Corporate Tax and Financial Performance of Listed Nigerian Consumer Goods

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Abstract
This paper assesses the effect of company income tax on the financial performance of listed consumer goods companies in Nigeria from 2006-2016. Data for the study was collected from the annual reports and accounts of the companies and regression analysis was used as a technique for data analysis. The study finds that there is an insignificant negative relationship between corporate tax and financial performance using return on assets as a measure. Age and risk however exhibits a positive but not significant relationship with ROA. Size on the other hand shows a positive and significant relationship with performance confirming prior expectations. The study recommends that to improve the financial performance of listed Nigerian consumer goods, services of tax experts are needed to engage in legal tax planning like transfer pricing or structuring intra-company debt in order to reduce the net tax payment. By doing so, the net income after tax will increase which in turn increases financial performance.

Keywords: Performance, Size, age, risk, corporate tax

Introduction
The payment of tax in Nigeria dates back to the colonial era and even beyond, if one is to look at the history of the city, states before what is now known as Nigeria. Taxation now attracts the attention of international and national scholars as it influences economic activities in the country. Tax policies provide mechanism for influencing consumer demands and for providing incentives for production, investment and savings. Thus, if taxes are a significant element for macroeconomic policies, they are no less important for firms’ strategic decisions. Graham (2003) presents a set of corporate decisions that are influenced by taxes. As taxation represents a cost to a firm it necessarily affects its performance. Therefore, there has been a growing concern to find ways of reducing the firms’ tax burden. Hence, a large body of literature has been developed to investigate effective tax rates (Dyreng et al., 2008; Minick and Noga, 2010; Armstrong et al., 2012; Vieira, 2013; Kraft, 2014, cited in Bauer, Kourouxous & Krenn, 2018). Bauer, Kourouxous and Krenn (2018), further argue that an intuitive indicator with capacity to influence effective tax rate is firms’ profitability. Thus, when profitability is measured based on pre-tax income, the expectation is that more profitable firms have higher earnings and, consequently, pay more taxes. This position is evident in the literature.

Similarly, it is believed that when performance increases, all things being equal, the value of
shareholders also increases. It as well, contributes to the economic development of a nation as it provides additional tax revenue to government. Without such income, government remains powerless to carry out important public ventures. The National Tax Policy (2012) views taxation as basically the process of collecting taxes within a particular location or a pecuniary burden laid upon individuals or property and organizations to support government expenditure. Thus taxation of corporate profits is a topical matter, and of great interest to many stakeholders. Local and global literatures address various aspects of the impact of tax on corporate profits and also the results of management decisions, specifically targeting the financing decision. This usually depends on the capital mix company choses. According to Modigliani and Miller (M and M) (1961), the firm is inversely proportional to the weighted average cost of capital. Therefore, changes in tax law that lowers tax rates should increase firm value (Neghina, n.d.).

Taking a look at the issue of corporation tax, it can be said that there are many problems associated with tax and tax collection including the administrative, compliance, corruption, bad governance, human capacity building challenge among others. Thus, the corporate tax as currently applied is not a tax on pure profits or economic rents. It is believed, however, that tax reliefs and rebates will influence investment decisions, growth and ultimately the performance of the companies. However, many studies on taxation and financial performance reveal that taxes have significant effect on the performance of companies (negative) and few others reveal mixed results that are inconclusive (Teraoui and Kaddour, 2012; Gatsi, Gadzo and Kportorgbi, 2013; Onuorah and Chigbu, 2013; Mucai, Kinya, Noor & James, 2014; Neghina, n.d.).

Most of the studies on taxation and performance concentrated on banks leaving other sectors, like the consumer goods sector with limited research. Thus, this study looks at the effect of tax on the financial performance of the consumer goods sector. The consumer goods sector is also an important sector just like the other sectors because it produces goods for the daily consumption of man which is needed for survival. It is also the third major contributor to the market capitalization of the Nigeria Stock Exchange, contributing around 28% (Factbook, 2016). Recently, because of the high cost of production they face mainly due to scarcity of foreign exchange, critical inputs, about 50% of input requirement for production could not be imported (Dexter analytics, 2016). A rise in inflation from 8.20% in January 2015 to 15.60% in May 2016 also affects performance.

