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TAX AGGRESSIVENESS NEXUS ON INTERNAL EFFICIENCY AND CUSTOMER LOYALTY: EVIDENCE FROM NIGERIA

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Abstract: The goal of the study was to examine effect of Tax aggressive strategy on internal efficiency and customer loyalty of listed manufacturing firms in Nigeria for the period 2004 t0 2023 using secondary data obtained from firm's financial statements. Tax aggressiveness was measured using allowable expenses for tax purposes, debt and non-debt tax shield and internal efficiency and customer loyalty as dependent variables. Hausman test for selection of model, multiple regression and panel corrected standard error for determination of relationship. Various classic assumption tests were conducted on data set to ascertain reliability and ensure appropriateness of result. Result of the study confirmed all tax shield variables exert significant impacts on internal efficiency of manufacturing companies in Nigeria. It was however found that while allowable expenses tax shield and debt tax shield had significant negative effect, the effect of non-debt tax shield is positive. This also demonstrates a mutually exclusive relationship in this regard. Further Corporate tax shield variables all have significant effects on customer loyalty of manufacturing companies in Nigeria, although the effects are mutually exclusive. While that of allowable expenses tax shield is negative, debt and non-debt tax shields exert positive effects on customer loyalty. Based on outcome, it is recommended that corporate tax strategies should be considered as a strategic adaptation rather than a deliberate manipulation strategy of management in order to drive long term performance, especially in relation to the market performance of firms. There is the need for manufacturing firms to improve non-debt tax shield in order to improve their positions before customers. Results reveal that customer loyalty favors firms with non-debt tax shield tax aggressiveness.

Keywords: Tax Aggressiveness Debt tax shield, Non-Debt Tax Shield, Internal Efficiency, Customer Loyalty.

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1. Introduction

Taxation plays a vital role in sustainable development of countries as a major revenue source to governments and a fiscal policy tool in regulating the economy. However, this compulsory levy is imposed on the income of individuals and business entities. From one perspective, taxation is serving the economic interest of countries. In another vein, the burden of taxation is on the tax payer. Whilst some business entities perceive tax as a corporate social responsibility, others x-ray it as a penalty that impacts profits. Managers on the other hand are saddled with the responsibility of wealth creation, profit and wealth maximization (Udochukwu et al. (2022). In an effort to minimize the tax burden and enhance profit, firms engage in tax reducing strategies. This action is detrimental and reduces government revenue thereby constraining the capacity to meet developmental goals and provision of social services to the populace. To mitigate the impact of these taxation reducing strategies deployed by firms and improve revenue collection governments introduces regulatory measures which can spiral into negative effects for the economy. According to agency theory, there can be information asymmetry regarding tax structuring among managers and stockholders. Managers are inclined to prioritize their personal interests, negatively impacting firm performance. Thus, a firm's selection to involve in tax avoidance should be dependent on carefully assessing the benefits and drawbacks of this strategy.

Prior empirical literature suggests that tax minimization strategies improve performance from the perspective of enhancing firm value. However, emerging evidence suggest otherwise. Exacerbating the debate is the motive of tax aggressiveness. Whilst early literature (Allingham and Sandmo,1972) from agency theory perspective suggest conflict of interest by managers opportunistic behavior is responsible for tax aggressive behaviors of firms examining tax aggressiveness from individualistic perspective. However, contemporary literature (Armstrong et al., 2015; Desai & Dharmapala, 2009; Hanlon & Heitzman, 2010; Wilson, 2009; Desai & Dharmapala, 2006; Christina, 2017) suggest tax sheltering is a deliberate corporate strategy; for tax costs minimization and profit enhancement ((Minh Ha et al, 2021; Chen & Tsai, 2018).

Further, contemporary researches find conflicting evidence about the nature of relationship between tax aggressiveness and corporate performance. Whilst some studies found positive (Malix, Irfan and Munir, 2024; Soemarsono et.al , 2023; Hardana, Hasibuan and Hasibuan, 2023) association others (Egbadju and Odey, 2022; Akinjobi (2024,) found contrary evidence. Also, prior studies focused mainly on financial and marketing measures of performance thereby neglecting the effect of tax aggressiveness on the internal operations of the enterprise.

Nigerian manufacturing companies are facing low-capacity utilization arising from high operational costs, poor electricity, poor road infrastructure, high exchange rate, multiple taxation, increasing tax rate and inefficient administrative tax system. These factors which impact negatively on profits and internal operations serve as a motivation to engage diverse strategies to aggressively manage tax costs. Exacerbating this is the weak institutional framework occasioned by poor enforcement of laws, poor regulatory oversights and ineffective judiciary system that delays dispensation of justice. This study therefore is motivated by myriads of factors mentioned above and gaps from previous studies. The objective of the study is to determine the link between tax aggressiveness, internal efficiency and customer Loyalty of manufacturing firms in Nigeria.

