"The interplay of corporate tax planning and corporate governance on firm value: Evidence from listed NGX consumer goods firms"

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ARTICLE INFO

DOI
http://dx.doi.org/10.21511/imfi.19(2).2022.11

RELEASED ON
Monday, 16 May 2022

RECEIVED ON
Thursday, 14 April 2022

ACCEPTED ON
Thursday, 12 May 2022

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JOURNAL
"Investment Management and Financial Innovations"

ISSN PRINT
1810-4967

ISSN ONLINE
1812-9358

PUBLISHER
LLC “Consulting Publishing Company “Business Perspectives”

FOUNDER
LLC “Consulting Publishing Company “Business Perspectives”

NUMBER OF REFERENCES
42

NUMBER OF FIGURES
0

NUMBER OF TABLES
5

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Abstract

The study investigates the interactive impact of tax planning and CG on firm value of the listed Nigerian consumer goods firms by examining whether this relationship is further strengthened or weakened in the presence of strong corporate governance. From the population of the entire 21 consumer goods firms of the Nigerian Exchange (NGX), 19 firms with complete data were selected as a sample. Data were collected from the annual reports of these firms and both descriptive and inferential analyses were employed to estimate the relationship between the variables. Tax planning was measured using the effective tax rate and book-tax difference, firm value using Tobin’s q, while corporate governance was measured using board independence. The fixed effect panel regression was used to estimate the relationship. The study revealed a positive relationship between tax planning (for both proxies) and firm value although the relationship is statistically insignificant (p = 0.0981 and 0.387). Also, there is limited evidence to support the assertion that the interactive effect of tax planning and firm value is significantly moderated by corporate governance (p = 0.818). The combined implication is that evidence on the moderating effect of corporate governance on tax planning and firm value is limited and should be interpreted with caution suggesting that more empirical research should be carried out in this area. In addition, shareholders should demand more disclosure of tax-related matters as this will help prevent information asymmetry, improve monitoring, and increase the value effectiveness of tax planning.

INTRODUCTION

The issues of tax revenue and shareholders’ wealth maximization are of interest in the fields of taxation, public finance, and corporate finance (Assidi et al., 2016). While corporate tax remains a significant source of revenue to the government and a tool for fiscal policies, it is a burden that firms bear, and this could undermine and erode a part of shareholders’ wealth (Cooper & Nguyen, 2020). Consequently, actions by firms to minimize tax payments are expected as these are in alignment with the corporate objectives of shareholders’ wealth maximization (Ilaboya et al., 2016; Hanlon & Heitzman, 2010). Shareholder’s wealth is usually captured by the total value of a firm, and this also represents the total assets owned by a firm. The prosperity of shareholders is therefore a function of the level of value and quality of assets of a firm.

The debate and findings on the interplay between tax planning and firm value are not only conflicting but also unclear (Xu & Zheng, 2018; Kovernmann & Velte, 2019). This is further emphasized theoretically as
both the traditional theory of tax planning and the agency theory perspective on tax planning provide opposing arguments for the relationship between tax planning and firm value (Bayar et al., 2018). Also, from the empirical perspective, the conflict is observed as studies present mixed evidence on the association between tax planning and firm value. Salawu (2017) using Nigerian data discovered that tax planning does not promote higher firm value in nonfinancial firms. However, Abdul-Wahab and Holland (2012) observed for UK based companies that corporate governance is not a significant moderator of tax planning and that tax planning negatively affects firm value. While based on a cross-country analysis, Tang (2017) discovered that tax planning on the average leads to improved firm value, but his findings were mitigated in countries with corporate governance issues and high levels of corruption. Although corporate governance, which can address agency conflicts, ought to be a moderator of the link between tax planning and firm value, this suggests a plausible reason for the conflict in findings in developed clime, but nothing has been advanced in less developing countries. Considering the Nigerian tax system peculiarity, its level of development, the turn of economic events characterized by the high cost of doing business and the clamor for more revenue from taxes, a study of this nature becomes necessary as findings in the developed contexts may not hold or explain the interaction between tax planning and firm value in developing context like Nigeria.

1. LITERATURE REVIEW

The concept of firm value is a measure of the performance of a firm, and it invariably provides signals to potential and existing investors (Razali et al., 2018). Hence, the management of a firm will do everything possible to ensure the signal revealed about the value of its firm is positive (high firm value). To do this, strategies are put in place to minimize anything that reduces the value of a firm and one of such is corporate taxes. Furthermore, the concept of corporate tax planning in its broadest form comprises a wide range of actions and strategies employed by corporate entities to reduce explicit tax liability (Salawu, 2017). It is principally done to improve firm value (shareholders’ wealth). It can also be seen as an effort made by corporations to minimize tax payments within the ambit of tax regulations. Although tax planning can easily be seen to entail strategizing on how to ensure tax payments are minimized, such strategies when examined critically could be legal or illegal, aggressive, or moderate (Kouvermann & Velte, 2019; Olayiwola & Okoro, 2021).

