ACCRUALS QUALITY AND TAX AVOIDANCE: EVIDENCE FROM MULTINATIONAL FIRMS IN NIGERIA

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Abstract
The broad objective of the study is to examine the effect of discretionary accruals on corporate tax avoidance of Multinational Corporations (MNCs) in Nigeria. The study specifically examines the effect of discretionary accruals on book-tax differences and the effective tax rate of multinational firms. The study adopted the ex post facto research design. The final sample comprised of fifty MNCs based on data availability during the study period. The secondary data were analysed using multiple linear regression techniques to analyse the data. The results showed a negative non-significant effect of discretionary accruals on book-tax differences, and the second hypothesis showed a positive non-significant effect of discretionary accruals on the effective tax rate. The study concludes that the accruals quality is related to tax avoidance via transfer price manipulation of MNCs in Nigeria. Based on this, it is recommended that the FIRS should equip its personnel through effective training to effectively deal with intra-firm trade by MNCs. A comprehensive assessment would involve details of the parties involved, the tax rate applicable for each jurisdiction, the methodology employed and a justification for such method, and a comparative analysis with an alternative market price.
Keywords: Accruals, Tax, Avoidance, Multinationals, Nigeria

1.1 Introduction

Multinational Corporations (MNCs) are large businesses that conduct a large volume of transactions across borders and territorial jurisdictions (Klassen *et al.*, 2017; Taylor *et al.*, 2015). The rise of MNCs was facilitated by the tremendous increase in the rate of globalisation. MNCs control and manage income-generating assets in more than one country, via partly or wholly-owned subsidiaries, affiliates or joint ventures (Malik, 2006). MNCs conduct intra-group transactions which enable them to manipulate prices, either over-pricing or under-pricing, in a bid to avoid tax (Malik, 2006). Transfer pricing enables MNCs to "shift profits around the globe" (Baker, 2005, p. 30). This is achieved by shifting profits from high tax to low tax jurisdictions. This is facilitated because of disparate tax rates in different jurisdictions and tax havens in some countries (Clausing, 2003; Cristea & Nguyen, 2016; Dyreng & Lindsey, 2009; Slemrod & Wilson, 2009). MNCs exploit loopholes in the host country's tax laws (Cazacu, 2017), thereby facilitating capital flight in such countries (Acquah, 2017; Sikka & Willmott, 2010).

Tax is a compulsory charge by the government, whether state, local or federal on a taxable individual or corporate entity (Edame & Okoi, 2014). Tax revenue is utilised by the Government to perform its traditional functions, such as to maintain law and order, defence, import and export regulation, etc. (Edame & Okoi, 2014; Takumah, 2014). Tax avoidance is a deliberate attempt by managers to reduce the amount of tax payable. Such attempts can be sub-divided into acceptable (legal) tax avoidance and unacceptable (illegal) tax avoidance (Fadhilah, 2014). Tax avoidance is linked to earnings management (Marwat *et al*., 2021). Corporate tax avoidance involves a range of managerial decisions which affects capital structure (Faulkender & Smith, 2015; Huizinga *et al.*, 2008), cost of capital (Goh *et al.*, 2016; Cook *et al.*, 2015; Hasan *et al.*, 2014; Shevlin *et al.*, 2013; Hutchens & Rego, 2013), cash retention, (Faulkender & Petersen, 2012; Foley *et al.*, 2007), and payout policy (Dharmapala *et al.*, 2011). The shareholders may prefer tax avoidance for it increases residual income and lowers the cost of debt (Lim, 2011). In contrast, the government kick against it because it lowers the amount of revenue accruing to them (Schön, 2008).

Corporate tax avoidance can also lead to negative consequences, such as reputational damage (Hanlon & Slemrod, 2009), high political costs and marginal costs (Mills *et al.*, 2013), and cause a decrease in shareholder returns (Hanlon & Heitzman, 2010). The marginal costs are potential costs, such as penalties and fines imposed by the tax authorities (Chen *et al.*, 2010). Tax account provides an opportunity to influence temporary or permanent differences (Marwat *et al.*, 2021). Tax avoidance is a crucial aspect of managerial strategic decisions (Franca *et al.*, 2015). However, this has not been sufficiently investigated in emerging or developing economies (Marwat *et al.*, 2021). Prior studies link MNCs utilisation of transfer pricing to incur huge tax savings (Cristea & Nguyen, 2016; Flaaen, 2016; Vicard, 2015; Bernard *et al.*, 2006; Clausing, 2003). However, many Sub-Saharan Africa and many developing countries lose tremendous revenues from tax avoidance practices by MNCs (United Nations Committee of Experts on International

Cooperation in Tax Matters, 2014, p.20). It is estimated that profit shifting and base erosion by MNCs is approximately $100-$240 billion annually, which is equivalent to 4-10% of the global corporate income tax revenue (OECD, 2013). This is facilitated by the "multinationality" status of MNCs (Muller & Kolk, 2015).