2. Literature

Conceptual Framework

Tax Aggressiveness

Tax aggressiveness implies a set of tax planning practices to minimize tax liabilities accruing to corporate entities. tax aggressiveness can be defined as intentional minimization of tax payments by using the technique of tax evasion and avoidance. It confers the entity involved with the advantage of Reduced Tax Burden by lowering a company's effective tax rate, increasing net income and potentially boosting shareholder value. It increases companies cash flow and frees the cash flow for investments, growth opportunities, or returning capital to shareholders. However, aggressive tax practices can cause reputational damage to the entity through negative public perception and damage a company's reputation, particularly among stakeholders concerned about social responsibility. It also increases audit risks as aggressive tax planning may face increased scrutiny from tax authorities, leading to higher audit risks and potential penalties. Tax aggressiveness can exacerbate agency conflicts between management and shareholders, potentially leading to misaligned incentives and increased monitoring costs. Pushing the boundaries of tax law can expose companies to legal and regulatory challenges, including potential penalties and legal battles.

Tax aggressiveness can increase the complexity of financial reporting and compliance, potentially leading to higher costs and decreased transparency. Some studies suggest that high levels of tax aggressiveness can weaken corporate governance structures and lead to less effective oversight. Tax aggressive strategy is not completely wrong. As taxpayers' firms are inclined to mitigate tax burden with the intent to raise profit. The anomaly however is the abnormal deployment of tax planning methods (tax evasion) that is unacceptable by relevant tax laws. Strategies such as earnings falsification, smoothing of income, transfer pricing and deliberate communication of false accounting informatics as expenses aimed at reducing tax burden. Information asymmetry created by deliberate manipulation of information given to regulators by firms encourages tax aggressiveness thereby making detection of malfeasance by firms cumbersome

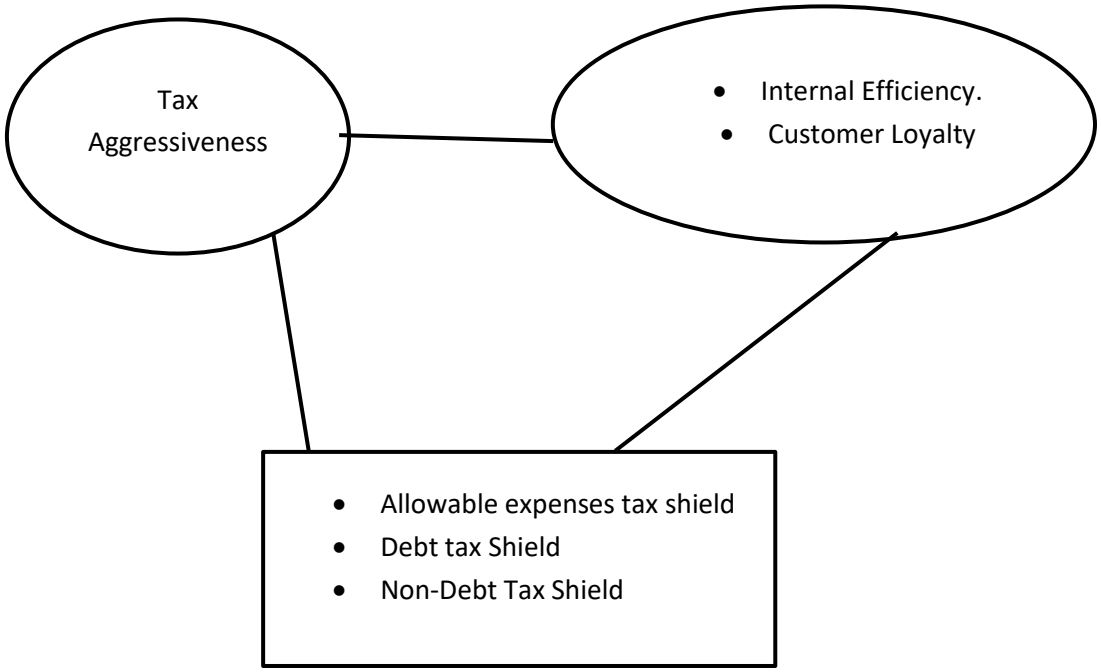
In this study tax aggressiveness is conceptualized as allowable tax expenses which can be bloated by managers for opportunistic tax aggressiveness purposes anchored on individualistic agency perspective, non-debt tax shield considering amortization and debt tax shield anchored on corporate strategy to take advantage of interest deductible tax expenses and which is embedded on trade-off theory

