

**Original scientific paper**

UDC: 336.7 (662.2)

doi:10.5937/ekonhor1901015F

## THE CORPORATE TAX PLANNING AND FINANCIAL PERFORMANCE OF SYSTEMICALLY IMPORTANT BANKS IN NIGERIA

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Due to the multiplicity and overburdening of Nigeria's tax system, the economic units in which systemically important banks (SIBs) are included implement the corporate strategies that identify the loophole which minimizes, postpones, or entirely avoids tax payments so as to reduce its negative effect on financial performance. Therefore, this study examined the corporate tax planning and financial performance of systemically important banks in Nigeria. *Ex-post facto* was adopted as the research design in this study, while *Pooled OLS* was used to analyze the data. This study has shown that the effective tax rate has a negative and significant impact on financial performance. Thin capitalization has a positive significant impact on the financial performance of SIBs in Nigeria, whereas capital intensity and the lease option have demonstrated an insignificant impact on the financial performance of SIBs in the country. The study concluded that corporate tax planning affects financial performance depending on the adopted tax planning strategies. Likewise, the study recommended, among other things, that the tax authorities should engage in the tax reforms whereby the corporate tax rate is to be adjusted, and that banks should engage in the activities that can reduce the effective tax rate.

**Keywords:** capital intensity, effective tax rate, financial performance, systemically important banks, tax planning, thin capitalization

JEL Classification: M410

### INTRODUCTION

The existing literature argues that the banking industry is the lifeblood of any economy as banks play a very important role in the economic life of

every modern state (Aurangzeb, 2012; Ongore & Kusa, 2013). Due to this germane role of banks, their activities are closely monitored by the government through the Central Bank. In Nigeria in the last two decades, the banking industry has witnessed a lot of reforms ranging from financial liberation in 1999, recapitalization in 2004, the adoption of the risk-focused and rule-based regulatory framework and

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corporate governance principles in 2009 (Akpansung & Gidigbi, 2014), the identification of systemically important banks (SIBs) on March 1, 2015, as a response to the outcome of the G20 leaders' meeting in November 2011 that the Basel Committee on Banking Supervision (BCBS) and the Financial Stability Board (FSB) should develop a framework for Domestic SIBs in addition to the Global Systemically Important Financial Institution (SIFIs) (Central Bank of Nigeria, 2014). At the end of December 2016, this set of the banks accounted for 69.06%, 70.25% and 72.2% of the banking industry's total assets, deposits, and loans, respectively (Central Bank of Nigeria, 2016).

Like other economic units, the SIBs must also fulfill some statutory requirements, one of them being compliance with the extant tax laws through the payment of the tax due. Even though there is often reluctance on the economic units' part with respect to the fulfillment of their tax obligation as a result of multiplicity in the tax structure, which makes effective tax rates far higher than the statutory rate of company income tax (Nwaobia, Kwarbai & Ogundajo, 2016). Due to the legal nature of taxation, however, SIBs and other economic units must comply (Commonwealth Association of Tax Administrators, 2009). In order to outsmart the overburdening system, the loopholes that minimize, postpone or avoid the payment of taxes in entirety are often identified by economic units, more specifically by corporate organizations. These attempts made by economic units can either be made by legal means, often referring to tax planning, or through illegal means, categorized as tax evasion (Murphy, 2004).

Corporate tax planning involves the in-depth understanding and application of relevant shelters and incentives in tax enactments by economic units, which includes the incentives given in recognition of the pioneer status, the rules applied to the commencement and cessation of a business, the allowances given in respect of the acquisition of the asset used for the purpose of the business, investment in rural areas and the location of the business, roll-over as applied to the sales of the items chargeable to capital gain tax, tax exemption on interest on a loan, loss reliefs (Ezejelue & Ihendinihu, 2006; Ogundajo

& Onakoya, 2016). S. E. Bonner, J. S. Davis, and B. R. Jaskson (1992) noted that the corporate tax planning process required tax professionals in order to identify tax problems and the opportunities the firm has. The legality of corporate tax planning practices dates back to the legal case of Commissioner *versus* Newman in 1947, where the learned Judge Hand stated that it was not an evil to arrange one's affairs to the extent to which taxes were kept at their least (Kawor & Kportorgbi, 2014). This idea is supported by W. H. Hoffman's (1961) tax planning theory, which states that it is not economically sensible to pay tax above what is required by the law as its effect is always an adverse effect on performance, which always makes firms minimize their exposure to taxation.