1.1. Measures of tax planning

Generally, tax planning is measured mainly using either effective tax rate (ETR) or book tax difference (BTD) although there are other measures not within these two (Park, 2019; Lampenius et al., 2021). Based on the effective tax rate, it is observed that most businesses pay more than one type of tax. In determining effective tax rate, the total tax is expressed as a proportion of total income that has been subjected to tax. According to Chukwudi et al. (2020), this method is used to measure the quantum individuals, firms or corporate bodies remit in taxes as a proportion of their pre-tax incomes. For an individual, the ETR is an average amount at which individuals are taxed, and it is gotten by expressing total tax as a ratio of income tax while for a firm, it involves the ratio of total taxes paid to pretax profit (Belz et al., 2018). In summary, ETR is the net rate that a taxpayer pays when all forms of taxes are added and expressed as percentage of taxable income. There are various variants of ETR such as the GAAP ETR, cash ETR, cash flow ETR and others but they all generally have the same limitations of truncation bias, measuring only non-conforming tax planning and not effectively able to differentiate between discretionary and non-discretionary tax items (Khaoula & Moez, 2019; Mappadang, 2019).

Book tax differences (BTD) is the other broad category of measures that can be used to measure tax planning. It is the difference between taxable income submitted in tax returns and the accounting income in the financial statement (Lampenius et al., 2021). According to Park (2019), BTD is a reporting difference because of the presentation and measurement of the same transaction, but for varied purposes (accounting or tax purposes).

The book-tax difference can be classified into permanent or temporary differences. It is permanent when the income and expenditure transactions causing the differences are recognized for ac-
counting purposes but not for tax purposes, while temporary differences are because of the timing difference in the treatment of elements of financial statements (Xu & Zheng, 2018).

As stated in Arornmwan and Okafor (2019), total BTD as a concept originated from the study by Manzon and Plesko (2001) when they operationalized a proxy with total BTD. However, Gebhart (2017), Hanlon and Heitzman (2010), Lee et al. (2015) criticize it as a noisy proxy for tax avoidance as it indicates the efforts by management to engage in both earnings management and tax planning as a large book-tax difference is also linked with managerial discretion in the accrual process. Thus, using BTD can lead to confounding effects and wrong or over-interpretation. Nevertheless, Dridi and Boubaker (2015) assert that this measure should not be written off because tax management cannot be removed from earnings management as there are points of intersection between these two. Other variants of the BTD include temporal BTD and abnormal BTD (Guenther, 2014).

1.2. Theory of tax planning

Hoffman’s theory of tax planning was published in 1961. Hoffman (1961) suggested that there is a clear difference between tax evasion and tax avoidance and that every business that works towards creating wealth for its owners, will naturally seek to reduce its tax liabilities. This will drive them to engage in tax planning and will reduce the total sum that will ordinarily flow to the tax authorities. He suggested that every tax system is characterized by ambiguity and loopholes, which will be exploited by firms seeking to reduce their tax liabilities. According to Hoffman (1961), to reduce tax liabilities, firms will find means to reduce their taxable profit, without necessarily affecting their accounting profit because the tax liability of a firm is a derivative of its taxable profit. This will make more money available to shareholders, thereby increasing their wealth and ordinarily improving the value of the firm.

The theory of tax planning further suggests that a firm seeking to engage in tax planning over a long period must be flexible in its practices, as tax laws and rules are expected to constantly change. Hoffman (1961) suggested that the financial performance of a firm and its value will be a function of its ability to legally reduce its tax liabilities because engaging in tax planning will lead to tax savings, which will create more wealth for the owners and improve the firm’s value. He also highlighted the cost of tax planning but insisted that the benefit will always exceed the cost and so it will always be favorable to engage in tax planning. Therefore, since the cost will always be less than the benefit, it translates that tax planning, when effectively executed, will improve the value of the firm (Lee et al., 2015; Penno, 2021). This will, in turn, lead to tax savings for the firm, which connotes more wealth for shareholders. He also stressed the importance of determining the effective tax rate, to clearly show the effectiveness of tax planning.

In summary, this theory advocates that tax planning is one of the strategies that businesses should engage in to improve their value. However, to achieve the benefits associated with tax planning, a firm is expected to determine an effective tax rate (Penno, 2021).

