

TAX AGGRESSIVENESS AND MARKET VALUE OF -MANUFACTURING FIRMS IN NIGERIA

Amon Ton-awaji^{1*}, Asian Umobong, PhD²

^{*1-2}Department of Accounting, University of Port Harcourt, Rivers State

Corresponding Author: Amon Ton-awaji

Department of Accounting,
University of Port Harcourt, Rivers State

Article History

Received: 08 / 01 / 2026

Accepted: 12 / 02 / 2026

Published: 26 / 02 / 2026

Abstract: The study examined the effect of tax aggressiveness on market value of listed manufacturing firms in Nigeria for the period 2005 to 2024 using secondary data derived from financial statements of the firms examined. Study was carried out using purposive sampling method based on available data and establishing relationships amongst the variables based on multiple regression analysis. The study also used Hausmann test to determine appropriate model and Granger causality test to determine direction of effect. The random effect estimation framework non-debt tax shield significantly and positively affects market price but the effect of debt tax shield is insignificant. Debt tax shield and non-debt tax shield exert significant effects on Tobin Q of manufacturing companies in Nigeria, although the effect of debt tax shield is negative, while those of Non debt tax shield is positive. Based on findings, the study recommended that non cash flow strategies that do not encourage violation of debt covenants should be pursued to enhance market performance policy makers devise an optimal debt tax shield regime that enable the firms to avoid debt covenants defaults and prevent excessive borrowing that can cause bankruptcy as the usefulness's of debt tax shield in firm value is tied to lesser and more manageable debt levels among manufacturing companies in Nigeria.

Keywords: Non Debt Tax Shield, Tax Shield, Market Price, Tobin Q.

How to Cite in APA format: Ton-awaji, A. & Umobong, A. (2025). TAX AGGRESSIVENESS AND MARKET VALUE OF -MANUFACTURING FIRMS IN NIGERIA. *IRASS Journal of Economics and Business Management*. 3(2), 20-32.

Introduction

Globally governments are saddled with responsibility of raising revenue to match its expenditure needs. A source of revenue for government is taxation. Taxation is a mandatory levy imposed by government on individuals and corporate entities to raise funds. Taxation is used as fiscal policy tool for economic management and regulation of economic activities. Contrastingly, the effect of tax levies imposed by the government are felt by the payers. Inability or failure to fulfill tax obligations by the payers imply less revenue for the government. Thus, whilst payers of taxes are desirous of reducing the tax burden, from another perspective government is intensifying efforts towards generating more revenue through tax.

Exacerbating these conflicts between firm managers and government objectives is that business managers are saddled with the responsibility of maximizing profit and this objective motivates firm managers interest to reduce tax expenses and increase profit. In achieving this goal, managers indulge in aggressive tax planning 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 ameliorate tax reduction methods deployed by business firms and enhance tax revenue collections governments implement regulatory mechanisms which can spiral into negative effects for the economy.

One of the tax aggressive strategies by firms is Tax shield. Tax shield elements such as debt tax shields (tax deductions from interest) and non-debt tax shields (utilizing capital allowances, depreciation, and other deductions), offer potential strategies to mitigate these challenges. By reducing taxable income, these elements can improve liquidity and enable firms to allocate more

resources to growth and innovation. However, the effectiveness of tax shielding strategies is not uniform across firms and depends on various moderating factors, such as firm size, market dynamics, and industry-specific characteristics. Larger firms often benefit more from these strategies due to their access to favorable financing options, economies of scale, and sophisticated tax planning mechanisms. In contrast, smaller firms may face challenges in maximizing tax shields due to limited resources and higher costs associated with implementing these strategies

Empirical studies which examined relationship between tax shields and firm value provided mixed outcomes. Results show no strong consensus despite decades of intensive researches. Such disagreement over basic empirical results in turn proves disagreement about desirable features for theories. There is plethora of opinions about motive for tax aggressiveness. Earlier from agency theory perspective Allingham and Sandmo (1972), suggested managers' opportunism and personal objective as distinct from corporate goals create tax aggressiveness. However, new evidence from other studies (Armstrong et al., 2015; Desai & Dharmapala, 2009; Hanlon & Heitzman, 2010; Wilson, 2009; Desai & Dharmapala, 2006; Christina, 2017) suggest tax planning activity is corporate strategy to shift tax burden, minimize costs and enhance profits (Chen & Tsai, 2018; Minh Ha et al.). Whilst some studies (Tang et al. 2019. Hasan et al. 2021; Messaoude and Ming-Chang, 2023; Guedrib and Marouani, 2023; Malix, Irfan and Munir, 2024; Soemarsono et al., 2023; Hardana, Hasibuan and Hasibuan, 2023) found positive association between tax planning and firm value, other studies (McClure, 2023; Egbadju and Odey, 2022; Akinjobi, 2024) found negative relationship. Moreover, the contemporary theories and the empirical researches are primarily based on aspects of and data from developed western economics.



Few researches are carried on the perspective of developing economies. Hence, it is hard to say whether conclusions from theoretical and empirical research carried out in developed economies are also applicable for Nigeria. Based on the foregoing the study examines tax aggressiveness and market value of listed manufacturing firms in Nigeria.

Literature

Conceptual Framework

Tax Aggressiveness

Tax aggressiveness involves 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. According to Bimo et al. (2019), corporate tax aggressiveness or avoidance involve ordering transactions to mitigate explicit taxes while Huang et al. (2018), opines that tax aggressiveness involves indulgence in legal transactions to achieve tax reduction. Firms involved in tax aggressiveness enjoy merit of reduced tax burden achieved through reduction in effective tax rate thereby increasing net income and raising shareholders value. Also, tax planning boost cash flow and simultaneously making it available for reinvestment by taking advantage of emerging growth opportunities. Conversely, over indulgence in tax aggressiveness can create negative public image and damage firm reputation, particularly among stakeholders concerned about social responsibility. Tax planning also impinges on audit risks by increasing regulatory scrutiny from tax authorities and potential tax 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.