The importance of tax planning for the performance of an economic unit has mostly been empirically argued (Desai & Dharmapala, 2009; Nanik & Ratna, 2015; Ogundajo & Onakoya, 2016; Zhang, Cheong & Rajah, 2016; Nwaobia *et al*, 2016) to be positive, which implies that the firms which derive the maximum benefit from tax planning always outperform those which do not engage themselves in tax planning. B. D. Kiabel and C. O. Akenbor (2014) revealed a significant and positive impact of tax planning on corporate governance. In contrast, some authors found that tax planning strategies exerted negative effects on firms' liquidity, but the effect was positive at the industry level, which implies that tax planning is favorable at the macro-, rather than at the micro-level. Surprisingly, M. A. Desai and D. Dharmaphala (2009) and S. Kawor and H. K. Kportorgbi (2014) noted that no relationship existed between tax planning and firms' market and performance.

Even though tax planning has been argued to have a significant effect when fully integrated into the strategic plans of many organizations, little has been heard of its implication for banks' performance, not to mention SIBs, because for the largest part the existing literature, specifically in Nigeria, the studies have been focused on the performance of manufacturing firms, except B. D. Kiabel and C. O. Akenbor (2014), whose study was on corporate governance in Nigerian banks, which creates a gap in the literature

regarding the performance of the industry regarded as the lifeblood of any economy.

Based on the above-said, the main objective of this study is to examine the impact of corporate tax planning on financial performance in Nigeria, with a specific interest in SIBs. They were selected based on their financial strength in the Nigerian banking industry. Therefore, there is a need for a close study of the financial performance of these banks because a failure in their financial performance could cause a significant dislocation in the country's economy, especially in the financial system, due to their size and market importance as they account for 70% of the banking industry's market share (Central Bank of Nigeria, 2016). Similarly, the W. H. Hoffman (1961) theory, which was initially hypothesized on firms, has been largely tested on manufacturing firms in the recent literature, especially so in Nigeria. Hence, there is a need for a shift in the paradigm towards other sectors.

This study is focused on the post-recapitalization era of banks in Nigeria, namely from 2006 to 2016, because some SIBs emerged as a result of the capitalization policy of the CBN. The panel dataset extracted from the annual financial reports of SIBs was used. In addition, the empirical model specified in this study, which explains the impact of corporate tax planning on the financial performance of SIBs in Nigeria, was estimated by using of pooled ordinary least square (OLS) after it had been subjected to both multicollinearity and the Breusch Pagan Lagrange Multiplier (LM) test.

Therefore, in the remaining part of the study, a literature review and the theoretical underpinning upon which the proposition of the study was hinged are presented in Section two, which is immediately followed by the methodology and the model specification in Section three, whereas in Section four the empirical results, their interpretation and discussion are presented. The last section provides the conclusion and the policy recommendations of this study.

## LITERATURE REVIEW

### Conceptual Clarifications

#### *Corporate Tax Planning*

Corporate tax planning (CTP) implies the strategies put in place in a business organization after comprehensively understanding the company's history and operations in order to maximize the firm's expected after-tax cash flows (Scholes, Wolfson, Erickson, Maydew & Shevlin, 2009). L. Nanik and W. Ratna (2015) noted that corporate tax planning implied the legal activities that reduced the transfer of resources from shareholders to the Government. B. D. Kiabel and N. N. Nwikipasi (2001) conceptualized that tax planning (TP) involved the planning and operations of a business in line with the statutory legislation so as for the firm to achieve the optimal or the best tax position in the process of achieving its business goals. It involves the detailed knowledge and application of tax policies, such as the rules guiding the commencement and cessation of a business, incentives on the pioneer status; allowances regarding investment, the business location, the acquisition and utilization of assets for the main purpose of the entity, the tax exemptions claimable on loans and the other legislation and regulations affecting the activities of the business entity (Ogundajo & Onakoya, 2016).