Despite the extant literature on corporate tax avoidance in Nigeria; yet few to non-existent studies have specifically addressed accruals quality and tax avoidance nexus from the angle of MNCs. Linck *et al.* (2013), found that managers use discretionary accruals to signal positive investments options, enabling them to raise external funds. High-quality financial reporting reduces the information asymmetry thereby managers to make rational investment decisions by lowering adverse selection (Derouiche *et al.*, 2018; Linck *et al.*, 2013). The paucity of studies, specifically in Nigeria prompted this study as evidence has shown that MNCs in developing countries conceal rent extractions from tax avoidance (Acquah, 2017; Christian-Aid, 2008; Desai & Dharmapala, 2006; Sikka & Willmott, 2010). The study by Acquah (2017), employed discretionary accruals as an interaction term in transfer pricing and corporate tax avoidance nexus in Ghana.

1.2 Objective of the Study

The broad objective of the study is to examine the effect of discretionary accruals on corporate tax avoidance of Multinational Corporations (MNCs) in Nigeria. The specific objectives of the study are to:

1. Ascertain the effect of discretionary accruals on book-tax differences of multinational firms.
2. Examine the effect of discretionary accruals on the effective tax rate of multinational firms.

2.0 Review of Related Literature

2.1 Conceptual Review

2.1.1 Corporate Tax Avoidance

According to the National Tax Policy (2017) "tax" is any compulsory payment to the government imposed by law without direct benefit or return of value or service whether it is called a tax or not. There is no universally accepted definition of corporate tax avoidance in the literature (Annuar *et al.*, 2014; Hanlon & Heitzman, 2010). Terms such as "Tax Planning", "Aggressive Tax Planning" and "Abusive Tax Planning" are common in the literature. According to Martinez (2017, p. 106) corporate tax avoidance involves "taking advantage of legitimate concessions and exemptions foreseen in the tax law; and, involves the process of organizing business operations so that tax obligations are optimized at their minimum amount". Tax avoidance is the culmination of varying activities undertaken by management to reduce tax payable (Mgbame *et al.*, 2017). Tax avoidance refers to the reduction in explicit corporate tax liabilities (Annuar *et al.*, 2014).

Corporate tax avoidance refers to "anything that reduces the firm's taxes relative to its pretax accounting income" (Dyreng *et al.*, 2010, p. 1164). Tax planning refers to a situation in which there is a disconnection between the location of profits and the real activity generating them (Johansson *et al.*, 2016). Hanlon and Heitzman (2010, p.137) described tax avoidance using a continuum of tax planning strategies which range from perfectly legal real transactions at one end (e.g., investments in tax-favoured assets, such as municipal bonds) to aggressive tax avoidance practices (e.g., tax shelters) on the other end.

The measures of tax avoidance can be subdivided into three groups used in prior literature (Annuar *et al.*, 2014). The first group includes measures that consider the multitude of the gap between book and taxable income. These comprise the total book-tax gap; residual book-tax gap and tax-effect book-tax gap. The second group includes ratios that measure the amount of taxes to business income. These comprise effective tax rates (with variants such as; Effective Tax Rate (ETR); current ETR; cash ETR; long-run cash ETR; ETR

differential; the ratio of income tax expense to operating cash flow; and the ratio of cash taxes paid to operating cash flow). The third group includes measures such as discretionary permanent differences (PERMIDIFF)/DTAX; unrecognized tax benefits (UTB); and tax shelter estimates. Heckemeyer and Overesch (2013) provide a quantitative review of 25 empirical studies on the profit-shifting behaviour of MNCs. The majority of MNCs more especially in developing countries conceal rent extractions via corporate tax avoidance (Desai & Dharmapala, 2006).

