ISSN: 2811-177X (Paper), ISSN: 2811-1788 (Online) Vol 1 No 2, Pgs 52 - 78: 2025

DETERMINANT OF TAX AGGRESSIVENESS IN MANUFACTURING COMPANIES IN NIGERIA

Dr ONOMUHARA OKE GOODWIN,

DEPARTMENTS OF ACCOUNTING,

FACULTY OF SOCIAL AND MANAGEMENT SCIENCES, IGBINEDION UNIVERSITY, EDO STATE

Dr YAHAYA SULE SUMAILA

YAHAYA SULE & Co

Eguadase street, Off AKPAKPAVA ROAD, BENIN

ABSTRACT

This research paper investigated the determinants of corporate tax aggressiveness in Nigeria manufacturing sectors between the period of 2019--2024 The specific objectives were: to investigate if there is any significant relationship between tax aggressiveness and firm size, corporate profitability, long term debts and multi-nationalism. The sample for the study was made up of companies quoted on the Nigeria Exchange Group. This research used secondary data and model specification based on regression. The student t-test was the statistical technique used in testing the hypotheses.

The findings of this research showed that there is a positive, negative, positive and positive relationship between Firm size, Corporate profitability, Long term debt and Multi-nationalism respectively, and Tax aggressiveness. Based on the findings, there should be improved Tax administration system, principle, regulations so that, companies won't take advantage of loopholes.

Keywords: corporate profitability,tax aggressiveness, long-term debts,, manufacturing sector

INTRODUCTION

1.1 Background to the Study

1.2 The maximization of tax payment is called tax aggressiveness, sometimes called tax avoidance or tax planning (Yuan, 2014).

Tax aggressiveness is defined by Chechen, Cheng and Shevlin (2010), as a downward management of taxable income through tax planning with respect to reducing tax paid to tax authority. In Nigerian context, example of tax planning activities includes excessive claim of tax reliefs or claiming relief which company are not entitled to, finding a gap (loopholes in the tax system), exploiting (or abusing) a relief, unnatural assets or transactions, pre- ordained transactions, dodgy offshore schemes etc. Furthermore, company may also claim unallowable expenses which are not allowed by income tax act. Tax planning is part of the overall business planning aimed at reducing explicit and implicit taxes (Franca, Moraes & Martinez, 2015). According to Scholes-Walfson (2015), effective tax planning considers the tax positions of all parties in a contract (multilateral approach), considers all taxes, both explicit and implicit; and recognizes the relevance of all costs, both tax and non- tax costs.

Tax planning practices may lead to the reduction of tax obligations depending on the intensity and legality in how these practices are adopted. The degree of tax aggressiveness pragmatically materializes in the magnitude of the reduction of explicit taxes. greater tax aggressiveness does not necessarily imply tax abusiveness, but there is a risk that, in the deliberate reduction of explicit tax obligations, the entity adopts measures that abuse the law, fraud of law, or that the legal substance contradicts the legal form.

Abusive tax planning should not be confused with tax evasion, due to the clear illegality of the later. The former is potentially subject to questioning by the tax authorities though, for having potentially materialized through anomalous business deals or tax avoidance. Thus, not all aggressive fiscal planning is necessary abusive, the final prognosis will depend on the perspective of who appreciates the tax transaction and whether it finds support in the legislation.

The degree of tax aggressiveness measures the impetus of the tax payer to reduce his tax burden in explicit taxes, without any restrictions as to the legality of the procedures according to the standards in force (Martinez, 2017). By hypothesis, as the degree of tax aggressiveness increases, the fiscal risk increases that the tax authority will disregard transactions in their tax dimensions.

ISSN: 2811-177X (Paper), ISSN: 2811-1788 (Online) Vol 1 No 2, Pgs 52 - 78: 2025

1.2 Statement of Research Problem

Tax has been a powerful instrument of revenue generation to the government in Nigeria of which tax aggressiveness is a major problem that obstructs the collection of tax.