In a nutshell, CTP can be conceptualized as a legal act of transferring economic value from the state to the firm through the minimization of the tax liability by taking advantages of loopholes in tax laws and policies. B. D. Kiabel and C. O. Akenbor (2014) argued that tax planning was vital if management hope to minimize its tax cost. The need for tax planning includes the legal alleviation of the tax burden, the re-investment of tax savings, the promotion of investment and the achievement of economic development. Corporate tax plans are influenced by the nature and structure of capital, the accounting period, the size, the market structure and the business policies of a firm (Kiabel & Nwikipasi, 2001). The existing literature (Nanik & Ratna, 2015; Ogundajo & Onakoya, 2016; Zhang *et al*,

2016; Nwaobia *et al*, 2016) identified the significant tax planning strategies of a business organization, which include the effective tax rate, capital intensity, thin capitalization and the lease option.

The effective tax rate (ETR) measures a decrease in a firm's tax liability without a negative effect on the firm's accounting income (Ftouhi, Ayed & Zemzem, 2013). It mainly measures firms' tax performance by evaluating the actual corporate tax burdens with the percentage of the tax expenditure of a firm in relation to its profit before tax. K. A. Ftouhi *et al* (2013) noted that ETR indicated the aggressiveness of a firm's tax planning strategy through permanent book-tax differences.

Capital intensity is the amount of the money invested by business organizations so as to improve their output, which implies that the greater the investment applied to produce that same unit, the more capital-intensive the firm is (Sadia & Qaisar, 2012). Capital intensity is often considered as the ratio of the noncurrent assets over the total asset (Lee, Koh & Kang, 2011).

Thin capitalization is the strategy used by companies in order to structure their finance by having a high level of the debt-to-equity ratio. The companies using a tax planning strategy prefer to pay a high amount of interest expenses because tax laws treat interest expenses as tax-deductible. As a consequence, the tax burden will also be reduced (Organisation for Economic Cooperation and Development, 2012). Therefore, thin capitalization can be viewed as the strategy adopted by business organizations for the extensive level of the debt relative to equity so as to take the benefit of the interest on the debt in tax laws, which is an allowable expense.

The lease option is the agreement between the lessee and the lessor, in which the lessor provides an asset for the lessee to use for a specific period of time in return for a specified payment (Kraemer & Lang, 2012). Based on the International Accounting Standard 17, a lease is divided into finance and operating lease, which is either based on the idea of the substantial transfer of all the risks and rewards or not.

### *Corporate Performance of Banks*

Banks perform a very germane role in countries' economic resource allocation by continually acting as a channel of funds from depositors to investors. In the process of ensuring economic stability, V. O. Ongore and G. B. Kusa (2013) noted that banks needed to be profitable so as to be able to reward their shareholders for their investment, thereby encouraging more investment, and in turn bring about the growth of the economy. Prior studies suggested financial ratios such as net after-tax income, returns on equity (ROE), net earnings, and return on assets (ROA) as the measurements of banks' financial performance (Pasiouras & Kosmidou, 2007; Kosmidou, 2008).

C. Okafor, K. Ikechukwu and U. Adebimpe (2010) disclosed that banks' performance could also be evaluated by using annual turnover and its sustainability, the extension of branches to remote areas, a bank's net profit, a percentage share in the domestic credit market, the price of shares, and positive employee performance. The European Central Bank (2010) identified risk-adjusted return on capital (RAROC) as a measure of a bank's performance, which allows the allocation of the bank's capital to individual business units taking into consideration the business risk of an individual business unit, but concluded that RAROC was only appropriate for determining statistical risk. The EY Global Financial Services Institute (2015) stated that ROE was commonly used as a performance metric of banks based on banks' appetite for risk in the form of an asset-quality and risk-normed leverage as the explicit driver of ROE. It also disclosed that ROE was a product of ROA and RAROC. Based on the foregoing arguments, this study recognizes ROE as a measure of the financial performance of banks.

### *Systemically Important Banks*

The Financial Stability Board (2010) conceptualized that global systemically important financial institutions were the financial institutions that, either their distress or failure, have the tendency to significantly dislocate the global financial system and

create an adverse economic crisis across the globe because of their market size, market importance, and global interconnectivity. These are the financial institutions identified by the Basel-located bodies as the institutions whose disorderly failure has the tendency to create system-wide instability (Basel Committee on Banking Supervision, 2010). Due to this great importance of SIBs, the Financial Stability Board (2010) stated that it was mandatory for every country to have a system which is supervisory in nature in order to ensure that the regulations, including that of Basel III, were backed up by effective risk assessments and enforcement, especially as it relates to SIFIs. In addition, this supervisory system is expected to proactively identify problems and ensure prompt intervention so as to mitigate to the bare minimum the impact of these potential threats on both financial institutions and the financial system.

