FINANCIAL LEVERAGE AND TAX PLANNING OF LISTED MULTINATIONAL FIRMS IN NIGERIA

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Abstract
This study investigates the influence of financial leverage on tax planning of listed multinational companies (MNCs) in Nigeria. Data for the study was extracted from the audited annual reports and accounts of nineteen (19) multinational firms, covering a period 2012 to 2022. Being a combination of both times series data and cross-sectional data, panel data methodology was adopted for the data analysis. Specifically, multiple regression technique was used to estimate the models. The results of data analysis reveal significant impact of financial leverage on tax planning of listed MNCs. Therefore, the study conclude that financial leverage significantly determines tax planning activities of multinational firms in Nigeria, thus, we recommend that the management of MNCs while debt financing may offer advantages, such as tax deductibility and lower cost of capital, overreliance on debt can increase financial vulnerability.

1.0 Introduction

Multinational corporations (MNCs) are often connected with tax planning activities due to better opportunities to avoid taxes and increase their after-tax earnings (Kasim & Saad, 2019). Thus, MNCs carry out tax management with the aim of avoiding high taxes or reducing the tax burden in a safe through legal ways. Tax planning as one of the tax management strategies entails the use of legal means to reduce tax liabilities and increases profit after tax. Tax planning is not disputed as long as no relevant tax laws are violated. MNCs could exploit the use of interest payments on related-party loans advanced by an entity in a low-tax jurisdiction to shift profits through excessive interest income derived from its related entity operating in a high-tax jurisdiction. Furthermore, even though the local subsidiary does not need a loan because the interest is an allowable deduction, MNCs can give a loan to the related company. Thus, financial leverage could be use by MNC and other corporate taxpayer to achieved tax planning objectives.

Financial leverage entails using borrowed capital, typically in the form of debt, to amplify returns on equity. While it offers the potential for higher returns, it also introduces interest expenses, increasing financial risk. Consequently, increased financial leverage often leads to more volatile earnings due to fixed debt obligations and interest payments. However, interest expenses related to debt is a tax-deductible. Higher financial leverage can result in lower taxable income due to interest deductions, providing companies with opportunities for tax planning to manage their overall tax liability. Thus, Tax avoidance activities might be affected by the firm's choice of capital structure (Pangestu & Bimo, 2018). For instance, companies may strategically time interest payments, structure debt in tax-efficient way, or explore tax credits related to debt financing. Additionally, it is crucial for companies to ensure that their tax planning strategies. comply with regulatory standards, as changes in tax laws can affect the effectiveness of certain financial leverage approaches. Moreover, investors value earnings stability while also assessing a company's financial health and tax efficiency. Thus, companies must evaluate how their tax planning decisions may affect investor perceptions and maintain transparency. Effective tax planning also involves assessing the risks associated with financial leverage, including interest rate volatility and the company's ability to meet debt obligations. Prudent risk management practices are essential for achieving a sustainable balance in income management.

However, Nigerian government through finance act 2019 minimize the influence of tax avoidance activities on revenue generation by amendment of section 24 of CITA 2004 to limit the amount of interest that corporate taxpayer can enjoyed as tax incentives to thirty per cent (30%) of earnings before interest, tax, deprecations and amortization (EBITDA), with the excess interest disallowed and treated as tax-deductible for a maximum of five years (CITA, 2007 As Amended). Thus, regulatory bodies in Nigeria provides direct connection between borrowed amount by corporate tax payers and their income before tax. Hence, this restriction of 30% might push corporate taxpayers with no choice than to engage in tax avoidance activities through managing their cash flow and project when the tax liabilities to be paid (Sani *et al*., 2024). Though, previous studies document several findings on tax avoidance, e.g. (Alfina *et al.*, 2018; Suyono 2018; Jaeni *et al.*, 2018; Kasim & Saad 2019; Khanh & Khuong 2019; Yanti & Hartono (2019; Prawira & Sandria 2021; Mocanu *et al.*, 2021), yet, none of these studies relate financial leverage and tax planning in the context multinational firms operating in Nigeria.

