

# Corporate Internal Financing and Growth Potential of Listed Agricultural Firms in Nigeria

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## Abstract

This study aims to evaluate the effect of corporate internal financing on the growth potential of listed agricultural firms in Nigeria. The specific objectives of this study were to evaluate the effect of retained earnings ratio, depreciation and amortization to value-added ratio, and working capital to net operating cash flow ratio on the growth rate of the selected listed agricultural firms in Nigeria. The study adopted an ex-post facto design. Data were generated from the audited financial reports of the four selected listed agricultural firms from 2012-2022. A pooled multiple regression technique was employed to analyze the data using Stata 14.2. The study found that assets retained earnings ratio, depreciation and amortization to value-added ratio, and working capital to net operating cash flow ratio have non-significant positive, negative and negative effects on growth rate with t-statistics and (p-values) 0.28 (0.845), -1.27 (0.215) and -0.54 (0.594) respectively. The result also showed that leverage has a strong positive effect on growth rate with t-statistics and (p-values) 2.53 (0.006) with quality of earnings ratio having a non-significant effect on potential growth rate. These results imply that none of the internal financing options is sufficient to spur growth in the agricultural firms in Nigeria, hence they have shifted to the second pecking order theoretical choice of business financing despite the harsh business conditions and high cost of finance.

**Keywords:** Corporate Internal Financing, Financing through Retained Earnings, Financing through Depreciation and Amortization, Financing through Short-term Operating Activities, Growth Potential

## Introduction

The heightened food insecurity in Nigeria is an indication of the nation's inability to harness the potentials of the agricultural sector. Agriculture is one of the key sectors of an economy that plays a vital role in providing food security, nutrition, and contributes significantly to economic growth in employment, foreign exchange earnings, and value-added production globally. This sector is a critical sector of the economy that provides food for humans and animals, raw materials for other industries including pharmaceutical products and medicine, cotton and rubber for clothing and foreign exchange; supports advancement of technological innovation and mechanization; contributes to nations GDP; and has a healing effect on the

environment and sustenance of our ecosystem. Unfortunately, Nigeria as a nation abandoned this critical sector and focused on black gold as the main source of national income for decades.

Consequently, food insecurity has widened and the agricultural sector has been struggling over the years with numerous challenges including funding. Nigeria as a developing country has been on the spotlight for underdeveloped and weak financial market over the years. Access to external financing is very difficult if not almost impossible for businesses. Lack of alternative sources of financing, tight lending conditions including collateral, excessive and fluctuating interest rate are also prevalent. Given this circumstance, the agricultural sector like other sectors of Nigerian economy is faced with harsh financing conditions compelled by underdeveloped capital market. For this reason, internal financing options such as earnings retention both for business expansion (retained profit), replacement of assets (depreciation and amortization) and funds generated on the short-term (through efficiency in management of working capital and liquidity) seem to be the least cost choices for the firms.

Sadly, these internal sources of financing are vulnerable to earnings management. This prompted another line of argument skewed towards the anomalies of creative accounting and earnings management through which businesses make their income appear greater than it is through accounting adjustments and one-time gains employed to boost the earnings ratio (Akintoye et al., 2019; Dang et al., 2020). These authors conceded that accounting errors, creative accounting, or scandals could significantly affect the earnings retention reported in the financial statements without cash flow backings. For this reason, the quality of earnings which measures the earnings of the companies in relation to their cash flow from operation is critical for internal financing and potential growth of the companies.

However, corporate financing has been debated in accounting and finance literature for decades. A series of theories have emerged to explain why corporations hold certain capital structure choices (pecking order theory), why investors act differently in connection to dividend payout and earnings reinvestment (dividend theories), and the market informative impact (the signalling theory). Hence, balancing finance options and the tradeoff between earnings retention and dividend payout to optimize performance, expansion, and growth has become a critical business concern for years. Secondary, businesses can generate short-term internal financing and liquidity through increase working capital efficiency that guarantee significant positive net operating cash flow. This option is an operational efficiency matrix that measure management expertise in generating internal financing on one side and liquidity on the other side. There is also this tradeoff in efficient working capital management to generate short-term internal financing and managing liquidity.