Firm Value

Firm value is the total economic worth of a company, calculating the combined value of all claims against its assets from both creditors and shareholders. It reflects the market value of a firm as a going concern, often measured by adding total debt to

market capitalization and subtracting cash. Firm value represents the theoretical takeover price of a company, which includes debt holders and equity owners. It is calculated as the sum of the market value of equity and the market value of total debt. A higher firm value indicates better performance and higher prosperity for owners, prosperity of the business owners. The manager being the representative of the owners

of the business is responsible for optimal maximization of the value of the firm which forms the fundamental objective of any organization. It is used for evaluating mergers and acquisitions (M&A) and comparing company sizes within an industry. The success of a business entity is reflected in the firm value. Firm value is a yardstick used to evaluate performance of a company. Investors measure a firm's success through its firm value related to market price. Firm value is the investors' perception towards a company's success level, and this is usually associated with stock price

Tax Aggressiveness and market value

The relationship between tax aggressiveness and market value is complex and can be positive or negative, depending on factors like the strategy's legality, company size, and management's alignment with shareholders. Aggressive tax planning can boost performance by increasing distributable profits, improving credit worthiness and aligning shareholders interest but it also carries risks, such as fines, reputational damage, and regulatory action, which can negatively impact firm value. Corporate tax is an important issue that impact choices by management such as borrowing policies, dividend and retention of earnings. Consequently, these decisions influence firm value. Although, this suggestion is appealing, there is an existing concern. First, among scholars there is lack of consensus tax aggressiveness enhances or mitigate firm value. The proponents of positive association of tax planning with firm value opine that, corporate tax aggressiveness improves future cash flow and reduces tax burden, enhancing firm value (Hasan et al., 2021; Messaoude & Ming-Chang, 2023; Guedrib & Marouani, 2023). Conversely an opposing view by scholars (Chen et al., 2014; Campbell et al., 2020; Arora & Gill, 2022; McClure, 2023) suggest negative association of tax aggressiveness with firm value caused by reputational damages, agency conflicts, sanctions from government and increased cost of capital

Theoretical Underpinning

Irrelevance theory

First igniting the debate on firm value is Modigliani and Miller (1958) who enthused that funding arrangement whether capital contributed by shareholders, internal financing or borrowing does not impact firm value under perfect market conditions. However, Modigliani and Miller (1963) relaxed the assumption of no taxes to assert that in the presence of corporate taxes, funding arrangement becomes relevant to firm value due to tax deductibility of interest payments on debt. This later proposition recognized tax benefits derived from debt financing create value for the firm. Interest paid on loans is an allowable expense for tax purposes and mitigate taxable income enabling tax payers to pay less tax thereby creating tax shield advantage which improves cash flow available for use by the firm while also improving firm valuation. This suggestion supports existing proposition by the traditional capital structure theory which indicate firms maximize

value when weighted average cost of capital is minimized. Further as a firm borrow, the benefit derived from inception from deducting tax from interest paid on loans is more than the costs of borrowing, leading to improved firm value. However, as borrowing increases beyond a certain limit, the risk of bankruptcy and increased cost of issuing equity, diminishes the advantage derived from extra borrowing. This scenario creates a dilemma requiring a judicious mix and balancing of financing options. In the context of tax aggressiveness, this theory suggests that intentionally structure their finances to maximize tax deductions from interest payments, thereby reducing taxable income and overall tax liabilities. This perspective suggests that firms intentionally plan their tax strategy to minimize costs by indulging in aggressive tax behavior

Signaling Theory

From signaling theory perspective, corporate tax aggressiveness acts as a mechanism for firms to communicate information regarding their financial health, managerial efficiency, and future prospects to external stakeholders, such as investors and creditors. It suggests that lower tax payments (resulting from tax planning or avoidance) are often interpreted by the market as a sign of high-quality management and an intention to maximize shareholder value. Tax aggressiveness can be interpreted as a positive signal showing that management is competent in minimizing costs and increasing net income. Conversely, excessive tax aggressiveness can be perceived as a negative signal, indicating higher risk, potential reputational damage, and future regulatory scrutiny (e.g., audit risk and penalties).

Tax planning and avoidance are used to bridge the gap in information asymmetry, wherein firms with high-quality management use these strategies to differentiate themselves from less efficient peers. Further, Stock prices may react negatively to news of tax shelter involvement, particularly for firms with low reputations or in consumer-sensitive industries, suggesting that the "signal" of tax aggressiveness can be perceived as risky. However, prior research indicates that the market may react positively when a firm, which is not perceived as highly tax-aggressive, engages in tax reduction, but negatively if the company is already seen as aggressive. Leland and Pyle (1977) showed that the value of a firm increases with the proportion of equity held by the original owners. If the owners feel that the firm's shares are undervalued, they will not issue new stock. Therefore, the act of issuing stock is viewed by the markets as a signal that the shares are overpriced, and accordingly, the markets adjust the prices downwards.

If debt is issued, the reverse is signaled, and stock prices are adjusted upwards. Masulis (1980) found evidence that stock prices are positively related to borrowing because of a positive signaling effect. Pinegar and Lease (1986) and Coopland 1988 confirmed firm value is determined by the signals to the market. Issuance of equity is perceived as bad news creating a negative relationship between equity issuance and market value while debt issuance creates positive news and the market valuation reacts positively. Lee (1987) in support of the signaling theory found that insiders typically do not sell their shares during increased borrowings. Instead, they buy stock and increase their ownership. This is because they value the shares at prices higher than their market price and are taking advantage of their better knowledge about the future prospects of the firm. Thus, signaling theory provides a framework for tax aggressiveness depending on the information which managers intend to send to the market

Agency Theory

Agency theory by Jensen and Mecklings (1976) states that in pursuit of selfish interest, managers will deviate from organizational goals causing misalignment of interests with that of the principal. This misalignment is fingered by some scholars (Allingham and Sandmo, 1972) as the reason for aggressive tax planning activities implying that tax aggressiveness is not a deliberate corporate strategy but that of selfish agents. To curtail agency conflicts, management will incur agency costs which is the cost of monitoring and supervision. Interest obligations will limit the extent which managers can indulge in self-beneficial transactions thus high debt levels creates a path way to curtail misbehavior and mitigate agency conflicts. By limiting the ability to borrow by managers, free cash flow available to managers are reduced, and incentive to indulge in tax aggressiveness and managerial misbehavior to engage in risky tax avoidance transactions mitigated. Also, companies with excessive debt portfolios who are at the verge of violating debt covenants will reduce tax aggressiveness to prevent detection by regulators due to increased monitoring and falling discretionary resources.

In the context of this study, agency theory opine that debt is a mechanism to curtail agency conflicts and aligns managerial action with that of business owners. However, risk aversion and managerial self-motives can affect tax aggressiveness. Tax aggressiveness by Managers can be motivated by interim profits which make short term decisions to achieve short term profits consequently creating reputational damage. Concurrently, business owners could support abnormal tax strategies if it creates additional value. Thus, aggressive tax planning depends on how principals-initiated actions affects managerial discretion and incentives and confirms that inaction or principals' actions can exacerbate or mitigate tax planning

Trade- Off Theory

The Trade-Off Theory, was developed by Kraus and Litzenberger (1973). From Trade-off theory perspective a firm will pursue borrowings because of the tax advantage which it is likely to enjoy because interest payments on loans are tax deductible enabling the organization to pay less tax. In other words, tax aggressiveness is a deliberate corporate strategy.