Our study provides the followings unique contributions. First, our study to the best of the researchers' knowledge, existing studies within the Nigerian context have not specifically focused on listed multinational firms within the same study period. Secondly, our finding also shows that companies engage in tax avoidance to offset the associated cost of debt. Thus, financial leverage is more likely to increase tax planning activities. Finally, evidence from this research established that companies adopted both BTD and H&S in their bid to minimize the level of tax liabilities. To accomplish the objectives of this study, the rest of the paper is structured as follows: Section 2 reviews related empirical studies, Section 3 focuses on the methodology of the study, Section 4 presents the results and discussion, and Section 5 covers the conclusion and recommendations.

2.0 Literature Review and Hypothesis Development

The Agency Theory explains the relationship between two parties that is the principal and the agent in a company setting. It is expected that the agent will report to the principal (Jensen & Merkling, 1976). However, information asymmetry is bound to occur and, therefore, one partly will deny the other some vital information, especially reports on the actual income realized at the end of the accounting period. Further, Hanlon and Hietzman (2010) posit that Tax avoidance

activities are within an agency framework though at developing stages. Furthermore, Khuong *et al.*, (2020) opined that tax avoidance activity is affect by the agency conflict between the agents and the principals. Thus, managers could engage in tax planning activities to reduces taxable profit and improve accounting profit. However, the difference in the two profits could be as a result of managerial opportunistic behaviour (Desai & Dharmapala, 2006). Further, Graham *et al.*, (2014) posit that firm's choice of financing business Influence Company's tax burden. This could be attribute to the fact that interest expenses are tax deductible in Nigerian context. This implies that firms with a high degree of leverage have more ability to avoid taxes through financial transactions. Thus, like previous studies agency theory is used to anchor the relationship between financial leverage and tax planning.

Financial Leverage and Tax Planning

Previous studies provide conflicting empirical links between financial leverage and tax planning activities around the globe. For instances, Alfina et al. (2018) using mining companies in Indonesia between 2014 to 2016 reported that leverage has a positive and significant impact on the cash effective tax rate. Thus, implies that it increases the firm's tax burden. In contrast, Suyono (2018) analysed whether external auditors' quality and leverage affect the tax aggressiveness of listed non-financial firms. The study covered 76 non-financial firms for a period of five years (2012-2016) based on the purposive sampling technique. The result indicate that leverage is negative and statistically significant to tax aggressiveness. Hence, tax liabilities could be reduce using debt. On the other hand, Jaeni *et al.*, (2018) analysed the effect of good corporate governance, profitability and leverage on tax avoidance behaviour before and after-tax amnesty using a sampled 118 firms for the period of two years (2015-2016) reveal that leverage does not affect tax avoidance. Further, they found that no significant difference in tax avoidance before and after the tax amnesty policy. Thus, tax planning activities could not be achieved with debt capital.

Equally, Kasim and Saad (2019) studied the determinants of the corporate tax avoidance strategies of multinational companies in Malaysia. The result show that leverage has a negative and significant impact on corporate tax avoidance. On the other hand, Khanh and Khuong (2019) using data from listed Vietnam companies for a period of seven years (2010-2016) show that firm leverage is positive and statistically significant to the current effective tax rate and the cash effective tax rate but negative and significant to book-tax differences (BTD). Also, Yanti and Hartono (2019) found empirical evidence in support of a positive impact of leverage, profitability and size of firms on the tax aggressiveness of 11 companies listed on the Stock Exchange. On the other hand, Prabowo (2020) investigated the impact of capital structure, profitability, and firm size on the tax avoidance activities of listed Indonesia palm oil companies from 2007 and 2018. The results show that capital structure has a positive and significant impact on tax avoidance proxied by the current effective tax rate (cETR).

