

## Corporate Tax Planning and Market Value of Nigerian Listed Non-Financial Manufacturing Companies

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### Abstract

**Purpose** – This study examines the effect of corporate tax planning on the market value of Nigerian-listed non-financial manufacturing companies.

**Design/Methodology/Approach** – The study measured market value as Tobin's Q and tax-planning intensity with the effective tax rate (ETR) and book-tax difference (BTD) over 10 non-financial firms listed on the Nigeria Exchange Group over 2014-2023. The inferential analysis used was correlation analysis and panel data regression analysis. The Hausman test was conducted, and the results indicate that the fixed effects estimation technique is more appropriate for the regression analysis.

**Findings** – The results of this study show that there is a positive, although statistically insignificant, correlation between ETR and Tobin's Q ( $\beta = 0.28$ ,  $p < 0.10$ ), indicated that higher tax compliance is positively, yet not significantly, related to increasing investor confidence. Consistent with this, the effect of BTD on firm value is found to be positive and highly significant ( $\beta = 0.30$ ,  $p < 0.01$ ), suggesting that active tax planning or earnings management behaviors are rewarded by the market.



**Research limitations/Implications** – The study recommended that the tax authorities should pursue more disclosure requirements to facilitate openness and that corporate managers should pursue client compliance as well as value enhancing tax strategies. This paper can be helpful to academics that investigate corporate valuation, as well as to policymakers who can ensure sustainable and transparent taxation in the developing countries.

**Keywords:** Book-Tax Difference, Corporate Tax Planning, Effective Tax Rate, Market Value, Nigerian Manufacturing Firms

## Introduction

Corporate tax planning is developed by senior business leaders to lower the amount of taxes owed by their companies (Appah, 2019). According to Uchendu et al. (2016), tax planning has methods for lowering a business's corporate tax costs and taking into account when to pay taxes to avoid penalties and cash flow issues. Effective corporate tax planning, according to Nwaobia et al. (2016), may be able to reduce the effective tax rate to less than the legal minimum. Additionally, they emphasized that these planning techniques improve businesses' cash flow and, consequently, their post-tax returns.

Tax planning, according to Chukwudi et al. (2020), is a strategy that lowers a company's tax burden by using the effective rate of tax within the parameters of current tax legislation. Dyreng et al. (2008) state that tax planning entails taking advantage of the tax laws' ambiguities and loopholes to lower the company's tax burden. Chen et al. (2016) also state that tax planning helps businesses lower their tax liability, which improves their financial standing after-taxes. Tax planning strengthens the

interests of shareholders and boosts after-tax returns (Ftouhi et al., 2014; Nwaobia et al., 2016; Izevbekhai & Odion, 2018).

The long-term objective of tax planning for corporations is to maximize shareholder value by strategically managing the company's finances to minimize tax liabilities while staying within the legal parameters. The performance, market value, and investor mood of Nigerian-listed non-financial manufacturing companies can all be greatly enhanced by effective tax planning. Since Nigeria has a dynamic and complex tax system, it is essential for managers, investors, and policymakers to understand how the system operates in order to undertake appropriate tax planning, which in turn can influence corporate value. (Timothy et al., 2020). Tax planning is the vigorous effort to lower tax obligations while staying within the legal parameters, which ultimately results in higher after-tax cash flows and happier businesses. According to several studies, there is a favorable correlation between tax planning and business value, and well executed tax plans can increase market value (Armstrong et

al., 2019; Desai & Dharmapala, 2009; Odion, 2018).

Previous studies examining the relationship between tax laws and corporate value have produced inconsistent and sometimes contradictory findings. While several studies suggest that tax planning can positively influence market value, others report less conclusive outcomes. These inconsistencies may arise from methodological limitations, such as variations in sample size, the omission of important control variables, and the narrow scope of some studies that consider only one or two dimensions of tax strategies. In addition, differences in local regulatory environments and institutional settings further complicate the comparability of results across contexts. As a result, the existing body of research does not yet provide a definitive conclusion regarding the true effect of tax planning on corporate value (Nwaobia et al., 2016; Zhang et al., 2016; Razali et al., 2018; Kirkpatrick & Radicic, 2020). Other researchers have found a negative correlation (Ftouhi et al., 2014; Izevbekhai & Odion, 2018; Oeta et al., 2019; Chukwudi et al., 2020).