The Trade-Off Theory explains that firms balance the tax-deductible benefits of debt against the costs of potential financial distress. In the context of tax aggressiveness, high debt (tax shield) reduces the need for aggressive tax planning. Conversely, firms with lower debt may use aggressive strategies to reduce tax burdens. Thus, the trade-off theory assumes firms often use high leverage (debt) to reduce tax liabilities. This debt-based tax shield acts as a substitute, meaning firms with high debt may engage in less aggressive, risky tax planning. This implies that Companies weigh the tax benefits of interest payments (tax savings) against the risk of bankruptcy. As debt increases, the need to use other, more aggressive, or illegal tax-saving methods may decrease, while the cost of financial distress increases. For extremely profitable firms, the relationship can change; in some cases, high debt and high tax aggressiveness can be complements, used together to maximize after-tax cash flows. Tax aggressiveness itself can influence debt utilization. Companies aggressively managing taxes may, in some scenarios, actually use less, rather than more, debt, reversing the traditional trade-off

Pecking Order Theory

Pecking order theory states that firms prioritize internal financing over debt and equity, using tax-aggressive strategies (e.g., interest deductions) to boost internal funds, especially when facing high financial constraints. If internal funds are insufficient, firms turn to debt, which offers the benefit of interest tax shields, further reducing taxes and supporting the pecking order, by reducing taxable income through tax aggressiveness, firms minimize reliance on external, costly debt. Tax savings from aggressive tax planning can increase a firm's liquidity and financial flexibility, reducing the need for external capital. The theory asserts that debt is a second choice in hierarchy of funding a firm's operation. However, because of the risk of bankruptcy firms are limited to the extent that they can borrow to take advantage of tax-deductible savings from interest payments. While some studies show that higher debt (used to avoid equity financing) leads to more tax avoidance due to interest deductibility, other research suggests that firms with higher financial constraints are more likely to be tax-aggressive. The theory is driven by information asymmetry, where firms use internal funds and tax strategies to avoid revealing negative signals to investors. In summary, the pecking order theory suggests that tax aggressiveness is used strategically to generate internal funds, reducing the need for external debt, particularly when internal cash is scarce.

Empirical Studies

Kibiya (2025) examined mediating effect of profitability on tax planning (TPL) and value of listed non-financial firms in Nigeria covering the period 2011 to 2022. Outcome of study revealed tax planning strongly influences firms' value and drives their profitability. Profitability was found to play its moderating role has a significant mediating effect on tax planning and the value of firms in Nigeria.

Okocha and Jeroh (2024) examined influence of tax shield on the value of listed firms in Nigeria for a 10-year period (2012-2021) using secondary data. Tax shield was measured using debt tax shield and non-debt tax shield; whereas, firm value had Tobin's Q ratio as its proxy. Findings revealed that while debt tax shield could not exert significant influence on firm value (Tobin's Q ratio), the non-debt tax shield apparently exhibited a positive and significant relationship with firm value.

Izevbehai and Momodu (2023) ascertained how corporate tax saving strategy affect share price performance. Findings revealed that non-debt tax shield and effective tax rate has significant effect on share price performance of listed industrial goods firms in Nigeria. Igbinovia and Usman (2024) examined tax avoidance, tax planning strategies and firm value of manufacturing firms in Nigeria. The result from the panel estimation technique show that thin capitalization exhibits a positive and statistically significant impact at 5% on Tobin's Q measure of listed manufacturing firms in Nigeria; book tax difference and capital intensity exhibits inverse significant impact at 5% on Tobin's Q measure of performance of manufacturing firms in Nigeria.

Chukwudi, Okonkwo and Asika (2020) examined effect of tax planning on firm value in quoted consumer goods manufacturing firms in Nigeria from 2009-2018. Study discovered Effective tax rate (ETR) significantly and negatively impact firm value. However, the study found that, book tax difference (BTD); impact positively on firm value, but this impact was not

statistically significant. Kirkpateick and Radicic(2020) investigated impact of tax planning activities on FTSE for a period of five years 2006 to 2010. Finding showed tax planning have negative impact on firm value. The study also revealed past value of the firm have positive impact on current value of the firm. Angelina and Darmawan (2021) assessed effect of tax planning using Cash ETR and Book Tax Difference (BTD) on company value. The results indicate Cash ETR has a positive effect on firm value while Book Tax Different has a negative effect on firm value.

Methodology

Research Design

The study is based on cross sectional ex-post facto design to examine a cross section of firms in the manufacturing sector quoted on Nigeria stock exchange. The study used secondary data obtained from firms' financial statements and websites for the period 2005 to 2024. The study adopted purposive sampling method by obtaining data from firms with complete information required for the study whilst eliminating firms with incomplete data to prevent pollution of results. Hausman test was used for selection of model for the study. Multiple Regressions was used to determine the relationships amongst the variable while Granger causality test was conducted to determine direction of relationship.

Diagnostics tests

Stationarity Test

The test developed by Levin, Lin and Chu (LLC) was used to examine the stationarity properties of the homogenous panel. This test assumes identical cointegration vectors among the variables. Given that each of the company in the study is likely to exhibit differences in their emissions, especially as it relates to institutional and outcomes, heterogenous-based results from the Im, Pesaran and Shin (IPS, 2003) and the Augmented Dickey-Fuller tests

Cross dependence test

Cross-sectional dependence (CSD) test is used to detect if panel data residuals are correlated across different units. It is essential for determining if shocks in one unit affect others, as ignoring this can bias results, especially when the units are large than the time frame. The problem and presence of cross-sectional dependence in the study is investigated by implementing the Pesaran (2004)

Cointegration Test

The test is conducted to determine the long run properties of the data set. In this study Pedroni and Kao cointegration tests are deployed.

Post estimation Tests

Multicollinearity Test

The multicollinearity test measures the extent of correlation among trend co linearity among the explanatory variables. Co linearity among the explanatory variables tends to amplify the standard errors of the estimates and makes the estimates unreliable in terms of the confidence intervals. In this study Variance inflation factor (VIF) is used to determine the extent of co linearity amongst the variable of study

Normality Test

Normality tests assess if sample data follows a normal distribution (bell curve), a key assumption for parametric statistical tests. The normality test for this study is conducted using the J-B procedure

Serial correlation Test

Serial correlation (or autocorrelation) tests detect if residuals in a regression model are correlated over time, violating independence assumptions common in time-series and panel data. The serial correlation tests are performed using the LM statistics.

