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Relationship Between Firms' Financial Performance and Corporate Tax: Evidence from Listed Agro-Based Companies in Nigeria

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Abstract

This study evaluated the effects of corporate tax on the financial performance of listed agro-based companies in Nigeria. Secondary data, gathered from the published annual report and accounts of four sampled agro-based companies covering the years 2013 to 2018, were used in the study. Selection of sampled companies was based on data availability and time constrain and was done from a pool of five companies operating on the floor of Nigerian Stock Exchange as at December 2018. Panel data regression in STATA was used in the analysis of data collected. The analysis yielded a multiple coefficient determination as represented by R^2 of 81.21%, indicating total deviation in companies' return on equity (ROE) caused by changes in the independent variables. Also, the p-value of 0.0000 signal the fitness of the model. Therefore, a change in the effective tax rate (ETR) of sampled agro-based companies will definitely affect their ROE. The study found that a positive relationship exists between ETR and profitability, sales, and return on assets (ROA). That is a 1% increase in the ETR will lead to 21.87153%, 658.8419% and 64.24195% increase in ROA, profitability and sales, respectively. Thus, as a way of recommendation, Nigerian agro-based companies can improve their long-term profitability by paying taxes. Consequently, the government should readjust its monetary and fiscal policies to ease agro-based investors' access to credit facilities and other interventions.

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Introduction

Corporate taxation represents a significant part of a nation's fiscal and strategic policy, which may also help in achieving both microeconomic and macroeconomic objectives of the government (Richards, 2019). Taxes collected by the government are used to finance budget and budgetary allocation. Therefore, taxes affect the purchasing power of individual consumers, and this inevitably influence the financial performance of firms (Kurawa and Saidu, 2018; Gatsi, Gadzo and Kportorgbi, 2013). As Ogundajo and Onakoya (2016) submit, corporate tax liability relates proportionally to firm profitability, which also affects capital structure, risk assessment and mitigation and dividend policy of the corporations. This may necessitate firms to embark on tax planning policies aimed at reducing the tax burden (Kuria and Memba, 2016; Oyeyemi and Babatunde, 2016; Kawor and Kportorgbi, 2014; Mucai, Kinya, Noor and James 2014). Tax is a cost to firms. Thus, minimising taxes means increasing profitability. However, Bauer, Kourouxous and Krenn (2018) argued that firms with higher earnings tend to pay more taxes where taxes are measure based on pre-tax income. This is because as firm performance increases, shareholders value may also increase, all things being equal.

Firm performance is the ability of a business to excel in its operation and be able to enhance shareholders value through efficient use of resources (Kurawa and Saidu, 2018). Performance increase may result from both internal and external factors. In Nigeria, agro-based companies play a significant role in national and economic development.

The agro-based sub-sector was able to reduce unemployment rate to 14.2% and increase per capita expenditure to ₦16,863.00 in 2016 compared to 21% and ₦16,663 in 2010 (Olomola and Nwafor, 2018). It also contributed to GDP growth by 4.88% in the third quarter of 2016, provided employment to 60% of Nigerian population and contributed 70% of non-oil export (Inusa, Daniel, Dayagal and Chiya, 2018). Moreover, it provides most of the necessary input to the Nigerian consumer goods companies. The agricultural sector houses both national and multinational players, who render agro-allied products and services for daily usage. The value of the sector, according to Adekoya (2018), will hit ₦91 trillion by 2050.

The study used the following variables (business risk, firm size, leverage and age, on one hand, and firm performance). Business risk measures the deviation of firms' earnings between different periods. Kurawa and Saidu (2018) assert that business risk has the potential to affect financial performance of a firm. Firm size presents the logarithm of firm's total assets (Samila, 2014). Good financial performance is probable from bigger firms, because they try to report all need information to investors (Musa, 2009). Age indicate how long a firm is in existence from listing on the Stock market. Firms that exist longer tend to post better financial performance (Samaila, 2014). Finally, leverage measures the ratio of debt to owners' equity: the higher the debt, the lower will be the profit to pay tax, hence the possible effects of tax on financial performance of a firm (Watson and Head, 2013).