Studies like that of Rohaya, Norazem and Bardai (2010) try to find the association between CIT and profitability of corporate institutions. But the variable used (CIT Prof) is not controlled which usually leads to a biased result. So is the study of Beigi, Rafat and Panah (2013) on the impact of tax effect over profitability. Although Gatzi, Gadzo and Kportorgbi (2013) and Neghina (nd) have provided for other variables that affect the profitability of firms, the studies were conducted in different countries and different industries.

This study, therefore, attempts to find the impact of tax on financial performance of listed consumer goods in Nigeria. The study is divided into five sections. Section one introduces the study, two deals with the review of relevant literature. Section three explains the methodology employed in carrying out the research, four deals with the results and discussions and five summarises the study.

**Literature Review**

**The Concept of Taxation**

Scholars provide many definitions of taxation. Aguolu (2004) and Nwezeaku (2005) see tax
as a burden which every citizen must bear to sustain his or her government for the
government to perform certain functions and obligations. Thus, Anyafo (1996), Buhari
(2001), Musgrave and Musgrave (2004) define taxation as the compulsory transfer or
payment (or occasionally of goods and services) from private individuals, institutions or
groups to the government. The National Tax Policy (2012) provides that taxation is basically
the process of collecting taxes within a particular location. It is also seen as a pecuniary
burden lay upon individuals or property to support government expenditure.

Ojo (2008) views taxation as a concept and the science of imposing tax on citizens. The
imposition of taxation is expected to yield income which should be utilized in the provision
of amenities, both social and security and creates conditions for the economic well-being of
the society. Okon (1997) opines that income tax is a tool of fiscal policy used by government
all over the world to influence positively or negatively particular type of economic activities
in order to achieve desired objectives. Okon further opines that the primary economic goals
of developing countries are to increase the rate of economic growth and hence per capita
income, which leads to a higher standard of living. Progressive tax rate can be employed to
states that taxation is the most important source of revenue for modern governments,
typically accounting for ninety percent or more of their income.

Thus, for tax purposes, a corporation is viewed as a separate entity meaning that the corporate
entity is subject to taxation on corporate-level events. Abiola, James and Asiweh (2012) view
corporation tax as one of the chief levers that any government can use to promote growth and
investment in the long run. Aderibigbe and Zachariah (2014) state that faster economic
growth is ultimately the mechanism through which a country can reach its full potential and
provide opportunities for all of its populace to flourish.

A corporate tax, therefore, can be referred to as a levy placed on the profit of a firm.
Albertazzi and Gambacorta (2006) further add that they are taxes against profits earned by
businesses during a given taxable period which are generally applied to companies operating
earnings after expenses such as cost of goods sold, selling, general and administrative
expenses and depreciation have been deducted from revenues. Lederman (2002) stresses that
tax incidence must be traced to people, since corporations cannot bear the burden of a tax. If
such is the case, then corporations should not be taxed. But then, there are several possible
justifications. First, (Myles, 2007) there are valuable benefits, such as limited liability, to
incorporation. The corporate tax could be seen as simply a tax on that value. Secondly,
corporations are also taxed because they may earn some pure economic profits, profits that
are in excess of the return to capital (Lederman, 2002; Myles, 2007). This does not; of course,
justify taxing such profits at the corporate level rather than when the individuals owning the
corporation receive them. The corporate tax is also seen as a way to soak up foreign tax
credits or export taxes to foreigners who own capital. Since individuals who live in other
countries cannot be taxed on their income, the corporate tax is a way to get at their income
from domestic assets indirectly (Myles, 2007, Johansson, Heady, Arnold, Brys & Vartia,
2008). Lastly, the scholars are also of the view that corporate income tax can serve as a
backstop for the personal income tax. Individuals may try to avoid the personal income tax by
making it difficult for the government to observe the recipients of corporate income. In this
case, it may be more efficient to tax corporations instead. Each of these rationales for the
corporate income tax has specific implications for how an efficient corporate tax will be
structured (Schwellnus & Arnold, 2008).
Generally, it can be deduced from the foregoing that, corporate tax is a compulsory payment imposed on the corporate bodies as a legal entity. Although many are of the view that corporate taxes may reduce the incentive to invest, high compliance cost is also involved and can distort relative factor prices resulting in a re-allocation of resources towards possibly less productive sectors, but still it is an important source for the government. Mostly, corporate tax is very high i.e. it generates higher revenue for the growth and development of the country at large. Tax reforms have taken place also over the years to take care of other issues and also to be sure that it has a minimum effect on the tax payer. In Nigeria, the corporate tax rate has been 30% since 1996. This has been reduced from the previous rate of 35%. It can therefore be concluded that the country has an interest in its growth and development which encourages investment, create greater employment opportunities and increase tax compliance. In order to limit the opportunities for tax avoidance, it is important that there is no significant difference between the rates of company income tax and that of personal income tax.