1.3. Empirical evidence

According to Bayar et al. (2018), corporate governance plays more than a supervisory role in firm value; they equally highlighted that tax avoidance is an inconsequential beneficial basis of funding for encumbered firms inundated with agency problems and grey information environments. Nugroho and Agustia (2018) examined the effect of CG, tax avoidance on firm value, but the study is constrained by the sample, corporate governance and other variables that may better describe tax aggressiveness, therefore, the study could not get a clear picture of how much tax was avoided by firms.

Also, Mappadang (2019) investigated the link between tax avoidance, CG mechanism, and firm value. The study assesses ETR and permanent book-tax differences to gauge tax avoidance on firm value and it was revealed that the CG mechanism has a positive impact on firm value when mediated by tax avoidance. The study is however constrained by the variables studied to analyze the effect of CG mechanisms being limited to only intervening tax avoidance. Jiménez-Angueira (2018) in the study of the link between internal CG, variations in tax and governance context in the U.S., revealed that where CG is better as a control and supervision
mechanism, the higher the value of the firm, whereas a lower CG mechanism heightens the prospects of managers to get involved in tax avoidance.

In contradiction to the study by Mappadang (2019), Khaoula and Moez (2019) examined the moderating effect that an efficient governance structure may have on the nexus between tax avoidance and firm value in Europe. The study discovered a positive relationship between tax planning and firm value. Also, CG mechanisms have significant but negative effects on the link between the two variables. In the same vein, Mgammal et al. (2018) focused on Malaysian firms in explaining the interplay between tax avoidance and firm value moderated by the influence of CG on the association between the two variables. Tax avoidance was captured using ETR, firm value was measured using the market value of shares, and corporate governance was determined using an index developed from the Malaysian code on corporate governance. The study found that tax avoidance contributes positively to the value of firms and more importantly, the value-enhancing impact of tax avoidance on firm value was higher for well-governed firms than for less governed ones.

Tang (2017) carried out a study on how tax avoidance practices were perceived by investors in international settings. Although he found a positive relationship between tax avoidance and firm value in aggregative, he observed based on disaggregated analysis that the relationship is reduced in countries with weak governance policies. Nazir and Afza (2018) focused on 1,944 firm-year observations of Pakistani listed firms, the results revealed that behavior of managers is opportunistic towards managing earnings and the act is destroying the current and subsequent firm value through manipulation of reported accounting earnings. Also, this opportunistic behavior of manipulating earnings by managers is negatively moderating the well-established positive interplay between corporate governance and firm value. Also, Mwalukulu (2022) analyzed the impact of tax planning on firm value with board diversity as moderating variable. The research was conducted for manufacturing firms on Nairobi Stock Exchange from 2010 to 2019. The study found evidence to support the view that effective tax rate had a positive and statistically significant influence on firm value. The study also found that board diversity increases the positive influence of tax planning on firm value.

Similarly, Hasanah et al. (2019) examined the impact of tax avoidance practices and CG on the value of manufacturing firms listed on the Indonesia Stock Exchange (IDX) from 2013 to 2017. The research data were analyzed using the panel data regression technique; it was revealed that tax planning and CG proxied by external auditors had a significant positive influence on firm value.

The strategic importance of tax planning is not far-fetched as it can be used as a beneficial scheme to some stakeholders but to the detriment of others due to agency costs (Jensen & Meckling, 1976; Dridi & Boubaker, 2015). For example, the revenue derived from taxes facilitates the financing of physical and social amenities (Abdelfattah & Aboud, 2020). Therefore, a firm that adopts an aggressive tax planning policy will negatively impact the well-being of society at large (Razali et al., 2018; Olarewaju & Olayiwola, 2019; Abdelfattah & Aboud, 2020) although the wealth of shareholders may be maximized. Globally, tax payment is a significant business cost that reduces profit attributable to shareholders (Santana & Rezende, 2016). Therefore, on the one hand, it is not unexpected that shareholders may urge managers to engage in tax planning to reduce tax liability and maximize firm value (Assidi et al., 2016). On the other hand, when managers engage in tax planning, it may not translate into firm value if managers engage in rent extraction due to information asymmetry (Xu & Zheng, 2018; Azam & Wang, 2020) or if the tax planning is not efficient because the benefit does not outweigh the cost (Yang, 2018). Therefore, the direction of the nexus between tax planning and firm value is not clear and the trend in this area reveals parallel findings of both positive and negative relationships.

Therefore, the hypotheses to be tested in this study are stated in the null:

**H$_{01}$**: Effective tax rate is not significantly linked with firm value.

**H$_{02}$**: Book-tax difference is not significantly linked with firm value.

**H$_{03}$**: The relationship between effective tax rate and firm value is not significantly moderated by corporate governance.
H₄: The relationship between book-tax difference and firm value is not significantly moderated by corporate governance.