Tax aggressiveness on Financial Performance

Financial performance is used to gauge the steward function of Managers and evaluate the achievement of organizational objectives. Financial performance evaluation is useful to diverse set of stakeholders. Management, Creditors, customers, suppliers, regulators, shareholders, tax authorities and investors are interested in performance of entities. Therefore, managers are inclined towards meeting firm objectives of wealth creation and profit maximization. There is however no generally agreed yardstick for measurement of performance Whilst some researchers used accounting yardsticks some others used market yardstick or mixed approaches. The argument is enthused that using one yardstick is saddled with a lot of disadvantages However, there are pros and cons of each method. Based on the desire, to present positive outlook of the firm to shareholders managers devise various strategies to meet financial targets. One of the strategies used is tax aggressiveness. However, the impact of tax aggressiveness on firm performance is debatable. Some studies (Egbadju and Odey, 2022, Akinjobi (2024) have found a negative relationship between tax aggressiveness and financial performance, suggesting that the risks and complexities associated with aggressive tax planning outweigh the benefits. Contrastingly, other studies (Malix, Irfan and Munir, 2025; Soemarsono et.al, 2023; Hardana, Hasibuan and Hasibuan, 2023 have shown a positive relationship, particularly when tax aggressiveness is associated with lower effective tax rates and increased profitability. The relationship between tax aggressiveness and corporate performance can be complex and influenced by various factors, including industry, company size, and the specific tax planning strategies employed. The conflicts of empirical results on the subject of tax planning and its effect on performance therefore require further examination.

Conceptualization

Following Creswell (2003) which suggested conceptual framework can be deployed to categorize, map and describe concepts and inter relationships amongst variables of study valuable to researchers in establishing research, scope and gap identification, the framework for this study is depicted below:



Theoretical Framework

Trade-off Theory

Originated by Kraus and Litzenbreger (1973), the theory is anchored on the balancing of debt cost of bankruptcy and tax saving benefits derived from borrowings. Firms are driven by a funding arrangement that will enable it maximize gains through a deliberate mix of financing through equity and debt by observing and balancing the debt costs of bankruptcy with the tax advantages to be enjoyed from debt through interests' payment which are tax deductible (Teker, Tasseven and Tukel, 2009). Buttressing this perspective Sritharan, (2015) suggested that the theory advocates balancing costs of bankruptcy with the tax savings to be derived from borrowing. Originating from this perspective, firms seeking optimization of value will examine trade-off effects of debts financing and associated costs despite the shielding effect of tax deductibility from interest payments associated with the borrowing (Prahalathan, 2010). This however typifies increase borrowing increases bankruptcy risks cost which reduces the advantages gained from the borrowing and ensued a trade-off between bankruptcy costs and tax advantages .

Agency Theory

Agency theory explains interest misalignment between that of owners of business with that of managers who indulge in opportunistic actions to better self to the detriment of overall objectives of the business using the latitude granted by accounting standards and methods to reduce tax obligation through an array of complicated transactions. Agency theory postulated by Jensen and Mecklings (1976) envisaged misalignment of interest between agents and principal. The agents are purported to pursue opportunistic and selfish goals thereby neglecting the objectives of that of the principal who are the owners of the business. This misalignment can be corrected through monitoring and supervisory functions and increased compensation. However, the manipulation of earnings which is an agency conflict can be motivated by diverse reasons such as bonus compensation, positive outlook of the firm, defaults in debt covenants, tax aggressiveness. From this perspective, agency type-1 is individualistic as Managers can indulge in income massaging for tax purposes for their own selfish benefits. However, type -3 agency theory which connotes the conflicts which may be ignited by the firm taking excessive debts which may harm the interest of its creditors. In this case using debt for tax aggressiveness may create type-3 agency conflicts because of debt covenants violation and reputational risks

Empirical Review

Malix, Irfan and Munir (2025) studied linkages of tax avoidance and performance in Pakistan, Bangladesh, India and Sri-Lanka using ninety-one bank firms from 2010 to 2021. Employing regression methods, the output produced insignificant relation of tax avoidance and performance in all the countries studied except in India which the relationship was found positive and major. Soemarsono et.al (2023) used Regression method in determining linkages between tax planning through avoidance and performance between 2015 and 2022 of quoted firms in Indonesian. From the population, a select sample was determined using purposive sampling strategy. Outcome showed tax avoidance impacts performance positively whilst simultaneously improving cashflows. Egbadju and Odey (2022) studying fifteen consumer goods in Nigeria between 2009 and 2019 to ascertain influence of tax aggressiveness on financial performance found effective tax rate negatively and significantly impact returns on asset. Hardana, Hasibuan and Hasibuan (2023) determined tax aggressive behavior, funding mix and firm governance positively impact performance based on regression result used to test nature of relationship of firms between 2017-20212. Akinjobi (2024) examined Nigeria firms to determine the efficacy of tax planning strategy on corporate performances and found out tax planning strategies reduces performance and negatively relate with returns on asset. . the financial reports downloaded from websites of Nigeria group exchange in respect of the selected companies. Outcome revealed a negative and significant effect of tax aggressiveness on return on assets. Akintoye et al. (2020) study determined tax planning behaviors has no major impact on profits and returns on assets 52 industrial goods firms in Nigeria for 2018 period. Olaniun et al (2022) studied how tax aggressiveness influenced performance of firms in Nigeria. The results revealed

that while GAAP effective tax rate and LEV were positively significant with ROA, cash effective tax rate was negatively significant