However, empirical evidences have supported that internally generated funds have greatly contributed to financing growth of companies across the globe (Thirumalaisamy, 2013; Musah *et al.*, 2019; Vuković *et al.*, 2022). This shift to internal business financing is consistent with the pecking order theory and could have crucial implications on the firm's growth potential, assets management, dividend policy and market value (Musah *et al.*, 2019; Vuković *et al.*, 2022). Potential growth shows how a company exhibits the ability to galvanize growth and development in the near future and growth is substantially financed by internal sources (Thirumalaisamy, 2013). Consequently, when a firm consistently reported losses, it depletes its' accumulated profits and stunts the growth rate. Other concerns trail the opportunistic reporting behaviours that could have severe implications for the quality of earnings and whether the low or high quality of earnings is associated with potential growth opportunities.

Given these challenges, it is vague whether the internal financing options can significantly drive growth in the agricultural firms that are paramount to boost food security in the nation. Yet there is a dearth of research on the effect of internal financing on growth potential of agricultural firms in Nigeria. Also, the empirical evidence from available studies of other economies and sectors showed inconsistent outcomes and a pointer that the discourse has not ended. Internal financing options are advantageous in several ways. Apart from being the least cost option, it is associated with no legal obligations, approval bottlenecks and administrative charges, and retention of ownership and control. Hence, managers and shareholders of these firms can choose to remain in their comfort zone to facing the complications and complexity of the Nigerian capital market or likely alternative financing options.

Delving into this topic is crucial for Nigeria because of the ravaging food insecurity in the nation. It is critical to open up the agricultural sector for growth. This study aimed to provide insight for government and policymakers in the agricultural sector on the need to create alternative low cost funding for agricultural firms. It also provide managers and firm owners with tools for corporate financing policy formulation. Therefore, the main objective of this study was to evaluate the effect of corporate internal financing on the growth potential of listed agricultural firms in Nigeria.

## **Literature Review**

### **Internal Business Financing**

Internal business financing refers to financing options that comes within the business. Apart from owners' capital, retained earnings, and depreciation and amortization are chiefly the available options for internal financing. However, the degree of impact of these available options depends on the quality of earnings of the firms.

### **Financing through Retained Earnings**

Retention ratio also known as plowback ratio represents the percentage of profit for the year that a business retained after paying out dividend to the shareholders (Akinleye *et al.*, 2020). It is considered the opposite of payout ratio which is used in balancing growth and dividends (Livoreka, *et al.*, 2014; Yanuarti & Dewi, 2019). Retention is a critical indicator of business financial strategy. Researchers conceded that the accumulation of corporate retained earnings is crucial when a company needed to advance, enlarge and/or develop (Thirumalaisamy, 2013; Yanuarti & Dewi, 2019; Akinleye *et al.*, 2020). Akinleye *et al* (2020) asserts corporate retention reduces the dependency to external financing. Retained earnings have emerged a fundamental source of internal or self-financing because there are no transaction and bankruptcy costs associated with retained profits (Thirumalaisamy, 2013). For, Slavery (2004); Kamat (2008); Bhayani (2009) all cited in Akinleye *et al* (2020) corporate retention is essential for improved financial and sustainability performance. If channeled to profitable investments, it can generate greater yield and grows the worth of the firms. Hence, the rate of retention ratio is mathematically derived thus:

### **Financing through Depreciation and Amortization**

Financing through depreciation also known as financing through the dissolution arises as a result of the effect of recognizing depreciation and/or amortization as a cost component of generating revenue or turnover in an accounting year (Lukic *et al.*, 2016; Mert & Dil, 2016). Depreciation is the amount set aside in order to ultimately replace a non-current asset or any

item of property; plant and equipment (PPE) while amortization intangible assets (Akinleye *et al.*, 2020). According IAS 37, provision is a liability of uncertain timing or amount that arises from a past event that is expected to result in an outflow of resources. This argument held that depreciation and amortization are not provisions but accounting adjustments to the carrying value of assets at a balance sheet date. However, unlike other costs, depreciation does not involve cash flow (payment or disbursement of cash). In practical terms, the financial effect of depreciation arises from the availability of accumulated provision from company's profit until the funds are finally utilized, hence financing through depreciation is a form of internal financing.