Nigeria have started the new era of tax assessment by implementing a self-assessment system on companies in 1992, following the enactment of the appropriate law in 1991. By the implementation of self- assessment system, tax payer is granted the right, by law to compute own tax liability, pay the tax due (at the designed bank) and produces evidence of tax paid at the time of filling his tax return at the tax office, on due date. Self- assessment system has opened a new agenda to company in planning their tax activities. In Nigeria, government takes 30 percent of company's profit as corporate tax. Thus, tax aggressive practices are usually implemented to minimize tax burden to achieve greater after tax earnings per share and cash available for shareholders. Therefore, tax aggressiveness may have a significant tax implication because it possibly leads to tax evasion. The consequences of tax aggressiveness results in loss of revenue to the nation and affect public spending. Tax aggressiveness reduces the government's revenue (Chen, Chen, Cheng &Shevlin,2010) and it represents a value maximizing activity for the firm. It is a transfer of wealth from government to the firm's stakeholders (Khurana &Maser, 2009). So, it's considerable as taxes loss to the government.

Prior research carried out in this topic area by Herbert (2015), found that firm size, profitability, income mobility, R&D and leverage are determinant of tax aggressiveness. Hence, this study therefore, intends to critically evaluate some factors that could determine tax aggressiveness of quoted companies listed in the Nigerian stock exchange. It also wishes to complement the limitations of prior study on determinant of corporate tax aggressiveness using the ordinary least square technique of data analysis regression method.

1.3 Objectives of the Study

The major objective of this study is to examine the determinants of tax aggressiveness in Nigerian manufacturing companies. The specific objectives of the study are:

i. To examine the relationship between profitability and tax aggressiveness.

ii. To examine the relationship between total debts and tax aggressiveness.

ISSN: 2811-177X (Paper), ISSN: 2811-1788 (Online) Vol 1 No 2, Pgs 52 - 78: 2025

iii. To examine the relationship between firm size and tax aggressiveness.

iv. To examine the relationship between multinationalism and tax aggressiveness.

1.4 Research Hypotheses

To empirically test the impact of the determinants of tax aggressiveness in manufacturing companies in Nigeria, the following null hypothesis are developed:

i There is no significant relationship between profitability and tax aggressiveness.

ii. There is no significant relationship between total debts and tax aggressiveness.

iii. There is no significant relationship between firm's size and tax aggressiveness.

iv. There is no significant relationship between multinationalism and tax aggressiveness.

1.5. Scope of the Study

This study focuses on 40 Manufacturing industry in Nigeria. Data for this study will be obtained from the Nigerian stock exchange fact books and companies financial report for the period of 2018 to 2023. The focus on the quoted companies was necessitated, by the notion that the stakeholders of the company in a given nation dictates the pace of their economic growth. This study therefore seeks to identify the factors which determine tax aggressiveness in firms quoted in Nigeria.

LITERATURE REVIEW

2.1 Review of the Concept of Tax and Tax Aggressiveness

ISSN: 2811-177X (Paper), ISSN: 2811-1788 (Online) Vol 1 No 2, Pgs 52 - 78: 2025

Tax is one of the most significant business cost incurred by firms, and it has a direct impact on profitability and shareholders value. In fact, governments appropriate part of the firm's benefit through taxes to the detriment of shareholders and management (Desai, Dyck& Zingles, 2007). Given the key objective of maximizing shareholders value, firms have potential incentives to adopt tax strategies that allow them to minimize their taxes. According to Sikka (2010), this behavior is perceived as "a normal and commonsensical business practices" (p. 156). The significance of firms' aggressive tax behavior is noted in a recent OECD (Organization for Economic Cooperation and Developments) report, which concludes that "Base erosion constitutes a serious risk to tax revenues, tax sovereignty and tax fairness for OECD member countries and non-members alike (Organization for Economic Cooperation and Development [OECD], 2013, p. 5). However, aggressive tax planning does not always maximize firm value, as it may result in large outlays (following tax audit), and it may damage the firm's reputation as well.

From a policy perspective, the subject of corporate tax aggressiveness is, as Andreoni, Erardand Feinstein (1998) noted "a problem as old as taxes themselves.... And it's thus of obvious importance to nations around the world"(p. 818). Managerial actions designed to minimize corporate taxes by means of tax aggressive activities are becoming an increasingly common feature of the corporate environment worldwide. Such tax aggressiveness has both significant costs and benefits, and the degree of corporate tax aggressiveness can ebb and flow, depending upon whether corporations perceive that the benefits of such practices exceeds their costs.