**Concept of Performance**

A firm’s financial performance is critical to its health and survival. A firm’s high performance reflects its effectiveness and efficiency in the management of its resources for operational, investment and financing activities (Naser & Mokhtar, 2004). Corporate performance is at the heart of the managerial function of an organization. Curristine (2005) in Ilesanmi (2011) defines performance as the yield or results of activities carried out in relation to the purposes being pursued. Its objective is to strengthen the degree to which organizations achieve their purposes. Ghosh and Subrata (2006) opine that the performance of an organization is measured by the choice of the management form of wealth to be held. If the performance of an organization is good, there will be little or no disagreement between the management and the shareholders. Thus, a well designed and implemented financial management is expected to contribute positively to the creation of a firm’s value. 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 to organization's health and ultimately its survival. High performance reflects management effectiveness and efficiency in making use of company's resources and this in turn contributes to the country's economy at large (Naser & Mokhtar, 2004).

Many measures have been used in evaluating financial performance. It was opined that capital structure is the major condition for corporate performance in the Nigerian economy while Bopkin and Abor (2009) found that capital structure impacts negatively on financial performance. Different performance indicators have been employed in studies and the most common performance measures were combined stock market and accounting measures, like Tobin’s Q or the ratio of market-to-book values, Stock market measures, such as the cumulative abnormal returns (CAR) and Accounting-based measures, i.e., figures and ratios from the financial statements such as return-on-equity (ROE) and return-on-assets (ROA). Also, Ra’ed, Mohammad, Idries and Ali (2015) suggest that performance could be measured either objectively or subjectively. While objective measurements in general relied on financial data, subjective measurements depended upon managerial assessments.

To effectively evaluate firm performance, accounting based measures such as sales, earnings per share, growth rate of a firm can be used. Most previous studies used accounting data to measure financial performance. This entails the use of documented sources from annual reports and accounts to other statistical bulletin as they tap only historical aspect of a firm.
performance. The major accounting based measures of performance are the return on assets (ROA) which is an indicator of how profitable a company is relative to its total assets, return on equity (ROE) which is the amount of net income returned as a percentage of shareholders equity and return on capital employed (ROCE) which is used for comparing the relative profitability of companies after taking into account the amount of capital used. For the purpose of this study, the return on asset and return on equity were discussed in relation to shareholders wealth.

While there exists a large and growing body of theoretical and empirical literature on the financial performance of listed firms, it is inconclusive on both the measurement and determinants of firms’ financial performance (Liargovas & Skandalis, 2008). The determinants of firm performance have been identified by past studies to be both firm specific (internal) factors (including corporate governance, leverage, and liquidity and firm size) and industry specific (external) factors (including growth, concentration, capital intensity, advertising intensity, etc.) as key determinants of the financial performance based on capital structure relevance; working capital management; and organizational behavior theories.

Some previous empirical studies (Hawawini, Subramanian, & Verdin, 2003) argue that industry or external firm factors outplay internal factors in influencing the firms’ performance. Opler & Titman (1994) argue that internal (firm specific) factors outplay external factors in driving the firms’ performance. Daily and Dalton (2008) consider that corporate governance in manufacturing firms in the USA was found to be positively related with business survival. Liargovas and Skandalis (2008) find size of the company to be a major determinant of firm’s financial performance in Greece. The researchers argue that firm size is a basis of competitive advantage in the sense that larger companies tend to be more efficient than their smaller counterparts and have better resources to survive economic downturns. In Nigeria, Nosa and Ose (2010) find leverage to have a significant and negative relationship with firm’s performance. Theiri and Ati (2011) state the determinants of performance to be debt, the percentage of capital held by shareholders control, opportunity for growth, size, risk, tax savings not related to debt and the sectoral classification of companies but debt and form of control were found to be most significant.