Jaffar et al. (2021) examined the determinants of the tax aggressiveness of listed Malaysian companies. They established that leverage has no significant impact on tax planning. This implies that leverage is not assisting in minimizing firms tax liabilities. Also, Prawira and Sandria (2021) found that leverage has a positive and significant impact on tax aggressiveness. However, the data for the study stopped at 2016. In another study, Oktaviani et al. (2021) proved that leverage has a positive and significant influence on tax aggressiveness. This implies that leverage increases the tax burden of the listed manufacturing firms in Indonesia. Similarly, Rachmat *et al.*, (2021) found that debt-to-equity ratio has a positive and significant impact on tax avoidance(cETR). Also, Mocanu *et al.*, (2021) examined the determinants of tax the avoidance of profit tax paying

companies in Romania using 236 privately-owned limited liability companies for a period of five years (2013-2017). The results show that the leverage ratio is positive and statistically significant to book-tax difference. However, other measures of tax avoidance, such as book-tax difference (BTD) and the accounting effective tax rate (ETR), could produce different results. The studies reviewed so far have shown that leverage could influence tax planning, although, most of the studies did not use the term "tax planning" but rather "tax avoidance" and "tax aggressiveness". The review also shows a dearth of studies conducted in Nigeria on the impact of leverage on tax planning that the current study intends to fill. Based on the above discussion we postulated that:

H_{01} Financial Leverage significantly relate to Tax Planning H1a Debt to Assets significantly related to Book-tax difference (BTD)

H_{02} Debt to Assets significantly related to Henry and Sansing's Measure (H&S) H1c Debt to Equity significantly related to Book-tax difference (BTD) H1d Debt to Equity significantly related to Henry and Sansing's Measure (H&S)

3.0 Methodology and Econometric Model

The study adopts the correlational research design that investigates the relationship between two or more variables without the researcher controlling or manipulating any of them. The choice of the design was informed by the fact that information on tax planning, leverage and income smoothing can be best obtained by examining the annual reports and accounts of the sampled listed multinational firms in Nigeria.

The study's targeted population is made up of all the listed multinational firms on the Nigerian Group Exchange (NGX) floor as of 31st December, 2022. Multinational firms are companies that have business offices and operations in two or more countries in the world. In this study, they are defined as companies that have at least 25% foreign shareholding and operate in two or more countries. MNC can also be a Nigerian company who operates in that or more countries. (see Appendix 1).

Variables of the study and their measurement.

The study has three categories of variables: the dependent, the explanatory variables and control.

Dependent Variable

The dependent variable of the study is tax planning, which is measured using book-tax difference (BTD) and Henry and Sensing's measure of tax planning (H&M). BTD is computed as the difference between accounting profit and taxable profit. Taxable profit is obtained by grossing up the cash tax paid with the current company income tax rate of 30%. Further, total accrual is computed to control the differences that may arise as a result of income smoothing. Book-tax differences are then inferred by subtracting taxable income from pre-tax income scaled by firm's total assets at the year end.

BTD = Pre-tax income – Taxable income

The H & M measure is derived by performing two basic operations. First is to get the difference between the cash tax paid and the product of pre-tax income and the statutory rate. Second, the answer from the first operation is then divided by the market value of assets (Henry & Sansing, 2014).

Independent Variable

The independent variable of the study is financial leverage. In line with the studies of Siedi (2012), Sani (2016) and Oktaviani et al. (2021), financial leverage is measured using two proxies. Firstly, debt to total assets (TDTA), which is defined as the interest-bearing debt scaled by total assets, as used by Sani (2016). Secondly, the debt-to-equity ratio which is defined as the total interest-bearing debt divided by shareholders fund (Sani 2016; and Megarani *et al.*, 2019).

Control Variable

In line with studies of Alexender (2019) and Sani (2019), the study included some control variables among which are profitability, firm size, capital intensity (TAN) and industry dummy. Profitability (ROA) is defined as profit before tax divided by total assets. Firm size is defined as the natural logarithm of total assets. TAN is measured as the proportion of non-current assets to total assets.