Variable of the study

The measurement for variables of the study are highlighted on the table below:

Dependent	Definition	Measurement
Market Price per Share (MPS)	Market Price per share is the price at which a share of company stock can be acquired in the marketplace, such as on a stock exchange. This price varies throughout the day, based on the level of demand for the stock	The formula for market value per share is market capitalization divided by the total number of diluted shares outstanding. This is also known as the equity value per share. Market Price Per Share = Market Capitalization ÷ Total Diluted Shares Outstanding
Tobin's Q	This ratio can be described as comparing the company's assets' market value as measured by the market value of the number of shares outstanding and the debt (enterprise value) to the company's assets' replacement cost.	We adopt Chung and Pruitt's approximating formulation of Tobin's Q Tobin's Q = MVE + PS + DEBT/TA Notes: MVE = Firm's stock price multiplied by number of outstanding equity shares; PS = Value of firm's outstanding preferred stock on liquidation; Debt = Sum of short-term liabilities minus short-term assets plus the book value of long-term debt; TA= Total book value of all assets.
Independent Variables		
Non-debt Tax Shield (NDTS)	This consist of depreciation and amortization which are tax deductible	This is measured by the ratio of depreciation to total assets (DEPR). According to DeAngelo and Masulis (1980), firms with large non-debt tax shield have the tendency to use less debt
Debt Tax Shield (DTS)	Interest on borrowed funds minus tax (Barclay 1995; MacKie-Mason, 1990; Myers, 2001; Salawu & Agboola, 2008). Barclay et al., 1995; Myers, 1984, 2001.	Interest (1-t)

Model Specification

In an attempt to examine the effect of tax shield on company performance, the study modifies the model in the work of Idris and Suleiman (2019) and Inyama (2013). In line with their models, the model for this study is formulated as follows:

$$MPS = \beta_0 + \beta_1 DTS + \beta_2 NDTS + U_{1,t} \dots\dots\dots (i)$$

$$TBQ = \beta_0 + \beta_1 DTS + \beta_2 NDTS + U_{2,t} \dots\dots\dots (ii)$$

Results

Description of Data

The annualized summary statistics for the variables are presented for the companies over the period. Table 4.1 shows descriptive statistics of the variables included in the empirical model. Return on Assets is 68.34, indicating average returns on assets for companies in the sample are 68.34.

Table 4.1: Descriptive Statistics for Panel Data Variable	Mean	Max.	Min.	Std. Dev.	Skew.	Kurt.	J-B	Prob.
---	------	------	------	-----------	-------	-------	-----	-------

MPS	15.93	42.86	0.20	8.02	1.86	6.47	117.41	0.00
TBN	0.09	2.40	0.00	0.23	9.62	97.85	425.68	0.00
DBT	14.65	22.00	6.00	3.50	-0.10	2.49	1.33	0.51
NDTS	0.19	1.33	0.05	0.13	5.89	49.60	104.72	0.00

For market price, j average Market price measure is 15.93, with a standard deviation of 8.02, while Tobin Q measure is 0.09 on average, with a standard deviation of 0.23. This indicate Market price measure is more stable than Tobin Q measure (which is related to book-to-market ratios). Thus, there is general evidence that corporate performance standards are low for the manufacturing companies in Nigeria.

For the Debt tax shield variables, average debt tax shield (DTS) is approximately 16 for the manufacturing companies. The standard deviation value of 3.5 is however low (relative to the mean value), suggesting that most of the manufacturing companies in the study have debt tax shield advantage around the mean value of 16. Essentially, it appears that Nigerian manufacturing companies adopt a relatively similar pattern of debt tax shield. Average non-debt tax shield score is 0.19 or 19 percent, the standard deviation of 0.13 shows that non debt tax shield strategies among manufacturing companies is similar

Another important descriptive statistic considered is the Jarque-Bera (J-B) statistic which shows the normality of the probability distribution of the datasets. Given that the data are

inherently heterogenous (with different firms involved), it is not surprising that almost all the variables are significant in terms of the J-B test statistic, indicating that the datasets underlying the variables are non-normally distributed as expected. This is a strong basis for providing a panel-form analysis in the regression process for the study.

Correlation Analysis

Correlation analysis is carried out to provide the initial pattern of relationship among the independent variables as well as to detect any multicollinearity among the independent variables used in the models. The study used Pearson correlation coefficients to examine the required relationships to allow for the non-normality of the variables in question The result is presented in Table 4.2. The correlations among the dependent variables are generally low.

There is also a significant negative correlation between MPS and TBN, indicating that Market price is negatively correlated with Tobin Q. Thus, manufacturing companies that seek to increase Market price are correlated with lower Tobin Q.

Table 4.2: Correlation Matrix

Variable	NPM	ROA	MPS	TBN	DTS	NDTS
MPS	0.10 0.28	0.01 0.95	1			
TBN	-0.06 0.52	-0.03 0.75	-0.27 0.00	1		
DTS	-0.35 0.00	0.08 0.44	0.02 0.81	-0.10 0.28	1	
NDTS	-0.04 0.67	0.00 0.96	-0.04 0.71	0.01 0.92	-0.13 0.16	1

Panel Unit Root Test

The manufacturing sector in Nigeria is highly heterogenous in terms of operational and technical positions and capacities. Hence, the manufacturing data used in the study are likely to exhibit specific characteristics (individual heterogeneity) and common (homogenous) characteristics. This implies that there is need for the use of panel unit root tests to check for the stationarity of the data – especially those that combine the two panel influences. In this study, the test developed by Levin, Lin and Chu

(LLC) was used to examine the stationarity properties of the homogenous panel. This test assumes identical cointegration vectors among the variables. Given that each of the company in the study is likely to exhibit differences in their emissions, especially as it relates to institutional and outcomes, heterogenous-based results from the Im, Pesaran and Shin (IPS, 2003) and the Augmented Dickey-Fuller tests are also included in the study. The results of the unit root test are presented in table 4.3 below.

Table 4.3: Panel Data Unit Root Tests Results

Variables	Common unit process	individual unit root process		
	LLC	IPS	ADF	PP-Fisher
MPS	-8.26**	-1.76	33.41*	22.23
TBN	-5.14**	-2.13*	37.62*	60.00**
DTS	-2.29*	1.20	13.89	60.67**
NDTS	2.61*	-0.07	25.17*	58.31**

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

From the results reported in levels, the coefficient indicates that all the variables are stationary (given that the critical test values are higher than the test statistic at the 5 percent level). Based on this outcome, the variables are stationary in levels and are therefore all integrated of order zero (i.e., I[0]) thereby indicating cointegrated analysis can be performed for the variables with meaningful outcomes.

Cross-sectional Dependence Test

The cross-sectional dependence tests are also conducted for each of the equations estimated in the study. The problem and presence of cross-sectional dependence in the study is investigated

by implementing the Pesaran (2004). The data used in this study has a panel structure where the cross-sectional dimension (20 manufacturing companies) is less than the time dimension (20 years) - (i.e., $N < T$). Given this pattern of panel setup, the Pesaran cross sectional dependence (CD) test is more appropriate. The null hypothesis for the Pesaran CD test is the absence of cross-sectional dependence. Hence, it is expected that the test statistics fail the significance tests at the chosen level of significance (5% in this case) in order to ascertain the absence of cross-sectional dependence in the data. 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	Abs corr
MPS	-0.692	0.488	0.170
TBN	1.330	0.103	0.291

From the results reported in Table 4.4, it is seen that the Pesaran CD test statistics for each of the equations fail the significance tests at the 5 percent level ($p \text{ value} > 0.05$). This shows that for these equations; there is absence of cross-sectional dependence in the estimates. The absence of cross-sectional dependence indicates that the estimated equations are free of heteroskedastic influences.