Given the importance of agriculture to national development and economic growth and the role played by agro-based companies within the Nigerian context. Thus, reduction in tax by government should increase the value of a firm (Watson and Head, 2013). Informed by this, Ghana over the years reduces its income taxes to enable companies retain earnings (Kurawa and Saidu, 2018). Following from the above

argument, this study attempts to assess the relationship between firms' financial performance and corporate tax from listed agro-based companies in Nigeria.

Literature Review

The Concept of Financial Performance

Financial performance is a topical issue in today's business environment. This is because; corporate financial performance has to do with a firm's ability to increase the wealth of its shareholders that can bring thorough stable financial flow (Ruri, 2017). Higher financial performance reflects management efficiency and effectiveness in ensuring corporate use of value for money objectives (Fagbemi, Olaniyi and Ogundipe, 2019; Kurawa and Saidu, 2018). Mirza and Javed (2013) defined firms' performance as the ability of a business firm to achieve its objectives and accomplished its goals within available resources. Thus, achieving objectives and goals means diligent mapping of corporate strategy and implementation.

Scholars offer different tools for measuring and evaluating firms' performance. Tangen (2003) reported that firms' performance is traditionally measured using financial measures because of their global application and simplicity (Kurawa and Saidu, 2018). However, in Nigeria, Omorogie and Erah (2011) suggest the use of the capital structure as a performance evaluation tool, but this is contrary to the work of Bokpin and Aboh (2009) who opined that there is a negative relationship between capital structure and financial performance. Olatunji and Omolade (2018), on the other side, advocate the use of financial ratios because they offer a simplistic explanation of the firm performance in comparison to similar firms, industry average and previous years.

However, to determine a firm's performance, this study will use the following variables business risk, firm size, age of the firm and leverage (Kurawa and Saidu, 2018; Temitope, 2018). This is because, these variables reported mix result at the individual level (Samiloglu, Ali and Kahraman, 2017; Mou and Wanrapee, 2015; Aloys, George and Thomas, 2015 and Apadore and Zainol, 2014).

The Concept of Tax

The term tax has received considerable attention from government, businesses, academia and individuals. This is due to its importance to the nation-building, where the government imposed a tax on individuals and profit of business firms (Also, 2009). The *National Tax Policy* (FMF, 2017) defined tax as "any compulsory payment to government imposed by law without direct benefit or return of value or a service whether it is called a tax or not" (p .1). Taxation is the process of collecting taxes from within a given location for maintaining government expenditure. However, scholars offer a mixed opinion in determining what tax rate government should impose on firms' profit. Akakpo (2009) opined that higher tax rate might cushion government expenditure, while Gatsi *et al.* (2013) believe that a lower tax rate might ginger economic activities.

Nigerian Tax Reforms

Tax reforms in Nigeria started since the year 1904 with the introduction of the Income Tax Act and given Nigerian Inland Revenue autonomy in 1945 to tax policy, administration and reforms in 2011. The main objective of these reforms is to reduce the gap between national funding needs and developmental needs of Nigeria, which would facilitate, among others, foreign direct investment (Kurawa and Saidu, 2018). The main reasons for tax imposition are to stimulate economic growth, reduces market imbalance, create employment opportunities and ensure income redistribution.

Therefore, the tax becomes a vital tool for fiscal policy by the government. Given this, there is an urgent need for all companies to leave up to expectation in their payment of taxes. This will enable them to achieve efficient strategic objectives of maximising shareholders value in the long term (Watson and Head, 2013).