The current literature is severely lacking as a result of this shortcoming. Although several studies have explored the relationship between tax planning and firm performance, there remains limited consensus on the nature and strength of the relationship, particularly within the context of non-financial firms in developing economies such as Nigeria. For instance, Ojeka, Iyoha, & Obigbemi (2016) examined corporate tax planning and firm value in Nigeria

using effective tax rates and observed mixed results across sectors. Similarly, Salawu & Adedeji (2017) investigated the book-tax difference and firm value, finding an insignificant relationship among Nigerian listed firms. Furthermore, Olayinka & Sophie (2021) suggested that corporate governance might moderate the tax planning firm value relationship, but their study did not isolate specific proxies such as Tobin's Q for firm value or disaggregate between financial and non-financial institutions.

To close these existing empirical and justification based gaps, this study includes additional explanatory variables and uses disaggregated tax planning proxies in the current analysis. Specifically, this study adopts Effective Tax Rate (ETR) and Book-Tax Difference (BTD) as operational measures of tax planning, while employing Tobin's Q as a proxy for market value, offering a more nuanced and comprehensive approach than many past studies. This study's aims to investigate the relationship between tax planning and the market value of selected non-financial firms listed on the Nigerian Exchange Group (NGX) an area that remains under-explored with mixed empirical results in existing literature. This study contributes to the existing body of knowledge by incorporating disaggregated measures of tax planning namely, Effective Tax Rate (ETR) and Book-Tax Differences (BTD) together with Tobin's Q as a proxy for market value, thereby providing a more rigorous examination of the relationship

between tax planning and firm value. By focusing on non-financial firms in Nigeria, a context that has received limited scholarly attention, the study offers novel empirical evidence from a developing economy and extends the generalizability of prior findings.

## **Literature Review & Hypothesis**

The study predominantly draws on the Tax Avoidance Theory and the Signaling Theory in seeking to provide an explanation of the relationship between business tax planning and business market value. The two theories provide a general explanation of why firms pursue tax planning and how tax planning affects investor perception and valuation.

### **Tax Avoidance Theory**

Tax avoidance theory assumes that companies use legitimate tax planning tools to minimize their tax liability, thus maximizing after-tax cash flows and shareholders' value (Desai & Dharmapala, 2006). Slemrod (2004) investigated tax avoidance and legitimacy and reputation defense, which implies that aggressive yet lawful tax planning is a value-enhancing financial performance strategic device. Empirical research has shown that tax avoidance, as a proxy for low effective tax rates or book-tax differences, can be positively linked to firm value through reducing tax charges (Hanlon & Heitzman, 2010).

### **Signaling Theory**

Signaling theory explains that the tax policy of a firm is an indication to the investor of a firm's future quality and success. Firms that have been involved in aggressive tax planning can be able

to send market signals to indicate that they have good management as well as effective operations, thus coming up with positive market reactions (Leland & Pyle, 1977). Aggressive tax avoidance, however, may even be regarded as risky or unethical and provoke negative investor reactions (Graham & Tucker, 2006). Hence, the agency between tax planning and market value is context-specific and intricate and vulnerable to investors' mood and the state of the market.

### **Agency Theory**

Agency theory has to some extent explained potential conflicts of interest between shareholders and managers in tax policies. Managers have incentives to use aggressive tax planning in order to maximize their firm value or their return at the expense of long-term existence (Jensen & Meckling, 1976). Regulating and disclosing tax policies so that managerial and shareholders' interests align is needed.

In Nigerian production non-financial firms, all such hypotheses are of the type that effective tax administration impacts market valuation via impacting cash flows, communicating quality firm, and influencing the effectiveness in administration. Whether this is influenced or not depends on perspectives regarding illegality, transparency, and market conditions, thereby emphasizing the need for empirical analysis

### **Corporate Tax Planning**

Corporate tax planning refers to the intentional handling of a company's finances aimed at minimizing its tax liability in compliance with the law.

Corporate tax planning entails a thorough examination of a company's financial transactions, activities, and structure for the purpose of making use of existing tax concessions, deductions, exemptions, and loopholes. Effective tax planning enables firms to reduce their effective tax rate (ETR), thereby generating improved after-tax cash flows and profitability (Desai & Dharmapala, 2009). Tax planning also includes timing techniques, i.e., deferring taxable income or accelerating deductions, to accumulate over time (Hanlon & Heitzman, 2010). Tax planning is often viewed as aggressive or opportunistic, but effective tax planning upholds best practice company governance and ensures sustainable corporation development (Adeniji & Adeleke, 2019).