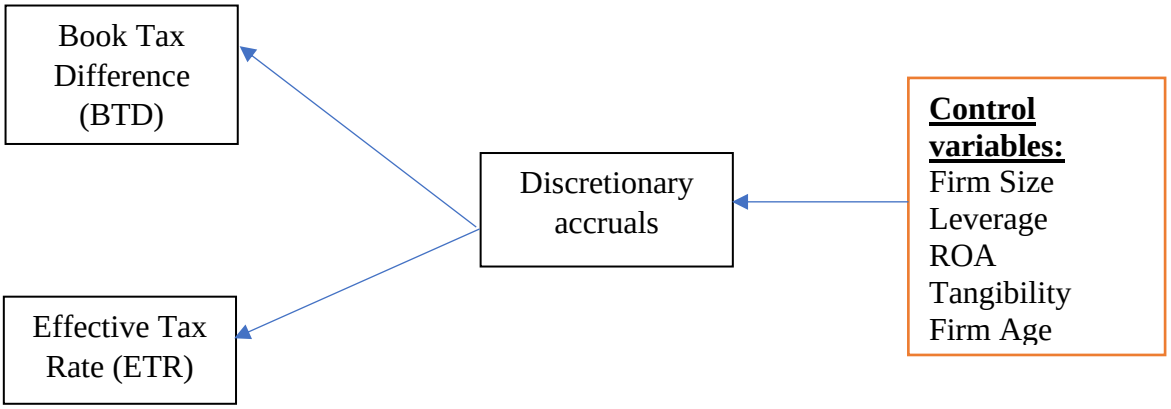
2.1.2 **Accruals Quality and** Tax Avoidance

The study is focused on earnings manipulation via discretionary accruals and tax avoidance nexus. This is because there is substantial evidence to support the fact that firms manage earnings to alter taxes paid. Desai and Dharmapala (2009) observed that tax avoidance mechanisms give room for opportunistic managers to pursue self-seeking objectives and manage earnings. Acquah (2017, p.7) argues that managers 'managing earnings are more likely to insulate themselves by avoiding more taxes as avoidance provides them shield from shareholder scrutiny'.

Johansson *et al.* (2016) using a sample MNEs from OECD countries found evidence that large MNEs also exploit mismatches between tax systems (e.g. differences in the tax treatment of certain entities, instruments or transactions) and preferential tax treatment for certain activities or incomes to reduce their tax burden. They further stated that tax planning involves the artificial reduction of the effective tax rate (ETR) of MNCs – compared to that of similar domestic firms – due to the exploitation of tax planning schemes involving loopholes in tax systems and preferential tax treatment (Johansson et al., 2016). Amidu *et al.* (2019) in Ghana using a panel data set from 2008 to 2015 established a form of interaction between transfer pricing, earnings management and tax avoidance.

The diagram below illustrates the interrelatedness of the dependent and independent variables in this study

Figure 1: Schematic representation of the relationship between the variables



Source: Author's Conceptualisation (2021)

2.2. Theoretical Framework

The study is anchored on the agency theory, *firstly*, 'agency theory', which explains the information asymmetry between principals and agents, thereby causing agents to act in their self-interest in the absence of an adequate monitoring mechanism. The Agency theory paradigm was first formulated by Ross in the '70s (Ross, 1973); and, associated with agency costs by Jensen and Meckling (1976). Jensen and Meckling (1976) define agency relationship in terms of a "contract under which one or more persons (the principal(s) engage another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent". The theory posits that an agency relationship exists when shareholders (principals) hire managers (agents) as decision-makers in corporations (Ruangviset *et al.*, 2014). The theory tries to resolve two problems that usually occur when shareholders (principals) hire managers (agents). The first is the conflict of goals between the principal and agent and the costs associated with the

minimisation of such discrepancy; and, secondly, is the problem of sharing risk when the risk preference of the principal and agent differs (Eisenhardt, 1989). According to Eisenhardt (1989) agency problem arises when "(a) the desires or goals of the principal and agent conflict and (b) it is difficult or expensive for the principal to verify what the agent is doing".

2.3 Empirical Review

Marwat *et al.* (2021) conducted a study titled 'Tax avoidance as earning game player in emerging economies: Evidence from Pakistan'. The authors used unbalanced panel data from 198 non-financial firms listed on the Pakistan Stock Exchange and secondary data which spanned covered the period 2000 to 2018. The data were analysed using multiple regression technique and showed a positive effect of tax avoidance on stock returns.