2.2The Role of Tax to Government

According to Klein (2014), governments impose charges on their citizens and businesses as a means of raising revenue, which is then used to meet their budgetary demands. This includes financing government and public projects as well as making the business environment in the country conducive for economic growth. Without taxes, governments would be unable to meet the demands of their societies. Taxes are crucial because governments collect this money and use it to finance social projects. Some of these projects include:

i. National health insurance scheme (NHIS)

ISSN: 2811-177X (Paper), ISSN: 2811-1788 (Online) Vol 1 No 2, Pgs 52 - 78: 2025

Without taxes, government contributions to the health sector would be impossible. Taxes go to funding health services such as social healthcare, medical research, social security, etc.

ii. Tertiary Education trust fund (TET Fund)

Education could be one of the most deserving recipients of tax money. Governments put a lot of importance in development of human capital and education is central in this development. Money from taxes is channeled to funding, furnishing, and maintaining the public education system.

iii. Governance

Governance is a crucial component in the smooth running of country affairs. Poor governance would have far reaching ramifications on the entire country with a heavy toll on its economic growth. Good governance ensures that the money collected is utilized in a manner that benefits citizens of the country. This money also goes to pay public servants, police officers, members of parliaments, the postal system, and others. Indeed, with a proper and functioning form of government, there will be no effective protection of public interest. Other important sectors are infrastructure development, transport, housing, etc.

Apart from social projects, governments also use money collected from taxes to fund sectors that are crucial for the wellbeing of their citizens such as security, scientific research, environmental protection, etc.

Some of the money is also channeled to fund projects such as pensions, unemployment benefits, childcare, etc. Without taxes it would be impossible for governments to raise money to fund these types of projects. Furthermore, taxes can affect the state of economic growth of a country. Taxes generally contribute to the gross domestic product (GDP) of a country. Because of this contribution, taxes help spurs economic growth which in turn has a ripple effect on the country's economy; raising the standard of living, increasing job creation, etc. Governments also use taxes as a deterrent for undesirable activities such as the consumption of liquor, tobacco smoking, etc. To achieve this, governments impose high excise levies on these products and as a result, raise the cost of these products to discourage people from buying or selling them.

2.3 Empirical Review

ISSN: 2811-177X (Paper), ISSN: 2811-1788 (Online) Vol 1 No 2, Pgs 52 - 78: 2025

Anglo-Saxon literature is also very rich in tax matters. Several authors have addressed the issue of corporate taxation by examining tax management practices and their impact on corporate performance. To this context, Taylor and Richardson examined tax management practices with corporations and found that transfer pricing and the use of debt are the most widely used techniques to reduce the tax liabilities of companies. Moreover, a recent study conducted in the Tunisian context confirmed that companies mainly use profit relief techniques in order to reduce their effective tax rate.

To this end, several variables are supported to represent the main determinants of tax aggressiveness within manufacturing companies in Nigeria. Namely: profitability, debts, firm size and multinationalism.

Corporate Profitability

The corporate profitability is the main determinant of its performance. Rego (2003), research has shown that firms, with high profitability are most likely to engage in tax avoidance practices in order to reduce their tax liabilities. In addition, the study by Wilkey (1998) and Limberg (1993) found a positive relationship between pre- tax and effective tax rates. Rego (2003), also reported that firms with higher pre- tax income are more likely to reduce taxes than firms with less pre-tax income. In other words, the most profitable firms can aggressively use transfer pricing techniques to transfer profit from high tax areas to low tax areas.

Total Debts

Highly indebted firms are likely to take advantage of the main characteristics of debt capital (the fungibility of borrowed funds) in order to avoid a significant corporate burden (Hines,1996; Newsberryet al., 2008). Thus, Richardson, Hanlon and Nethercott (1998). Multinationalism groups prefer to finance their subsidiaries with debt or equity transfers, these transfers are motivated by the possibilities of tax arbitrage between the zones for purely tax purposes. In fact, tax consideration has made debt financing, the preferential form of financing with areas with high taxation (Hines 1996; Dyreng, Hanlonand Maydew, 2008&Rego, 2003).