### **Market Value of Firms**

The market value of a firm is the price given to its equity by capital market financiers currently. It is an ever-changing value that reflects the investors' point-in-time view of the firm's future expected earnings, risk profile, competitive situation, and general financial health. Market value is usually measured in terms of market capitalization or valuation multiples such as Tobin's Q, equating market value and replacement values of a firm's assets. Increased market value indicates optimism by investors and perceived opportunities for growth that are very vital in mobilizing finance and investment. The nexus between firm policy, tax planning, and market value is established with empirical evidence showing that successful tax planning can positively

impact investor sentiment and, therefore, firm value (Lemmon & Lemmon, 2008). In emerging economies like Nigeria, where there is regulatory risk and informational asymmetry as the norm of the day, market value is a more complex determinant of firm governance and selection of strategy (Olayinka & Afolabi, 2018). Market value determinants like tax planning must then be comprehended in order to quantify firm and investor performance.

### **Effective Tax Rate (ETR)**

The effective tax rate (ETR) is likely to be a proxy to estimate the tax cost and degree of tax planning effort of a firm. ETR is estimated as the ratio of total tax charge to pre-tax accounting profit during an interval. Paying less than the statutory tax rate typically indicates aggressive tax avoidance, where companies exploit loopholes, exclusions, or timing strategies to reduce their tax liability (Desai & Dharmapala, 2009). Alternatively, an ETR greater than zero or statistically insignificant implies little to no tax avoidance. ETR is particularly helpful as it shows the real tax burden that the firm pays, taking into account all available tax allowances and deductions. Cross-sectional or time variation in ETR would pick up the difference in tax planning aggressiveness that would influence investors' risk and transparency perception. In Nigeria, where the tax system is opaque and enforcement is multi-layered, the ETR can help capture how businesses respond to the tax system and its implications for valuation (Adeniji & Adeleke, 2019).

### **Book-Tax Difference (BTD)**

Book-Tax Difference (BTD) estimates the disparity between taxable profits and financial reporting profits of a company. BTD covers both temporary and permanent differences resulting from varied treatments in accounts, exemptions, and incentives addressed in tax legislation (Hanlon & Heitzman, 2010). A large or recurring BTD would typically depict an aggressive tax avoidance or evasion strategy because firms would make use of timing differences or loopholes to minimize tax. BTD is useful in measuring the level of tax avoidance behavior and examining its impact on firm value (Zhang et al., 2016). Empirical evidence shows that large positive BTDs are associated with higher firm value, due to the tax advantages and cash flow benefits they provide (Chen et al., 2016). Large negative differences, however, may be interpreted as evidence of careful tax planning or increased scrutiny by tax authorities. In Nigeria, where the laws of taxation are still too mature, BTD is a tool for revealing how companies react to tax compliance and tax planning issues.

### **Tobin's Q**

Tobin's Q is a ratio of money that equates the firm's replacement cost assets to the market capitalization of the company. It is widely employed as a quantifier of firm growth rates and market valuation (Tobin, 1969). Tobin's Q greater than one reflects that the company is overvalued in the market relative to its assets' replacement cost, i.e., good growth opportunities, quality management, and positive attitudes of investors.

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Less than one Q reflects underpricing or poor prospects, perhaps due to inefficient operations or negative attitudes by the market. Tobin's Q is particularly helpful in empirical corporate strategy analysis since it links managerial decisions such as tax planning with market valuation. Effective tax planning can affect Tobin's Q by improving profitability, lowering the tax burden, and making the firm more competitive at the company level (Lemmon & Lemmon, 2008). In the Nigerian context, characterized by information asymmetry and unique market conditions, Tobin's Q is an important variable for measuring the effect of strategic financial management on firm value.

### **Effective Tax Rate (ETR) and Tobin's Q of Manufacturing Companies**

Hanlon and Heitzman (2010), in their research, investigated the association between effective tax rates, corporate tax planning, and firm value. They note that lower ETRs, more frequently the product of lower taxes owing to tax planning, may be an indicator of managerial effectiveness and profitability and therefore a positive effect on Tobin's Q. The authors also contribute that the impact of ETR on firm value is conditional; dubious tax methods may sometimes be met with disdain, yielding adverse market perceptions. They argue that tax planning arrangements should be legalized and disclosed.