Table 1

Variable Definition and Measurement

Variables	Acronym	Measurement	Source
Tax Planning (Book-Tax Difference)	BTD	(Pre-tax Income − Taxable Income) scaled by Total Assets. Taxable income = Cash Tax Paid / Statutory Tax Rate (30%)	Henry & Sansing (2014); Annual Reports
Tax Planning (Henry & Sansing Measure)	H&M	(Cash Tax Paid − (Pre-tax Income × Statutory Tax Rate)) / Market Value of Assets	Henry & Sansing (2014)
Financial Leverage (Debt to Total Assets)	TDTA	Interest-bearing Debt / Total Assets	Sani (2016); Siedi (2012)
Financial Leverage (Debt to Equity)	DTE	Total Interest-bearing Debt / Shareholders' Equity	Sani (2016); Megarani et al. (2019)
Profitability	ROA	Profit Before Tax / Total Assets	Alexander (2019)
Firm Size	SIZE	Natural Logarithm of Total Assets	Annual Reports
Capital Intensity	TAN	Non-current Assets / Total Assets	Sani (2019)
Industry Dummy	IND	Dummy Variable (1 = firm belongs to industry, 0 = otherwise)	Prior Literature

Source: Authors' Compilation from various Literatures (2026).

Model Specification

The following models are used to test the effect of financial leverage on the tax planning of listed multinational firms in Nigeria. The primary specification of the model used in the study is as follows:

$$BTD_{it} = \beta_0 + \beta_1 DTE_{it} + \beta_2 DTA_{it} + \beta_3 Fsize_{it} + \beta_4 TAN_{it} + \beta_5 ROA_{it} + \beta_6 TA_{it} + \varepsilon_{it}$$

$$HSM_{it} = \beta_0 + \beta_1 DTE_{it} + \beta_2 DTA_{it} + \beta_3 Fsize_{it} + \beta_4 TAN_{it} + \beta_5 ROA_{it} + \varepsilon_{it}$$

4.0 Results and Discussion

This sub-section presents, interprets and discusses the results obtained. The section starts with descriptive statistics and Pearson correlation analysis. Furthermore, it presents the results of the multiple regression were discussed.

Descriptive Statistics

Table 1 provides summary of statistics for the study variables. The descriptive statistics analyze the basic features of variables of the study and presents them in a summarized and more justifiable manner. The summary statistics include measures of central tendency, such as mean, standard deviation, minimum and maximum values of the dependent and the explanatory variables.

Table 1:
Descriptive Statistics of the variables

Variable	Obs.	Mean	Std. Dev.	Min	Max
BTD	209	0.004	0.085	-0.190	0.156
HSM	209	-0.001	0.025	-0.047	0.057
TDTA	209	0.1738	0.1681	0.0000	0.5704
TDTE	209	0.6457	0.8633	0.0000	3.3229
Fsize	209	10.538	0.7733	8.6158	11.793
TAN	209	0.4039	0.1970	0.1010	0.7871
ROA	209	0.0372	0.1000	-0.3521	0.5950
TA	209	-0.0559	0.1857	-0.6197	0.8016

Source: Stata Output, 2026.

Table 1 shows that BTD has a mean value of 0.0036 and a maximum value of 0.1559, with a minimum value of -0.1903. This implies that on average the gap between pre-tax income and taxable income is small with some companies among the sample size having a relatively large difference. The standard deviation of 0.0846 indicates a moderate dispersion among the sample firms. Also, the Henry and Sansing (HSM) measure of tax planning display a mean value of -0.0011 and a maximum value of 0.0571, suggesting a possibility of pre-tax income to be lower than taxable income. However, maximum value indicates that some company's book income within the sample size is higher than taxable income. The standard deviation of 0.0254 indicates dispersion among the sampled companies. Likewise, the Debt to assets ratio (TDTA) shows an average value of 0.1748, with a minimum value of 0.000 and a maximum value of 0.570. This implies that on average total assets of the sampled firms are 17.4% financed by debt capital and maximum debt financing is 57%. The standard deviation of 0.1681 signifies a small variation among the sampled firms. Similarly, the debt-to-equity ratio (TDTE) has a mean value of 0.65, a minimum value of 0.000 and a maximum value of 3.32. This suggests that the proportion of debt to capital employed is 65%. The standard deviation of 0.8633 indicates a moderate dispersion among the sampled firms. This implies that companies use more debt to finance their business.