In Pakistan, Abdul (2012) concludes that financial leverage has a significant negative relationship with firm performance. In an effort to validate M&M theory in Kenya, Maina and Kondongo (2013) found a significant negative relationship between debt to equity ratio and all measures of performance. Muhaizam (2013) finds profits/interest rate level, size, reinsurance dependency, solvency margin, liquidity and contribution/premium growth to be statistically significant for conventional companies and equity returns, insignificant. Mirza and Javed (2013) examine the association between the financial performance of firms and economic indicators like corporate governance, ownership and capital structures, and risk management. Positive association was found between corporate governance, risk management and performance while the other variables showed mixed results. Similarly, Mou and Wanrapee (2015) find liquidity and asset utilisation to be positively related to financial performance. Leverage and firm size exhibit a negative relationship. Panel data methodology was used by Aloys, George and Thomas (2015) to ascertain the main determinants of performance in Kenya. Corporate governance variables were found to be positively and statistically significant while leverage has a negative relationship with performance. Liquidity and size were found to be statistically insignificant.

**Corporate Tax and Financial Performance**

Few studies have been conducted on effective tax rate and financial performance and other
related issues. These studies are well documented in the accounting and finance literatures. Neghina (n.d.) researches on the impact problem of profits tax on corporations financing decision. Financial structure determines the effects on profitability and the company's profitability, influencing in this way, the value of the company. The study uses data for 25 companies listed on the Bucharest Stock Exchange between 2006-2011. Neghina uses the ROA, ROE, leverage, effective tax rate, firm size, relative increase in total assets and effective interest rate as variables. The regression results show a negative correlation between the effective tax rate, interest rate and performance, and a positive correlation between leverage, firm size, relative growth of the company and financial performances.

Similarly, Albertazzi and Gambacorta (2006) investigate how bank profitability is affected by the corporate income tax (CIT). Aggregate data of the banking sector of the main industrialized countries, for the period covering 1980-2003, was used. The main novelties with respect to the existing literature are two. First, it explicitly considers that the CIT is not specific to the banking sector so that changes in CIT rate can affect both banks and borrowing firms. With the help of a simple theoretical model, the researchers derive a set of predictions about the impact of the CIT on banks’ income statement. Second, it considers all main components of banks’ profit and loss accounts: net interest income, interest expenses, non-interest income, operating costs, and provisions. The study finds the extent to which a bank is able to shift its tax-burden forward to its lenders, depositors, and purchasers of fee-generating services. Albertazzi and Gambacorta (2006) just investigate how bank profitability is affected by the corporate income tax (CIT) from a theoretical and an empirical perspective, thus the study can be said to be a content analysis.

Firms in European OECD member countries were studied by Jens and Schwellnus (2008) to find the effect of corporate income taxes on two of the main drivers of growth, profitability and investment of over the time period of 1996-2004. This is conducted through stratified sampling and regression analysis is used. The results suggest that corporate income taxes reduce investment through an increase in the user cost of capital. This may be partly explained by the negative profitability effects of corporate income taxes, if there is an increase in the corporate tax rate. Regression analysis is used by Rohaya, Nor‘Azem and Bardai (2010) in Malaysia to reveal the association between income tax and profitability of corporate institutions. The conclusion is that corporate income tax adversely affects the profitability of corporate institutions but has a positive relationship with the firm size and age of companies.

