by Growth in Sales (GRS), interest rate (ITR) and inflation rate (IFR). The balanced panel data model as adopted while the data was sourced from the annual reports of the 33 sampled firm. The result indicated that the equity finances positively predicted the performance of firms in Nigeria. The results of the fixed effect resolved that there was a strong linear relationship between finance source and the performance of firms in Nigeria. When the hypotheses were tested in the fixed model, the independent variables were found to have a significant association with the performance of firms (ROA) in Nigeria. The study adopted a panel data regression, the R Square value is 0.9873 which means that the predictor variable (corporate financing) is very strong in explaining the response variable (firms' performance). The value of Test F which is a simultaneous test of panel data regression indicates the significance level of influence of predictor variable to response variable. Corporate financing significantly impacts on firms' performance (ROA). Hence, the paper suggested that, manufacturing firms should be encouraged to take loans or trade credit to finance their businesses instead of waiting to raise money. This would help them to begin their businesses earlier.
Keywords: Corporate Financing Alternatives, performance, Equity Financing (EQF), Debt Financing (DEF) and Retained Earnings

INTRODUCTION

Generally, financing decision is one of the core financial decisions which corporate managers make in a modern economy. Specifically, firm's financing decision covers the various sources of finance (Atseye, Mboto & Lawal, 2020). Financing Decision in this context, firm now has access *to* capital markets to fulfill its financial needs. The firm has two faces multiple choices when it comes to financing such that, the firm may either choose equity or debt finance. Both decisions have costs called the cost of capital. Equity financing according to Belo, Lin and Yang (2019) entails raising capital through the sale of shares; by selling shares. This financing source comes from many sources (Wasiuzzaman & Nurdin, 2019). Based on the type of loan agreements, debt financing can either be long term or short term. With all debt financing the borrower must pay back both principal (sum borrowed) and interest. According to Cole and Sokolyk (2018), debt financing is available in different forms such as loans from families and friends, bank loans, personal loans, government-backed loans, credit cards, lines of credits and real estate loans.

Retained earnings (RE) ensure that, affirm is growth-focused company since this approach ensure that, the firm may decide to reinvest their returns on income generating investments or pay small dividends (Garcia Muñoz et al., 2019). Nevertheless, despite the government efforts in improving macroeconomic conditions and market de-regulation, the financial performance of the manufacturing sector in Nigeria according to the Nigeria Economic report 2021 regarding contribution to GDP has remained below the medium-term plan and Vision 2030 targets. Therefore, it becomes important to know how manufacturing firms finances its operations as well as what it is paying back to its equity investors in the form of dividend to maximize long-term free cash flow, and manage its relationships with all of its stakeholders. Prior financial structure studies provided inconsistent and mixed outcomes. For instance, Omabu, Okoye, Pius and Amahalu (2021) evidenced that, corporate financing improves performance, Senan, Ahmad, Anagreh , Tabash & Al-Homaidi, (2021) evidenced negative results. Again, a non-significant relationship was reported between financial leverage and performance (Rahman, Abdelrhman,Nurul, Anwarul Islam, Rabbani & Bunagan, 2021). These inconclusive results rationalized the need for the study. To address these identified gaps, the specific objectives are to:

i. determine the effect of Equity Financing (EQF) on the return on asset of sampled manufacturing firms.
ii. analyze the effect of Debt Financing (DF) on the return on asset of sampled manufacturing firms.
iii. investigate the effect of Retained Earnings (RTE) on the return on asset of sampled manufacturing firms.

LITERATURE REVIEW

Corporate Review

Corporate financing is simply a noteworthy managerial decision which impacts the risk and return of the shareholders. Apart from equity capital, companies also use debt capital to expand their business. Generally, having some amount of debt is considered good for the company, as employing only equity can be expensive for the company. By including debt financing, firms can substantially reduce their cost of capital. However, every financing option is associated with some challenges (Amahalu & Obi, 2020).

Equity financing its where business individuals uses their personal funds without necessarily seeking for external funding (Githire & Muturi, 2019). Such firms are termed equity intensive. The rationale behind this is due to moral hazard and problem with information asymmetry. In later stages in order to grow and develop the SMEs tend to seek for alternative sources of finance (Unuigbokhai, & Nmor, 2021).