With regards to control variables, firm size (fsize) has a mean value 10.538 and a maximum value of 11.793. The standard deviation of 0.7733 indicates an insignificant dispersion from the mean value. Further, the proportion of non-current assets to total assets (Tangibility) displays mean value of 0.4039 and a minimum value of 0.1010. This implies that on average 40.4% of the total assets is represented by non-current assets. The standard deviation of 0.1970 signifies a small dispersion from the central value. Equally, ROA shows a mean value of 0.0372 and a maximum value of 0.595. This indicates that on average listed manufacturing earned 3.7% on every ₦1 invested in total assets, with a maximum return of 59.5%. The standard deviation of 0.1000 implies an insignificant dispersion among the sampled firms. Finally, Total Accrual (TA) has a mean value of -0.0559, with a minimum value and a maximum value of -0.6197 and 0.8016, respectively. The standard deviation of 0.1857 indicates a significant dispersion among the sampled firms.

Correlation Matrix

This sub-section presents the result of the correlation matrix between the dependent and the explanatory variables and provides insight into the extent, strength and direction of the association between two or more variables (Gujarati, 2004). The value of the correlation rangesfrom -1 to 1. The sign of the coefficient indicates the direction of the relationship, while the density of the value of the correlation coefficient indicates the extent of the relationship. Table 2 presents the results of the correlation matrix:

Table 2.
Correlation Matrix of the variables

	BTD	TDTA	TDTE	Fsize	TAN	ROA	TA	VIF
BTD	1.000							
TDTA	-0.186	1.000						
TDTE	-0.225	0.808	1.000					3.13
Fsize	0.282	-0.051	-0.050	1.000				3.03
TAN	-0.013	0.083	-0.065	0.131	1.000			1.20
ROA	0.765	-0.215	-0.180	0.370	-0.004	1.000		1.12
TA	0.185	0.144	0.150	-0.039	-0.190	0.228	1.000	1.17

Source: Stata Output, 2026.

Table 3.
Correlation Matrix of the variables

	HSM	TDTA	TDTE	Fsize	TAN	ROA	VIF
HSM	1.000						
TDTA	0.186	1.000					
TDTE	0.225	0.808	1.000				3.13
Fsize	-0.282	-0.051	-0.050	1.000			3.03
TAN	0.013	0.083	-0.065	0.131	1.000		1.20
ROA	-0.765	-0.215	-0.180	0.370	-0.004	1.000	1.12

Source: Stata Output, 2026.

The correlation coefficient presented in Table 2 shows that TDTA, TDTE, and TAN have negative association with BTD, as shown by the correlation coefficient. However, Fsize, ROA and TA have a positive association with BTD.Furthermore, the correlation matrix in Table 3 shows that TDTA, TDTE and TAN have a positive association with HSM. On the other hand, Fsize, and ROA displayed negative association with HSM.Moreover, the correlation matrix in Table 2 and Table 3 suggests the presence of a multicollinearity problem, as the correlation coefficient between TDTA and TDTE exceeds the threshold of 0.8, as proposed by Gujarat (2004). However, the variance inflation factor (VIF) test carried out confirmed the absence of a collinearity problem, as the results of the test are within the acceptable range of less than five (5). Thus, the data do not suffer from multicollinearity problems.

Multiple Regression Results

This sub-section presents the regression results of the impact of financial leverage on the tax planning of listed multinational firms in Nigeria using panel data regression analysis. Table 3 presents the results of the direct effect.

Table 4.
Regression Results

		BTD			**HSM**	
	Coeff.	**z-value**	**p-value**	**Coeff.**	**z-value**	**p-value**
Cons.	-0.0198	-0.44	0.663	0.0052	0.38	0.706
TDTA	0.0762	2.16	0.031**	-0.0236	-2.20	0.027**
TDTE	-0.0223	-3.39	0.001***	0.0066	3.34	0.001***
Fsize	0.0012	0.31	0.759	-0.0003	-0.22	0.829
TAN	-0.0111	-0.56	0.573	0.0040	0.68	0.495
ROA	0.6370	13.63	0.000***	-0.1930	-13.9	0.000***
R-Square	0.60			0.603		
Wald Chi	308.51			310.27		

P-value	0.000	0.000
Hausman	22.95***	9.75*
Modified Wald Test	509.92***	498.67***
Wooldridge Test	9.487***	9.526***

Source: Stata Output, 2026.