Statistical population of 168 enterprises listed in Karachi Exchange during 2001-2007 is analyzed by Lucaman (2012) to find the connections between revenue smoothing and the tax ratio on revenue and profitability (Return on Assets (ROA) and Return on Equity (ROE)). Both correlation and regression analysis are used. The findings of the study show that there are significant relationship among smooth revenue, tax on revenue and the profitability ratio of the enterprise. In Kenya, Gatsi, Gadzo and Kportorgbi (2013) use panel data methodology covering ten listed manufacturing firms over seven years to empirically determine the effect of corporate income tax on financial performance. OLS regression was employed and the study used ROA, CIT, firm size, age, liquidity and growth as variables of the study. The study reveals that there is a significant negative relation between corporate income tax and financial performance. On the other hand, firms’ size, age of the firm and growth of the firm show a significant positive relationship with financial performance.

In an attempt to find out the tax effects over the profitability indices, Beigi, Rafat and Panah
(2013) apply descriptive-analytic using the data of 28 companies listed in Tehran Stock Exchange from 2004 to 2010 and using panel data approach. The results point out a negative significant effect on various profitability indices. Results of the regression indicate that the debts ratio to asset and the type of the industry shows a negative effect on profitability and capital ratio to asset and the size of the company indicated positive significant effects on profitability index. The study uses ROA, ROE, industry type, size, age, Ratio of capital to assets, ratio of debt to assets and tax as variables.

In 2016, Ilaboya, Izevbekhai and Ohiokha assess the impact of tax planning on firm value with a view to identifying gaps for further extensive empirical consideration. Companies are always looking for means to reduce their corporate tax liability, and this has led to some high level corporate fraud involving tax evasion in both developed and developing countries. The researchers, therefore, present a review of extant literature on tax planning and firm value. Content analysis was used and the review also revealed a general absence of theory in explaining the issue of tax planning. Also, the bulk of empirical studies existing on the dynamics of tax planning and firm value are from developed economies leaving out developing countries.

Content analysis is also used by Bauer, Kourouxous and Krenn (2018), to provide a comprehensive review of analytical literature that studies the influence of taxation on agency conflicts between firm owners and managers. Above and beyond summarizing research findings, we discuss how taxes are commonly implemented in agency models, derive empirical predictions, and identify research gaps for future tax research. The researchers analysis indicate that there are many cases in which taxes influence the behaviour of all contracting parties as corporate taxes do not only reduce a firm’s profit but can also alter the manager’s optimal compensation contract.

**Methodology**

Ex-post facto research design was used since the study deals with the documents already in existence. The population of the study consists of all the twenty seven consumer goods companies listed on the floor of the Nigerian stock exchange. However, some filters were used in selecting the sampled companies for the study. First of all, the companies must be incorporated before 2007. Secondly, all selected firms must have their financial statement for the period under consideration (2006-2016) (Samaila, 2014) or at least ten years’ data Muhammad (n.d). Finally, the firms must not have been delisted between the periods of the study. Thus, the sampled companies are PZ Cussons, 7UP Bottling Company PLC, Flour Mills of Nigeria PLC, Vitafoam Nigeria PLC, Nestle Nigeria PLC, National Salt Co. of Nig. PLC, Northern Nig Flour Mills PLC, Cadbury Nigeria PLC, Unilever Nigeria PLC, Vono Products PLC, Guinness Nigeria PLC, International Breweries PLC, Nigeria Enamelware PLC, Union Dicon salt PLC, Dangote Sugar Refinery PLC and Nigerien Breweries PLC. The source of data is secondary as it entails the use of documented sources (annual reports and accounts of the companies) from 2006-2016. Variables for the study include the dependent variable (financial performance Return on assets) and the explanatory variables of annual effective tax rates, firm size age and risk. The model for the study is:

\[ \text{ROA}_t = \beta_0 + \beta_1 \text{ETR}_t + \beta_2 \text{RISK}_t + \beta_3 \text{SIZE}_t + \beta_4 \text{AGE}_t + \epsilon_{it} \]

Modification of Gatsi, Gadzo & Kportorgbi (2013)

In trying to determine the variation in dependent variable (financial performance) due to variation in any of the independent variables, multiple regressions was used. Multiple regression technique using panel data methodology is suitable and is therefore employed.
because, the panel character of the data, that is, its combination of time series, as well as, cross-sectional attributes justifies the application of a panel data methodology.