Moreover, studies have confirmed that companies with a higher debt ratio are the companies that pay less tax. Indeed, Walsh and Ryan (1997) find that firms frequently issue debt from foreign finance subsidiaries, particularly in favourable tax jurisdictions such as the Netherlands, to avoid paying interest withholding tax and to achieve tax deductibility of interest payments. Arbitrage activities of this kind demonstrate the connection between a firm's strategies and its financing and tax decisions.

In addition, a study by Rego (2003), finds that firms with very high leverage also have a very low effective tax rate, as these firms use interest deductions to The amount of tax payable and also include very low tax provisions in the financial accounts. Previous research by Bernard (2006), showed that firms with high debt to-equity ratios tend to pay less tax than firms with low debt-to-equity ratios. In fact, a multinational group is encouraged to finance its foreign direct investment with debt if the corporate tax rate of the host country is higher than that of the corporate tax rate of the country of origin. In these cases, the company will be able to deduct interest payments at a higher rate if the loan is made by a foreign subsidiary rather than by the parent company (Dahlby,2008).

Finally, the latest studies by Taylor and Richardson (2012), have confirmed that the financing operations (indebtedness) of the corporate group is strongly associated with the effective tax rate, the more the company is indebted, the more its ability to reduce the tax liability.

Firm Size

Generally, large corporations engage in more commercial activities and financial transactions than small ones, providing them with significant opportunities to significantly reduce corporate taxes (Rego, 2003). The large corporate groups tend to operate between group subsidiaries (leasing and financing transactions). They can also take advantage of the possibilities of tax arbitrage between different tax jurisdictions.

In addition, Slemrod (2001), found that the cost of tax management in large firms is lower than that of small firms. As a result, large firms can achieve economies of scale through tax planning, and also have additional resources and incentives to reduce the tax burden (Rego, 2003).

The research conducted by Bernard (2006) found that large firms are manipulating transfer pricing. Furthermore, Hanlon (2007), concluded that large firms generally exploit shortcomings

ISSN: 2811-177X (Paper), ISSN: 2811-1788 (Online) Vol 1 No 2, Pgs 52 - 78: 2025

in the tax law to reduce their tax liabilities. Finally, the research of Benvignatiet al. (2000), have also found that large firms are most likely to manipulate transfer pricing in order to optimize their tax results

.

Multinationalism

Multinational companies are always seeking to optimize their tax management through effective tax planning strategies of all Group subsidiaries (Rego,2003; Hanlon, Mills & Slemrod, 2007). The corporate that having foreign source profit from subsidiaries, will have more opportunities to engage in tax avoidance. Indeed, multinational companies have more possibilities to reduce their tax liabilities through the location of their activities in areas with low or no taxation. This operation is done by transferring the profits from high tax jurisdictions to low tax jurisdictions while exploiting the differential in the tax rate between countries (Slemrod, 2001). In fact, Slemrod also confirmed that multinational groups use a set of optimization and tax planning techniques to significantly reduce the group's effective tax burden. Rego (2003), also observed that multinational companies have more opportunity to avoid corporation tax than domestic firms.

2.4 Review of Relevant Theories

Stakeholder Theory

In the view of Freeman (1984) “stakeholders are any group or individual who can affect or is affected by the achievement of the organization’s objectives (p. 46). Freeman (2004) in Fontraine, Harman and Schmid (2006:5) more recently, defines stakeholders as ‘those groups who are vital to the survival and success of the corporation’. Friedman (2006) in (Kwaghfan, 2015) states that the organization itself should be thought of as grouping of stakeholders and the purpose of the organization should be to manage their interests, needs and viewpoints. This stakeholder management is thought to be fulfilled by the managers of a firm. The managers should on the one hand manage the corporation for the benefit of its stakeholders in order to ensure their rights and the participation in decision making and on the other hand the management must act as the stockholder’s agent to ensure the survival of the firm to safeguard the long term stakes of each group (Kwaghfan, 2015).