Mansali *et al.* (2019) undertook a study titled 'Accruals quality, financial constraints, and corporate cash holdings'. The sample comprised of 741 firms listed on Euronext Paris, and secondary data from 2000 to 2015. They employed multiple regression technique to analyse the data. The results showed a positive link between accruals quality and cash holdings, which becomes higher under financial constraints.

Amidu *et al.* (2019) undertook a study titled 'Transfer pricing, earnings management and tax avoidance of firms in Ghana'. The sample comprised 320 firm-year observations for a period of 8 years from 2008 to 2015. The study relied on secondary data; obtained from annual reports and accounts. The data were analysed using panel regression procedures. The results showed that the sensitivity of tax avoidance to transfer pricing decreases as a firm increases its earnings management.

Salawu and Ololade (2018) undertook a study titled 'Corporate tax avoidance of listed firms in Nigeria'. The sample comprised of nineteen (19) firms from the Nigerian Stock Exchange 30 index selected using the purposive sampling technique. The study relied on secondary data; obtained from annual financial statements. The data were analysed using descriptive statistics. The results revealed that firms in the agricultural and construction &

real estate sectors recorded the lowest average long-run cash effective tax rate of 10% and 4.5% respectively. Financial institutions had an industry average of 17%; while, the healthcare and consumer goods sectors had the highest of 32% and 24% respectively.

Acquah (2017) conducted a study 'Transfer pricing, earnings management, and tax avoidance'. The study utilised a quantitative research design. The sample comprised forty MNCs in Ghana. He used secondary data from annual reports of the sampled firms. The data was analysed using panel regression techniques, specifically the Generalized Least Squares approach. The results showed that transfer pricing is positively related to tax avoidance for both financial and non-financial MNCs. The results also show that earnings management is positively related to tax avoidance for both financial and non-financial firms; however, it was only significant for financial firms. Lastly, the interaction of transfer pricing and earnings management was negative for both financial and non-financial firm categories.

2.4 Gap in the Literature

There is a paucity of studies in developing countries; and, specifically in Nigeria despite the high vulnerability of MNCs in using transfer pricing for tax avoidance (Acquah, 2017; Sikka & Willmott, 2010; Christian-Aid, 2008). As the majority of MNCs in developing countries conceal rent extractions via transfer pricing and corporate tax avoidance (Desai & Dharmapala, 2006). This is premised on lack of empiricism on the subject, while prior studies have focused on corporate tax avoidance determinants, e.g., Salawu and Adedeji (2017), Salawu *et al.* (2017), and Sani and Madaki (2016) on non-financial and oil & gas firms in Nigeria.

The second gap tackled in the Nigerian context, studies by Salawu and Adedeji (2017), Salawu *et al.* (2017), and Sani and Madaki (2016) among several others, that explored tax planning among quoted non-financial and oil and gas firms have mainly utilised the effective tax rate as a singular proxy of corporate tax avoidance. The use of alternative proxies yields interesting findings. For instance, the study by Olibe and Rezaee (2008) in

the U.S., showed that U.S. effective tax rate increased; while, the global effective tax rate decreased with the level of cross-border intrafirm transfers. Thus, the need for the inclusion of additional alternative corporate tax avoidance measures in subsequent studies. The total book-tax difference represents the most comprehensive measure and captures both temporary and permanent BTD (Manzon & Plesko, 2002; Wilson, 2009).

3.0 Methodology

3.1 Research Design

The research utilised the *ex post facto* research design, which is a systematic empirical inquiry, in which the observer has no direct control of independent variables because their manifestations have already occurred or because they are inherently not manipulated. The population is comprised of MNCs in operation in Nigeria at end of the 2019 financial year and includes firms from the following sectors Banking, Beverages, Brewery, Conglomerate, Construction, Consumer Goods & Household Products, ICT, Industrial Goods, Oil & Gas, and Healthcare. The study employed a variant of non-probability sampling, i.e., purposive sampling. This technique required a criterion for selecting firms to be included in the sample. The main limiting factor is the availability of annual financial statements of the MNCs for the duration of the study. The final sample comprised of fifty MNCs (see Appendix) based on the availability of financial data for the relevant study period.

3.2 Source of Data

The study relied upon secondary sources of data. The data were retrieved from the annual financial statements of the sampled companies. The secondary data source is deemed appropriate for this study because it is devoid of subjectivity associated with an alternative mode of data collection such as interviews and questionnaires with regards to the issue in contention.