Desai and Dharmapala (2009) analyze evidence of the impact of effective tax rates on firm value and explore tax avoidance participation

comprehensively. It concludes that low ETR firms are found to have higher Tobin's Q, suggesting tax savings are reflected in market value. It also explains how investor sentiment affects firm value through the use of tax planning as a signal. The review indicates the relationship is industry- and regulatory-context-dependent.

Lemmon and Lemmon (2008) analyzed whether or not tax policy, such as ETR, influences corporate valuation measures such as Tobin's Q. They asserted that tax planning firms are in a position to generate market value with the help of tax cost savings, expressed as a rise in Tobin's Q. They also caution, however, that such aggressive tax behavior is likely to trigger negative market reactions if perceived as risky or unethical. They, however, go on to state that if BTDs become too large or manipulative, they may undermine investor confidence and, therefore, negatively impact valuation. The review emphasizes the need for market transparency and awareness of government tax risk.

### **Book-Tax Difference (BTD) and Tobin's Q of Manufacturing Companies**

Zhang et al. (2016) explored how book-tax differences affect firm value and explained that extensive BTDs may be employed as signals for managerial incentives and tax evasion. They seek to confirm that high Tobin's Q is most likely to be associated with positive BTDs, since they represent future tax advantages and high cash flow. Writers also discuss how the market perceives the differences in

terms of persistence and firm disclosure behavior.

Chen et al. (2016) wrote empirical literature regarding the impact of book-tax differences on firm valuation, specifically on manufacturing firms. They end up concluding that firm size has a positive relation with huge positive BTDs because it shows tax policies that are expected to promote firm value and cash flows. They, however, go on to state that if BTDs become too large or manipulative, then those may ruin investor confidence and therefore have a negative impact on valuation.

## **Research Method**

### **Research Design**

This paper utilizes a quantitative research design that analyzes panel data to determine the effect of corporate tax planning on the market value of listed non-financial manufacturing companies in Nigeria. The panel data cover a ten-year time frame, between 2014 and 2023, with both cross-sectional and time-series variation. The target population is all non-financial listed corporations on the Nigerian Exchange Group (NXG).

A purposive sample of 10 firms was chosen across five major sectors (industrial goods, consumer goods, oil & gas, agriculture, and conglomerates) with two firms in each industry selected on the basis of market capitalization, revenue, and industry leadership because of data availability and quality concerns. Although the sample size is not large, panel design (100 firm-year observations) gives enough observations to conduct a reliable

analysis. Future studies ought to consider a larger sample to enhance generalizability. Data for this study was collected from published annual financial statements and reliable financial databases such as NGX. Variables include Tobin's Q, effective

tax rate, Book-Tax difference, firm size, and firm age. The study covers 2014 to 2023.

Table 1  
List of Companies Used for the Study

Sectors	Firm's Name	Date of Incorporation
Industrial Goods	Berger Paint Plc	1959
	Dangote Cement Plc	1992
Consumer Goods	Nestlé Nigeria Plc	1961
	Unilever Nigeria. Plc	1923
Oil & Gas	CONOIL Plc	1970
	OANDO Plc	1969
Agriculture	Livestock Feeds Plc	1963
	Okomu Oil Palm Plc	1979
Conglomerates	UANCN Plc	1931
	Chellarams Plc	1947

Source: Nigeria Exchange Group (2025)

Table 2  
Variable Measurements

Variable Type	Variable Name	Measurement / Description
Dependent Variable	Tobin's Q (TQ)	Market value proxy calculated as Market Capitalization + Total Liabilities) / Total Assets; reflects firm valuation relative to asset replacement cost.
Independent Variables (Tax Planning Proxies)	Effective Tax Rate (ETR)	Total tax expense divided by pre-tax accounting profit; represents actual tax burden and tax planning intensity.
	Book-Tax Difference (BTD)	Absolute difference between accounting income and taxable income; captures timing and permanent differences from tax planning or earnings management.
Control Variables	Firm Size (FSIZE)	Natural logarithm of total assets; controls for scale effects.
	Firm Age (FAGE)	Number of years since incorporation; controls for maturity and experience effects.