3. Methodology

Study used past data from manufacturing companies listed on Nigeria stock exchange between 2004 and 2023. From population of sixty-five manufacturing firms, sample size of twenty-two was obtained. Hausman test for selection of model, Multiple regression for determination of relationship and autoregressive distributed lag was deployed to establish long run and short run outcomes. Various diagnostic tests to ensure appropriateness of outcome of the study was carried out.

Variables

The variables of the study and measurements are as depicted on the table below:

Variables Measurement

Independent Variable	**Measurement**	**Expected Sign**
Tax shield	Allowable expenses Deduction X Tax rate	positive
Debt Tax shield	= Interest payments on loans x tax rate	Positive
Non-Debt Tax Shield	depreciation divided by total assets (DEPR). DeAngelo and Masulis (1980)	Negative
Dependent Variable		
Internal Efficiency	efficiency ratio depicted by Inventory Turnover **Inventory Turnover (IT) = Cost of Goods Sold / Average Inventory**	Positive
Customer satisfaction	customers' loyalty with percentage change in sales revenue growth which was measured as: **(Sales Revenue for the current year + Sales Revenue for the previous year) / Sales Revenue for the previous year X 100**	Positive

Model specification

$$INE=\beta_0 + \beta_1 AET + \beta_2 NDT + \beta_3 Log DBT + U_1, t \ldots\ldots\ldots \quad (i)$$

$$CUL=\beta_0 + \beta_1 AET + \beta_2 NDT + \beta_3 Log DBT + U_2, t \ldots\ldots\ldots \quad (ii)$$

4. Results

Descriptive Statistics

Table 4.1 Shows the averages, standard deviation and other statistical estimates and other summary estimates based on data on Tax aggressiveness, internal efficiency and customer loyalty.

Table 4.1: Descriptive Statistics of the Panel Data for Firms

Variable	Mean	Max.	Min.	S.D.	Skewn.	Kurt.	J-B	Obs.
INE	22.11	4212.2	-11.41	259.92	14.68	219.73	829099.9(0.00)	416
CUS	-4.60	1.00	-898.19	61.69	-14.28	205.35	723852.0(0.00)	416
AET	11.37	18.41	5.94	1013.20	-0.02	2.60	2.81 (0.24)	416
NDT	-0.67	90.85	-191.37	13.34	-10.54	158.21	425273.9(0.00)	416
DBT	16.58	20.43	10.96	2.08	-0.34	2.78	8.89(0.00)	416

Average internal efficiency measure is at 22.11 percent, which is relatively low, while average customer loyalty measure is -4.6, indicating an average loyalty score that is essentially low.

The table revealed non-normality indicating heterogeneity and major individual firm impact on performance with high J-B statistics and significance at one percent level

Average tax shield from allowable expenses is 11.37 with maximum point of 18.14 and minimum level of .94. The table indicate high variability of AET, standard deviation 1013.20. However, average non-debt tax shield (NDTS) had an average of -0.67 with variation at -10.2 indicating strong variations whilst debt Interest tax shied returns average value of 16.58 and standard deviation 2.08. which is relatively low

Correlation Matrix

Table 4.3 depicts the outcome and correlation involving the variables studied. below. From the AET and DBT returned significant positive correlation coefficients with indication of low correlation. t, the three corporate tax shield variables do not appear to be highly correlated.