2. METHODOLOGY

An ex-post facto research design, which is a variant of non-experimental, is adopted in this study. This is because the study is interested in the relationship between variables but without the interference of the researcher. The target population for this study is all the firms listed as consumer goods producers on the Nigerian Exchange (NGX). The reason for focusing on this sector is because it has been underexplored within the Nigerian environment, and since these firms are capital intensive, the likelihood to engage in tax planning to reduce cash flow leakage is present.

As of December 31st, 2021, there are 21 firms listed in this sector on the Nigerian Exchange (NGX), and due to the small size, a census sampling was used. However, after filtering for firms with incomplete or missing data, the effective sample size comprised 19 firms for the period 2014 to 2020. The study has one criterion variable, two predictor variables, one moderating proxy and three control variables. Measures for all these variables were extracted from the annual reports of the respective firms. While the information for board independence was determined by counting the number of independent board directors and dividing it by the total number of board members. The information is available on the directors’ profiles pages. For the other variables, the measures were picked or calculated from figures in the financial contents of the annual reports.

The study model was adapted from Ftouhi et al. (2015) in a similar study of the European firms.

\[
TobinQ_{it} = \beta_0 + \beta_1 ETR_{it} + \beta_2 Tax\ Savings_{it} + \beta_3 CAPINT_{it} + \beta_4 LEV_{it} + \beta_5 EM_{it} + \beta_6 DIF_{it} + \beta_7 SIZE_{it} + \beta_8 INFL_{it} + \epsilon_{it},
\]

where \( i \) = firm cross-section; \( t \) = time (2014–2020); \( TobinQ \) = the proportion of firm market value to book value of assets; \( ETR \) = the proportion of total tax expense to pre-tax accounting revenue; \( Tax\ Savings \) = the statutory tax rate minus effective tax rate; \( CAPINT \) = the proportion of tangible assets to the total assets; \( LEV \) = the proportion of the total debt to the book value of equity; \( EM \) = the proportion of total accruals to the average total assets; \( DIF \) = Dividends per share divided by earnings per share x 100; \( SIZE \) = the proportion of plant and equipment to the total assets.

However, to adapt the aforementioned model to suit the focus of this study, some variables were changed. The first model is used to address the first two research questions, while the other model is used to answer the other research questions. These models are given below:

\[
TobinQ_{it} = \beta_0 + \beta_1 BTD_{it} + \beta_2 ETR_{it} + \beta_3 CAPINT_{it} + \beta_4 LEV_{it} + \beta_5 NOL_{it} + \beta_6 SIZE_{it} + \epsilon_{it},
\]

\[
TobinQ_{it} = \beta_0 + \beta_1 BTD_{it} + \beta_2 BTD \cdot CG_{it} + \beta_3 ETR_{it} + \beta_4 ETR \cdot CG_{it} + \beta_5 CAPINT_{it} + \beta_6 FAGE_{it} + \beta_7 LEV_{it} + \beta_8 NOL_{it} + \beta_9 SIZE_{it} + \epsilon_{it},
\]

where \( i \) = firm cross-section; \( t \) = time (2014–2020); \( \beta_0, \beta_1, \beta_2, \ldots, \beta_9 \) = coefficients; \( TobinQ \) = the proportion of firm market value to book value of assets at year-end; \( ETR \) = the proportion of total tax expense to pre-tax accounting revenue; \( BTD = PBT \) minus taxable income (ratio of current tax expense to statutory tax rate); \( CG \) = ratio of independent directors to total number on the board; \( BTD \cdot CG \) = interaction of \( BTD \) and \( CG \); \( ETR \cdot CG \) = interaction between \( ETR \) and \( CG \); \( CAPINT \) = ratio of PPE to total assets; \( FAGE \) = number of years a firm has been listed on NGX; \( LEV \) = the total debt divided by capital employed; \( NOL \) = dummy variable 1 represents a firm that makes loss in \( t - 1 \); and \( SIZE \) = total assets.

3. RESULTS

Table 1 presents the results of the descriptive statistics of the variables. Firm value was measured by TQ, had a mean of 1.50, an SD of 1.69, and a
coefficient of variation (CoV) of 1.126. These figures reveal that on average, the market value of the equities of the sampled firms is higher than the book value of their total assets, since the mean value is greater than 1. This finding is similar to those of Nugroho and Agustia (2018) who found that the average firm value of the Indonesia Exchange (ISE) was twice the book value of total assets. In addition, the standard deviation and CoV that is greater than 1 suggest that the values of individual firms are largely different from the industry average. Thus, these firms are not uniformly the same in terms of how investors perceive their value.