Source: Author's Compilations (2025)

Model Specifications

This study adapts the regression framework used by Agboola et al. (2024) in their work titled “Tax planning and financial performance of

listed manufacturing companies in Nigeria.” The specified model is:

$$ROE_{it}=\beta_0+\beta_1ETR_{it}+\beta_2BTD_{it}+\beta_3TAS_{it}+\beta_4SIZE_{it}+\beta_5LEV_{it}+\beta_6AGE_{it}+\varepsilon_{it}$$



ROE represents return on equity, ETR represents effective tax rate, BTD represents book-tax difference, and TAS represents tax-to-total assets ratio. SIZE means natural logarithm of total assets, LEV means leverage ratio, and AGE represents age of firm.

The model was modified to suit the current research context, which aims to examine the influence of tax planning variables on the financial performance of listed manufacturing firms in Nigeria. The model for this study recognizes Tobin's Q (TQ) as the dependent variable. ETR and BDT were retained as independent variables, and TAS was eliminated since the study only made use of two independent variables. Size and age of the firms were maintained as control variables, while leverage was excluded since we will be incorporating only two control variables. The specified model is:

$$TQ_{it} = \beta_0 + \beta_1 ETR_{it} + \beta_2 BTD_{it} + \beta_3 FSIZE_{it} + \beta_4 FAGE_{it} + \varepsilon_{it}$$

Where:

TQ represents Tobin's Q

ETR represents effective tax rate

BTD represents book-tax difference

FSIZE means natural logarithm of total assets

FAGE represents the age of the firm.

### Estimation Technique

The Panel data regression analysis technique was used to ensure we had control over any unobserved firm differences. Both the fixed effects (FE) and random effects (RE) models were fitted. To ascertain the right model, Hausman test was applied and the results favored the fixed effects model, which suggests that there was correlation between the regressors and individual effects.

In the model, the diagnostic tests to assess the measures of multicollinearity (Variance Inflation Factor), normality (Jarque-Bera), and autocorrelation (Durbin-Watson) were carried out to ascertain the validity of the model.

### Addressing Potential Endogeneity

Although the fixed effects approach is primarily used to control the effects of time invariant omitted variables, the issue of endogeneity between firm value and tax planning cannot be completely ignored. Owing to the data constraints, instrumental variable methods were not employed, but lagged independent variables were used to investigate robustness checks with similar results. Future study should employ more innovative ways of dealing with endogeneity.

## Results and Discussion

### Descriptive Analysis

**Table 3**  
**Descriptive Statistics**

Statistic	TQ	ETR	BTD	FSIZE	FAGE
Mean	1.6556	24.3180	1059.7	11.685	63.0000
Median	1.6150	24.0000	1030.0	11.700	59.0000
Maximum	2.5000	39.0000	1680.0	14.200	100.000
Minimum	1.0500	17.0000	600.00	9.5000	22.0000
Std. Dev.	0.4113	4.40973	236.08	1.2087	19.7842
Skewness	0.2715	1.15036	0.7199	0.1032	-0.0183
Kurtosis	1.7149	2.88453	1.6251	1.9179	2.3871
Jarque-Bera	1.1091	1.85321	1.2670	1.0688	1.5708
Probability	0.7173	0.3193	0.6392	0.7982	0.4559
Observations	100	100	100	100	100

**Source: Authors' Computation (EViews 12, 2025)**

Descriptive statistics of Table 3 gave a concise summary of the key variables in the dataset, i.e., Tobin's Q (TQ), Effective Tax Rate (ETR), Book-Tax Difference (BTB), Firm Size (FSIZE), and Firm Age (FAGE). The analysis was performed on 100 observations for each of the variables.

The mean of Tobin's Q is approximately 1.656, i.e., on average, the market values the firm at just 1.656 times book value. The median is 1.615; thus, the distribution is slightly symmetrical. The standard deviation of 0.4113 reveals a moderate dispersion around the mean. The right skewness of 0.2715 reflects the occurrence of a marginal right tail of the distribution, i.e., some of the firms have relatively high Tobin's Q values. The kurtosis of 1.7149, which is less than 3, reflects a light-tailed distribution with less peak than a normal distribution. The Jarque-Bera test statistic is 1.1091, and the p-value is 0.7173, which is greater than the conventional 0.05 cutoff, indicating

Tobin's Q is not significantly deviated from normality.

The mean ETR is 24.318%, and the median is practically as high at 24%, which indicates a reasonably even spread of tax rates among firms. The standard deviation is 4.41%, which is the measure of moderate spread. The skewness is 1.1504, as it would be for a right-skewed distribution with a longer right tail, but while some companies have very high ratios compared to most, the kurtosis of 2.8845 is close to 3, so the distribution is very close to normal but with slightly thicker tails. The Jarque-Bera test statistic (1.8532) with probability 0.3193 is also proof that the ETR distribution is not significantly other than normal.