### **Financing through Short-term Operating Activities**

Internal financing through short-term operational activities is the ability to effectively manage the working capital for alternative uses (Fernando & Mansa, 2021). Working capital is the difference between current assets and current liabilities. Working capital management provides opportunities to change how firms manage their credit controls, inventory levels and trade payables and receivables to repurpose the funds for certain goals (Uguru *et al.*, 2018). For instance, extending the payables period is a natural kind of credit in which businesses can effectively funds a transaction by deferring payment, on one hand, and tightening collection period and average inventory holding period to reduce holding costs and increase inventory turnover on the other hand. When optimally applied, internal financing and liquidity can be generated from optimal management of short-term operating activities by increase working capital efficiency and generating significant positive net operating cash flow. Hence, to balance operational financing with liquidity, caution must be taken to compare the working capital and net operating cash flow over time.

### **Growth Potential**

Firm growth potential is a reflection of a business ability to increase its operation through sales of its products and services to existing or new customers or acquiring other lines of businesses. According to Musah *et al* (2019), growth potential delves into the future ability of a firm to generate increased profits, expand its workflow and achieve increased production and distribution. Vuković *et al* (2022) posited that growth rate indicates the degree of heterogeneity between companies that translates to the increase in size of the companies over time. They argued that the rate at which a company grows is determined by their size and financial strength.

Empirical evidence has shown that other factors such as size, age, operational efficiency (inventory turnover, assets turnover ratio), liquidity and leverage are powerful predictors of firm's growth (Musah *et al.*, 2019). Therefore, introducing some of these indicators alongside quality of earnings ratio as control variables in this study will possibly produce a robust outcome. This will also give a glimpse into a company's financial strategy and performance. Hence, the connection between the independent variables, dependent variable and control variables as proposed in this study is conceptualized in Figure 1.

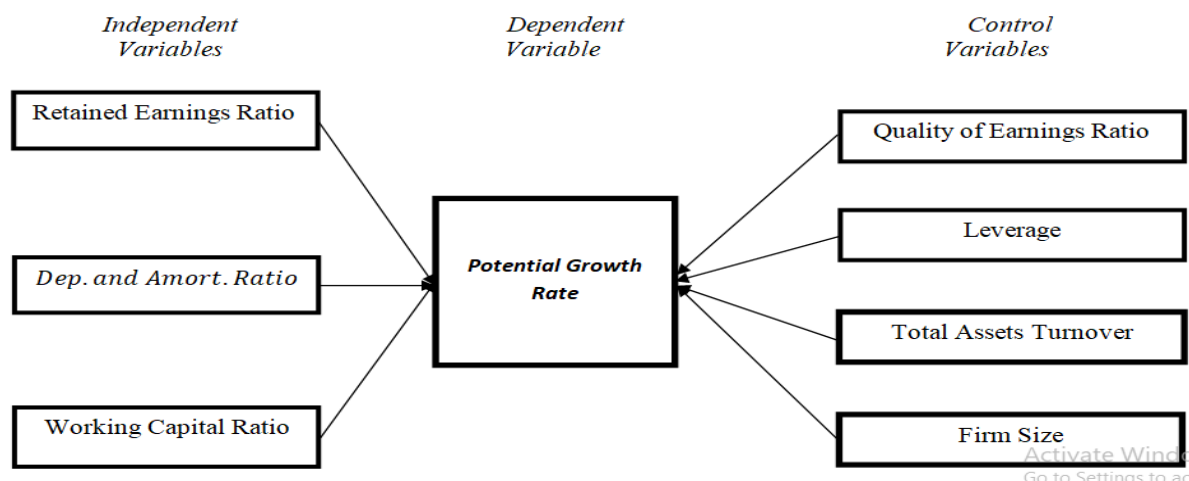


Figure 1: Conceptual framework of the study

### Theoretical Framework

This study found its theoretical background in the Pecking Order Theory. According to the Pecking Order Theory propounded by Stewart Myers and Nicolas Majluf in 1984, there is always asymmetric information between the managers of a company and outsiders. The managers typically possess more information regarding the company's performance, risks, prospects, and future outlook than external users such as creditors (debt holders) and investors (shareholders). Consequently, external financing demands a higher rate of return to compensate for higher risk. To reduce this information asymmetry, the Pecking Order Theory suggests that earnings retention financing (internal financing) comes directly from the company and is the cheapest and most convenient source of finance as opposed to external financing (debt or equity financing), that involves additional costs. Hence, companies manager follows a preferred choice for financing investment opportunities, starting with retained earnings, debt and lastly, through equity financing. This theory is critical to this study because it highlights the reasons for the preference of internal financing by company managers as practiced in most listed firms globally.