In Nigeria, the recognition of SIBs appeared as the response to the outcome of the G20 leaders' meeting held in November 2011 that the BCBS and the FSB should develop a framework for domestic SIBs in addition to the Global SIFIs (Central Bank of Nigeria, 2014). K. Dosekun and O. Senbore (2017) stated that the CBN had issued a framework that would ensure the regulation and supervision of the domestic SIBs which became operative on 1<sup>st</sup> March 2015, in light of the BCBS and the FSB developing a framework for D-SIBs and G-SIFIs. It should be noted that a SIFI can be any of the following: a bank, an insurance company, or any other financial institution, whose failure might trigger a financial crisis due to its size in terms of a market share, substitutability, interconnectedness, a cross-jurisdictional activity, and complexity. It is further stated that, due to the predominance of banks in the Nigerian financial system, this framework would focus on the enhanced supervision of SIBs (Central Bank of Nigeria, 2014), and presently there are eight SIBs in Nigeria, namely Skye Bank Plc, United Bank for Africa Plc, Ecobank Nigeria, Access Bank Plc, Zenith Bank Plc, Guaranty Trust Bank Plc, First Bank of Nigeria Limited, and Diamond Bank Plc.

## Theoretical Review

The underpinning theory of this study is Hoffman's Tax Planning Theory, which argues that efficient corporate entities legally divert cash from tax authorities to the corporate purse (Hoffman, 1961). The theory notes that tax planning activities are only desirable when there is the tendency to bring to the bare minimum taxable income without having a negative effect on accounting income based on the fact that firms' tax liability is based on the former, rather than the latter, that is to say that tax is charged on taxable income. Therefore, firms should deepen their efforts in the tax planning activities that shrink the income that is subject to taxation, rather than an accounting profit. W. H. Hoffman (1961) stated that there was a positive relationship between the tax planning activities of a firm and its performance to the extent to which the tax benefits derivable from such activities exceeded the cost of tax.

Recent contributions (Inger, 2012; Kawor & Kportorgbi, 2014; Ogundajo & Onakoya, 2016) to this theory have agreed upon the proposition of Hoffman's theory that firms could only derive appreciable tax savings from their activities through a deeper understanding of the ambiguity of and loopholes in tax laws. Even though tax planning theories and the framework explain the tax planning incidence in multiple aspects in terms of its accruable benefits, costs, and realities, the theoretical literature discussing tax planning from the banking industry's perspective are limited, especially in Nigeria, because the existing literature has focused on the manufacturing sector (local and multinational companies). Based on this, the study hypothesizes as follows:

H1: There is a significant relationship between the corporate tax planning and financial performance of SIBs in Nigeria.

## Empirical Review

Evidence from developed countries, such as M. A. Desai and D. Dharmapala (2009), who studied tax planning, corporate governance and firm performance in the USA, found that, on average, there

is no significant effect of tax planning on corporate performance. In China, by using structural equation modeling (SEM), C. Zhang *et al* (2016) examined the impact of corporate tax avoidance on firms' financial performance, and disclosed that there was a significantly positive and indirect relationship between tax avoidance and the market value because it had stimulated firms' growth and an increase in profitability just as the additional after-tax cash arising from tax avoidance had helped expand firm's market value. By focusing on European banks' profit, C. Vincenzo and M. Carlo (2011) applied regression analysis in their study and revealed that tax had an inverse impact on the stability of banking systems. In the USA, J. Blouin, H. Huizinga, L. Leaven and G. Nicodeme (2014) studied thin capitalization rules and the multinational firm capital structure, and found, among other things, that the implementation of the thin capitalization rule lowered the total interest expense and the valuation of a firm.

From developing countries, S. Kawor and H. K. Kpportorgbi (2014) disclosed that tax planning had no significant effect on the performance of the listed firms in Ghana. L. Nanik and W. Ratna (2015) studied the tax planning (TP) and firm value of non-banking and financial firms in Indonesia with a board diversity as a moderating variable. The study showed that tax planning had a highly significant effect on the firms' value after the application of panel analysis in analyzing the data. In Pakistan, S. Sadia and A. M. Qaisar (2012) focused on the textile industry and disclosed that profitability, the size, and capital intensity affect the debt financing in the capital structures of the firms. By using the banking and insurance companies listed on the Colombo Stock Exchange (CSE), G. R. M. Gamlath and Y. Rathirane (2013) explored the impact of the intensity and tangibility of capital on the financial performance of the firms by applying both correlation and regression analyses. The study showed that the intensity and tangibility of the capital of a firm had a significantly positive impact on the firm's financial performance and future stability. In Kenya, P. S. Wafula, G. S. Namusonge, and E. Nambuswa (2016) focused on the effect of leasing on the financial performance of Trans Nzoia County Government by carrying out regression