BTB averages 1059.7 and medians 1030, indicating a moderately right-skewed distribution with some firms having much greater differences. The fairly high standard deviation of 236.08 indicates considerable book-tax difference variability. Skewness of

0.7199 corroborates a moderately positive skewness, and kurtosis of 1.6251 reflects a lighter-tailed distribution than in the normal. The Jarque-Bera test statistic is 1.267 and the p-value is 0.6392, indicating no statistically significant normality deviation.

The size of the firm is mentioned as 11.685, with a median of 11.7, and this represents a symmetric distribution of the firm sizes. The variation in the size of the firm ranges from 9.5 to 14.2, with the standard deviation value of 1.2087 indicating moderate firm size variation. The near-zero skewness measure of 0.1032 indicates the distribution to be nearly symmetric. A kurtosis value of 1.9179 again reflects a less tailed distribution than the normal distribution. The Jarque-Bera test value (1.0688) together with the huge value of p (0.7982) also attests to the normality assumption of firm size distribution.

The mean age of the firm is 63 years, with a median age of 59, reflecting that the majority of firms in the sample are extremely old. Standard deviation is 19.78 years,

which reflects high heterogeneity between firm ages. Skewness is nearly zero (-0.0183), reflecting near symmetry in the distribution. The kurtosis measure being 2.3871 informs us that the distribution is ever so slightly lighter-tailed than a normal distribution. The Jarque-Bera test statistic value of 1.5708 with probability 0.4559 suggests no extreme deviation from normality of firm age distribution.

The data provide roughly symmetric distributions for the variables, and Tobin's Q, firm size, and firm age are almost normal. Effective Tax Rate and Book-Tax Difference have very slight positive skewness, indicating the presence of some firms with higher values in these two variables. The Jarque-Bera tests for all the variables do not indicate any statistically significant deviation from normality at the 5% level of significance and therefore justify the employment of parametric statistical methods in further analysis.

## Correlation Analysis

**Table 4**  
**Correlation Matrix**

	<b>TQ</b>	<b>ETR</b>	<b>BTD</b>	<b>FSIZE</b>	<b>FAGE</b>
<b>TQ</b>	1.000000				
<b>ETR</b>	-0.356905	1.000000			
<b>BTD</b>	0.236412	-0.657101	1.000000		
<b>FSIZE</b>	0.520165	-0.535804	0.497248	1.000000	
<b>FAGE</b>	-0.161974	-0.152100	0.525814	0.098423	1.000000

Source: Authors' Computation (Eviews 12, 2025)

Table 4 presents Pearson correlation coefficients between the variables TQ (Tobin's Q), ETR (Effective Tax Rate), BTD (Book-Tax Difference), FSIZE (Firm Size), and FAGE (Firm Age).

TQ and ETR with correlation coefficient -0.3569 indicate that Tobin's Q and Effective Tax Rate have a negative moderate correlation. That is, an effective tax rate rise will result in Tobin's Q (proxy for firm value) falling. That is, firms paying more taxes than they collect could be undervalued by the market.

TQ and BTD with the correlation coefficient of 0.2364 means Tobin's Q and Book-Tax Difference are weakly positively related. It means that a greater difference between book and tax revenues is associated with greater firm valuation to a limited extent. This may mean that firms in tax planning schemes or firms with substantial temporary/permanent differences would have greater market values, though the relationship is weak.

TQ and FSIZE with a correlation coefficient of 0.5202 suggest that there exists a positive moderate correlation between firm size and Tobin's Q. It suggests that larger firms, based either on assets or revenues, are more highly valued by the market. It may reflect economies of scale, market power, or better access to capital markets that raise firm value. TQ and FAGE with correlation coefficient -0.1620 is a highly weak negative correlation between Tobin's Q and firm age. The older firms are slightly more low-valued, although the correlation is not strong. This could possibly indicate that the younger firms are regarded as more dynamic or growth-sensitive, and older firms are stable but less hostile to market growth.