3.3 Methods of Data Analysis

The data for the study were analysed using *descriptive and inferential statistics*. The descriptive statistics comprises measures such as the mean, median, standard deviation, Skewness, Kurtosis, and the Jarque-Bera (J-B) statistic. The skewness of a symmetric distribution, such as the normal distribution, is zero. Positive skewness means that the distribution has a long right tail and negative skewness implies that the distribution has a long left tail. **Kurtosis** measures the peakedness or flatness of the distribution of the series. The kurtosis of the normal distribution is 3. If the kurtosis exceeds 3, the distribution is peaked (leptokurtic) relative to the normal; if the kurtosis is less than 3, the distribution is flat (platykurtic) relative to the normal. The J-B test statistic measures the difference of the skewness and kurtosis of the series with those from the normal distribution. The formulated hypotheses were analysed using the multiple linear regression techniques.

3.3.1 Model Specification:

$$BTD_{(i,t)} = \alpha_0 + DA_{(i,t)} + Size_{(i,t)} + Leverage_{(i,t)} + PROF_{(i,t)} + Tang_{(i,t)} + Age_{(i,t)} + \mu \ldots\ldots\ldots\ldots (1)$$

$$ETR_{(i,t)} = \alpha_0 + DA_{(i,t)} + Size_{(i,t)} + Leverage_{(i,t)} + PROF_{(i,t)} + Tang_{(i,t)} + Age_{(i,t)} + \mu \ldots\ldots\ldots\ldots (2)$$

3.3.2 Description of variables

The table below presents the description of variables included in the model

Table 1: Description of variables

Dependent Variable(s)		
BTD $_{it}$		Pretax book income – ([current tax expense/statutory tax rate] – [NOL_t –NOL_{t-1}]) The Statutory Tax Rate is the official corporate tax rate; which presently in Nigeria is 30% of the assessable profit. NOL-Net Operating Losses
ETR $_{it}$		This is a measure of the proportion of profit before tax is paid as tax. It is computed as tax paid divided by profit before tax.
Independent Variable		
Discretionary accrual		This is measured as the difference between TAC $_{it}$ and NDA $_{it}$ This was estimated using the Jones-modified model (1995): TAi,t / Ai,t -1= a0(1/ Ai,t -1)+a1[(ΔCAi,t -ΔCCRi,t) / Ai,t -1]+a2(PPEi,t / Ai,t -1)+εi,t **Where**: TAi,t: Total accrual in year t; Ai,t -1: Total assets in year t-1; ΔCAi,t: Change in sales; ΔCCRi,t: change in receivables; PPEi,t: Gross property plant and equipment; εi,t: Residuals that represent the estimation of discretionary accruals.
Control Variables		
SIZE	Firm Size	This is measured as the natural logarithm of total assets.
LEVERAGE	Debt Ratio	Long-term debts/ total assets.
PROF	Profitability-ROA	Earnings before interest and taxes/total assets.
TANG	Tangibility	This is measured as the total value of property plant and equipment over the total assets.
AGE	Firm Age	This is measured as the difference between the year the firm commenced operation (was incorporated) and the current financial statement year considered

4.0 Data Analysis

4.1 Correlation Analysis

The tables below (Table 1a and 1b) show the Pearson's correlation results of the dependent, independent and control variables. It is used to check for *collinearity*; and, a threshold of 0.8 for each coefficient is considered high.

Table 1a: Correlation Matrix (BTD)

	BTD	DA	SIZE	LEV	ROA	TANG	AGE
BTD	1.000000	0.004494	0.213268	0.003774	0.117389	-0.165111	-0.002992
DA	0.004494	1.000000	0.017538	0.041459	0.003310	-0.037610	0.049324
SIZE	0.213268	0.017538	1.000000	0.027084	-0.054398	-0.038820	-0.028612
LEV	0.003774	0.041459	0.027084	1.000000	0.009591	0.069369	0.105145
ROA	0.117389	0.003310	-0.054398	0.009591	1.000000	-0.251383	-0.045766
TANG	-0.165111	-0.037610	-0.038820	0.069369	-0.251383	1.000000	0.042115
AGE	-0.002992	0.049324	-0.028612	0.105145	-0.045766	0.042115	1.000000