**Results and Discussion**
This section deals with the presentation, analysis and interpretation of data generated for the study. The variables for measuring corporate tax and financial performance are collected from the annual reports and accounts of the listed Nigerian consumer goods sampled in the study.

**4.1 Descriptive Statistics**
Table 4.1 presents the result of the descriptive statistics of the variables where the minimum, maximum, mean and standard deviations of the data are fully captured.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Obs</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>176</td>
<td>0.007546</td>
<td>0.29630</td>
<td>-1.89</td>
<td>0.492</td>
</tr>
<tr>
<td>ETR</td>
<td>176</td>
<td>-9.58194</td>
<td>84.666</td>
<td>-420.68</td>
<td>65.81</td>
</tr>
<tr>
<td>SIZE</td>
<td>176</td>
<td>7.10343</td>
<td>0.89733</td>
<td>4.84</td>
<td>8.55</td>
</tr>
<tr>
<td>AGE</td>
<td>176</td>
<td>26.5054</td>
<td>77.729</td>
<td>1</td>
<td>52</td>
</tr>
<tr>
<td>RISK</td>
<td>176</td>
<td>0.07293</td>
<td>0.120519</td>
<td>0</td>
<td>0.736</td>
</tr>
</tbody>
</table>

**Source:** Generated by the author from Annual Report and Accounts of the Companies using STATA

Table 4.1 shows the mean of 0.007546 for return on assets (ROA) with the minimum and maximum of -1.89 and 0.492 respectively and a standard deviation of 0.29630. This shows that on the average, sampled consumer goods earned N0.0075 as return per naira value of its assets with a maximum loss of N1.89 and a maximum profit of N0.49. The standard deviation of 0.2963 implies that return on assets of the companies under study deviated significantly. Similarly, the study records a mean of -9.582 for effective tax rate (ETR) meaning that the average effective tax rate of the companies for the period under study is -9.582 with a minimum and a maximum -420.68 and 65.81 respectively. The standard deviation of 84.667 suggests a very high dispersion of effective tax rate within the period under study. Firm size, measured by log of total assets has a mean of 7.1034 with a minimum and a maximum of 4.84 and 8.55 respectively. The standard deviation of 0.8973 suggests a considerable level of dispersion in firm size during the period under review. Age as measured from year of listing to date has a mean of 26.505. The deviation from the mean is very high with the value of 77.729. Firm age records a minimum of 1 and a maximum of 52 years respectively. Risk, measured as the standard deviation of earnings before interest and tax, has an average of 0.0729 with a minimum and maximum of 0.0000 and 0.736 respectively. The standard deviation of 0.12052 is an indication that the risk vary slightly within the period of the study.
4.2 Correlation Matrix of the Dependent and Independent variables

Table 4.2: Correlation Matrix of Model 1

Table 4.2 shows the correlation coefficients on the relationship between the dependent variable (ROA) and explanatory variable (effective tax rate, size, age and risks).

<table>
<thead>
<tr>
<th>Variables</th>
<th>ROA</th>
<th>ETR</th>
<th>SIZE</th>
<th>AGE</th>
<th>RISK</th>
<th>VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ETR</td>
<td>0.0808</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIZE</td>
<td>0.6035</td>
<td>0.1835</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AGE</td>
<td>0.0674</td>
<td>0.1256</td>
<td>0.0579</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RISK</td>
<td>0.0151</td>
<td>-0.0784</td>
<td>-0.0567</td>
<td>0.0447</td>
<td>1.0000</td>
<td>1.10</td>
</tr>
</tbody>
</table>

Source: Generated by the author from Annual Report Data of the Companies using STATA

Table 4.2 is the correlation coefficients table which show the extent of the relationship between the dependent and independent variables. The values of the correlation coefficient range from -1 to 1 which indicates the direction of the relationship (positive or negative), the absolute values of the correlation coefficient indicate the strength, with larger values indicating stronger relationships. The result reveals that all the explanatory variables are positively correlated (move in the same direction) with Return on Assets (ROA). The figures reveal that firm size is more correlated with Return on Assets as it gives a correlation figure of 0.6035, followed by effective tax rate with the value of 0.0808. The next more correlated variable is firm age with a figure of 0.0674, followed by the risk which has the least correlated figure of 0.0151. The variance inflation factor test (VIF) of the variable revealed absence of multicollinearity as the VIF ranges between 1.01 to 1.06.