analysis. The study showed that a finance lease had positive effects on return on asset. In Bangladesh, S. Abdus (2013) studied the effects of lease finance on the financial performance of SMEs by conducting content analysis. The study indicated a positive correlation between lease finance and financial performance.

In Nigeria, A. N. Nwaobia *et al* (2016) studied the effect of tax planning on the value of a firm, with a focus on consumer goods, by using the secondary data analyzed by applying a panel regression model. The study revealed that tax planning was significant with respect to the firm's value, but in the disaggregated result, the ETR, the dividend and the age of the firm had a significantly positive effect on the value of the firm, whereas the size of the firm, leverage, and tangibility had a significantly negative effect.

By employing the Generalized Least Square (GLS) method of regression, G. O. Ogundajo and A. B. Onakoya (2016) found out that aggressive tax planning, which included the effective tax rate, leverage, the size, and the age of firms, had a significant influence on the return-on-assets of the manufacturing firms quoted on the Nigerian Stock Exchange. B. D. Kiabel and C. O. Akenbor (2014) disclosed that there was a significant and positive impact of tax planning on the corporate governance of Nigerian banks. In contrast, some authors applied regression analysis to study firms' tax planning strategies and liquidity. The results revealed that tax planning strategies exerted negative effects on the firms' liquidity, but had positive effects on the liquidity of the industry, which implies that tax planning is favorable at the macro-, rather than the micro-level.

### *A Gap in the Literature*

According to the literature review, there is a dearth of research into SIBs inside and outside Nigeria. The few ones in existence only focused on manufacturing firms, except for B. D. Kiabel and C. O. Akenbor (2014), and C. Vincenzo and M. Carlo (2011), which concentrated on tax planning and corporate governance in Nigerian banks and corporate income tax and value-added tax on the pre-tax profits of European banks, respectively.

## METHODOLOGY

*Ex-post facto* is the adopted research design of this study. The population and the sample size of this study consisted of eight SIBs in Nigeria, namely Zenith Bank Plc, Skye Bank Plc, Ecobank Nigeria Plc, First Bank of Nigeria Limited, United Bank for Africa Plc, Guaranty Trust Bank Plc, Access Bank Plc, and Diamond Bank Plc. The secondary data derived from the annual reports of the SIBs were utilized in the study. In estimating the model in Equation (1), descriptive statistics were used to determine the normality of the data. The Variance Inflation Factors (VIF) test was carried out so as to detect multicollinearity; the Breusch Pagan Lagrangian Multiplier (LM) test was carried out so as to detect the presence or otherwise of the random effects in the specified model, whereas the Pooled OLS model was used for the model estimation.

The model for this study is specified in Equation (1) below:

$$PERF = f(ETR_{it}, CAPINT_{it}, TINCAP_{it}, LOPT_{it}, SIZE_{it}, MEFF_{it}, CAD_{it}) \quad (1)$$

$$PERF_{it} = \alpha_0 + \beta_1 ETR_{it} + \beta_2 CAPINT_{it} + \beta_3 TINCAP_{it} + \beta_4 LOPT_{it} + \beta_5 SIZE_{it} + \beta_6 MEFF_{it} + \beta_7 CAD_{it} + \varepsilon_t \quad (2)$$

where *PERF* is the firms' performance proxied with ROE; the *ETR* stands for the effective tax rate proven in the literature (Desai & Dharmapala, 2009; Nanik & Ratna, 2015; Ogundajo & Onakoya, 2016; Zhang *et al*, 2016; Nwaobia *et al*, 2016) as a proxy of the TP, the actual corporate income tax owed by the selected banks relative to pre-tax profits; *CAPINT* stands for the capital intensity that measures the level of a SIB's investment in non-current assets; *TINCAP* stands for thin capitalization, which is the ratio of the total debts of each SIB to its total assets; *LOPT* stands for the lease option that measures the lease arrangement of the SIBs. *CAPINT*, *TINCAP*, and *LOPT* were indicated in the literature in order to explain tax planning (Nwaobia *et al*, 2016).