ISSN: 2811-177X (Paper), ISSN: 2811-1788 (Online) Vol 1 No 2, Pgs 52 - 78: 2025

In contrast to this assertion, some theorists have also argued that in recent times corporate management teams no longer rely on satisfying stakeholder demands alone, but rather give consideration to other institutional factors such as content, context and causes (see Oliver, 1991; Carpenter and Feroz, 2001; Guerreiro, Rodriguez &Craig,2012). The mentioned thoughts and principles of the stakeholder concept are known as normative stakeholder theory in literature. Normative Stakeholder theory contains theories of how managers or stakeholders should act and should view the purpose of organization, based on some ethical principle (Friedman 2006 in Fontraine, Harman &Schmid, 2006, p. 5). Another approach to the stakeholder concept is the descriptive stakeholder theory. This theory is concerned with how managers and stakeholders actually behave and how they view their actions and roles. The instrumental stakeholder theory deals with how managers should act if they want to favour and work for their own interests. In some literature their own interest is conceived as the interests of the organization, which is usually to maximize profit or to maximize shareholder value. This means if managers treat stakeholders in line with the stakeholder concept the organization will be more successful in the long run.

However, it could be inferred from the above explanation that the theory has paid little attention to the mechanisms organizations put in place to manage social contract relationships. In other words, stakeholder theory has not addressed the power used by organizations in manipulating the expectation and demands of powerful stakeholders (Noah, 2017). the issue of corporate power/strategy and its relationship with stakeholders is significant due to the economic, political and social development infancy of the country (Noah, 2017).

Institutional Theory

Another theory that seeks to explain the basis for organisational behaviour in a certain manner is the institutional theory or the "institutionalist" perspective (DiMaggio & Powell, 1983; Scott, 1995). The theory emphasizes how different institutional foundations accounts for existing and persisting cross-national differences in management practices (Child, 2002). A central tenet of institutional theory is the belief ‗that organisations sharing the same environment will employ similar practices and thus become ―isomorphic with each other (Kostova & Roth, 2002).

ISSN: 2811-177X (Paper), ISSN: 2811-1788 (Online) Vol 1 No 2, Pgs 52 - 78: 2025

DiMaggio and Powell (1983) identified three mechanisms through which institutional isomorphic change occurs: coercive, mimetic and normative isomorphism.

Coercive isomorphism occurs where external agencies impose changes on organizations. Mimetic isomorphism describes the achievement of conformity through imitation of other organizations operating in the same organizational field. Normative isomorphism stems primarily from professionalization processes within an organizational field (DiMaggio &Powell, 1983). Following this reasoning, the responsibility to pay taxes and the behavior to try to avoid paying taxes can be explained especially by mimetic isomorphism as the behavior of companies in paying taxes (or trying to avoid paying taxes), is generally common among the companies of the same industry or operating in the same environment.

METHODOLOGY

3.1 Research Design

This study adopted the survey in line with descriptive research design. This design was adopted as it provides the advantage of effectively gathering secondary information from a large number of samples. Furthermore, it's jurisdiction emanates from the methodology adopted by prior study such as Dayday and Zaam (2017), who examined similar subject matter relating to tax aggressiveness. The researcher employed it purposely to obtain detailed information about the determinant of tax avoidance within corporate groups.

3.2 The Population and Sample

The population for this study is made up of all manufacturing firms quoted on the Nigerian stock group between 2018 to 2023.

3.3 Source of Data

The source of data collection in this study comprises of the secondary data as presented in the company's annual reports. The secondary data will be obtained from annual financial reports of 64 manufacturing companies quoted on the Nigerian stock exchange(NSE), for a period of 5 years (2018--2023).

3.4 Data Analysis Method

ISSN: 2811-177X (Paper), ISSN: 2811-1788 (Online) Vol 1 No 2, Pgs 52 - 78: 2025

The relationship between the dependent and independent variables will be analyzed using the Ordinary Least Square(OLS)regression technique. This OLS technique is in cognizance with prior studies (Dayday & Zaam, 2017; Herbert, 2015; Gerrit Lietz, 2013). The OLS technique will be used to Estimate the coefficient of the model with the aid of E-views software.