## Multiple Regression Analysis

**Table 5**  
**Regression Analysis on the Effect of ETR and BTD on TQ**

Dependent Variable		TQ		
Method		Fixed Effects		
Periods Included		10 (2014-2023)		
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.140	0.027	42.150	0.0000
ETR	0.281	0.221	1.680	0.0929
BTD	0.302	0.105	1.760	0.0002
FSIZE	-0.019	0.004	-4.420	0.0000
FAGE	0.352	0.143	2.560	0.0004

**Model Summary**

Metric	Value
R-squared ( $R^2$ )	0.7394
Adjusted R-squared ( $R^2$ )	0.7189
F-statistic	28.50
Prob (F-statistic)	0.0000
Durbin-Watson Stat	1.95

Source: Authors' Computation (EViews 12, 2025)

**Table 6**  
**Hausman Test Result**

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	36.715008	4	0.0026

Source: Authors' Computation (EViews 12, 2025)

**Table 7**  
**Variance Inflation Factor (VIF) Result**

Variable	VIF	Tolerance
ETR	1.25	0.80
BTD	1.18	0.85
FSIZE	1.30	0.77
FAGE	1.22	0.82

Note: VIF values below 10 and tolerance values above 0.1 indicate no serious multicollinearity.

Source: Authors' Computation (EViews 12, 2025)

Table 5 shows that the regression results indicate a weak but positive relationship for the effective tax rate (ETR), with a coefficient of 0.281 and a p-value of 0.0929. It suggests that firms with greater effective tax rates are slightly more inclined to be of greater firm value, possibly because they are more profitable and compliant, therefore more attractive to investors. However, the association is only at a margin of 10% in this case, which indicates that the effect, while there, is not particularly conclusive.

The study also finds Book-Tax Difference (BTD) to be significant and positive with a coefficient and p-value

of 0.302 and 0.0002, respectively. The greater the BTD, the larger are the financial and taxable income differences. This can be interpreted in terms of earnings management or tax planning and would then be termed aggressive accounting practices.

FSIZE also impacts TQ negatively with coefficients of  $-0.019$  and  $0.0000$ , respectively. This reveals that large-sized companies have low Tobin's Q, indicating perhaps economies of scale, fewer opportunities for growth, or doubt on the part of investors regarding large bureaucratic companies.

Lastly, firm age (FAGE) highly positively affects TQ with a coefficient and p-value of 0.352 and 0.0004, respectively. It means that mature firms are more valuable, perhaps because there is an established market reputation, proven records, or investor confidence.

The regression model shows a good descriptive power as presented by both weighted and unweighted R-squared values of 0.74 and 0.72 respectively. This implies that the independent variables used in the model explain about 74 percent and 72 percent of the variance in the variable Tobin Q (TQ), respectively implying a good fit of the model. In addition to that, the overall significance of the model is confirmed through the F-statistic of 28.50, with a very low p-value of 0.0000, which implies that the aggregate effect of the set of explanatory variables is statistically significant and affects TQ. Also, the value of the Durbin-Watson statistic (1.95) indicates that there is no significant auto correlation in residuals, thus making the regression estimates to be reliable. Taken together, these diagnostic statistics imply that the model is not only robust, but also apt at explicating the connection among the predictors, as well as the dependent variable.

Table 6 shows the highly significant chi-square statistic ( $p = 0.0026$ ) indicates strong evidence against the random effects (RE) model. This means that the fixed effects (FE) model is preferred and more consistent to be used for the panel regression analysis.

Table 7 shows the findings of the Variance Inflation Factor (VIF) test. The results demonstrate that there

is no serious issue of multicollinearity between the independent variables of the regression model. The VIFs of all the variables are far below the threshold of 10, where ETR, BTD, FSIZE, and FAGE have 1.25, 1.18, 1.30, and 1.22 VIFs, respectively. Commensurately, the tolerance of all the variables is greater than 0.1, which again points to the fact that there is no multicollinearity. These results indicate that the coefficients are not affected negatively due to the multicollinearity effect hence the results obtained due to the regression have a greater reliability and interpretation capacity. The explanatory variables in the model can thus be said to make independent and significant contributions to explaining variations in Tobin's Q.

## Discussion of Results

In this research, the impact of corporate tax planning on the firm value of Nigerian non-financial corporations was examined. Effective Tax Rate (ETR) and Book-Tax Difference (BTD) were utilized as measures to measure corporate tax planning, whilst market value of the firm was measured through Tobin's Q (TQ), and control variables are firm size (FSIZE) and firm age (FAGE). Fixed effects multiple regression, correlation analysis, and descriptive statistics were utilized in the panel data analysis of 100 firm-year observations from the years 2014-2023. The Hausman test finding verified the use of the fixed effects model to achieve greater consistency and reliability.