From Table 4, our data of the study is characterized with the problem of heteroskedasticity, autocorrelation and cross-sectional dependency. Thus, the use of traditional GLS (Random & Fixed) effect and ordinary least square regression (OLS) would be biased (Moundigbaye *et al*., 2018). According to them, Panel Corrected Standard Error (PCSE) regression estimates is more superior for panel data, as it has the power to handle the problems of heteroskedasticity, auto correlation and cross-sectional dependency and provides standardize coefficient that is more efficient for hypotheses testing. Further, from the regression estimates in Table 3, the results show a cumulative R-square of 0.600 and 0.603 for BTD and HSM respectively and Wald chi square of 308.51 and 310.27, which is statistically significant at 1% (P<0.01), indicating that the overall model is fit in explaining the level of variability between the dependent and explanatory variables. The R-square displayed in Table 4 signified that 60% changes in BTD are course by the variable selected in this study while the remaining 40% are explained by the variables not selected by the study. Equally, the R-Square of 0.603 signified those changes in HSM are 60.3% predicted by the variables selected in the study, with the remaining 39.3% are course by the variable not selected by the study.

From the regression estimate in Table 4, contrary to the assertion and most surprisingly the study found TDTA positive and significant to BTD (β0.0762, p, 0.031). This implies that tax avoidance activities negatively influence choice of capital structure. Perhaps companies use debts to acquire assets and were able to utilize the assets to generate more profits that led to the payment of more CIT. The findings imply that the proportion of debt capital is higher than the proportion of assets. Thus, it implies a higher tax burden. The results are contrary to the findings of previous research where TDTA was found to have a negative and significant relationship with BTD (Jaffar et al., 2021). The findings also agreed with the position of Khanh and Khuong (2019), Susanto et al. (2019) and Adegbite and Bojuwon (2019). However, they contradict agency theory predictions that the use of financial leverage to obtain tax benefit could create an agency problem, because management may pursue their own benefit at the expense of the overall goals of the organization.

Correspondingly, from Table 4 TDTE has a negative and significant impact on BTD (β-0.0223, p, <.01) suggest that high tax avoidance possibly surge the level of debt capital and equally increases the after-tax profit. In this regard, Abdul Wahab *et al.*, (2022) posit that BTD measure the degree to which company's taxable income diverges from their book income. Thus, the results provide evidence that MNC firms with high tax obligations choose to employ more debt capital to minimize their tax burden. Thus, financial leverage minimizes multinational companies' tax burdens. In other words, multinational companies use financial leverage as a tool to shift their profit to minimize the tax burden, even though allowable interest expenses are restricted to 30% of EBITDA for any assessment year (Section 24(a) of CITA & Seven Schedule of CITA 2007 as amended). Therefore, the Nigerian TIN Capitalization rule postpones excess interest to the next five assessment years rather than disallowing it like other countries. The finding is in line with the work of Inua (2018), Prabowo (2020) and Ernawati *et al.*, (2021). The finding also is consistent with the political power theory prediction that MNCs use their resources to hire best professional consultants to study the law of a country and take advantage of incentives and tax credits as well

as the loopholes in the tax laws to minimize their tax liabilities and maximize the after-tax profits. However, the finding contradicts the position of Azizah and Kusmuriyanto (2016) and Irianto *et al.*, (2017).

With regards to the second measure of tax planning (HSM), the regression results in Table 4 shows that TDTA is negative and statistically significant (β-0.0236, p, 0.027). This implies that multinational companies properly utilize interest expenses to minimize their tax burden, which is in line with the practice since interest is an allowable expense in arriving at the net profit of a company. The finding agreed with the position of Prabowo (2020) and Ernawati *et al.*, (2021). However, it disagrees with the position of Multazam and Rahmawaty (2018). On the other hand, TDTE has a positive and significant impact on HSM (β0.0066, p, <.01). This implies a higher tax burden on multinational firms in Nigeria. The findings agree with the position of Rachmat *et al.*, (2021) and Mustika *et al.*, (2019) established that capital structure increases firm tax burden.