BTD is one of the study measures for tax planning and it represents the difference between what firms pay as tax and the amount they ought to pay. Table 1 shows that the mean value for this tax gap is N169,981 (‘000), and this is quite large suggesting that firms indeed involve tax planning. However, the large standard deviation of N3,945,720 and the relative deviation of –23.213 provide evidence that the extent of the tax gap among individual firms varies largely. A possible reason for this may be revealed from the political power theory that asserts that firms with more resources (usually large firms) are more effective in tax planning than others with fewer resources. Consequently, the large variation may be hinged on a firm’s ability to effectively carry out tax planning.

Tax planning is also captured using the ETR. From Table 1, it is documented that the average ETR is 21.2%, and this is less than the statutory rate of 30%. Consequently, it can be revealed that firms generally pay tax at a rate that is effectively less than what is expected by law (Sec 40 of CITA, LFN, 2004 as amended). The coefficient of variation of 1.023, which is greater than 1, suggests a high dispersion in the effective tax rates of the individual firms.

Corporate governance (CG) has a mean, maxi and min value of 0.579, 0.730, and 0.420, respectively. Capital intensity (CAPINT) has a mean, maxi and mini values of 0.543, 0.813, and 0.261, respectively. Firm age (FAGE) has a mean, maxi and mini values of 29.89, 57, and 3, respectively. Leverage (LEV) has a mean, maxi and mini value of 0.614, 0.840, and 0.380, respectively, while net operating loss (NOL) has a mean of 0.24. All these figures collectively reveal that the extent of corporate governance as it relates specifically to having an independent board is weak as only 57.9% of boards are generally independent. Also, consumer goods firms are generally capital intensive on average, as 54.3% of the total asset of sampled firms are made up of property, plants and equipment. Furthermore, the average age of firms in the consumer goods sector is 29, indicating that these firms have been in operation for a while and have succeeded in overcoming the teething problems associated with start-ups. The sampled firms utilize fixed income security financing to a tune of 61.4% of their capital structure hence, exposing them to external monitoring from providers of these funds, and 25% of the study distribution incurred losses during operations thus, the sampled firms are generally profitable firms.

3.1. Multivariate analysis result

The results for the fixed effect panel regression estimations are presented in Table 2. To determine the appropriateness of the technique to use, the Lagrange Multiplier test was carried out for ran-
dom effects, and it was discovered based on the p-value (< 0.05) that the pooled OLS technique is inappropriate, therefore, the model should be estimated with effects. Furthermore, to determine which of the effects is appropriate, the Hausman test was conducted, and the result (p < 0.05) indicated that the fixed effect is the more appropriate effect to use when estimating the model. Consequently, the result presented here is the result from the fixed effect panel regression estimation.

Column 1 presents the result from using BTD as the main explanatory variable. The reason is to control for the explanatory effect that ETR may have if included in the estimation. The R-squared is impressive and stood at 0.9160 but when adjusted for the degree of freedom, it reduced to 0.8963 indicating that BTD and the control variables jointly explain 89.63% of systematic variations in firm value. The overall significance and predictive power of the model is also impressive as revealed from the F-stat of 46.68 with associated p-value of 0.000. Focusing on the individual T-stat of the variables, BTD has t-stat of 0.8685 (p > 0.05), indicating that tax planning relates positively with firm value but the degree of association is insignificant. The results also reveal that corporate governance, firm age, leverage and firm size significantly relate to firm value as indicated by their t-stat and associated p-value of –1.8534 (p = 0.066), –0.2.383 (p = 0.018), –1.709281 (p = 0.0903), and –2.838994 (p = 0.0054), respectively.

In column 2, ETR is the main explanatory variable and the R-squared is quite similar to that of BTD. The R-squared stood at 0.9170 but when adjusted for the degree of freedom, it reduced to 0.8963, indicating that BTD with the control variables jointly accounts for 89.77% of systematic variation in firm value. The overall significance and predictive power of the model is also impressive as revealed from the F-stat of 47.336 with associated p-value of 0.000. Focusing on the individual T-statistics of the variables, ETR has a significant t-statistics of –1.668 (p < 0.10), confirming the earlier position that tax planning relates positively with firm value but this is at a lower confidence level (90%). The results also confirm the statistical significance of corporate governance, firm age, leverage and firm size.