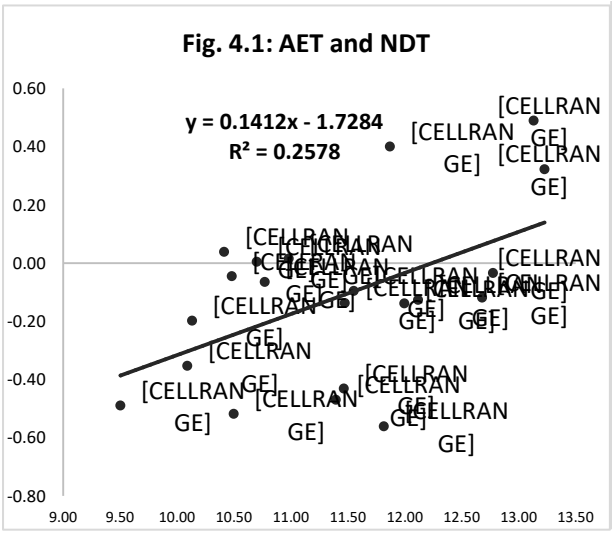
Table 4.3: Correlation Matrix

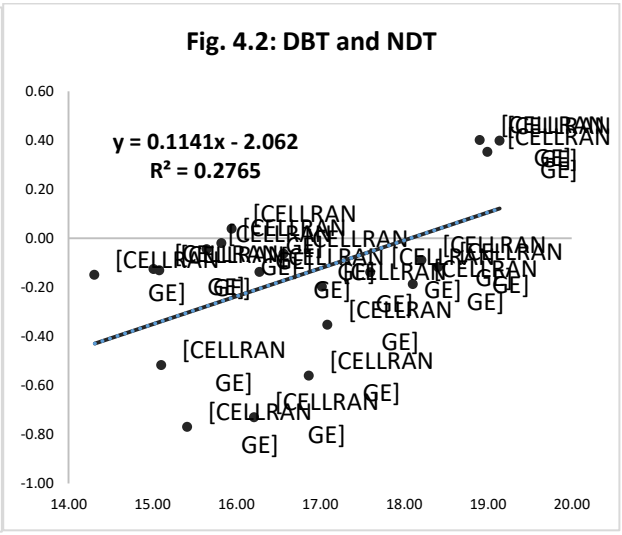
Variable	AET	NDT	DBT	ROA	NPM	PER	TOBIN_Q	INE	CUS
AET	1								
NDT	-0.02 (0.74)	1							
DBT	0.11 (0.03)	0.07 (0.17)	1						
CUS	-0.02 (0.68)	0.59 (0.00)	0.04 (0.36)	0.00 (0.99)	-0.24 (0.00)	0.00 (0.97)	0.00 (0.97)	0.01 (0.91)	1

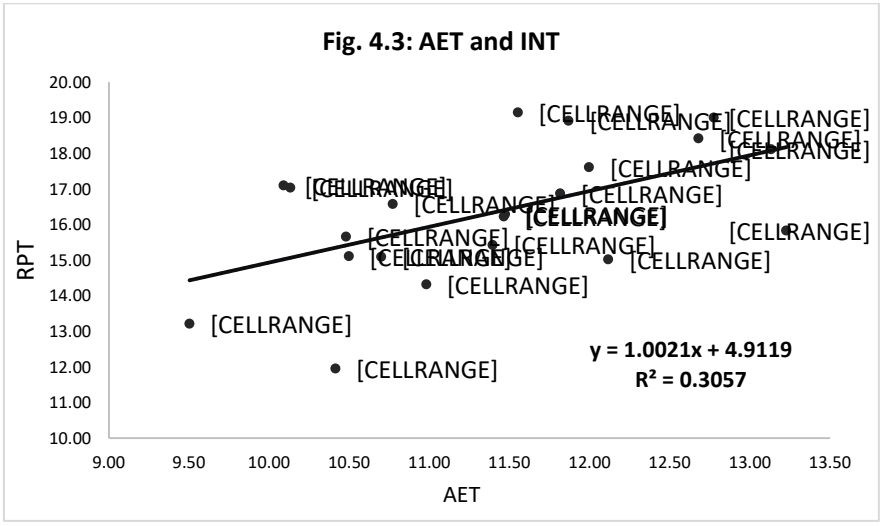
The correlation outcome showed no correlation between customer loyalty and internal efficiency among the firms in the study. Result revealed high variability

Figures 4.1 to 4.3 also show the scatterplots for the relationships among the main explanatory variables (allowable expenses tax shield, non-debt and debt tax shield and earnings management).

4.1.4 Scatter Plots







Test for Normality

. The normality (based on the Kernel tests) for the variables are reported. Normally distributed density functions indicate the absence of cross-sectional problems of heteroskedasticity among the datasets. The kernel density plots for each of the variables in the chart shown in Figure 4.4 indicate that none of the variables is normally distributed since the kernel plots are all concentrated away from the center of the plot and there are also mostly widely spread.