### Empirical Review

#### Effect of Retained Earnings on Growth Potential of Firms

Thirumalaisamy (2013) found that cash flow and dividend are the most influencing variables on retained earnings. The study used correlation and multiple regression to assess the factors affecting firm growth and retained earnings behavior using a sample of 149 profit making companies across seven different industries in Indian. The study concluded that companies with low investment opportunities for growth and expansion prefer to distribute much of their earnings as dividend.

Yanuarti and Dewi (2019) used the ex-post facto design and two stages least square method, to investigate the effect of financial ratios on dividend payout ratio of companies listed on the Indonesia Share Exchange (IDX) and operating with green business principles in the year 2017 and 2018. The financial ratios examined in the study include the profitability, operating cash flow per share, corporate tax, current ratio, market to-book value, debt-to-equity ratio, and sales growth. The result of the regression analyses revealed that profitability and operating cash flow affect the dividend payout ratio with a positive relationship; the dividend payout ratio positively affects the stock price; and profitability and operating cash flow directly and

positively affect the stock price. Other financial ratios including sales growth have a non-significant effect on dividend payout ratio.

In an assessment of the determinants of dividend payout ratio, Widyawati and Indriani (2019) modeled return on assets, growth sales, debt to equity ratio, lagged dividend to dividend payout ratio as explanatory variables and firm size as control variable. The study used purposive to select 20 manufacturing companies listed on the Indonesian Stock Exchange from 2011-2017. The results of the regression analysis revealed that return on assets, debt to equity ratio and firm size positively and significantly impact on dividend payout ratio whereas sales growth negatively and significantly influences dividend payout ratio.

Inyang *et al* (2020) used time series data from the Nigeria Breweries Plc from 2011 to 2019 to examine the effect of dividend payout ratio and earnings per share on retained earnings of firms in Nigeria. They employed ordinary least square regression to reveal that the relationship between dividend payout ratio and earnings per share, and retained earnings is statistically non-significant indicating that the degree of retention often rises as revenues grow.

### **Effect of Provision for Depreciation and Amortization on Growth Potential of Firms**

Lukic *et al* (2016) employed comparative analysis, descriptive and inferential statistics and case study method to study the dynamics of depreciation expenses and their influence on profit to sales ratio large retail companies European Union, Japan, Russia, USA and Serbia. The outcome of the segregation costs is reflected on depreciation expenses and taxes implying that depreciation reducing tax liabilities and contributes to increasing profits. However, the comparative result revealed that depreciation in Serbia is too low compared to other countries implying that technical equipment of labour, labour productivity and application of modern technology in business are at the lower level in Serbia.

In their study, Mert and Dil (2016) employed value based contemporary performance measurement (Economic Value Added (EVA) and Cash Flow Return on Investment (CFROI)) models to analyze the connection between depreciation of assets and financial performance of energy firms listed in the Istanbul Stock Exchange in 2014 and 2015. The study sourced data from Public Disclosure Platform (KAP). The study observed that individually, depreciation values impacted positively on value added for some firms while the industry average shows that depreciation affect the value added of the industry significantly.

Akinleye *et al* (2020) studied the impact of reserves and provision on financial performance of listed consumer goods firms in Nigeria from 2008 to 2017. They modeled profit before tax, provision for depreciation, and corporate income tax as explanatory variables whereas retained earnings was the dependent variable. The panel multiple regression results fathomed that profit before tax and corporate income tax exerted a statistically significant positive effect on retained earning while the relationship between retained earnings and provision for depreciation is statistically non-significant.

### **Effect of Short-term Operating Activities on Growth Potential of Firms**

Using descriptive statistics and multiple regression analysis, Angahar and Alematu (2014) examined the impact of working capital on the profitability of the Nigerian cement industry for a period of eight (8) years (2002-2009). The finding revealed an insignificant negative relationship between the profitability (measured by ROA) of cement companies quoted on the NSE and the number of days accounts receivable are outstanding (DAR); a significant negative relationship between the profitability of these cement companies and the number

of day's inventory are held (DINV); a significant positive relationship between the profitability and the cash conversion cycle (CCC).