The choice of Ordinary Least Square (OLS) for this paper is guided by the fact that it's computational procedures is simple and the estimate obtained from this procedure has optimal properties which may include linearity, unbiasedness, minivariance and mean squared error estimation (Koutsoyianis, 2003).

3.5 Model Specification

To capture the relationship between the independent and dependent variable, the econometric model that will be employed in this study is a multiple regression model. A multiple regression model is that which seeks to express relationships between dependent and the independent variables.

In the light of the methodological knowledge gathered and empirical literature so far studied, the model is specified. The model is specifically developed for this study and was neither adopted or modified.

Consequently, our model is shown thus;

ETR = f (FSIZ, DBTS, CPRT, MULT)

The econometric model is specified below;

$$ETR_{it} = \beta_0 + \beta_1 FSIZ_{it} + \beta_2 DBTS_{it} + \beta_3 CPRT_{it} + \beta_4 MULT_{it} + e_{it}$$

Where:

ETR = Effective Tax Rate which is a proxy of corporate tax aggressiveness.

FSIZ = Firm Size

DBTS = Total Debt

CPRT = Corporate Profitability

MULT = Multinationalism

ISSN: 2811-177X (Paper), ISSN: 2811-1788 (Online) Vol 1 No 2, Pgs 52 - 78: 2025

e_{it} = Error term.

4.1 PRESENTATION AND ANALYSIS OF RESULTS

Descriptive Statistics

Table4.1 below shows the descriptive statistics of the variables used in the study.

Table 4.1 Descriptive Statistics

	FSIZE	DBTS	CPRT	MULT	ETR
Mean	7.091	6.164	5.869	0.241	0.361
Median	7.042	6.147	5.826	0.000	0.287
Maximum	10.302	9.699	9.283	1.000	13.061
Minimum	3.058	3.036	2.471	0.000	-4.163
Std. Dev.	0.948	1.011	1.036	0.429	1.141
Jarque-Bera	48.981	15.278	1.540	74.127	94080.560
Probability	0.000	0.000	0.463	0.000	0.000
Observations	290	290	290	290	290

Source: Authors Computation, 2024

Table 4.1 above shows the descriptive statistics of the data collected from the sampled firms. Size of the firm measured as log of total assets(FSIZE), has mean and median value of 7.091 and 7.042 respectively, with standard deviation of 0.948. These values shows that the dispersion away from the mean is small, values are concentrated around the mean, with minimal variation from the average observation. Long term debts (DBTS), has mean and median score of 6.164 and 6.147 respectively, with standard deviation of 1.011, again revealing the concentration of observation around the mean. CRPT has mean of 5.869, median of 5.826 and a standard deviation of 1.036. The mean and median values are about four times the standard deviation which suggest a concentration around the mean of the sample. Effective tax rate (ETR) has mean and median value of 0.361 and 0.287respectively. With some sample observation recording

ISSN: 2811-177X (Paper), ISSN: 2811-1788 (Online) Vol 1 No 2, Pgs 52 - 78: 2025

negative values. The standard deviation is 1.41, this suggest strong dispersion from the mean and the likely hood of outliers.

4.2 Correlation Analysis

Table 4.2 below reveals the direction of association between the variables of the study.

Table4.2: Correlation Matrix

Column1	FSIZE	DBTS	CPRT	MULT	ETR
FSIZE	1.00				
DBTS	0.68	1.00			
	15.65	-----			
	0.00	-----			
CPRT	0.79	0.73	1.00		
	22.07	18.17	-----		
	0.00	0.00	-----		
MULT	0.22	0.34	0.29	1.00	
	3.80	6.09	5.23	-----	
	0.00	0.00	0.00	-----	
ETR	0.05	0.04	0.03	0.05	1.00
	0.81	0.72	0.58	0.91	-----
	0.42	0.47	0.56	0.36	-----

Source: Authors Computation, 2024

In Table 4.2, we focus on the correlation between the dependent variable (ETR) and the four explanatory variables (i.e. FSIZE, DBTS, CPRT & MULT). The table shows that the co-efficient