5.0 Conclusions and Recommendation

This study examines the impact of financial leverage on the tax planning of listed multinational firms in Nigeria. The study established that strong connection between debt to assets ratio and book-tax difference (BTD), thus, tax planning activities of multinational firms in Nigeria is affected by financial leverage. However, no strong link between debt to assets ratio and HSM. Therefore, we recommended that while debt financing may offer advantages, such as tax deductibility and lower cost of capital, overreliance on debt can increase financial vulnerability. Equally, FIRS should satisfactorily scrutinized debt ratio in multinational firms and ensure strict compliance with Finance Act 2019 with regards to interest deductibility to minimize possible revenue linkages through tax planning activities.

References

Abdul Wahab, N. S. A., Ntim, C. G., Tye, W. L., & Shakil, M. H. (2022). Book-tax differences and risk: Does shareholder activism matter? *Journal of International Accounting, Auditing and Taxation, 48*, 1.

Adegbite, T. A., & Bojuwon, M. (2019). Corporate tax avoidance practices: Empirical evidence from Nigerian firms. *Studia Universitatis Babes-Bolyai Oeconomica, 64*(3), 39-53. https://doi.org/10.2478/subboec-2019-0014

Alexander, N. (2019). The effect of ownership structure, cash holding and tax avoidance on income smoothing. *GATR Journal of Finance and Banking Review, 4*(4), 128-134.

Alfina, I. T., Nurlaela, S., & Wijayanti, A. (2018). The influence of profitability, leverage, independent commissioner, and company size on tax avoidance. *Proceedings of the 2nd International Conference on Technology, Education, and Social Science*, 102-106.

Azizah, N., & Kusmuriyanto, S. (2016). The effect of related party transactions, leverage, commissioners, and directors' compensation on tax aggressiveness. *Accounting Analysis Journal, 5*(4), 307-316.

Ernawati, S., Chandrarin, G., Respati, H., & Asyikin, J. (2021). The effect of profitability, leverage and company size on tax avoidance through earnings management practices in go public manufacturing companies in Indonesia. *East African Scholars Journal of Economics, Business and Management, 4*(7), 162-176.

Graham, J. R., Hanlon, M., Shevlin, T., & Shroff, N. (2014). Incentives for tax planning and avoidance: Evidence from the field. *The Accounting Review, 86*(3), 991-1023.

Gujarati, D. N. (2004). *Basic econometrics* (4th ed.). McGraw-Hill.

Hanlon, M., & Heitzman, S. (2010). A review of tax research. *Journal of Accounting and Economics, 50*(2-3), 127-178. https://doi.org/10.1016/j.jacceco.2010.09.002

Henry, E., & Sansing, R. C. (2014). Data truncation bias and the mismeasurement of corporate tax avoidance. Retrieved from http://papers.ssrn.com

Inua, O. I. (2018). Determinants of corporate effective tax rate: Empirical evidence from listed manufacturing companies in Nigeria. *Accounting and Taxation Review, 2*(3), 48-61.

Irianto, B. S., Sudibyo, Y. A., & Ak, A. W. S. (2017). The influence of profitability, leverage, firm size and capital intensity towards tax avoidance. *International Journal of Accounting and Taxation, 5*(2), 33-41.

Jaeni, J., Badjuri, A., & Fadhila, Z. R. (2018). Effect of good corporate governance, profitability and leverage on tax avoidance behavior before and after tax amnesty. *Proceedings of the 2nd International Conference on Banking, Accounting, Management and Economics*, 86, 149-154.

Jaffar, R., Derashid, C., & Taha, R. (2021). Determinants of tax aggressiveness: Empirical evidence from Malaysia. *Journal of Asian Finance, Economics and Business, 8*(5), 179-188.

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. *Journal of Financial Economics, 3*, 305-360.

Kasim, F. M., & Saad, N. (2019). Determinants of corporate tax avoidance strategies among multinational corporations in Malaysia. *International Journal of Research in Business Studies and Management, 6*(5), 1-6.