Tax and National Economic Development

Taxes represent one of the most crucial sources of money inflow to the government that will facilitate the improvement of the individual standard of living to most countries of the world (Abd-Hakim, Bujang and Ahmad, 2013). This is because the high tax rate will generate more revenue to the government coppers. While on the other hand, the lower tax rate will increase individual consumption pattern, which would result in the long-term increase company's productivity and sales potentials (Prillaman and Meier, 2014). This argument is supported by the findings of Teraoui, Kaddour, Chichti and Rejeb (2011) who opined that increase taxation affects profitability negatively. This might necessitate companies to situate themselves in an area of lower tax incidence to enable them to expand rapidly and enjoyed competitive advantages over rivals. Vrzina (2019) also corroborate with this as he suggested that tax planning significantly and positively influences a firm's profitability. Hence firms need to plan well their tax rate and amount of taxes they should pay to the government at any given period as reported by Fagbemi *et al.* (2019).

Research Method

This study aims to examine the relationship between firms' financial performance and corporate tax in Nigerian listed agro-based companies. The population of the study comprises all the five (5) agro-based companies listed on the floor of Nigeria Security as of December 2018. The study utilises secondary data extracted from the annual reports and accounts of the four (4) sampled agro-based companies, selected based on data availability. Moreover, each company must be capable of paying tax for the period of six (6) years, from 2013 to 2018 and must not have been delisted for the period under study (Kurawa and Saidu, 2018). Details of the four sampled companies are given in Table 1.

A modified panel regression function given in Abor (2007) is employed to determine the relationship between the dependent and independent variables.

$$ROE_{i,t} = \beta_0 + \beta_1 SIZEi_{,t} + \beta_2 TANG_{i,t} + \beta_3 ROA_{i,t} + \beta_4 PROF_{i,t} + \beta_5 AGE_{it} + \beta_6 SALES_{it} + e_{it} \quad \ldots\ldots (1)$$

In order to determine the change in the dependant variable resulting from a change in any or all of the independent variables, panel data ordinary least square regression analysis was used, based on the nature of the secondary data used (Hsiao, 2003).

Results and Discussion

This segment of the paper deals with presentation, analysis and interpretation of the data generated for the study from the annual report and account of the sampled agro-based companies listed on the Nigerian Stock Exchange. Table 2 presents the result of the descriptive statistics of both the dependent variable and independent variables.

Table 2 shows a mean of -0.655714 for the return on equity (ROE) with the minimum and maximum of -1.959 and 0.417, respectively and a standard deviation of 0.4893845. This indicates that on the average, agro-based companies earned a ₦-0.66 as return per naira value invested with a maximum loss ₦-1.96 and a maximum profit of ₦0.42. The standard deviation of 0.4893845 suggests that ROE of the companies under the study changes significantly. Similarly, the summary shows a mean of -9.371 for effective tax rate (ETR), with a minimum and maximum -254.385 and 3.274 respectively; and a standard deviation of 48.07 indicates a very high dispersion of ETR within the study period.

Table 3 indicates the extent of the relationship between the dependent variable and independent variables. The table contains values that range from -1 to 1, which shows a positive or negative relationship. On the other hand, absolute values indicate a stronger relationship between the variables.

Table 1. Sampled Companies

Company	Location	Sector	Industry	Date Founded	Date Listed
FTN Cocoa Processors PLC	Ibadan	Consumer Staples	Packaged Food	August 26, 1991	July 23, 2008
Livestock Feeds PLC	Lagos	Consumer Staples	Agricultural Producers	March 20, 1963	April 1, 1978
Okomu Oil Palm PLC	Benin City	Consumer Staples	Agricultural Producers	December 3, 1979	March 11, 1991
Presco PLC	Benin City	Consumer Staples	Agricultural Producers	September 24, 1991	October 10, 1991

Source: http://www.nse.com.ng/Listings-site/listed-securities/listed-companies

Table 2: Descriptive Statistics

Varibles	obs	Mean	Std. Dev	Min	Max
ETR	28	-9.370821	48.06534	-254. 385	3.274
SIZE	28	7.122.36	.4956132	6.42	7.993
TANG	28	.3949286	.239716	.045	.787
ROA	28	.0735	.1155286	-.101	.355
PROF	28	.0390714	.1315382	-.161	.292
AGE	28	2.809714	.6812012	1.386	3.689
SALES	28	6.627464	.6904193	4.913	7.35