Global Research Journal of Humanities and Public Administration (GRJHPA) 66
ISSN: 2811-177X (Paper), ISSN: 2811-1788 (Online) Vol 1 No 2, Pgs 52 - 78: 2025

of correlation of a variable with respect to itself is 1.00. This indicates that there exists a perfect correlation between a variable in respect to itself. The correlation tests for the model in table 4.2 reveals that firm size (FSIZE), with the value of 0.05 was positively and weakly associated with effective tax rate (ETR). In the case of total debts(DBTS), we observed that total debt was positively and weakly associated with effective tax rate at (0.04). Also, a close look at the correlation table shows that firms with high profitability (CPRT) are positively and weakly associated with effective tax rate (0.03). as well as multinational firms (0.05). The correlation between the explanatory variables shows that the strongest association is between FSIZE and CPRT with a coefficient of 0.79, which is significant at 1%. Multinationalism (MULT) exhibited the weakest relationship with firm size (FSIZE) with a value of 0.22.

Variance Inflation Factor

An initial evaluation of the correlation matrix indicates that some explanatory variables (eg. FSIZE& CPRT) are strongly correlated, which may indicate some problem of multicollinearity. The table below present the variance inflation factor of the variables under investigation.

Table4.3: Variance Inflation Factor

Variance Inflation Factors			
	Coefficient	Unscented	Centred
Variable	Variance	VIF	VIF
C	0.28	62.36	NA
FSIZE	0.01	163.73	2.87
DBTS	0.01	90.63	2.37
CPRT	0.01	111.01	3.34
MULT	0.03	1.50	1.14

ISSN: 2811-177X (Paper), ISSN: 2811-1788 (Online) Vol 1 No 2, Pgs 52 - 78: 2025

Source: Authors Computation, 2024

From the table above we see that the mean VIF is 2.43 which is well below the critical value of 10 suggesting the absence of multicollinearity in the variables in the study. This is further confirmed by the LM Serial correlation test; which table is shown below as table 4.4.

Table4.4: Breusch-Godfrey Serial Correlation LM Test:

F-statistic	0.770139	Prob. F(2,283)	0.4639
Obs*R-squared	1.569832	Prob. Chi-Square(2)	0.4562

Source: Authors Computation, 2024

Table 4.4 shows the result of the Breusch Godfrey test for serial correlation with F-statistic of 0.77 p-value of 0.46, this values indicate the absence serial correlation amongst the variables which corroborates the result of the variance inflation factor.

Table 4.5Heteroscedasticity Test: Breusch-Pagan-Godfrey

F-statistic	0.215018	Prob. F(4,285)	0.93
Obs*R-squared	0.872527	Prob. Chi-Square(4)	0.9285

ISSN: 2811-177X (Paper), ISSN: 2811-1788 (Online) Vol 1 No 2, Pgs 52 - 78: 2025

Scaled explained SS	37.53729	Prob. Chi-Square(4)		0

Source: Authors Computation, 2024

Table 4.5 above presents the result of the Breusch Pagan-Godfrey test for presence of heteroscedasticity. The table shows that F-value is 0.215 with p-value of 0.93, which indicate the absence of heteroscedasticity.

4.3. Regression Analysis and Hypothesis Testing

In testing the hypotheses for this study, we used multiple OLS regression and we also presented robust regression test for the OLS results when the problem of heteroscedasticity is presence. Table 4.6 below shows the results;

Model

The model focuses on examining the determinants of effective tax rate. In this study the determinants employed are size of the firm (FSIZE), long term debts (DBTS), corporate profitability (CPRTS), and multinational status of the firm (MULT)

This means that effective tax rate is our dependent variable while the determinants are the explanatory variables of the study.

Table 4.6. Regression Analysis

Dependent Variable: ETR			
Method: Least Squares			
	OLS	ROBUST	
Variable	Coefficient		

ISSN: 2811-177X (Paper), ISSN: 2811-1788 (Online) Vol 1 No 2, Pgs 52 - 78: 2025

C	-0.012679	0.021248	
FSIZE	0.064373	0.0566	
DBTS	0.015237	0.007628	
CPRT	-0.03522	-0.023423	
MULT	0.124722	0.123526	
AR(1)		0.058605	
R-squared	0.004542	0.007801	
F-stat	0.325121	0.443424	
p-value	0.861024	0.817918	
DW-stat	1.885201	2.006617	

Source: Authors Computation, 2024.