Debt financing is the chief component of exterior funding for companies raising additional funds after formation (Baltac & Ayaydın, 2019). It has both a positive and a negative impact on the growth of corporations and for its strategic investments (O'Brien & David, 2019). Debt financing occurs when a business owners seek for financial assistance from others.

Retained earnings are the portion of a business's net income that remains after dividends or other payouts to investors is known as retained earnings. The remainder is what the business keeps. A company may decide to donate excess retained revenues to organizations that would foster its expansion.

Retained earnings can also be referred to as "accumulated earnings" or "inappropriate profit earnings surplus." End retained profits, which show how much money is left over after all liabilities are paid, are a gauge of a company's true worth. Retained positive earnings show that the company has extra cash on hand that it may use to fund further expansion. A negative profit means that the company has run up a deficit and more debt than it has made.

Financial performance is an overall evaluation of a company's standing in terms of overall profitability. While high performance is an indicator of management effectiveness & efficiency in the use of company's resources, poor financial performance suggests inept management (Bulle, 2017). Traditionally, measures of an efficient manufacturing sector include Return on Asset (ROA). This parameter measures the overall efficiency of management and gives an ideal as how effective management is using the available assets to generate earnings. Salim, Rahman and Wahad (2019) opine

that there are many ways to measure firm performance, but all measures should be taken in aggregate. ROE measures a firms; firm performance by revealing how much profit a company generates with the money shareholders invested. Other measures includes Tobin;s Q and return on investment (ROI).

Theoretical Framework

The study adopts the Pecking Order Theory. This theory was proposed by Myers and Majluf (1984), when supporting new investments firms favour internal funds as compared to external funds. The theory states that firms prefer internal funding (retained earnings) over debt funding and debt over equity such that, there is no internal finance, the firm should opt for debt financing since it is tax deductive and does not result to dilution of ownership. However, if the debt financing is not adequate, the firm should result to external finance (new issue).

Based on the above submissions, Myer's proposition was that business follows a hierarchy when it comes to determining the financing options to adopt and internal financing is preferred choice and should external financing be needed; debt would be at the top as compared to equity. This argument was also supported by (Pandey & Singh, 2015). This theory is considered relevant to the current study because it informs the variables on debt and equity financing options.

Empirical Review

A number of studies have been conducted on the performance of manufacturing firms in Nigeria. For example, Osirim, Wadike, and Idatoru, (2020) examined the extent which corporate financing choice (equity & leverage financing) affect performance (ROA) of sampled 8 Nigerian banks from 2010 to 2016. The multivariate analysis used for the analysis. The study confirmed that, corporate financing choice (equity & leverage financing) affect performance (ROA) of sampled banks from though positively but was minimal.

Conversely, Mutie. Willy and Njeru (2019) evidenced that,, equity financing, loans and finally informal financing improves firm performance of the sampled SMEs in Kenya based on the outcome of the questionnaire distributed.

In another related study, Nuonum (2021) examined the impact of debt financing on profitability of non-financial firms in Nigeria. Using a panel regression model, optimal capital structure (equity and debt financing mix) result to higher performance. This was re-validated by Muhammad, Shu and Muhammad (2022); Owolabi, Kolawole, Ogungbade, and Adekoya (2021) in a related study.

In China, Jim, Xiaochen and Chien (2021) reported that, debt financing has a high desirable effect on the Chinese firms from 2003 to 2015. In like manner, Gisele, Githui and Muhavani, (2021) evidenced that, all financing options (equity financing options, crowd financing option & retained earnings financing option) has a high desirable effect on Nairobi firms but debt financing options reduce their performance.

Similarly, Nyabakora Jumanne and Chibona (2021) reported that, financing decision (short term debt ratio) has a high desirable effect on Tanzania firms from 2005 to 2018. However, Olaniyi , Abiloro, and Olaniyan (2022) evidenced that, debt financing has an inconsiderable effect on performance of Nigerian firms from 2005-2020.

Again, Ali, and Shaik, (2022) in a study on debt financing (debt-equity ratio) on performance (ROA and ROE) of Saudi Arabian oil companies from 2012 and 2019, evidenced that, debt financing has a detrimental influence on business financial performance.