4.3 Robustness Test of Independent and Dependent Variables

In order to improve the validity and reliability of the data (statistical inferences for the study), robustness test is conducted. Multicollinearity, heteroskedasticity, hausman specification test, Shapiro Wilks test and normal F (P plot) test are conducted. The discussion in this section has therefore considered the data of the research with a view to establishing its accuracy and reliability. The test of data normality, multicollinearity, heteroskedasticity, hausman specification test gives concrete evidence that the regression data is free of regression errors capable of invalidating the research’s regression assumptions. This makes the regression estimates reliable and enhances its accuracy.

4.4 Regression Results on Corporate Tax and Financial Performance

The regression results of the robust estimation techniques are presented in Table 4.7 where only the summary of the regression results obtained from the model of the study are shown:

Table 4.3 Summary of Regression Results on Corporate Tax and Financial Performance: Return on Assets (ROA) Robust

<table>
<thead>
<tr>
<th>Variables</th>
<th>coefficient</th>
<th>t-value</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Constant</td>
<td>-1.446857</td>
<td>-4.70</td>
<td>0.000</td>
</tr>
<tr>
<td>ETR</td>
<td>-0.0001309</td>
<td>0.52</td>
<td>0.601</td>
</tr>
<tr>
<td>Age</td>
<td>0.0001411</td>
<td>1.06</td>
<td>0.290</td>
</tr>
<tr>
<td>Size</td>
<td>0.2037052</td>
<td>4.97</td>
<td>0.000</td>
</tr>
<tr>
<td>Risk</td>
<td>0.1106352</td>
<td>0.72</td>
<td>0.474</td>
</tr>
</tbody>
</table>

R²: 0.3757
p-value: 0.000
Table 4.4 clearly showed that $R^2$ which is a multiple coefficient of determination gives the percentage or proportion of total variation in the dependent variable jointly. Hence, the result of $R^2$ value of 0.3757 (37.6%) signifies that total variation in return on assets is caused by changes in effective tax rate, firm age, firm size and risk of consumer goods companies in Nigeria. This gives a signal that the model is fit and the explanatory variables are carefully selected considering the p-value of 0.0000 and f-statistics of 9.16. The implication of this is that when there is change in effective tax rate of listed Nigerian consumer goods companies, the return on assets will also be affected by the change directly.

The result reveals a negative relation between effective tax rate and return on assets and the relationship is not statistically significant at 5% significance level. However, the interpretation of this relationship is that effective tax rate influences in the opposite way the return on assets, meaning, an increase of 1% of the effective tax rate, the return on assets decreases by 0.01309%. This confirms the assumption that a firm will give stronger evidence of effective management of the fiscal impact of the taxable base achieving effective tax rate reduced. This finding is consistent with Neghina (nd) and Gatsi, Gatzo & Kportorgbi (2013). It is also consistent with Beigi, Rafat & Panah (2013) where the results achieved from all estimation cases point out a negative and significant effect on various profitability indices. It was also mentioned that in order to relate the taxes to the profitability indices, the costs and the debts of a corporation are referred.

Firm age, measured as the number of years from the year of listing on the floor of the NSE to date, shows a positive coefficient of 0.0001411 which signifies a positive relationship between firm age and return on assets but the relationship is not statistically significant. This confirms the prior expectation that older firms must have stabilised and achieved economies of scale which gives the firm an edge and a competitive advantage over newly listed companies. This finding is equally consistent of Mou and Wanrafe (2015), Apodore and Zainol (2014), Gatsi, Gadzo and Kpotorgbi (2013) and Liargovas and Skandalis (2008).

Firm size, measured by taking the log of total assets, is found to have a positive and significant relationship with return on assets of listed Nigerian consumer goods companies. This finding confirms the earlier assumption that the bigger the company, the higher the expectation of good financial performance which might be as a result of achieving economies of scale which may enable larger firms to produce at a lower cost because of the high level of efficient utilisation of resources. It is argued by Aloys, George and Thomas (2015) that firm size is a basis of competitive advantage in the sense that larger companies tend to be more efficient than their smaller counterparts and have better resources to survive economic downturns.