Nastiti *et al* (2019) examined working capital management and its influence on profitability and sustainable growth using 136 manufacturing firms listed in the Indonesian Stock Exchange from 2010 to 2017. Panel regression with fixed effect estimation model was used to analyze the data collected. The finding showed that working capital significantly affects firms' profitability. However, working capital management does not exhibit a significant direct influence on sustainable growth but a significant indirect influence through firms' profitability.

Amponsah-Kwatiah and Asiamah (2021) examined the effect of working capital management on profitability of listed manufacturing firms in Ghana. Using a causal research design, the study engaged a balance panel of 20 manufacturing listed firms from 2015 to 2019 and found the current asset, inventory management, cash conversion cycle, account receivables, current ratio, payables, and firm size have positive effects on return on assets (ROA) and return on return on equity (ROE) whereas financial leverage affects return on assets (ROA) and return on return negatively.

Al-Mawshaki (2022) employed descriptive statistical and FGLS regression estimation to investigate the effect of efficient working capital management and working capital policies on the performance of 147 manufacturing firms in Malaysia between 2010 and 2019. The finding revealed that current asset to total asset ratio significantly negatively affected firms' financial performance. The results also showed that a conservative working capital financing policy was positively and significantly related to a firm's financial performance.

## Methodology

The study adopted an *ex post facto* research design. This is because it used historical data of past event which is verifiable and can be validated. Four (4) firms from the five (5) listed consumer goods manufacturing firms on the Nigeria Exchange Group (NGX) at 6th February, 2024 were sampled for a period from 2012 to 2022. These firms include FTN Cocoa Processors Plc, Livestock Feeds Plc, Okomu Oil Palm Plc and Presco Plc. This study adapted one of the *Panel Multiple Regression Models* used in (Lehenchuk *et al.*, 2022).

The model is stipulated below:

$$GR_{it} = \alpha + \beta_1 RER_{it} + \beta_2 DAVAR_{it} + \beta_3 WCNOCFR_{it} + \epsilon_{it}$$

Integrating the control variables, the model

$$GR_{it} = \alpha + \beta_1 RER_{it} + \beta_2 DAVAR_{it} + \beta_3 WCNOCFR_{it} + \beta_4 QoE_{it} + \beta_5 LER_{it} + \beta_6 ATR_{it} + \beta_8 \ln FZ_{it} + \epsilon_{it}$$

Where:

GR	=	Growth Rate
$\beta$	=	The Coefficient
RER	=	Retained Earnings Rate
DAVAR	=	Depreciation & Amortization to Value Added Ratio
WCNOCF	=	Working Capital to Net Operating Cash Flow Ratio
QoER	=	Quality of Earnings Ratio
DER	=	Debt to Equity Ratio
ATR	=	Assets Turnover Ratio
LnTA	=	Natural Logarithm of Total Assets
$\epsilon$	=	error term
it	=	firm & time.

The description of Variables in the Model is presented below:

Table 1

*Variable, Measurement and Proxies*

Variable	Name	Measurement	Source	Proxy
Dependent	Growth Rate (GR)	$\frac{\text{Turnover year 1} - \text{Turnover Year 0}}{\text{Turnover Year 0}}$	Vuković <i>et al.</i> (2022)	Potential Growth Rate
Independent Variables	Retained Earnings Ratio (RER)	$\frac{\text{Retained Profit}}{\text{Profit for the year}}$	Yanuarti & Dewi (2019))	Internal Financing
	Dep. & Amor to Value Added, Ratio (DAVAR)	$\frac{\text{Dep. \& Amort.}}{\text{Value Added}}$	Akinleye <i>et al.</i> (2020)	Internal Financing
	Working Capital to Operating Cash Flow Ratio (WCNOCFR)	$\frac{\text{Current Assets} - \text{Current Liability}}{\text{Net Operating Cash Flow}}$	Musah <i>et al.</i> (2019)	Internal Financing
Control Variables	Quality of Earnings Ratio (QoER)	$\frac{\text{Cash from Operating Activities}}{\text{Profit for the year}}$	Akintoye (2019)	Earnings Quality
	Debt to equity Ratio (DER)	$\frac{\text{Total Liability}}{\text{Total Equity}}$	Nurlaela <i>et al.</i> (2019)	Financial Leverage
	Assets Turnover Ratio (ATR)	$\frac{\text{Turnover}}{\text{Total Assets}}$	Nurlaela <i>et al.</i> (2019)	Operational Efficiency
	Firm Size (LnTA)	Natural Logarithm of Total Assets	Lehenchuk <i>et al.</i> (2022)	Size of Firms