In addition, the variables identified in prior studies as the variables which have a significant effect on a bank's performance were included in the model as controls.

The control variables were: *SIZE* - the size of the SIBs, the size of the firm that was argued by F. Pasiouras and K. Kosmidou (2007) to influence the financial performance of firms. There is also a tendency for larger banks, rather than for smaller ones, to engage themselves in tax planning. This study measured *SIZE* as the natural log of the selected SIBs' total assets; *MEFF* stands for the managerial efficiency of the SIBs, which is the ratio of the cost overheads to the total assets, management efficiency being proven to impact financial performance (Ongore & Kusa, 2013; Noualli, Abaoub & Ochi, 2015), and *CAD* is the capital adequacy of the SIBs. The capital adequacy argued in the literature to influence the performance of top-rated banks (Pasiouras & Kosmidou, 2007; Noualli *et al*, 2015) is also evident in the frequent regulation of the capital adequacy of banks in Nigeria by the Central Bank of the country.

Where:  $\varepsilon_t$  = Stochastic Error Term/ Disturbance Factor,  $\beta_1 - \beta_5$  = Shift Parameters and  $\alpha_0$  = Constant Parameter.

## A Priori Expectation

Based on Hoffman's 1961 hypothesis, this study a priori expected to find that corporate tax planning variables have a significantly positive impact on the financial performance of the SIBs in Nigeria.

## RESULTS AND DISCUSSION

### Descriptive Statistics

The descriptive statistics show some statistical properties of the variables used in this study. Table 1 shows that the average value of return on equity is 15.89%, which is indicative of the fact that, on a normal basis, the SIBs performed relatively well with respect to maximizing the shareholders' return over the period under review. The minimum and maximum values of return on equity are 0.61% and 43.45%, respectively. The minimum value is positive, which indicates that all the SIBs recorded positive returns over the period. The mean value of the

effective tax rate is 20.57%, which implies that, on average, the SIBs are effectively taxed at the rate of 20.57% over the period. The minimum and maximum values of the ETR are 0.67% and 106.44%, respectively. There is a large variance between the minimum and the maximum values of the effective tax rate, which implies that there is a wide disparity among the SIBs in their ability to reduce the tax burden. The mean value of capital intensity is 3.55%, with the minimum value of 1.30% and the maximum value of 6.57%. Thin capitalization has an average value of 6.15%, with 0% as its minimum value and 21% as its maximum value. On average, the lease option of the SIBs is ₦33,712.6 million. The lease option has the minimum value of 0 and the maximum value of ₦715,980 million.

**Table 1** Descriptive Statistics

Variable	Mean	Minimum	Maximum
ROE	15.89	0.61	43.45
ETR	20.57	0.67	106.44
CAPINT	3.55	1.30	6.57
TINCAP	6.15	0	21.00
LOPT	33712.6	0	715980
SIZE	13.98	11.79	15.23
MEFF	5.06	1.67	10.94
CAD	18.92	6.27	38

Source: Authors

The mean value of the size is 13.9846, which is but slightly higher than the minimum value of 11.79, and to some reasonable extent lower than the maximum value of 15.23. This indicates that the variance in the size of the SIBs is small, implying that they are not significantly different from each other with respect to their respective size. Management efficiency has the mean value of 5.26%, which is quite low. Also, the minimum and maximum values of management efficiency are relatively low. This indicates that, on average, the SIBs have been efficient in their respective operations over the period under review. The mean value of the capital adequacy ratio is 18.92%, which

suggests that, on average, the SIBs are able to comply with the minimum capital adequacy ratio of 16% set by the CBN for SIBs. The minimum and maximum values of the capital adequacy ratio amongst the SIBs are 6.27% and 38%, respectively.

### *Test for Multicollinearity*

Multicollinearity occurs when there is a strong linear relationship among explanatory variables in a regression model. The test for multicollinearity was determined by performing the Variance Inflation Factors (VIF) test. By using the VIF test, the rule of thumb is that the VIF for a variable must not be greater than 10 in order to confirm that the variable is not highly collinear. The result of the VIF test is presented in Table 2, which shows that all the variables have a VIF less than 10, which suggests the independent variables in the model are not highly correlated with each other.