Cointegration Tests

The unit root results strongly indicate that the stationarity status of the variables is equal for each of the variables being I[0]. The long run conditions of the variable interactions can therefore be established using the panel cointegration tests. The result of the panel cointegration tests is presented in Table 4.6. Both the results

of the Pedroni and Kao cointegration tests are presented. The coefficients of the residual based (Kao) panel cointegration tests are all significant at the 5 percent level. For the Pedroni Tests, at least two of the test statistics pass the significance test at the 5 percent level in each of the equations. This implies that the null hypothesis of no cointegration can be rejected for the equations. The Kao residual cointegration tests for all the equations indicate that the null hypothesis of no cointegration can be rejected for each of the equations. Thus, the cointegration tests results show that there are strong long run relationships among the variables in the study. The panel estimation framework can therefore be employed in the empirical analysis.

Table 4.5: Kao Panel Cointegration Test Results

Equation: MPS	Panel Statistics	Group Statistics	Kao (ADF)
Variance ratio	-0.777		2.982*
Rho	2.12	4.36	
IPS	-5.308**	-4.315**	
ADF	1.48	0.14	
Equation: TBN	Panel Statistics	Group Statistics	Kao (ADF)
Variance ratio	-1.93	--	3.176*
Rho	0.77	3.80	
IPS	-13.90**	-12.76**	
ADF	1.83	-2.12	

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

Regression Analysis

The econometric analysis performed for the empirical analysis is majorly focused on estimating the panel data-based relationship between the Tax shield variables and firm value. For the panel data analysis procedure there is need to select between the fixed effects or random effects models as the best representation of the

relationships. The result of the Hausman tests for each of the equations of the study are reported in Table 4.6. In the results of the Hausman tests presented in Table 4.6 (a), the Chi-Square values for each of the Equations fails the significance test at the 5 percent level. Thus, the null hypothesis cannot be rejected in this case. This implies that the random effects estimation procedure is the most efficient procedure for estimating the relationships.

Table 4.6 (a): Hausman Test for Cross-Section Random Effects

<i>Model</i>	<i>Chi-Sq. Statistic</i>	<i>Chi-Sq. d.f.</i>	<i>Prob.</i>
<i>MPS</i>	3.921	5	0.653
<i>TBN</i>	4.061	5	0.540

Test of Causality

The causality analysis also helps to avoid the problem of simultaneity bias in the estimations. The result of the causality tests between pairs of the eight dependent and three independent variables is presented in Table 4.6(b). In the result, causality is

shown to run mostly from the independent variables to the dependent variables. There is no evidence that causality runs from the dependent variables to the independent variables. Based on these tests, the study shows evidence that the Tax shield variables actually generate effects on firm value.

Table 4.7: Causality test

Null Hypothesis:	Obs	F-Statistic	Prob.
DTS does not Granger Cause TBN	400	3.70	0.03
TBN does not Granger Cause DTS		0.48	0.49
NDTS does not Granger Cause TBN	400	0.21	0.65
TBN does not Granger Cause NDTS		0.05	0.83
DTS does not Granger Cause MPS	400	0.02	0.90
MPS does not Granger Cause DTS		0.15	0.70
NDTS does not Granger Cause MPS	400	2.22	0.04
MPS does not Granger Cause NDTS		0.30	0.58

Panel Estimation Analysis

the Hausman test results, misspecification can only occur when the fixed effect procedures are employed in the estimation. Thus, the best method to applied in evaluating the relationship between Tax shield indicators and firm value using random-effect strategy

statistics is also impressive, with the adjusted R-squared value showing that 55 percent of the variations in the ratio was explained by the explanatory variables. The highly significant F-statistic also shows that the independent variables jointly and significantly explain the dependent variable. The focus of the analysis is on the significance and signs of the coefficients of the explanatory variables. In the result, the coefficients of NDTS are significant at the 1 percent level. On the other hand, the coefficient of DTS fails the significance test at the 5 percent level.

Tax shield and Market Price

The results for the impacts of Tax shield variables on Market price are presented in Table 4.8. In the result, the goodness of fit

Fig. 4.8: Regression Result for Market Price

Variable	<i>OLS</i>			<i>Random effect</i>		
	Coeff.	t-Stat.	Prob.	Coeff.	t-Stat.	Prob.
Constant	10.061	1.240	0.218	10.330	5.591	0.000
DTS	0.014	0.063	0.950	0.029	0.833	0.407
NDTS	1.652	0.280	0.780	0.734	3.120	0.002
Adj. R-sq.	0.021			0.554		
F-statistic	0.563			27.806		

Based on the coefficients of the explanatory variables, it is shown that non debt tax shield significantly affects the Market price status of the manufacturing companies. Thus, non-debt tax shield variable is shown to significantly promote the market performance of the manufacturing companies

Tax shield and Tobin Q

The results of the estimates for the Tobin Q equation are presented in Table 4.9. The OLS estimates are also seen to be less explanatory compared with the random effects estimates. Note that conditional conservatism relates to cash flow from operations in

the manufacturing companies. Hence, these estimates evaluate how Tax shield influences the performance of the manufacturing companies in relation to market valuation activities. The results in the Table show that the random effects estimates obtained better measures than the OLS results. The coefficient of determination (adjusted R-squared) for the estimates is 0.787, indicating that over 78 percent of the systematic variations in the dependent variable was captured in the model estimates. The F-statistic is also significant at the 1 percent level. This shows that there is a significant relationship between the dependent variable and all the independent variables combined.

Table. 4.9: Regression Result for Tobin Q

Variable	OLS			Random effect		
	Coeff.	t-Stat.	Prob.	Coeff.	t-Stat.	Prob.
C	0.563	2.465	0.015	0.550	13.955	0.000
DTS	-0.007	-1.026	0.308	-0.006	-9.901	0.000
NDTS	-0.010	-0.061	0.952	0.011	2.096	0.039
Adj. R-sq.	0.003			0.787		
F-statistic	1.066			80.819		

The individual performance of the main focus of the estimates is determined by observing the coefficients of the explanatory variables. In the result in Table 4.9, the coefficients of DTS pass the significance test at the 1 percent level This shows that the tax shield variables significantly affect the direction of Tobin Q in performance of manufacturing companies in Nigeria. The coefficient of DTS is however negative, indicating that debt tax shield has a significant negative impact on Tobin Q of the manufacturing companies in terms of market performance. This indicates that increased borrowing tends to inhibit the market mechanisms and investors perception of the manufacturing companies’ performance. On the other hand, the coefficient of NDTS is positive. These indicate that non-debt tax shield significantly enhances Tobin Q of manufacturing companies in Nigeria.