Source: Author's Compilations (2024)



**Data Analysis**

Table 2

*Firms Average Financial Outlook on Key Performance Indicators (11 Years, 2012-2022)*

S/N	FIRM	GR	RER	DAVAR	WCNOCFR	QER	DER	ATR	LnTA
1	FTN Cocoa Processors Plc	0.7320	0.8829	0.8628	4.6853	5.2979	6.6026	0.0960	15.4432
2	Livestock Feeds Plc	0.1636	0.9054	-0.0941	0.5202	-0.7751	2.1512	1.8908	15.4501
3	Okomu Oil Palm Plc.	0.1937	0.1022	0.1402	0.7436	0.8684	0.6516	0.5080	17.4097
4	Presco Plc	0.2507	0.7191	0.1105	0.1081	0.4041	1.0080	0.3059	17.9993
	<b>Desired Standard</b>	<i>The higher the better</i>	<i>The higher the better</i>	<i>The higher the better</i>	0.5 -1.5	<i>Above 1.00</i>	<i>Less or equal to 2.0</i>	<i>The higher the better</i>	

*Source: Excel Output, 2024*

Table 4.1 depicts the average firm performance on key indicators for the period. Given the desired standard, table 4.1 shows that all the firms exhibited indication of financial healthiness except FTN Cocoa Processors Plc that manifested some serious distress symptoms as indicated by working capital to net operating cash flow ratio (WCNOCFR), debt to equity ratio (DER), asset turnover ratio (ATR) and liquidity ratio (LQR). However, the quality of earnings shows that FTN Cocoa Processors Plc reports presents a more reliable earnings than the other firms. It also showed FTN Cocoa Processors Plc depended on higher earnings retention and deferred credit payables for its internal financial strategy, Livestock Feeds Plc and Presco Plc have higher earnings retention rate whereas Okomu Oil Palm Plc financial strategy centres on shareholders welfare through payment of dividend. However, it does not indicate whether higher or lower earnings retention rate translated to high growth potential.

Table 2

*Summary Statistics and Normality Tests*

stats	gr	rer	davar	wcnocfr	qoer	der	atr	lnta
mean	0.335	0.6524	0.2548	1.5143	1.4488	2.6033	0.7002	16.5756
median	0.1289	0.8651	0.1093	0.4741	0.5805	1.3256	0.3690	16.5045
sd	1.2097	1.2074	1.8468	3.4802	5.3798	10.7517	0.7464	1.2215
se(mean)	0.1824	0.18200	0.2784	0.5247	0.8110	1.6209	0.1125	0.1841
min	-0.9043	-3.4933	3.0343	-5.8655	-4.2167	-7.0793	0.0085	14.5442
max	6.3586	4.5025	8.5453	12.447	34.0155	70.061	2.6217	18.6580
<b>Normality tes:</b>								
Skewness/Kurtosis	44.44	11.48	41.24	14.28	57.76	61.98	8.81	23.06
...joint... Prob. >chi2	0.0000	0.0032	0.0000	0.0008	0.0000	0.0000	0.0122	0.0000
<b>Shapiro-Wilk:</b>								
Prob>z	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0006

*Source: Stata 14.2 Output, 2024*

Table 4.2 shows the mean and median for the periods in forty-four observations. From these statistics, debt equity ratio (DER), Quality of earnings ratio (QoER) and working capital to

operating cash flow ratio were most volatile in the period as revealed by the standard deviation. The difference between the mean and the median values indicated that the entire variables except retained earnings ratio skewed right. However, the *Skewness/Kurtosis tests* and *Shapiro-Wilk W' test* suggests that the dataset is not normally distributed for all variables.