**Table 2** Variance Inflation Factors (VIF) Test

Variable	VIF
ETR	1.14
CAPINT	1.71
TINCAP	1.48
LOPT	1.34
SIZE	2.24
MEFF	1.54
CAD	1.18
Mean VIF	1.52

Source: Authors

### *Breusch Pagan Lagrange Multiplier (LM) Test*

In order to test the presence of the random effects in the specified model, the Breusch Pagan Lagrange Multiplier (LM) test with the null hypothesis of the no-random effect was conducted in this study. The decision rule is that if the Breusch Pagan Lagrange Multiplier (LM) result is significant at an either 5% or

10% level of significance, the null hypothesis will be rejected. The Breusch Pagan LM test in Table 3 shows the result of 0.630379 (p-value = 0.4272), 0.066182 (p-value = 0.7970) and 0.696561 (p-value = 0.4039) for the cross-section, time, and both, respectively. The result shows the null hypothesis is accepted as it is not significant at the 10% level of significance, which implies that the pooled OLS model is appropriate for the model estimation.

**Table 3** Breusch-Pagan Test for Random Effects

Lagrange Multiplier Tests for Random Effects			
Null hypotheses: No effects			
Alternative hypotheses: Two-sided (Breusch-Pagan) and one-sided			
	Test Hypothesis		
	Cross-section	Time	Both
Breusch-Pagan	0.630379	0.066182	0.696561
Prob.	(0.4272)	(0.7970)	(0.4039)
*Mixed chi-square asymptotic critical values:			
1%	7.289		
5%	4.321		
10%	2.952		

Source: Authors

### *Hypothesis Test*

This subdivision tests whether Hoffman's hypothesis (1961) is valid with respect to the financial performance of SIBs in Nigeria or not. In order to test the level of the significance of this hypothesis, the pooled OLS results in Table 4 show that the effective tax rate (ETR) is negatively and significantly related to ROE, which indicates that a percentage increase in the ETR will adversely affect the financial performance of the SIBs by -0.14 percent (p-value = 0.018). On the other hand, thin capitalization (TINCAP) is positively and significantly related to ROE. This finding implies that a percentage increase in thin capitalization improves

the financial performance of the SIBs by 0.53 percent (p-value = 0.038). Capital intensity (*CAPINT*) and the lease option (*LOPT*) are not significantly related to ROE as they indicate 0.147098 percent and -0.367822 percent, respectively, of the financial performance-ROE of the SIBs, with a p-value greater than the 10% level of significance, which means that an increase or decrease in capital intensity and lease options does not significantly influence the financial performance of the SIBs. Table 4 also shows that none of the control variables (*SIZE*, *MEFF*, and *CAD*) is significantly related to ROE, thus indicating that the size, management efficiency, and capital adequacy are not the determinants of financial performance.

Even with the mixed results of the individual proxies' effect of tax planning on financial performance, the F-statistics of 1.81 with a P-value lesser than the 10% level of significance show a joint, statistically significant effect of the *ETR*, *CAPINT*, *TINCAP*, *LOPT*, *SIZE*, *MEFF* and *CAD* on the financial performance of SIBs in Nigeria. Based on this, the study accepted the alternative hypothesis (H1) that there is a significant relationship between the corporate tax planning and financial performance of systemically important banks in Nigeria. This implies that Hoffman's hypothesis (1961) is valid with respect to the financial performance of SIBs in Nigeria.

### *Discussion of the Findings*

This study examined the effect of corporate tax planning on the financial performance of Systematically Important Banks (SIBs) in Nigeria from 2006 to 2016. The empirical results show that the effective tax rate and thin capitalization are the only corporate tax planning measures that influence the financial performance of SIBs in Nigeria. The effective tax rate is negatively related to return on equity, thus suggesting that an increase in the effective tax rate of SIBs in Nigeria tends to reduce their financial performance. This further implies that the ability of SIBs in Nigeria to maximize their respective shareholders' return reduces as they seek to reduce their tax burden/liability. This finding negates A. N. Nwaobia *et al* (2016), who found that the effective tax