Post Estimation Tests

4.9.1 Multicollinearity Tests

the multicollinearity test which measures the extent of correlation among trend collinearity among the explanatory variables. Collinearity among the explanatory variables tends to amplify the standard errors of the estimates and makes the estimates unreliable in terms of the confidence intervals. The results of the multicollinearity test are presented in Table 4.10. In the result, the focus is on the output of the uncentred variance inflation factors (VIF) variables. The VIF value must be less than 5.0 for the variable in an equation to be free from collinearity. In the report on Table 4.15, the VIF values for all the variables are less than 5. Thus, it can be seen that the estimated coefficients for the equations do not integrate excessively among themselves and the estimates are therefore reliable.

Table 4.10: Post Estimation Test Results

Variable	Coefficient Variance	Uncentered VIF
DTS	0.572	1.750
NDTS	1.523	2.649

Tests for Stability of Regression

The second robustness test is to evaluate the to observe any form of serially correlated errors, while the third test detects for non-normality in the distribution of residuals. The normality test is conducted using the J-B procedure while the serial correlation tests are performed using the LM statistics. The results for all the estimates are presented in Table 4.11. From the results, none of the

J-B and LM statistics passed the significance test even at the 5 percent level which implies that the null hypothesis is accepted in both cases. The null hypothesis is the absence of non-normality and serial correlation respectively. Thus, the tests indicate that the residuals are normally distributed and are devoid of serial correlation. Thus, each of the estimated equations can be adjudged to be stable and effective for long term prediction and analysis.

Table 4.11: Post estimation test results for serial correlation and normality

<i>Equation</i>	<i>Test</i>	<i>Statistic</i>
<i>MPS</i>	<i>Normality test (J-B)</i>	1.47 (0.21)
	<i>Serial Correlation LM Test</i>	0.79 (0.38)
<i>TBN</i>	<i>Normality test (J-B)</i>	1.62 (0.37)
	<i>Serial Correlation LM Test</i>	2.01 (0.25)

Note: p-values in parentheses. Author’s computations

Discussion of Findings

Discussion of Result from Hypothesis One

Debt tax shield and non-debt tax shield does not significantly affect Market Price of manufacturing companies in Nigeria

In order to test this hypothesis, the focus is on the coefficients of the Tax shield variables in the results in Table 4.8. In the estimates, the coefficients of NDTs passed the significance test at the 1 percent level ($p < 0.01$). This means that the null hypothesis is rejected at the 1 percent level for NDTs, thus, has significant positive impacts on market price of shares of manufacturing companies in Nigeria. This implies that increase in non-debt and non-cash flows conditions improves market price of the sampled manufacturing companies from Nigeria. Contrastingly, Debt tax shield (DTS) insignificantly affects market price of shares of manufacturing companies thus the hypothesis which states no significant relationship of debt tax shield to market price is accepted

Discussion of Result from Hypothesis Two

Debt tax shield and non-debt tax shield affect Tobin Q of listed manufacturing companies in Nigeria

The empirical result for estimating the effects of Tax shield on Tobin Q of the manufacturing companies is reported in Table 4.9. In the result, the coefficients of DTS pass the significance test at the 1 percent level ($p\text{-value} < 0.01$), while the coefficient of NDTs passed the test at the 5 percent level ($P\text{-value} < 0.05$). Thus, the null hypothesis is rejected for all the two Tax shield variables. This implies that Debt tax shield, non-debt tax all exert significant effects on Tobin Q of listed manufacturing companies in Nigeria. The coefficient of NDTs is positive, thus, showing that Non debt tax shield significantly improves market among the manufacturing companies, while increase borrowing (DTS) essentially reduces Tobin Q which represents market valuation

Conclusion

In this study, the focus is examining the effects of Tax shield factors of debt tax shield and non-debt tax shield on value of manufacturing companies in Nigeria. The goal is to show that effective Tax shield can help to guide the value of manufacturing companies. Two measures of firm value were considered in the study. Data used for the empirical analysis involved financial data from 20 manufacturing companies over the period of 2005 to 2024, while the random-effects panel estimation framework was adopted for estimating the relationships and testing hypotheses. In general, the results from the empirical analysis demonstrated that Tax shield variables matter significantly in determining firm value of the sampled manufacturing companies. In particular, the following findings were made:

1. That non-debt tax shield significantly and positively affects market price of listed manufacturing companies in Nigeria, but the effect of debt tax shield is insignificant.
2. Debt tax shield and non-debt tax shield exert significant effects on Tobin Q of manufacturing companies in Nigeria, although the effect of debt tax shield is negative, while those of Non debt tax shield is positive.

Recommendations

Based on the findings of this research, this study, therefore, presents the following recommendations which will be useful to all firms’ stakeholders.

1. The findings of this research show that non-debt tax shield is a major Tax shield factor that promotes firm value among manufacturing companies in Nigeria. It is therefore recommended that non cash flow strategies that do not encourage violation of debt covenants should be pursued to enhance performance of manufacturing companies in Nigeria
2. The study also found that debt tax shield decreased value irrespective of the measure of financial performance quality used in the estimation. Thus, it is recommended that manufacturing companies need to devise an optimal debt tax shield regime that enable the firms to avoid debt covenants defaults and prevent excessive borrowing that can cause bankruptcy. The usefulness’s of debt tax shield in firm value is tied to lesser and more manageable debt levels among manufacturing companies in Nigeria.
3. Other factors that influence borrowing also needs to be enhanced in order to provide opportunity for the Tax shield mechanisms to influence firm value.

Implications of the Study

The findings of this study have major implications for shareholders, managers, investors, and regulators in the manufacturing sector in Nigeria. In particular, the study emphasizes the importance of both debt and non-debt tax shield in enhancing effective decision making. The study also highlighted the negative impacts that excessive borrowing for tax aggressive behaviors in the manufacturing companies can have on value of the firms. An ultimate efficient mix and coordination of Tax shield is therefore required to ensure that all the different components of firm debts are well coordinated and guided towards enhanced value among manufacturing companies in Nigeria.

References

1. Ahmad, R., &Etudaiye-Muhtar, O. F. (2017). Dynamic model of optimal capital structure: Evidence from Nigerian listed firms. *Global Business Review*, 18(3), 590-604.