Source: E-Views 9

Table 1b: Correlation Matrix (ETR)

	ETR	DA	SIZE	LEV	ROA	TANG	AGE
ETR	1.000000	0.036140	-0.077916	-0.053758	0.004629	-0.202632	-0.049286
DA	0.036140	1.000000	0.017538	0.041459	0.003310	-0.037610	0.049324
SIZE	-0.077916	0.017538	1.000000	0.027084	-0.054398	-0.038820	-0.028612
LEV	-0.053758	0.041459	0.027084	1.000000	0.009591	0.069369	0.105145
ROA	0.004629	0.003310	-0.054398	0.009591	1.000000	-0.251383	-0.045766
TANG	-0.202632	-0.037610	-0.038820	0.069369	-0.251383	1.000000	0.042115
AGE	-0.049286	0.049324	-0.028612	0.105145	-0.045766	0.042115	1.000000

Source: E-Views 9

Notes: BTD is Book Tax Difference; ETR is Effective Tax Rate; DA is Discretionary Accruals (a proxy for Earnings Management); Size is Firm Size; LEV is Leverage; ROA is Return on Assets; TANG is Asset Tangibility; AGE is Firm Age

The magnitude of the relationship is determined by the absolute value while the sign indicates the direction of the relationship (Acquah, 2017). The correlation results from Table 4.2a show that TPI is negatively correlated with tax avoidance (BTD); while DA is positively correlated with tax avoidance (BTD). The control variables, SIZE, LEV and ROA are positively correlated with tax avoidance; while, TANG and AGE were negatively correlated with tax avoidance. DA is positively correlated with SIZE, LEV, ROA and AGE; and, negatively correlated with TANG. SIZE is positively correlated with LEV; and, negatively correlated ROA, TANG and AGE. LEV is positively correlated with ROA, TANG and AGE. ROA is negatively correlated with TANG and AGE. TANG is positively correlated with AGE.

The correlation results from Table 1b show that DA is positively correlated with tax avoidance (ETR). The control variables, SIZE, LEV, TANG and AGE are negatively correlated with tax avoidance; while, ROA is positively correlated with tax avoidance. DA is positively correlated with SIZE, LEV, ROA and AGE; and, negatively correlated with TANG. SIZE is positively correlated with LEV; and, negatively correlated with ROA, TANG and AGE. LEV is positively correlated with ROA, TANG and AGE. ROA is negatively correlated with TANG and AGE. TANG is positively correlated with AGE. In summary, the results from the tables showed no evidence of *multicollinearity* among the variables.

4.2 Test of Hypotheses

The study used the Panel EGLS (Estimated Generalised Least Squares), which is a variant of GLS. The GLS technique is a generalization of OLS but relaxes the assumption that the errors are homoskedastic and uncorrelated (Kaufman, 2013). Asymptotically, EGLS has the same statistical properties as GLS under a broad range of conditions (Greene, 2008). The EGLS procedure used the period random effects specification and white cross-section as the coefficient covariance method. This approach has also been used in prior studies;

such as Amidu *et al.* (2019) and Acquah (2017) in Ghana. All statistical analysis was conducted using the E-Views 9 software.

4.2.1 Hypothesis One

Ho_1: There is no significant effect of discretionary accruals on book-tax differences of multinational firms.

Table 2: Discretionary accruals on BTD
Dependent Variable: BTD

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.04E+09	3.98E+09	1.518675	0.1298
DA(-1)	-58614843	42364515	-1.383583	0.1674
SIZE	0.007231	0.001372	5.271598	0.0000
LEV	-34278613	1.43E+08	-0.239371	0.8110
ROA	4.29E+09	1.64E+09	2.615357	0.0093
TANG	-3.22E+09	9.36E+08	-3.440498	0.0007
AGE	26479784	53981155	0.490538	0.6241
Effects Specification				
			S.D.	Rho
Period random			0.000000	0.0000
Idiosyncratic random			5.27E+10	1.0000
Weighted Statistics				
R-squared	0.090217	Mean dependent var		1.16E+10
Adjusted R-squared	0.074019	S.D. dependent var		5.46E+10
S.E. of regression	5.25E+10	Sum squared resid		9.29E+23
F-statistic	5.569643	Durbin-Watson stat		0.780856
Prob(F-statistic)	0.000016			
Unweighted Statistics				
R-squared	0.090217	Mean dependent var		1.16E+10
Sum squared resid	9.29E+23	Durbin-Watson stat		0.780856