Table 4.3  
*Other Diagnostic Tests*

<b>Other Diagnosis</b>	<b>Test</b>	<b>Results</b>	<b>Implications</b>
Heteroskedasticity	Breusch-Pagan / Cook-Weisberg test	chi2(1) = 0.07 Prob > chi2 = 0.7936	Heteroskedasticity is not present
Fitted values of GR	Ramsey RESET test	F(3, 33) = 4.10 Prob > F = 0.0140	Not over-fitted & model has omitted variables.
Multicollinearity	Variance inflation factors (vif)	Range 1.26 - 3.02 Mean VIF = 1.87	No multicollinearity
Linear autocorrelation	Durbin-Watson d-statistic	(8, 44) = 2.36501	No linear autocorrelation
Stationarity Test	Levin-Lin-Chu unit-root test	GR=0.0001; RER=0.0000; DAVAR=0.0008; WCCFR=0.191; QoER=0.0000; LVR=0.5004; ATR=0.5506;	GR, RER, DAVAR Stationary (Lag 1) WCCFR Stationary at (Lag 2) LnTa Stationary at (Lag 3)  LVR & ATR Stationary at First Difference (Lag 1)
<b>Model Selection</b>			
Pooled vs Random Effect	Breusch and Pagan Lagrangian multiplier test	chibar2(01) = 0.00 Prob > chibar2 = 1.0000	Random effects not significant Random Effects Model not Appropriate
Fixed vs Random Effect	Hausman test	chi2(7) = (b-B)'[(V_b-V_B)^(-1)](b-B) = 2.81 Prob>chi2 = 0.9019	The coefficients of random effects are consistent. Fixed effects not Appropriate

Source: Stata 14.2 Output, 2024

The results and implications of other diagnostic tests were presented in Table 4.3. Hence the pooled multiple regression (OLS) was used to test the Hypothesis.

**Test of Hypotheses**

Table 4.4

*Pooled Multiple (OLS) Regression of Growth Rate, Explanatory Variables and Control Variables of Listed Agricultural Firms in Nigeria*

<i>gr</i>	<i>Coef.</i>	<i>Std. Err.</i>	<i>t</i>	<i>P&gt; t </i>	<i>[95% Conf. Interval]</i>	
<i>rer</i>	0.036226	0.184071	0.20	0.845	-0.338714	0.411166
<i>davar</i>	-0.195648	0.154642	-1.27	0.215	-0.510644	0.119347
<i>wccfr</i>	-0.038301	0.071061	-0.54	0.594	-0.183047	0.106445
<i>qoer</i>	0.050578	0.053177	0.95	0.349	-0.057739	0.158895
<i>lvr_d1</i>	0.035449	0.012081	2.93	0.006	0.010842	0.060057
<i>atr_d1</i>	0.617177	0.609050	1.01	0.318	-0.623418	1.857771
<i>lnta</i>	-0.118411	0.167335	-0.71	0.484	-0.459261	0.222440
<i>_cons</i>	2.338454	2.850374	0.82	0.418	-3.467568	8.144476
<b>Source</b>	<b>SS</b>	<b>df</b>	<b>MS</b>	<b>Number of obs</b>	<b>=</b>	<b>40</b>
				<b>F(7, 32)</b>	<b>=</b>	<b>2.03</b>
<b>Model</b>	<b>18.9573296</b>	<b>7</b>	<b>2.70818995</b>	<b>Prob &gt; F</b>	<b>=</b>	<b>0.0018</b>
<b>Residual</b>	<b>42.7146597</b>	<b>32</b>	<b>1.33483311</b>	<b>R-squared</b>	<b>=</b>	<b>0.3074</b>
				<b>Adj R-squared</b>	<b>=</b>	<b>0.1559</b>
<b>Total</b>	<b>61.6719893</b>	<b>39</b>	<b>1.58133306</b>	<b>Root MSE</b>	<b>=</b>	<b>1.1553</b>

Source: Stata 14.2 Output, 2024

**Hypothesis One:** Retained earnings ratio has no significant effect on growth rate of listed agricultural firms in Nigeria.

The result of the test of the *hypothesis one*, the effect of retained earnings ratio on growth rate exhibited a weak statistical positive effect on the growth rate of the listed agricultural firms in Nigeria with p-value > 0.05 at 0.845, and t-statistic < |2| at 0.20. The result revealed that a unit change in retained earnings ratio will translate to approximately 3% increase in the growth rate of the listed agricultural firms in Nigeria. This result was anticipated because of the high rate of losses reported by most of the listed agricultural firms during the period. This result confirmed that when a company incurred loss, it depletes its accumulated profit and deterred the growth rate of the firm. This result agrees with the findings of Inyang *et al.* (2020) suggesting that retained earnings and earnings per share are statistically non-significant.