RESEARCH METHODOLOGY

The study conducts longitudinal research design and employed secondary data. The data was collected from Nigeria manufacturing company's annual report listed on the Nigerian exchange group (NEG). The quantitative research approach was adopted and analyzed using E-Views 9. The study purposively selected 33 manufacturing firms from 2012-2022 out of the 45 manufacturing firms quoted on the Nigerian exchange group as at 31st December, 2022. The purpose of choosing this period is to empirically test the significance or the extent to which manufacturing firms attributes impacts of

management of firms in the manufacturing sector, since 2012 to 2022. The data was obtained from various Annual reports of the sampled listed manufacturing firms. The study used descriptive statistical analysis, correlation matrix, panel data through regression analysis.

The approach of Muhammad, Shu and Muhammad (2022) was adopted; its panel regression equation is stated as follows:

$$Yi,t = \alpha i + \beta Xi,t + \varepsilon i,t \quad (1)$$

where the subscripts i and t represent the cross-sectional and time series dimension of the data, respectively, while α and β denotes constant (intercept) & regression coefficients, respectively. As $Y_{i,t}$ represents the regressed, $X_{i,t}$ represents the set of exogenous variables of firm I time t, and e measures the error term. The specific panel regression equations were used for the study is as follows:

$$ROAi,t = a = \beta_1 EQFi,t + b_2 DFi,t + b_3 RETi,t + b_4 GRSi,t + b_5 ITR\ i,t + b_6 IFRi,t + et \quad (2)$$

Where:

ROA= Return on Asset.
EQF=Equity Financing.
DEF=Debt Financing
RET=Retained Earning.
GRS=Growth in Sales
ITR= Interest Rate
IFR= Inflation Rate

Table 2: Variable and Measurement

Variables	Measurement	Abbreviation
Firm Performance	Net Profit /Total Asset	**ROA**
Equity Financing	Overall equity	EQF
Debt Financing	Short and Long term debt	DEF
Retain Earnings	Finance reserve/growth	RET
Growth in Sales	Sales/turnover	GRS
Interest Rate	Control Variable	ITR
Inflation	Control Variable	IFR

Source: Authors' compilation 2022.

RESULTS AND ANALYSIS

Under this section, we conduct important pre-estimation analysis to ensure that the data and variables meet basic time series econometrics expectations. The descriptive statistics is first presented to provide insight into the central tendencies of the distribution. The results are presented and discussed herein:

Table 1: Descriptive Statistics

	IF	RT	IT	GRS	DF	EQF	ROA
Mean	12.22678	38539454	7.650972	7.106066	77198802	58821744	7.587982
Median	12.09470	5329477.	7.963357	7.10832	13597176	9040373.	7.386865
Maximum	16.95280	8.68E+08	9.700712	7.110575	1.54E+09	1.08E+09	47.87855
Minimum	8.062500	2560.000	4.206848	7.112937	49472.00	-3814160	5.201627
Std. Dev.	2.990764	1.13E+08	1.782274	7.115347	1.70E+08	1.45E+08	3.003877
Observations	363	363	363	363	363	363	363

Source: Econometric Views Version 9.0 (2023)

Results for overall descriptive statistics, as well as descriptive statistics with decomposition in between and within standard deviation, for main variables of interest, firm performance expressed with ROA and firm Corporate Financing (CF) are presented in Table 3. On one hand, Table 3 shows overall descriptive statistics of main variables, 33 firms (ID), analyzed over the period from 2012-2022 have mean ROA (7.587982) with standard deviation (3.003877) and mean Retained Earnings (38539.32), Growth in sales, (7.106066) Total Debt (77719.88) and Total equity 2022, (58821.74) with standard deviation (7.115347), (412.79), (170.08) and (472.3), respectively .

Other Preliminary Analyses

(i). Serial Correlation Test

A key assumption in the regression analysis is the test of serial (auto) correlation. The Breusch-Godfrey Lagrange Multiplier test for a serial correlation was adopted to achieve this. The estimate is presented in table 2:

Table 2: Serial Correlation Test Result

Equation	
	Return on Assets(ROA)
F-statistic	1.458(0.282)

Source: Researcher's Compilation (2022).

Note: probability values in parenthesis

Table 2 showed the result of the LM test. It revealed that the hypotheses of zero autocorrelation in the residual were not rejected. That was because the probabilities (Prob. F, Probability of Chi-Square) were greater than 0.05 and therefore, the LM did not reveal a serial correlation problem for the model.