Source: E-Views 9

Interpretation:

The model showed R squared values of .090 (*weighted statistics*) and .090 (*unweighted statistics*); these values describe the proportion of variance in the dependent variable which is explained by the independent and control variables. In other words, the model explains approximately 9% variation of the dependent variable. The F statistic (ratio of the mean regression sum of squares divided by the mean error sum of squares) used to check the statistical significance of the model had a value of 5.569 ($p < .05$); thus, the hypothesis that all the regression coefficients are zero is rejected. The *coefficient* and *t-statistic* of our variable of interest (DA) are negative and statistically insignificant [*t-statistic* (-1.383583), *p* (0.1674, >.05)]; thus, the alternate hypothesis is rejected and null accepted. There is no significant effect of discretionary accruals on book-tax differences of multinational firms. The control variables of SIZE and ROA showed a significant positive effect for the entire sample; while, TANG recorded a significant negative effect. LEV was negative but not significant; while, AGE was positive and non-significant.

Robustness Check:

The above-specified model was re-estimated for the hypothesis, using the *Fixed Effect* (FE) panel data technique. The results are not shown for brevity. The coefficient of DA in the model was non-significant and negative.

4.2.2 Hypothesis Two

Ho_2: There is no significant effect of discretionary accruals on the effective tax rate of multinational firms.

Table 3: Discretionary accruals on ETR
Dependent Variable: ETR

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.624979	0.104933	5.955966	0.0000
DA(-1)	0.000982	0.000695	1.412732	0.1587
SIZE	-4.99E-14	8.87E-15	-5.622082	0.0000
LEV	-0.000597	0.004887	-0.122235	0.9028
ROA	-0.045731	0.003882	-11.78147	0.0000
TANG	-0.098597	0.027012	-3.650086	0.0003
AGE	-0.000975	0.001646	-0.592621	0.5538
	Effects Specification			
			S.D.	Rho
Period random			0.000000	0.0000
Idiosyncratic random			0.958016	1.0000
	Weighted Statistics			
R-squared	0.064418	Mean dependent var		0.487793
Adjusted R-squared	0.047761	S.D. dependent var		0.984124
S.E. of regression	0.960335	Sum squared resid		310.7962
F-statistic	3.867287	Durbin-Watson stat		1.337752
Prob(F-statistic)	0.000953			
	Unweighted Statistics			
R-squared	0.064418	Mean dependent var		0.487793
Sum squared resid	310.7962	Durbin-Watson stat		1.337752

Source: E-Views 9

Interpretation:

The model showed R squared values of .064 (*weighted statistics*) and .064 (*unweighted statistics*); these values describe the proportion of variance in the dependent variable which is explained by the independent and control variables. In other words, the model explains approximately 6% variation of the dependent variable. The F statistic (ratio of the mean regression sum of squares divided by the mean error sum of squares) used to check the statistical significance of the model had a value of 3.867 ($p < .05$); thus, the hypothesis that all the regression coefficients are zero is rejected. The *coefficient* and *t-statistic* of our variable of interest (DA) are positive and statistically insignificant [*t-statistic* (1.412732), *p* (0.1587, >.05)]; thus, the alternate hypothesis is rejected and null accepted. There is no significant effect of discretionary accruals on the effective tax rate of multinational firms. The control variables of SIZE, ROA and TANG were negative and significant; while, LEV and AGE were non-significant and negative.

Robustness Check:

The above-specified model was re-estimated for hypothesis five, using the *Fixed Effect* (FE) panel data regression technique. The results are not shown for brevity. The coefficient of DA in the model was non-significant and positive.

4.3 Discussion of Findings

The findings of the study corroborate empirical evidence in prior literature. This includes studies by Amidu *et al.* (2019) and Acquah (2017) using a sample of MNCs in Ghana; Cristea and Nguyen (2016) on a sample of MNCs in Denmark; Johansson, Skeie, Sorbe and Menon (2016) on a sample of OECD and G20 countries, Colombia, Latvia, Malaysia and Singapore; Taylor *et al.* (2015) in the United States; and, Klassen *et al.* (1993) in Europe. The evidence portrays income shifting by MNCs to avoid tax payments. The two hypotheses tested the direct effect of earnings management proxied via discretionary accruals on corporate tax avoidance. The first hypothesis showed no significant effect of discretionary accruals on book-tax differences of multinational firms. From a CSR

perspective, the study by Muller and Kolk (2015) showed evidence that firms were less likely to pay taxes as they avoid CSR engagements while firms with deferred tax liabilities were related to higher ETRs. The second hypothesis showed no significant effect of discretionary accruals on the effective tax rate of multinational firms. Specifically, the fifth hypothesis showed a non-significant positive effect. This was also supported in the study by Acquah (2017) on a sample of MNCs in Ghana revealed that earnings management was positively related to tax avoidance for both financial and non-financial MNCs; however, it was significant for the financial sample.