Looking at the results after moderation as presented in Table 3, column 1, which focuses on the result when BTD is taken as the main explanatory variable, reveals that the R-squared is not significantly different from the one before moderation with a value of 0.92. When adjusted for the degree

<table>
<thead>
<tr>
<th>Variables</th>
<th>Column 1</th>
<th>Column 2</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coeff.</td>
<td>t-stat</td>
</tr>
<tr>
<td>BTD</td>
<td>1.47E–08</td>
<td>0.868529</td>
</tr>
<tr>
<td>ETR</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>CG</td>
<td>–1.134214**</td>
<td>–1.853492</td>
</tr>
<tr>
<td>CAPINT</td>
<td>0.514120</td>
<td>0.729482</td>
</tr>
<tr>
<td>FAGE</td>
<td>–0.093170*</td>
<td>–2.383407</td>
</tr>
<tr>
<td>LEV</td>
<td>–0.815278***</td>
<td>–1.709281</td>
</tr>
<tr>
<td>NOL</td>
<td>–0.388180</td>
<td>–0.338245</td>
</tr>
<tr>
<td>SIZE</td>
<td>–0.616251*</td>
<td>–2.838994</td>
</tr>
<tr>
<td>C</td>
<td>15.54189*</td>
<td>5.590819</td>
</tr>
<tr>
<td>RSqd</td>
<td>0.9160</td>
<td>–</td>
</tr>
<tr>
<td>Adjusted RSqd</td>
<td>0.8963</td>
<td>–</td>
</tr>
<tr>
<td>F-stat</td>
<td>46.6805*</td>
<td>–</td>
</tr>
<tr>
<td>F-stat (p-value)</td>
<td>0.0000</td>
<td>–</td>
</tr>
<tr>
<td>LM test(p-value)</td>
<td>0.0000</td>
<td>–</td>
</tr>
<tr>
<td>Hausman's test (p-val)</td>
<td>0.0114</td>
<td>–</td>
</tr>
</tbody>
</table>

Note: Sig. at * 1%, ** 5%, ***10%.
of freedom, it reduced to 0.9004, indicating 90% of systematic variations in firm value are jointly explained by all the variables. F-stat is also not significantly different from that of the first. The overall significance as revealed from the F-stat of 46.91 with associated p-value of 0.000 is encouraging and impressive. Focusing on the individual T-statistics of the variables, BTD has statistically significant t-statistics of –1.7631 (p = 0.080), indicating tax planning significantly relates to firm value at the 10% significance level and when interacted with corporate governance (BTD·CG); the study found marginal evidence that tax planning translates to improved firm value as indicated by the t-statistics of 2.008 (p = 0.047). Furthermore, it is observed that in the presence of sound governance, tax savings from BTD increased from –0.00000011 to 0.000000229. All these provide evidence that sound corporate governance can deal with opportunist behavior of management and ensure the benefits accrued from effective tax planning are not diverted rather they are ploughed back to improve the value of the firm.

Emphasizing column 2, it is observed that the R-squared, adjusted R-squared, F-stat, and associated p-values remain not significantly different from the figures reported in column 1, thus confirming the earlier position of the predictive power of the model. In addition, ETR has t-statistics of –0.4721 (p > 0.05) negating the assertion that tax planning relates to the value of a firm. However, when moderated with corporate governance (ETR·CG), the t-stat is 0.2300 (p > 0.05), indicating that CG insignificantly moderates the link between tax planning and firm value. Furthermore, it is observed that in the presence of sound governance, tax savings have a lower ETR decrease from –0.91889 to –0.21815 (–0.91889 + 0.700740). Finally, the results also revealed that the control variables (corporate governance, firm age, leverage, with firm size) are significantly linked to firm value.

### 3.2. Additional analysis

To further determine the effect of moderation, the Wald test for coefficient restrictions was conducted. Following a similar approach by Ayers et al. (2011) and Tang (2017), the Wald test was used to find out if the sum of the coefficients for BTD and BTD·CG are significantly different from zero. From Table 4, it was observed that CG significantly moderates the link between book-tax difference and firm value (F-stat = 4.849, p = 0.0298). Conversely, it was also observed that the relationship between ETR and firm value (F-stat = 4.849, p = 0.0298).
0.035585, p = 0.8507) is not significantly moderated by CG. These combined results provide limited evidence on its impact on the association between tax planning and firm value.

To provide additional analysis on the effect of CG on the relationship between tax planning and firm value, the study divided the sample into two sets from the measure of central tendencies. Firms with independent directors above the semi-quartile mark (57%) were classified as strongly governed while those below were classified as weakly governed. The results are that governance moderates the interplay between tax planning and firm value. Because sound corporate governance ensures tax savings are ploughed back into the business as inferred from the positive and significant value of BTD (t-stat = 2.386, p = 0.02), however when the associated cost of tax planning exceeds the benefits and negatively affects firm value, proper governance and monitoring help to reduce the effect as seen from the t-statistics and p-values of ETR (t-stat = 1.867363, p = 0.0668) although the evidence on this is marginal.

\[ H_0: \text{Effective tax rate is not significantly linked with firm value.} \]

ETR with (t-stat = –1.668 and p-value = 0.0981) as indicated in column 2 of Table 2. The p-value is p > 0.05 but p < 0.10 thereby providing limited evidence of the nexus between ETR and firm value. The study could not reject the null hypothesis; therefore, it is concluded that the effective tax rate is not significantly linked with firm value.