Furthermore, this finding is consistent with Neghina, (n.d), Liargovas and Skandalis, (2008), Gatsi, Gadzo and Kportorgbi, (2013), Beigi, Rafat and Panah, (2013), where especially, Gatsi, Gadzo and Kportorgbi (2013) suggests that as the size of the companies increases the companies turn to implement strategies which leads to an increment in the markets share, meaning that, the companies sell to a wide spectrum. If such is the case, then their financial performance would have to increase in the same proportion as their size. The finding is
however contrary to Mou & Wanrappe, (2015) who find a negative relationship between size and return on assets in Shangai stock exchange. Mou and Wanrappe conclude that no matter the size of the firm, whether big or small, makes no different effect on firms’ financial performance. The difference in the findings may be attributed to the measurement of size (a dummy variable is used for size) used in the study which is subjective and does not give the true picture thus, regarded as a weak measure of size.

Business risk is measured as the standard deviation of earnings before interest and tax for the last five years. The results reveal a positive although not significant relationship between risk and return on assets. It shows that an increase in business risk by 1% leads to an increase in return on assets by 11.635% signifying that the higher the risk, the higher the return. This is consistent with Saeed (2015), where an insignificant relationship is found between a certain type of risk and return on assets thus, concludes that there is an insignificant relationship between risk management and financial performance. Saeed also finds significant relationship between credit risk and ROA. This study is however contrary to Girish, Harsh & Nidhi (2014) where a significant influence of risk on performance was found in international Islamic bank in Qatar.

In order to improve performance and increase value, risks must be accepted – as the old adage goes, ‘There’s no such thing as a free lunch’. Given this, it is important that any consideration of the risks within an organisation takes place within the context of a strategy and a certain acceptable limit. Thus companies must be able to clearly define, articulate and implement a framework that outlines the risks they are prepared to take. They should also set the limits they are prepared to operate within as it provides a powerful tool to drive the improvement of performance across the business and provide a means of monitoring the activities across the various business units and operations will create warning signals mechanisms as risk limits are approached, to ensure that the right behaviours are implemented in a timely fashion. The insignificance of the relationship found in this study may be attributed to the study period, 2006 to 2016, taking into consideration various events like the global financial crises of 2008 and the recent recession in Nigeria. Consumer goods major inputs are mostly imported (about 50% according to Dexter analytic, 2016). Forex difficulty and high inflation cost must have affected the performance of these companies.

**Summary and Conclusion**

The study assesses the impact of tax on the financial performance of listed Nigeria consumer goods. The study finds that there is an insignificant negative impact of corporate tax on financial performance of Nigeria consumer goods industry. Thus as the tax being paid by the companies increase, their performance reduces with an insignificant amount. The finding indicates that the accounting based measures of financial performance of firms in the consumer goods industry can be enhanced by minimising the tax paid by the companies. The study, therefore, recommends that to improve the financial performance of listed Nigerian consumer goods, services of tax experts are needed to engage in legal tax planning like transfer pricing or structuring intra-company debt in order to reduce the net tax payment. By doing so, the net income after tax will increase which in turn increases financial performance. The study has several theoretical and practical implications. These implications represent the contributions of the study which are expected to benefit the existing body of knowledge within the accounting research and providers of services. The findings have some important implications since they suggest the need to encourage paying a minimal amount of tax by institutions in order to have a higher performance and increased productivity by the companies in the Nigerian consumer goods sector. This suggests that similar efforts in other
sectors, especially manufacturing sector, would be rewarding in enhancing the productivity and profitability (increase in total wealth of the companies and the nation at large) in order to promote economic efficiency.

Reference


Lucman, M. (2012). Connections between Revenue Smoothing and the Tax Ratio on Revenue and Profitability’ E-ISSN: 2225-8329, P-ISSN: 2308-0337


Muhammad, L. M. (nd). ‘Corporate Taxation and Investment: An Analysis of Listed Food and Beverages Companies in Nigeria.’ *Department of Accounting BUK*, Unpublished


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