2. Arellano, M., & Bond, S. (1991). Some tests of specification for panel data: Monte Carlo evidence and an application to employment equations. *The review of economic studies*, 58(2), 277-297.
3. Aremu, M. A., Ekpo, I. C., Mustapha, A. M., & Adedoyin, S. I. (2013). Determinants of capital structure in Nigerian banking sector. *International Journal of Academic Research in Economics and Management Sciences*, 2(4), 27-43.
4. Barclay, M. J., Smith, C. W., & Watts, R. L. (1995). The determinants of corporate leverage and dividend policies. *Journal of applied corporate finance*, 7(4), 4-19.
5. Bergeron, F., Raymond, L. & Rivard, S. 1999. 'The concept of fit in information systems research', Available from: www.fsa.ulaval.ca/rd. Accessed: 19 November 2001.
6. Benson, A. K., Oluwafolakemi, F. O., & Monisola, A. O. (2013). Nigeria ailing industries and the capital structure theory: A need for concern. *Australian Journal of Business and Management Research*, 3(8), 31.
7. Biddle, G.C. 1998. 'Economic value added: some empirical evidence', *Managerial Finance*, 24(11).
8. Carmines, E.G. & Zeller, R.A. 1979. 'Reliability and validity assessment', Sage University Paper Series on Qualitative Applications in the Social Sciences, No. 07-017. California: Sage.
9. Chin, W.W. 1998. 'The partial least square approach to structural equation modeling', In Marcoulides, G.A. (ed.), *Modern Methods for Business Research Modeling*. New Jersey: Lawrence Erlbaum.
10. Chin, W.W. 2000. 'Partial Least Squares for researchers: An overview and presentation of recent advances using the PLS approach.' Available from: <http://disc-nt.cba.uh.edu/chin/index.html>.
11. Chin, W.W. & Gopal, A. 1995. 'Adoption intention in GSS: Relative importance of beliefs', *The Data Base for Advances in Information Systems*, 26 (23).
12. Chin, W.W. & Newsted, P.R. 1999. 'Structural equation modeling analysis with small samples using partial least squares', In Hoyle, R.H. (ed.), *Statistical Strategies for Small Sample Research*. California: Sage.
13. Cragg, P.C, King, M. & Hussain, H. 2002. 'IT alignment and firm performance in small manufacturing firms', *Journal of Strategic Information Systems*, 11.
14. Croteau, A.M. & Bergeron, F. 2001. 'An information technology trilogy: business strategy, technological deployment and organizational performance'
15. Dakota, S. (2019). Effect of determinants on financial leverage in Indian steel industry: A study on capital structure. *International Journal of Finance & Economics*, 24(1), 427-436.
16. Dawes, J. 1999. 'The relationship between subjective and objective company performance measures in market orientation research: further empirical evidence'. Available from: <http://marketing-bulletin.massey.ac.nz>. Accessed: 19 April 2002.
17. DeAngelo, H., & Masulis, R. W. (1980). Optimal capital structure under corporate and personal taxation. *Journal of financial economics*, 8(1), 3-29.
18. Dess, G.G. & Robinson, R.B. 1984. 'Measuring organizational performance in the absence of objective measures: the case of the privately held firms and conglomerate business unit', *Strategic Management Journal*, 5.
19. Downs, T. W. (1993). Corporate leverage and non-debt tax shields: evidence on crowding-out. *Financial Review*, 28(4), 549-583.
20. Dwenger, N., & Steiner, V. (2014). Financial leverage and corporate taxation: Evidence from German corporate tax return data. *International tax and public finance*, 21(1), 1-28.
21. Eze, G. P., & Uzochukwu, A. (2020). The impact of debt on capital structure: empirical evidence from Nigeria. *Asian Journal of Economics, Business and Accounting*, 14(4), 7- 17.
22. Fisher, F.M. and McGowan, J.J., (1983). On the misuse of accounting rates of return to infer monopoly profits. *The American Economic Review*, 73(1), pp.82-97.
23. Fisseha, H. K. (2010). Determinants of financial structure, A new methodological approach *Journal of Finance* 34(23), 631-644. Fisseha, K. M. (2010). The Determinant of Capital Structure: Evidence from Commercial Banks in Ethiopia. Tigray: Mekelle University.
24. Franks, J.R. and Pringle, J. J., (1982). Debt financing, corporate financial intermediaries and firm valuation. *The Journal of Finance*, 37(3), pp.751-761. <https://doi.org/10.1111/j.1540-6261.1982.tb02221.x>
25. Friedman, M. (1970). A theoretical framework for monetary analysis. *The Journal of Political Economy* 17(8), 193-238.
26. Ftouhi, K., Ayed, A., & Zemzem, A. (2014). Tax planning and firm value: evidence from European companies. *International Journal Economics and Strategic Management of Business Process*. 2nd International Conference on Business, Economics, Marketing and Management Research Vol. 4(14), 56.
27. Graham J.R. (2003). How big are the tax benefits of debt? *The Journal of Finance*, 55(5), 1901-1942.
28. Goh, C. F., Tai, W. Y., Rasli, A., Tan, O. K., & Zakuan, N. (2018). The determinants of capital structure: evidence from Malaysian companies. *International Journal of Supply Chain Management*, 7(3), 225-230.
29. Gul, F. A. (1999). Growth opportunities, capital structure and dividend policies in Japan. *Journal of Corporate Finance*, 5(2), 141-168.