### Table 4. Wald test

<table>
<thead>
<tr>
<th>Test Stat</th>
<th>Value</th>
<th>df</th>
<th>Prob.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Equation: BTD and BTD-CG</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>t-stat</td>
<td>2.202249</td>
<td>106</td>
<td>0.0298</td>
</tr>
<tr>
<td>F-stat</td>
<td>4.849899</td>
<td>(1, 106)</td>
<td>0.0298</td>
</tr>
<tr>
<td>Chi-sq</td>
<td>4.849899</td>
<td>1</td>
<td>0.0276</td>
</tr>
<tr>
<td><strong>Equation: ETR and ETR-CG</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>t-stat</td>
<td>–0.188639</td>
<td>106</td>
<td>0.8507</td>
</tr>
<tr>
<td>F-stat</td>
<td>0.035585</td>
<td>(1, 106)</td>
<td>0.8507</td>
</tr>
<tr>
<td>Chi-sq</td>
<td>0.035585</td>
<td>1</td>
<td>0.8504</td>
</tr>
</tbody>
</table>

### Table 5. Pooled OLS estimation (Sound/weak governance)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coeff</th>
<th>t-Stat</th>
<th>p-value</th>
<th>Coeff</th>
<th>t-Stat</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTD</td>
<td>1.02E-07***</td>
<td>2.386907</td>
<td>0.0202</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>ETR</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>2.237440***</td>
<td>1.867363</td>
<td>0.0668</td>
</tr>
<tr>
<td>Control</td>
<td>Yes</td>
<td>–</td>
<td>–</td>
<td>Yes</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Obs</td>
<td>66</td>
<td>–</td>
<td>–</td>
<td>66</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>R²</td>
<td>0.3541</td>
<td>–</td>
<td>–</td>
<td>0.3313</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.2884</td>
<td>–</td>
<td>–</td>
<td>0.2633</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>F-stat</td>
<td>5.3926*</td>
<td>–</td>
<td>–</td>
<td>4.8724*</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>F-stat (p-value)</td>
<td>0.0001</td>
<td>–</td>
<td>–</td>
<td>0.0004</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coeff</th>
<th>t-Stat</th>
<th>p-value</th>
<th>Coeff</th>
<th>t-Stat</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BTD</td>
<td>7.98E-08</td>
<td>1.166244</td>
<td>0.2481</td>
<td>–</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>ETR</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>1.042936</td>
<td>1.277684</td>
<td>0.2063</td>
</tr>
<tr>
<td>Control</td>
<td>Yes</td>
<td>–</td>
<td>–</td>
<td>Yes</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Obs</td>
<td>67</td>
<td>–</td>
<td>–</td>
<td>67</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>R²</td>
<td>0.1462</td>
<td>–</td>
<td>–</td>
<td>0.1500</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.0609</td>
<td>–</td>
<td>–</td>
<td>0.0650</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>F-statistic</td>
<td>1.7135</td>
<td>–</td>
<td>–</td>
<td>1.7655</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>F-statistic (p-value)</td>
<td>0.1334</td>
<td>–</td>
<td>–</td>
<td>0.1216</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

Note: Sig. at * 1%, ** 5%, ***10%.
$H_2$: Book-tax difference is not significantly linked with firm value.

BTD with (t-stat = 0.868 and p-value = 0.387) as seen in column 1 of Table 2. Since $p > 0.05$, the study is unable to reject the null hypothesis, therefore, concludes that book tax rate difference is not significantly linked with firm value.

$H_3$: The relationship between effective tax rate and firm value is not significantly moderated by corporate governance.

ETR·CG with (t-stat = –0.230 and p-value = 0.818) as indicated in column 2 of Table 3, while ETR with (t-stat = 0.472 and p-value = 0.637). The change in signs and difference in coefficients infers a moderation effect. However, for ETR·CG $p > 0.05$, indicating the insignificance of the moderation effect, thus, the study could not reject the null hypothesis and concludes that the relationship between effective tax rate and firm value is not significantly moderated by corporate governance.

$H_4$: The relationship between book-tax difference and firm value is not significantly moderated by corporate governance.

BTD·CG with (t-stat = 2.008 and p-value = 0.047) as seen in column 1 of Table 3, while BTD with (t-stat = –1.763 and p-value = 0.080). The change in signs and difference in coefficients infers a moderation effect because BTD·CG has a $p < 0.05$, hence, the study rejects the null hypothesis and concludes that corporate governance significantly moderates the relationship between book-tax difference and firm value.