(ii). Heteroskedasticity Test

Another key assumption in the regression analysis is the Heteroskedastic. The Heteroskedasticity test was adopted to achieve this. The estimate is presented in table 3:

Table 3: Heteroskedasticity Test

Equation	
	Return on Assets(ROA)
F-statistic	1.118(0.127)

Source: Researcher's compilation from E-views 9 (2022).

Table 3 showed the result of the Breusch-Pagan-Godfrey test. It revealed that the hypotheses that the errors must be homoscedastic in the residual were not rejected. That was because the probabilities (Prob. F, Probability of Chi-Square) were greater than 0.05.

4.2. Panel Regression Estimate

Table 4: Random Effect Model and Hausman Test

The main regression estimate is presented in table 3:.

Dependent Variable: LOGROA

Sample: 2012 2022

Periods included: 11

Cross-sections included: 33

Total panel (balanced) observations: 363

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	3.219874	2.124168	1.515828	0.1305
EQF	0.241032	0.097633	2.468762	0.0140
DEF	0.743065	0.319895	2.322840	0.0208
RET	0.047342	0.013563	3.490448	0.0005
GRS	0.108576	0.018972	5.723081	0.0000
IFR	-0.060408	0.050081	-1.206206	0.2285
ITR	-0.040960	0.037089	-1.104379	0.2702

R-squared	0.987396	Mean dependent var	7.343610
Adjusted R-squared	0.987183	S.D. dependent var	0.963882
F-statistic	6.724397	Durbin-Watson stat	1.555302
Prob(F-statistic)	0.000001	Hausman Test Prob > chi2	0.0800

The regression estimate shows that Prob > chi2 (0.473) which is >5%. This suggests that the Random effect model is considered the most appropriate model for the study. The study further reported R-squared value of 0.987396 and adjusted R-squared value of 0.987183. By implication, the model has a high predictive power. Again, the Durbin Watson statistics value of 1.555302 suggests that the model is free from (devoid of) serial correlation problems. Further, the Prob(F-statistic) of 0.000<5% evidenced that, corporate financing options has a high considerable (significant) effect on ROA on the overall. On individual bases, the study confirmed that, equity financing options denoted by EQF (coef = 0.241032 & p. value= 0.0140<5%), debt financing (coef = 0.743065 & p. value= 0.0208<5%) and retained earnings (coef = 0.473420 & p. value= 0.0005<5%) have positive high considerable effect on ROA. By implication, corporate financing options are highly instrumental to higher ROA such that, the more the sampled firms seek for the corporate financing options, the more profitable they become provided that, the firm control for growth in sales, interest rate and inflation rate. The study further confirmed that, corporate financing options make firms to trade on equity but the firm must ensure that, the return in terms of sales are relatively stable. By extension, optimal capture structure ensures that, firms maximize value, improve their performance and reduce the overall weighted average cost of capital. This is because, higher debt reduces a firm's cost of capital and at the same time, debt financing is a cheap source of capital because it is tax deductible. This is in tandem with Nuonum (2021); Muhammad et'al (2022); Owolabi, Kolawole et'al (2021); Jim, Xiaochen and Chien (2021);& Gisele et'al (2021). However, Olaniyi, Abiloro, and Olaniyan (2022) evidenced that, debt financing has an inconsiderable effect on performance of Nigerian firms from 2005-2020.

CONCLUSION AND RECOMMENDATIONS

The Panel data model results indicated that the equity finances positively predicted the performance of firms in Nigeria. The results of the fixed effect resolved that there was a strong linear relationship between finance source and the performance of firms in Nigeria. When the hypotheses were tested in the fixed model, the independent variables were found to have a significant association with the performance of firms (ROA) in Nigeria. The study adopted a panel data regression, the R Square value is 0.9873 which means that the predictor variable (corporate financing) is very strong in explaining the response variable (firm's performance). The value of Test F which is a simultaneous test of panel data regression indicates the significance level of influence of predictor variable to response variable. Corporate financing significantly impacts on firms' performance (ROA). Based on the findings of the study, the following recommendations are suggested;

i. Manufacturing firms are encouraged to take loans or trade credit to finance their businesses instead of waiting relies on equity financing only. This would help them to begin their businesses earlier.
ii. Sampled firms are encouraged to be highly debt intensive since debt funding is value additive
iii. Sampled firms should be equity intensive since equity intensive firms make higher profits.
iv. To report higher ROA, sampled firms focus more attention on internal funding.

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