Fig. 4.4a: Kernel Density Test for AET

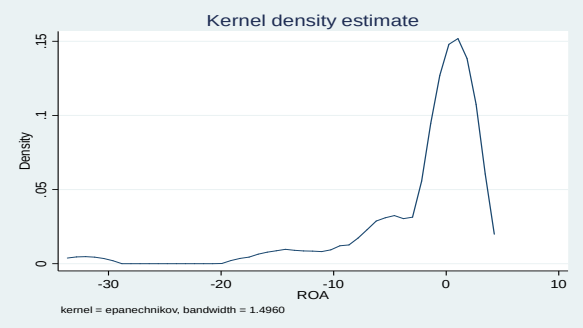
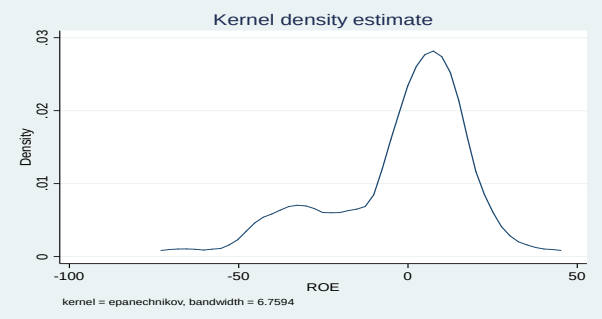


Fig. 4.4b: Kernel Density Test for NDT



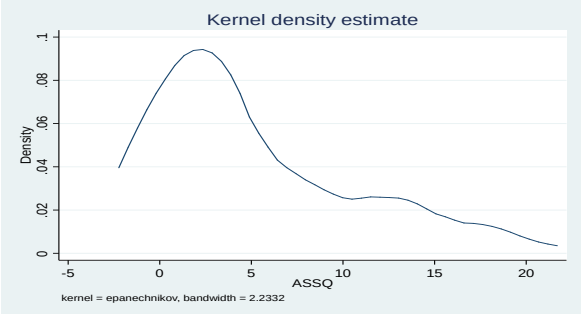


Fig. 4.4c: Kernel Density Test for NDT

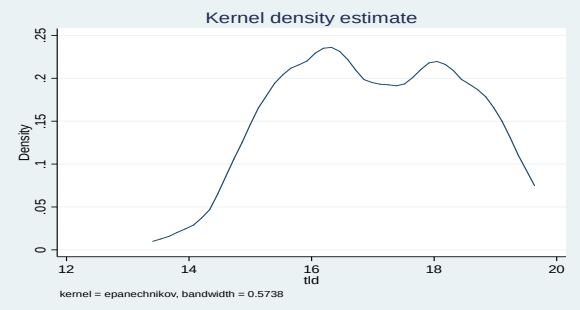
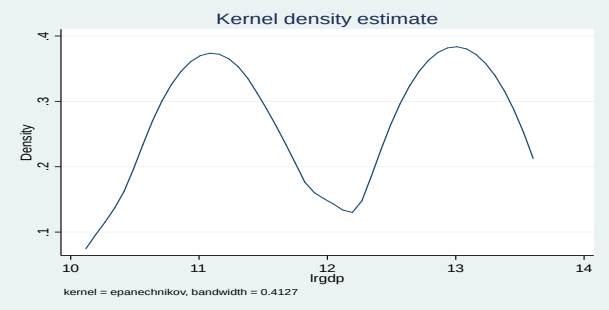


Fig. 4.4g: Kernel Density Test for INE



CUS

Cross-sectional Dependence Test

.The Pesaran cross-section dependence test results are presented in Table 4.4.

Table 4.4: Cross-section Dependence Test Results

Variables series tested	Pesaran CD	P-value	Breusch-Pagan LM	P-value
INE equation	6.03	0.00	293.5	0.00
CUS equation	9.39	0.00	337.6	0.00

Table 4.4, the (Peseran CD and Breusch-Pagan results revealed significance and presence of cross-sectional dependence. Based on outcome, there is more tests to circumvent this short coming

Unit Root and Cointegration Tests

The specific firm characteristics and the common attributes of the firms in this study require an assessment for stationarity through unit root tests. Levin, Lin and Chu (LLC) tests are employed to ascertain stationarity or otherwise of the panel data. To explain the heterogenous attributes of the firms, Im, Persiaran and Shin (IPS, 2003) and Augmented Dickey-Fuller test are carried out. Outcome of these tests are displayed on table 4.5 below:

Table 4.5: Panel Data Unit Root Tests Results in levels

Variables	*Common unit process*	*individual unit root process*		
	LLC	**IMP**	**ADF**	**PP-Fisher**
INE	-16.21	-4.06	85.11	169.1
CUS	-2.75	-0.27	79.74	89.12
AET	1.77	-1.15	109.6	29.82
NDT	-11.32	-3.60	135.1	155.1
DBT	-1.29	1.86	58.48	154.1

Source: Estimated by the Author. *Note: ** and * indicate significant at 1% and 5 % levels respectively; IPS = Im, Pesaran & Shin; LLC = Levin, Lin & Chu*

Results revealed convergence zero (i.e., I[0]). Revealing suitability for cointegration analysis

Based on the Kao residual-based cointegration test shown in Table 4.6, the result, revealed suitability for long run estimates.