Premised on agency cost argument by Jensen and Meckling (1976) that tax planning is value-destroying because of opportunistic behavior of managers and self-centered behavior of controlling/powerful shareholders, this study also investigated if the relationship between book-tax difference and firm value is not significantly moderated by corporate governance. It was discovered that corporate governance slightly moderates the relationship. This is a confirmation of the findings by Ayers et al. (2011) who studied the moderating effect of corporate governance on the link between tax deferrals and firm value amongst other things and found limited evidence that the benefits of deferral accrue more for strongly controlled firms than weakly controlled firms. Likewise, Izevbekhai and Odion (2018) discovered evidence of a positive interplay between tax savings and firm value from a sample of 609 firm-year observations of Nigerian companies. The evidence was however limited in significance, thus suggesting that in reality, the effectiveness and efficiency of corporate governance have more to do with its effect on tax planning and firm value than just having the structure in place. In addition, the findings also confirm the findings of Lestari and Wardhani (2015) who examined the moderating effect of board characteristics on tax planning and firm value. Although they found mixed results on the aspects of diversity that positively and negatively impact the nexus between tax savings and firm value, the overall evidence though marginal suggests that effective and efficient governance can mitigate the agency cost that reduces the benefits of tax planning on firm value.

Based on preliminary analysis, it was discovered that the sector’s average ETR for the period considered was below the statutory rate by about 9% (30%–21%), revealing the practice of tax planning. This was also confirmed by the book-tax difference averaging N169,981 (’000) for the period. Also, the firm value, which was captured using Tobin’s q, stood at 1.5, revealing that the average market value of the sampled firms is higher than the book value of their total assets. On the nexus between tax planning and firm value, the findings revealed that tax planning though positively related to firm value is not significant enough to lead to improvement in firm value. Therefore, aligning more with the agency cost perspective on tax planning by Jensen and Meckling (1976), the study concludes that there is no relationship between tax planning and firm value.

**CONCLUSION**

This study investigates the interplay between tax planning and firm value to determine if the relationship is strengthened or weakened by corporate governance. It was discovered that tax savings from book-tax difference marginally improve firm value in well-governed firms, while tax savings
from lower ETR do not improve firm value for both strong and weak governed firms. The study also concludes that corporate governance does not moderate the relationship between tax planning and firm value. Based on the findings, it is worth emphasizing that the effective tax rate of companies in the Nigerian consumer goods sector is 21%, and this indicates that tax planning is prevalent in this sector. Also, corporate governance does not play a significant moderating role in explaining the tax planning-firm value dynamics. The study, therefore, concludes that tax planning if effectively done can lead to better firm value, however, effective and efficient corporate governance is needed to ensure this. Therefore, those charged with governance are advised to ensure that effective and efficient governance mechanisms are in place not just for legitimacy concerns and box-ticking purposes. Also, shareholders should demand more disclosure of tax-related matters as this would help prevent information asymmetry, improve monitoring, and increase the value effect of tax planning. Furthermore, tax planning while beneficial to shareholders can be detrimental to the government and the general public. Therefore, tax authorities can discourage aggressive tax planning by improving an institutional and regulatory framework for governance.

Because the combined implication of these findings on the moderating effect of corporate governance on tax planning and firm value is limited, this should be interpreted with caution, therefore, suggesting more empirical research should be carried out in this area. Also, literature documents that firm value can be measured using either accounting-based measures or market-based measures. This study used Tobin’s Q as a measure of firm value based on its popularity and its focus on long-term performance and future growth opportunities. However, this study believes that using only one of the measures for firm value will in no way vitiate the findings of this study. Furthermore, corporate governance is a multifaceted concept that has different mechanisms, but in this study, only board independence was used, which has been the most popular single proxy used to capture the extent of corporate governance in a firm. The study also believes that this single proxy approach has in no way reduced the import of the findings of this study. Furthermore, to advance this study, it is proposed to use tax planning measures that capture more aggressive aspects that can differentiate between discretionary and non-discretionary management actions. Also, further studies may look at other underexplored sectors or conduct a comparative study based on industry type or ownership type (family/non-family-owned firms) as the effectiveness of corporate governance may differ along these dimensions.

AUTHOR CONTRIBUTIONS

Conceptualization: Martins Mustapha Abu.
Data curation: Martins Mustapha Abu.
Formal analysis: Martins Mustapha Abu.
Funding acquisition: Martins Mustapha Abu.
Investigation: Martins Mustapha Abu.
Methodology: Martins Mustapha Abu.
Project administration: Martins Mustapha Abu.
Resources: Martins Mustapha Abu.
Software: Martins Mustapha Abu.
Supervision: Martins Mustapha Abu.
Validation: Martins Mustapha Abu.
Visualization: Martins Mustapha Abu.
Writing – original draft: Martins Mustapha Abu.
Writing – review & editing: Martins Mustapha Abu.
REFERENCES