Descriptive statistics (Table 3) revealed that Tobin's Q had a mean of 1.656, which means that, on average, the sample companies are valued higher than their book value. The distribution of TQ was nearly normal, as reflected in a Jarque-Bera p-value of 0.7173. It is an indication that the market is optimistic about the prospects of the firms. The average effective tax rate (ETR) was 24.32%, and it was right-skewed, suggesting that most of the companies pay tax at a mid-level and there are some outlier companies that pay much more. Book-Tax Difference (BTD) was very spread out and skewed, suggesting that companies significantly differ from one another in tax planning or earnings management practices.

The Pearson correlation table of Table 4 presented preliminary evidence of linear associations, and it gives evidence of a negative association ( $-0.3569$ ) between TQ and ETR that reflects that firms with greater effective tax rates possess lower market values. This aligns with widespread beliefs that higher taxes reduce profitability as well as marketability (Chen et al., 2010). TQ and BTD also indicate a weak positive relationship ( $0.2364$ ); this is proof that there is likely to be an association between more valuable firms and bigger book-tax differences. This can be taken to imply that more sophisticated tax planning methods are worth more, though it is not quite strong (Hanlon, 2005).

The output of multiple regression (Table 5) provides stronger support by indicating that the effective tax rate (ETR) was positively correlated with Tobin's Q ( $\beta = 0.281$ )

but weakly significant at the 10% significance level ( $p = 0.0929$ ). This indicates that firms with high effective tax rates can be regarded as more profitable or compliant, increasing the confidence of the investors. However, marginal significance indicates that this finding ought to be interpreted with care. Past research, such as Chen et al. (2010), has established high ETR as a signal for sustainable earnings, especially in situations where there is tax enforcement credibility.

The result also indicates that Book-Tax Difference (BTD) significantly affected TQ ( $\beta = 0.302$ ,  $p = 0.0002$ ), and this suggests that firms with higher book and taxable income differences have higher market valuations. This may be an indication of earnings management practices where tax payments are reduced but shareholders' financial performance is optimized. This aligns with Hanlon's (2005) results that BTD would pick up on short-term timing variation or aggressive tax planning that the market may be able to correct for in certain situations.

The adjusted R-squared value of 0.7189 indicates that the model accounts for approximately 72% of the variation in firm value and is statistically significant. The Hausman test statistic ( $p = 0.0026$ ) strongly favors the fixed effects model, that firm-specific effects are correlated with the regressors, and that it favors the estimation approach employed.

## Conclusion and Recommendation

### Conclusion

This research analyzed the effect of corporate tax planning on firm value

in Nigerian non-financial firms based on panel data covering 100 firm-years from 2014 to 2023. Descriptive and correlation analysis showed that ETR was weakly negatively correlated with firm value, while BTD was weakly positively correlated. Regression, on the other hand, was more informative. Specifically, ETR was strongly correlated with firm value but at just the 10% significance level. It suggests that more taxpaying firms would be perceived as compliant and profitable, for example, in earlier research that relates higher tax payments to financial health in high-quality firms with optimal tax governance. Most notably, BTD was found to have a positive and statistically significant impact on firm value, implying that sophisticated or aggressive tax planning firms are positively valued by the market. This implies the implicit role of tax strategy in shaping investor sentiment and value in the market.

### Recommendation

Based on the above findings, the following are proposed recommendations:

1. Firms must adopt coordinated tax planning strategies that reduce tax costs as well as maximize reported financial performance. Due to the positive association between BTD and firm value, accounting-tax reporting strategic variations—when implemented legally and ethically—can be value-generating for value in the market.
2. The positive and weak relationship between ETR and firm value also suggests that tax compliance is a sign of good health to investors. Therefore, organizations like the

Federal Inland Revenue Service (FIRS) should promote channels that favor open and timely tax disclosure.

3. Material book-tax differences should be considered by investors and analysts as a signal that can suggest management's intentional financial positioning. Attention is needed, though, in distinguishing between legitimate planning and warning signs for earnings manipulation.
4. Regulatory bodies must monitor aggressive tax strategies and place companies within the bounds of the law. More tax audit and disclosure requirements for BTD can help ensure market integrity.

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