Source: Generated by the author from the annual report of the companies using STATA

Table 3: Correlation Matrix of the Study Variables

	ROE	ETR	SIZE	TANG	ROA	PROF	AGE
ROE	1.0000						
ETR	0.1251	1.0000					
SIZE	0.5292	0.1583	1.0000				
TANG	-0.5212	0.1462	-0.2795	1.0000			
ROA	0.6730	0.1359	0.4966	-0.3398	1.0000		
PROF	0.7670	0.2722	0.7335	-0.3855	0.8354	1.0000	
AGE	0.3747	-0.2361	0.0228	-0.7227	0.5043	0.3062	1.0000

Source: Generated by the author from the annual report and account using STATA

Table 4: Regression Result on Firm's Corporate Tax Rate and Financial Performance

Source	SS	Df	MS	Number of obs	28
Model	5.25118916	7	0.750169879	Prob > F	12.35
				F(7,20)	0.0000
Residual	1.21523563	20	0.060761781	R-squared	0.8121
				Adj R-squared	0.7463
Total	6.46642478	27	0.239497214	RMSE	0.2465

Variables	Coef.	Std. Err.	t	p> | t |	95% Conf.	Interval
ETR	0.0007479	0.001153	0.65	0.524	-0.001657	0.003153
SIZE	1.15013	1.094568	1.05	0.305	-1.119865	3.420125
TANG	-0.6218669	0.345717	-1.80	0.087	1.3430111	0.099277
ROA	0.2187153	0.991362	-0.22	0.828	-2.28666	1.84923
PROF	6.588419	5.57236	1.18	0.250	-4.967948	18.14479
AGE	1.056344	0.615101	1.72	0.100	0.2193072	2.331975
SALES	0.6424195	0.160417	4.00	0.001	0.307795	0.977044
CONS	2003.289	8.403914	238.38	0.000	1985.861	2020.718

Source: Generated by the author from the annual report and account using STATA

The figures show that profitability is more correlated with ROE, because it gives a figure of 0.7670, followed by ROA with a value of 0.6730. The next correlated variable is firm size with a value of 0.5292, followed by age (0.3747). However, the least correlated variable is the ETR that has 0.1251.

Table 4 shows a multiple coefficient determination as represented by R^2 of 81.21%, which indicates that total deviation in ROA is caused by changes in all the independent variables of the agro-based companies. In addition to this, the p-value of 0.0000 signal that the model is fit for the analysis (Kurawa and Saidu, 2018). Hence, any change in ETR of Nigerian agro-based companies will also affect the ROE. In view of this, a positive relationship exists between effective tax rate and the profitability, sales and ROA. That is a 1% increase in the ETR, will lead to 21.87153%, 658.8419% and 64.24195% increase in ROA, profitability and sales respectively. This is in line with the findings of Wangeci and Kaplelach 2018 and Ogundajo and Onakoya (2016). It is also consistent with Bauer *et al.* (2018) and Abd-Hakim *et al.* (2013) who argued that high tax arises because of higher earnings.

Conclusion and Recommendation

The study attempts to assess the relationship between firms' financial performance and corporate tax of listed agro-based companies in Nigeria. The study found that negative and insignificant association between the dependent variable and some independent variables. While on the other hand, the majority of the independent variables reveals a positive and significant relationship between the dependent and independent variables. Because of this, the study recommends that to improve the performance of Nigerian agro-based companies, the companies must be ethically and socially responsible in paying their taxes, which will in the long-term increase their profitability. While on the part of the government, there is the need to readjust both monetary and fiscal policies to encourage agricultural investors' access to credit facilities and other interventions, especially with the government plan to re-diversify the country's source of income. Teraoui *et al.* (2011) reported that in Tunisian government do assist exporting firms to improve their competitive capacity. Therefore, the government may consider improving institutional linkage to promote agricultural export,

especially for high valued products, improve rural agricultural productivity and framework for data collection.

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