Table 4.6: Panel Cointegration Test Result

Equation	Kao statistic	Prob.
INE	13.14	0.00
CUS	2.10	0.04

Note: **, * indicates the rejection of the null hypothesis of no cointegration at the 0.01 and 0.05 level of significance respectively

Regression Analysis

Test of Panel Estimation Framework

The result of the Hausman tests assist in selection of appropriate strategy for each equation. From Hausman tests outcome Table 4.7, fixed effect strategy is determined as appropriate

Table 4.7: Result of Hausman Test of Random/Fixed Effect

Model	***Chi-Sq. Statistic***	***Chi-Sq. d.f.***	***Prob.***
INE equation	21.11	6	0.00
CUS equation	13.37	6	0.00

However, prior assessment and presence of cross-sectional dependence can produce biased outcome necessitating deployment of panel corrected standard error (PCSE) as an estimation method

Corporate Tax Shield and Internal Efficiency

An important measure of effect of tax aggressiveness on performance of the firms is internal efficiency of firms which shows efficiency in utilization of financial resources by firms. Results for estimates with the internal efficiency as dependent variable is reported on Table 4.11. From result, adjusted R squared value for the PCSE estimates is low 0.212. this revealed y 21 percent of variations in internal efficiency of firms was explained by model. The individual coefficients of estimated variables are however significant at 1 percent level. This shows that both allowable expenses tax shield and non-debt tax shield exercise significant impacts on internal efficiency of firms in Nigeria.

Table 4.11: Corporate Tax Shield and Internal Efficiency

Variable	*Panel OLS*			*Panel Correlated Standard Errors*		
	Coefficient	**t-Statistic**	**Prob.**	**Coefficient**	**t-Statistic**	**Prob.**
AET	-4.191	-0.77	0.44	-1.233	-7.43	0.00
NDT	0.112	0.12	0.91	0.070	7.59	0.00
DBT	-4.937	-0.74	0.46	-1.083	-3.97	0.00
Adj. R-sq.	0.016			0.212		

A cursory examination of coefficients of explanatory variables showed coefficient of AET is negative, whilst that of NDT is positive. This shows that allowable expenses tax shield and non-debt tax shield negatively and significantly impact internal

efficiency of the manufacturing firms. Efficiency in the utilization of overall resources in the firms is therefore shown to decline for firms that strategies with allowable expenses tax shield. Since internal efficiency is critical for manufacturing firms, this result revealed efficiency performance for firms in Nigeria is lesser for firms that engage more in allowable expenses tax shield. On the other hand, the coefficient of non-debt tax shield is positive and significant, indicating that non-debt tax shield has a significant positive impact on internal efficiency of the manufacturing firms. Thus, focusing on non-debt tax raises internal efficiency of the manufacturing firms by up to 0.112 percentage points. This result also demonstrates that allowable expenses tax shield and non-debt tax shield are mutually exclusive rather than complements among Nigerian manufacturing firms, when internal efficiency is being considered. The coefficient of debt interest tax shield in terms of allowable expenses tax shield is significant positive. This shows debt interest tax shield strategies tend to lead to improvement internal efficiency of manufacturing firms in Nigeria.

Corporate Tax Shield and Customer Loyalty

Finally, the effects of corporate tax shield on customer loyalty is examined and results are in Table 4.13. Again, fixed effects OLS estimates perform poorly given the very low adjusted R-squared value. Moreover, only the NDT coefficient passed significance test at 1 percent level, all other variables failed test even at 1 percent level. The focus is on the estimates of the panel correlated standard errors procedure. The R-squared is high at 0.997, indicating 99 percent of variations in customer loyalty behavior for the firms was explained by selected independent variables.

Table 4.12: Corporate Tax Shield and customer loyalty

Variable	*Panel OLS*			*Panel Correlated Standard Errors*		
	Coefficient	**t-Statistic**	**Prob.**	**Coefficient**	**t-Statistic**	**Prob.**
AET	-0.258	-0.25	0.80	-0.161	-9.81	0.00
NDT	2.744	14.96	0.00	2.729	266.38	0.00
DBT	0.383	0.30	0.76	0.258	6.96	0.00
Adj. R-sq.	0.348			0.997		

A quick evaluation of individual performance of explanatory variables shows that all coefficient passed significance test at the percent level. All the other coefficients passed test at 1 percent level. In particular, the coefficients of allowable expenses tax shield and non-debt tax shield both pass the significance test, although the coefficient of allowable expenses tax shield is negative, while that of non-debt tax shield and debt interest deductible tax shield are both positive. This result therefore shows that allowable expense tax shield of the firms leads to decline in customer loyalty. On the other hand, non-debt tax shield and interest tax shield reporting both lead to increased customer loyalty. Thus, in terms of customer loyalty, the study demonstrates that there is a form of mutually exclusive outcomes between allowable expenses tax shield and non-debt tax shield by firms. This is an important aspect for both management and shareholders in the firm.