**Hypothesis Two:** Depreciation and amortization to value added ratio has no significant effect on growth rate of listed agricultural firms in Nigeria.

*Hypothesis two* tested the effect of depreciation and amortization to value added ratio on growth rate of listed agricultural firms in Nigeria with p-value > 0.05 at 0.215, and t-statistic < |2| at -1.27. The result further showed that a unit change in the depreciation and amortization to value added ratio will have a resultant decrease of approximately 19.56% in the growth rate of the listed agricultural firms in Nigeria. The outcome of this test revealed a statistical non-significant negative effect indicating that the amount charge or retained by the listed agricultural firms for assets replacement in the form of depreciation and amortization is too low to spur growth. This outcome concurred with the findings of Lukic *et al.* (2016) in Serbia which conclude that modern technology application in business are lower due to low depreciation rate.

**Hypothesis Three:** Working capital to cash flow ratio has no significant effect on growth rate of listed agricultural firms in Nigeria.

In lieu with *hypothesis three*, the working capital to net operating cash flow ratio revealed a statistical non-significant negative effect on growth rate of listed agricultural firms in Nigeria with p-value > 0.05 at 0.215, and t-statistic < |2| at -1.27. The result also suggested that a unit change in the depreciation and amortization to value added ratio will have a resultant decrease of approximately 19.56% in the growth rate of the listed agricultural firms in Nigeria. This result skewed towards the assertions of Nastiti *et al* (2019) that working capital management does not have direct influence on sustainable growth but a significant indirect influence through firms' profitability. This result also suggests that working capital to net operating cash flow of listed agricultural firms in Nigeria skewed towards liquidity management than internal financing.

For the control variables, only financial leverage exhibited strong significant effect on growth rate with p-value < 0.05 at 0.006, and t-statistic > |2| at 2.93. This shows that the agricultural firms in Nigeria significantly relied on borrowed funds and credit facilities in their operation. It also important to note that the quality of earnings ratio skewed towards the assertions of Akintoye *et al* (2019); Dang *et al* (2020) that accounting earnings that were not back by cash flow might not support business growth. Assets turnover and firm size do not affect growth of listed agricultural firms in Nigeria.

On the overall, the summarized results aimed to address the main objective of the study. Table 4.4 revealed R-squared (the multiple coefficients of determination) of 0.1559 which suggests that 15.59% of changes in growth rate of the listed agricultural firms in Nigeria can be explained by the regressors. However, the **F-statistics [2.03] and P-values [0.0018]** strengthen the overall statistical significance and reinforce the relevance of the predictors in the model. Hence, this model is best fitted to explain the relationship between the regressors and the regressand.

### Conclusion and Recommendations

Given the empirical evidences from this study, we can conclude that corporate internal financing options (*retained earnings, depreciation and amortization, and operating activities through working capital and cash flow management*) do not strongly contribute to corporate growth. However, the debt to equity ratio contributes significantly amidst the control variables. This implies that the internal financing opportunities put together are not significant to support the growth of agricultural firms in Nigeria; hence the firms leveraged their capital structure to growth.

In with these findings, this study offered the following recommendations:

- i. Management of the agricultural firms should intensify efforts to improve the operational efficiency of their firms to reduce the incessant losses recorded during the period which depleted and impacted on growth rate negatively.
- ii. Depreciation and amortization is a policy issue with associated tax effect on the profit. Therefore, management should ensure that adequate depreciation and amortization are apportioned against the respective year's annual profit to ensure timely assets replacement, innovativeness and modernization in operation.
- iii. Operational activities should be monitored effectively and firms should take advantage of available options in working capital management to provide short-term financing. However, caution should be applied because of the liquidity implication

associated with this approach to financing. Hence, agricultural firms must consent to due diligence.

This study “corporate internal financing and growth potential of listed agricultural firms in Nigeria” has extended the discussions on business financing to the agricultural palace in Nigeria. The study has also improved the discussions on internal financing in the developing economy to recognize the effect of quality of earnings on the profit retention. Considering other variables that have serious impact on business growth, this study has provide empirical evidence on factors affecting the growth rate of agricultural firms in Nigeria and expands the currency to 2022.

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