5.0 Conclusion and Recommendations

The study concludes that accruals quality plays a role in tax avoidance of Multinational Corporations (MNCs) in Nigeria. The empirical results revealed that the earnings management proxy, i.e., discretionary accruals showed mixed effects on corporate tax avoidance. The results showed a non-significant negative effect on book-tax differences; and, a non-significant positive effect on the effective tax rate. These findings support prior studies in the literature using different proxies. The empirical results contribute to knowledge on the determinants of tax avoidance of MNCs. Based on this, the study recommends a comprehensive review of transfer price regulations to restrict opportunities for MNCs to exploit the loopholes for their benefits. Therefore, the FIRS should equip its personnel through effective training to effectively deal with intra-firm trade by MNCs. A comprehensive assessment would involve details of the parties involved, the tax rate applicable for each jurisdiction, the methodology employed and a justification for such method, and a comparative analysis with an alternative market price. Acquah (2017) further recommends that such an assessment should not be made on a yearly or quarterly or monthly basis but rather for each intra-firm transaction. This will help ensure currency of assessment procedures with prevailing market circumstances.

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Appendix I

Fixed Effects Output for Hypothesis One:

Dependent Variable: BTD
Method: Panel Least Squares
Date: 03/03/21 Time: 19:59
Sample (adjusted): 2012 2018
Periods included: 7
Cross-sections included: 50
Total panel (unbalanced) observations: 344

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.17E+09	5.93E+09	1.039599	0.2993
DA(-1)	-50351151	99443084	-0.506331	0.6130
SIZE	0.007216	0.001661	4.344624	0.0000
LEV	-71192631	5.38E+08	-0.132236	0.8949
ROA	4.10E+09	2.35E+09	1.743615	0.0822
TANG	-3.25E+09	1.22E+09	-2.665494	0.0081
AGE	27015626	1.05E+08	0.256479	0.7977

Effects Specification

Period fixed (dummy variables)

R-squared	0.098494	Mean dependent var	1.16E+10
Adjusted R-squared	0.065811	S.D. dependent var	5.46E+10
S.E. of regression	5.27E+10	Akaike info criterion	52.25223
Sum squared resid	9.21E+23	Schwarz criterion	52.39737
Log likelihood	-8974.383	Hannan-Quinn criter.	52.31003
F-statistic	3.013614	Durbin-Watson stat	0.764115
Prob(F-statistic)	0.000498		

Source: E-Views 9

Fixed Effects Output for Hypothesis Two:

Dependent Variable: EFFECTIVE_TAX_RATE
Method: Panel Least Squares
Date: 03/03/21 Time: 20:10
Sample (adjusted): 2012 2018
Periods included: 7
Cross-sections included: 50
Total panel (unbalanced) observations: 344

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.611893	0.107787	5.676877	0.0000
DA(-1)	0.000712	0.001806	0.394337	0.6936
SIZE	-4.75E-14	3.02E-14	-1.573225	0.1166
LEV	-8.60E-05	0.009779	-0.008791	0.9930
ROA	-0.050747	0.042669	-1.189313	0.2352
TANG	-0.099436	0.022129	-4.493509	0.0000
AGE	-0.000719	0.001913	-0.375651	0.7074

Effects Specification

Period fixed (dummy variables)

R-squared	0.085509	Mean dependent var	0.487793
Adjusted R-squared	0.052356	S.D. dependent var	0.984124
S.E. of regression	0.958016	Akaike info criterion	2.789153
Sum squared resid	303.7898	Schwarz criterion	2.934293
Log likelihood	-466.7343	Hannan-Quinn criter.	2.846961
F-statistic	2.579180	Durbin-Watson stat	1.320515
Prob(F-statistic)	0.002764		

Source: E-Views 9