Khanh, H. T. M., & Khuong, N. V. (2019). Does corporate tax avoidance influence firm leverage of Vietnamese listed companies? *Theoretical Economics Letters, 9*, 1070-1078.

Khuong, N. V., Liem, N. T., Thu, P. A., & Khanh, T. H. T. (2020). Does corporate tax avoidance explain firm performance? Evidence from an emerging economy. *Cogent Business & Management, 7*(1), 1780101.

Megarani, N., Warno, W., & Fauzi, M. (2019). The effect of tax planning, company value, and leverage on income smoothing practices in companies listed on the Jakarta Islamic Index. *Journal of Islamic Accounting and Finance Research, 1*(1), 139-162.

Mocanu, M., Constantin, S., & Răileanu, V. (2021). Determinants of tax avoidance on profit tax paying companies in Romania. *Economic Research-Ekonomska Istraživanja, 34*(1), 2013-2033.

Moundigbaye, M., Rea, W. S., & Reed, R. W. (2018). Which panel data estimator should I use? Corrigendum and extension. *Economics, 12*(4), 1-32.

Multazam, S., & Rahmawaty. (2018). The influence of leverage, executive incentives, and managerial ownership on tax aggressiveness. *Jurnal Ilmiah Mahasiswa Ekonomi Akuntansi (JIMEKA), 3*(3), 494-504.

Mustika, M., Sulistyowati, S., & Wahyuni, E. N. (2019). Examining the impact of liquidity, leverage and earning management on corporate tax aggressiveness. *Advances in Economics, Business and Management Research, 127*, 97-99.

Oktaviani, R. M., Pratiwi, Y. E., Sunarto, S., & Jannah, A. (2021). The effect of leverage, earning management, and capital intensity on tax aggressiveness. *Journal of Asian Finance, Economics and Business, 8*(7), 501-508.

Pangestu, S., & Bimo, I. D. (2018). The determinants and consequences of tax avoidance in Indonesia. *Studi Akuntansi dan Keuangan Indonesia, 1*(2), 94-109.

Prawira, I. F. A., & Sandria, J. (2021). The determinants of corporate tax aggressiveness. *Estudios de Economía Aplicada, 39*(4), 1-9.

Prabowo, I. H. (2020). Capital structure, profitability, firm size and corporate tax avoidance. *BESSCO Journal, 2*(8), 93-105.

Rachmat, R. A., Rachman, Y. T., & Putra, I. G. S. (2021). The effect of capital structure and profitability in manufacturing companies listed on the IDX. *Turkish Journal of Computer and Mathematics Education, 12*(8), 1332-1341.

Saeidi, P. (2012). The relationship between income smoothing, income tax and profitability ratios. *Asian Journal of Finance & Accounting, 4*(1), 46-51.

Sani, A. A. (2016). *Ownership structure and dividend policy of listed oil and gas companies in Nigeria* (Unpublished master's dissertation, Bayero University Kano).

Sani, A. A. (2019). *Corporate governance, firm characteristics and real earnings management in Nigeria: The moderating effect of political connection* (PhD thesis, Universiti Utara Malaysia).

Sani, A. A., Kibiya, I. U., Al-Absy, M. S., Muhammad, L. M. L., Bala, H., Khatoon, G., Mohammed, S. D., & Sunusi Garba, S. (2024). A dynamic panel data approach of corporate tax avoidance and debt financing in Nigeria. *Cogent Business & Management, 11*(1), 2316283.

Susanto, Y. K., Pirzada, K., & Adrianne, S. (2019). Is tax aggressiveness an indicator of earnings management? *Polish Journal of Management Studies, 20*(2), 516-527.

Suyono, E. (2018). External auditors' quality, leverage and tax aggressiveness. *Media Ekonomi dan Manajemen, 33*(2), 99-112.

Yanti, L. D., & Hartono, L. (2019). Effect of leverage, profitability and company size on tax aggressiveness. *Lia Dama Yanti, Lisyani Hartono*, *1*(1), 1-11