30. Hossain, F., & Ali, A. (2012). Impact of firm specific factors on capital structure decision: an empirical study of Bangladeshi Companies. *International Journal of Business Research and Management*, 3(4), 163-182.
31. Jensen, M. & Meckling, W. (1976). Theory of the firm: Management behaviour, agency Costs and capital Structure. *Journal of Financial Economics*, 3 (1), 305-360.
32. Jõeveer, K. (2013). Firm, country and macroeconomic determinants of capital structure: evidence from transition economies. *Journal of Comparative Economics*, 41(1), 294-308.
33. Joyo, M., Ahmad, N. & Shaikh, G. (2017). The role of business risk and non-debt tax shields on capital structure: A study based on cement sector in Pakistan. *JELH*, 2(5), 12-22.
34. Kamil, M. &Krisnando (2021). Effect of growth opportunity, non-debt tax shield, asset structure, and profitability on capital structure in agricultural sector companies listed on the Indonesia Stock Exchange. *Indonesian College of Economics*, 2021.
35. Kaplan, R.S. & Norton, D.P. 1996. 'The Balanced Scorecard: Translating Strategy into Action'. Boston, MA: Harvard Business School.
36. Kerongu, M., Nyamute, W., Okiro, E. & Duncan, B. (2020). Capital structure and financial performance of non-financial firms listed at the Nairobi securities exchange. *International Journal of Economics Commerce and Management*, 4(8), 47-60.
37. Kuzucu, N. (2015). Determinants of dividend policy: a panel data analysis for Turkish listed Firms. *International Journal of Business and Management*, 10(11), 149-160.
38. Lamichhane, P. (2020). Nexus between firm fundamentals and financial leverage in Nepalese nonfinancial firms. *Management Dynamics*, 23(2), 13-32.
39. Lei, L. (2020). Research on the impact of tax shield effect on corporate capital structure— empirical analysis based on a-share listed companies. *Modern Economy*, 11(1), 126-139.
40. MacKie-Mason, J. K. (1990). Do taxes affect corporate financing decisions? *The journal of finance*, 45(5), 1471-1493.
41. Myers, S. C. (1984). Capital structure puzzle. NBER Working Paper, (w1393). Myers, S. C. (2001). Capital structure. *Journal of Economic perspectives*, 15(2), 81-102.
42. Nasution, A. A., Siregar, I., &Panggabean, R. (2017). The effect of profitability, asset tangibility, corporate tax, non-debt tax shield, and inflation upon the financial capital structure of the manufacturing companies listed on the Indonesian stock exchange. *Advance in Economics, Business and Management*, 65-74.
43. Neely, A., Adams, C. & Crowe, P. 2001. 'The performance prism in practice', *Measuring Business Excellence*, 5(2). Available from: Emerald Full text. Accessed: 19 April 2002.
44. Ofurum, D. I., & Okoye, E. I. (2021). Effect of corporate tax shield on earnings management in Nigerian commercial banks. *International Journal of Advanced Academic Research*, 7(12), 2488-9849.
45. Ogundajo, G., &Onakoya, A. (2016). Tax planning and financial performance of Nigerian manufacturing companies. *International Journal of Advanced Academic Research*, 2, 2488-9849.
46. Olamide, F. T., Azeez, O. T., & Adewale, O. A. (2019). The corporate tax planning and financial performance of systemically important banks in Nigeria. *Ekonomski horizonti*,1(2), 26- 38.
47. Oluchi, N.L. &Ufomadu, O.A. (2024). Impact of taxation on foreign direct investment in Nigeria (2000-2020). *International Journal of Innovative Finance and Economics Research*, 12(1),143-155.
48. Olurankinse, F. &Mamidu, A. I. (2021). Corporate tax planning and financial performance of development banks in Nigeria. *European Journal of Accounting, Auditing and Finance Research*, 9(5), 53-71.
49. Omesi, I. & Appah, E. (2021). Corporate tax planning and firm value of listed consumer goods companies in Nigeria. *Journal of Business and Management*, 23(2), 42-51.
50. Onaolapo, A. A. &Kajola, S. O. (2020). Capital structure and firm performance: Evidence from Nigeria. *European Journal of Economics, Finance and Administrative Sciences*, 25. Osegbue, I. F., Nweze, A., Ifurueze, M. S., & Nwoye, C. M. (2018). Effects of tax sheltering on earnings management in Nigeria.
51. Papke-Shields, K.E. & Malhotra, M.K. 2001. 'Assessing the impact of the manufacturing executive's role on business performance through strategic alignment,' *Journal of Operations Management*, 19.
52. Parkan, C. & Wu, M.L. 1999. 'Measurement of the performance of an investment bank using the operational competitive rating procedure', *International Journal of Management Science*, 27: 201 217.
53. Peek, J., Rosengren, E.S. & Kasirye, F. 1999. 'The poor performance of foreign bank subsidiaries: were the problems acquired or created?', *Journal of Banking & Finance*, 23.
54. Rogers, P.R., & Bamford, C.E. 2002. 'Information planning process and strategic orientation: The importance of fit in high-performing organizations', *Journal of Business Research*, 55
55. Salawu, R. O., & Agboola, A. A. (2008). The determinants of capital structure of large nonfinancial listed firms in Nigeria. *The International Journal of Business and Finance Research*, 2(2), 75-84.
56. Samuel, H. U., Akpan, D. C., Nsentip, E. B., &Ukpe, E. A. (2023). Tax shield and firms value of quoted manufacturing companies in Nigeria. *International*

- Journal of Business and Management Review, 11(9), 16-34.
57. Sarakiri, J.A. (2020). Empirical investigation of corporate tax incentives in Nigeria, *European Journal of Auditing and Finance Research*, 8(5), 16-32.
 58. Sathye, M. 2001. 'Efficiency of banks in a developing economy: the case of India'. Available from: <http://economics.anu.edu.au/asrc/novcon2001/milindsathye-pdf>. Accessed: 19 April 2002.
 59. Staden, C.J. 1998. 'The usefulness of the value added statement in South Africa', *Managerial Finance*, 24(11).
 60. Shah, M. H., & Khan, A. (2017). Factors determining capital structure of Pakistani nonfinancial firms. *International journal of business studies review*, 2(1), 46-59.
 61. Sherman, H.D. & Gold, F. 1985. 'Bank branch operating efficiency, evaluation with data envelopment analysis', *Journal of Business and Finance*, 9.
 62. Sritharan, V. (2024). Do tax shields of debt and non-debt impact on firms' performance? Evidence from Sri Lankan Land and property sector. *Research Journal of Economics and Business Studies*, 4, 10-22.
 63. Stern, J.M. 1990. 'One way to build value in your firm, a la executive compensation', *Financial Executive*, 6(6). Available from: General Business File, Unisa library. Accessed: 8 April 2002.
 64. Suandy, E. (2021). Tax planning. South Jakarta, DKI Jakarta, Indonesia: *SalembaEmpat*.
 65. Susilawaty, T. E. (2021). The effect of debt tax shield and non-debt tax shield on capital structure on advertising printing media companies listed in Indonesia Stock Exchange. *Enrichment: Journal of Management*, 12(1), 639-646.
 66. Simon, J., Dale, H., & Chisolm, L. (2016). The federal tax treatment of charitable organizations. *The Nonprofit Sector: A Research Handbook*, 267, 267.
 67. Stern, J.M. & Shiely, J.S. 2001. 'Roadblocks to the embrace of EVA. (Economic Value Added)', *Directors and Boards*, 25. Available from: General Business File, Unisa library. Accessed: 8 April 2002.
 68. Toby, A.J. & Sarakiri, J.A. (2021). Corporate Tax and Firm Value under M & M Proposition II, *Journal of Accounting, Business and Finance Research* 12(2), 40-47.
 69. Udosen, R. E., & Akpan, D. C. (2024). Corporate governance mechanisms and investors' confidence of listed consumer goods companies in Nigeria. *International Journal of Advances in Management*, 13(4), 15-26
 - Undie, I. G., Akpan, D. C. & Sezuo, A. H. (2020). Impact of tax planning and tax incentives on profitability of companies in Free Trade Zones. *IOSR Journal of Business and Management*, 22(6), 26-38.
 70. Ur Rehman, A., Wang, M., & Mirza, S. S. (2017). How do Chinese firms adjust their financial leverage: An empirical investigation using multiple GMM models. *China Finance and Economic Review*, 5(1), 1-30.
 71. Venkatraman, N. 1989. 'Strategic orientation of business enterprises: the construct, dimensionality, and measurement', *Management Science*, 35(8).
 72. Woodside, A.G. Sullivan, D.P. & Trappey, R.J. 1999. 'Assessing relationships among strategic types, distinctive marketing competencies, and organization performance', *Journal of Business Research*, 45.
 73. Yeh, G.J. 1996. 'The application of Data Envelopment Analysis in conjunction with financial ratios for bank performance evaluation', *Journal of Operational Research Society*, 47.
 74. Zannatus Saba, 2024. "Climate risks and corporate tax shields," *Journal of Sustainable Finance & Investment*, Taylor & Francis Journals, vol. 14(4), pages 787-814, October.