**Table 4** The model estimation result of the corporate tax planning and performance of SIBs in Nigeria

Dependent Variable: ROE				
Method: Panel Least Squares				
Periods included: 11				
Total panel (unbalanced) observations: 87				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
ETR	-0.143413	0.059218	-2.421771	0.0177
CAPINT	0.147098	1.125955	0.130643	0.8964
TINCAP	0.527374	0.249285	2.115544	0.0375
LOPT	-0.367822	0.529185	-0.695072	0.4890
SIZE	-1.595200	1.907330	-0.836352	0.4055
MEFF	-0.310515	0.750743	-0.413610	0.6803
CAD	0.004517	0.172769	0.026144	0.9792
C	42.19302	27.22594	1.549736	0.1252
R-squared	0.138295	Mean dependent var		15.88998
Adjusted R-squared	0.061941	S.D. dependent var		9.456203
S.E. of regression	9.158657	Akaike info criterion		7.354724
Sum squared resid	6626.599	Schwarz criterion		7.581474
Log likelihood	-311.9305	Hannan-Quinn criter.		7.446029
F-statistic	1.811240	Durbin-Watson stat		1.521552
Prob (F-statistic)	0.096599			

Source: Authors

rate was positively and significantly related to a firm's performance and Hoffman's hypothesis (1961), which suggests that the effective tax rate increases financial performance.

Thin capitalization is positively related to return on equity, which indicates that an increase in the strategy used by companies to structure their financing with a relatively high level of the debt-to-equity ratio is likely to improve the financial performance of SIBs in Nigeria. This finding further indicates that the ability of the SIBs in Nigeria to increase their respective shareholders' returns tends to be boosted when there is higher debt financing compared to equity financing. This finding is supportive of Hoffman's hypothesis (1961), which suggests that thin capitalization promotes financial performance. This

contradicts the findings of J. Blouin *et al* (2013) that the implementation of the thin capitalization rule reduces the total interest expense and valuation of a firm, which is often affected by the firm's performance.

Capital intensity and the lease option demonstrate an insignificant effect on the financial performance proxy (ROE). which means that an increase or decrease in capital intensity and lease options does not influence financial performance, which is in opposition to the result obtained by G. R. M. Gamlath and Y. Rathirane (2013) stating that there is a significant relationship between capital intensity and financial performance, whereas P. S. Wafula *et al* (2016) and S. Abdus (2013) revealed that lease is significant for financial performance.

The overall result of this study is in agreement with Hoffman's hypothesis (1961) premised on the idea that as long as a firm intensifies the events that decrease a taxable liability with no negative impact on the accounting profit, there is a tendency towards the improvement of its financial performance.

## CONCLUSION

The excessive burden of taxation has always made taxpayers devise ways, either legally or illegally, or both, to reduce or evade taxation. Based on this, the study investigated the implication of tax planning for the financial performance of SIBs. The study concludes that corporate tax planning has a significant impact on the financial performance of SIBs in Nigeria, depending on the adopted tax planning strategies. The thin capitalization strategy of the SIBs indicated a strong significant impact on their respective financial performance as the empirical result of this study establishes the fact that it significantly and positively influences the return on equity of SIBs in Nigeria. There is a negative relationship between the ETR and financial performance given the fact that an increase in the effective tax rate was found to have a negative influence on the financial performance of the SIBs.

Based on the outcome of this study, the study recommends that tax authorities should engage themselves in the tax reforms whereby the corporate tax rate is to be adjusted given the fact that the effective tax rate indicated an inverse significant impact on financial performance, on the one hand, and that banks should engage themselves in the activities that can reduce the effective tax rate, on the other. Banks should engage themselves more in debt financing given the fact that it showed a significant impact on performance. Engaging in debt financing reduces a tax liability due to the fact that the interest paid on a debt is an allowable expense which reduces the chargeable profit. SIBs should not concentrate on the lease option and capital intensity as a tax planning strategy since they are not influential when their respective financial performance is concerned.

This study is limited to a single measure of financial performance based on the several indicators of the financial performance of SIBs. Nevertheless, this study contributes to the existing studies on Hoffman's hypothesis (1961) initially hypothesized on firms as the result of this study validated the hypothesis on SIBs in Nigeria. In addition, this study has established the implication of tax planning for the financial performance of SIBs as the extant literature on tax planning largely concentrated on manufacturing firms.

The direction for future research into corporate tax planning in Nigeria could be tailored towards the behavioral aspect of the tax planning strategy as it pertains to the financial sector. In addition, expanding the scope of this research in terms of the measures that explain the financial performance of SIBs can be explored.

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Received on 18<sup>th</sup> February 2019,  
after revision,  
accepted for publication on 17<sup>th</sup> April 2019

Published online on 25<sup>th</sup> April 2019

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