Robustness Test

Multicollinearity Test

Multicollinearity test assist researchers ascertain the association amongst variables in research. The outcome of these tests is depicted on Table 4. 14.. From outcome, t VIF values for all values are below 5.0. indicating reliability whilst heteroskedasticity test confirms presence of heterogeneity

Table 4.14: Variance Inflation Factor and tolerance levels of the independent variables

Variable	VIF	1/VIF
AET	1.46	0.686704
NDT	1.43	0.71372
DBT	1.21	0.824935
Mean VIF	**1.22**	

5. Discussion of Findings

Hypothesis one: There is no significant effect of Allowable Expenses Tax shield, Debt tax shield, and Non debt tax shield on internal efficiency of manufacturing companies in Nigeria

Hypothesis one is examined from outcome of PCSE analysis on Table 4.12. is based on the result of the coefficient of AET, NDT, and DBT in the PCSE estimates in Table 4.12. Result confirmed AET coefficient -1.233 p< 0.07, NDT coefficient, 0.026 (p< 0.01), while DBT coefficient is -1.83(p-<0.01. Thus, each variable showed significant association at 1 percent level. Null hypothesis is rejected, implying significant effect of allowable expenses tax shield, debt tax shield and non-debt tax shield on internal efficiency of manufacturing companies in Nigeria. A closer look at the distributed effects shows that the coefficients are AET and

DBT are negative, while that of NDT is positive. This demonstrates a mutually exclusive relationship between the effects of allowable expenses tax shield and non-debt tax shield when internal efficiency of the firms is being considered. This implies that adopting either of the tax shield strategies result in differing outcomes on the internal efficiency of manufacturing firms in Nigeria. Since internal efficiency is critical for manufacturing firms, this result indicates that efficiency performance of firms in Nigeria is lesser for firms that engage more in allowable expenses tax shield and debt tax shield. Thus, aggressive management allowable expenses and excessive borrowing tend to limit the overall efficiency of manufacturing firms in Nigeria.

Hypothesis Two: There is no significant effect of allowable expenses tax shield, Debt Tax shield and Non debt tax shield on Customer loyalty of manufacturing companies in Nigeria

The hypothesis of the study is tested by focusing on coefficients of corporate tax shields variables in PCSE results depicted on 4.13. From outcome, coefficient of AET is -0.161 ($p < 0.01$), that of NDT is 2.729 ($p < 0.01$), that of DBT is 0.258 ($p < 0.01$). In each of the cases, the coefficients passed the significance test at the 1 percent level. Thus, the null hypothesis is also rejected in this case, demonstrating that corporate tax shields actually have significant effects on Customer loyalty of manufacturing companies in Nigeria. What direction are the effects? Results show that effect of allowable expenses tax shield is negative, while that of debt and non-debt tax shield is positive. Thus, there is a mutually exclusive effects of allowable expenses tax shield, debt and non-debt tax shields effects on customer loyalty. The results also show that debt and non-debt tax shields positively and majorly impact customer loyalty

6. Conclusion

The goal of the study was to determine effect of tax aggressiveness on internal efficiency and customer loyalty of manufacturing firms in Nigeria. Outcome gave basis of conclusion as follows:

a) allowable expenses tax shield, Debt tax shield, and non-debt tax shield exercised major influence on internal efficiency of manufacturing companies in Nigeria. It was however found that while allowable expenses tax shield and debt tax shield had significant negative effect, effect of non-debt tax shield is positive. This also demonstrates a mutually exclusive relationship in this regard.

b) Corporate tax shield variables all have significant effects on customer loyalty of manufacturing companies in Nigeria, although the effects are mutually exclusive. While that of allowable expenses tax shield is negative, debt and non-debt tax shields exert positive effects on customer loyalty

Recommendations

The study provided evidence that non-debt tax shield improves internal efficiency in terms of overall resource use by manufacturing firms in Nigeria whilst allowable expenses tax shield and debt tax shield simultaneously reduces internal efficiency. This outcome therefore presents a dilemma to managers who want to improve both financial performance and internal efficiency simultaneously. Corporate tax strategies therefore should be considered as a strategic adaptation rather than a deliberate manipulation strategy of management to drive long term performance, especially in relation to the market performance of firms

Finally, there is the need for manufacturing firms to improve non-debt tax shield in order to improve their positions before customers. Results reveal that customer loyalty favors firms with non-debt tax shield in Nigeria

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