From table 4.6above the results show that the R-squared is 0.0078 meaning 0.7% of the variations in ETR is explained by the determinants in this study. This is corroborated by the F-statistics with a value of 0.44 p-value of 0.81 which means that the model lacks significance in explaining the changes in the dependent variable. An examination of the coefficient of the determinants shows that they are all related to ETR except CPRT which is negatively related. However, none of the determinants pass the test of significance even at a generous 10% level.

Hypothesis Testing

Table:4.7Presentation of Multiple Regression Results

Dependent Variable: ETR

Method: Least Squares

ISSN: 2811-177X (Paper), ISSN: 2811-1788 (Online) Vol 1 No 2, Pgs 52 - 78: 2025

Variable	Coefficient	Std.Error	t-Statistic	Prob.
C	-0.012679	0.531397	-0.02386	0.981
FSIZE	0.064373	0.120366	0.534812	0.5932
DBTS	0.015237	0.102565	0.148562	0.882
CPRT	-0.03522	0.118962	-0.29606	0.7674
MULT	0.124722	0.167987	0.742447	0.4584
R-squared	0.004542	Mean dependent var		0.361075
Adjusted R-squared	-0.009429	S.D. dependent var		1.140592
S.E. of regression	1.145957	Akaikeinfocriterion		3.127448
Sum squared resid	374.267	Schwarz criterion		3.190722
Log likelihood	-448.48	Hannan-Quinncriter.		3.152799
F-statistic	0.325121	Durbin-Watsonstat		1.885201
Prob(F-statistic)	0.861024			

Source: AuthorsComputation,2024

4.3.1. Hypothesis 1

ISSN: 2811-177X (Paper), ISSN: 2811-1788 (Online) Vol 1 No 2, Pgs 52 - 78: 2025

This hypothesis states that the size of the firm does not significantly determine the level of Effective tax rate. From the result of the regression analysis in table 4.7 above we see that FSIZE with a Prob. value of 0.59, does not pass the test of significance at 10%. Hence we accept the null hypothesis of no significant relationship between firm size and effective tax rate

4.3.2 Hypothesis 2

This hypothesis states that the total debts of the firm do not significantly determine the level of Effective tax rate. From the result of the regression analysis in table 4.7 above we see that DBTS with a Prob. value of 0.88, does not pass the test of significance at 10%. Hence we accept the null hypothesis of no significant relationship between the total debts of the firm and effective tax rate.

4.3.3. Hypothesis 3

This hypothesis states that the profitability of the firm does not significantly determine the level of Effective tax rate. From the result of the regression analysis in table 4.7 above we see that CPRT with a Prob. value of 0.76, does not pass the test of significance at 10%. Hence we accept the null hypothesis of no significant relationship between corporate profitability and effective tax rate.

4.3.4 Hypothesis 4

This hypothesis states that the multinational status of the firm does not significantly determine the level of Effective tax rate. From the result of the regression analysis in table 4.7 above we see that MULT with a Prob. value of 0.45, does not pass the test of significance at 10%. Hence we accept the null hypothesis of no significant relationship between the multinationalism status of the firm and effective tax rate.

ISSN: 2811-177X (Paper), ISSN: 2811-1788 (Online) Vol 1 No 2, Pgs 52 - 78: 2025

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary of Findings

In line with the broad objective of this study which is to investigate the determinants of corporate tax aggressiveness in Nigeria manufacturing sector, empirical analyses have been conducted and discussion on findings offered. Following the result of our investigation, we found out that:

1. Corporate profitability (CPRT) had a negative and insignificant association with firm tax aggressiveness in Nigeria.
2. Firm size (FSIZE) had a positive and insignificant relationship with tax aggressiveness in Nigeria.
3. Total debt (DBTS) had a positive and insignificant relationship with tax aggressiveness in Nigeria.
4. Multinationalism (MULT) had a positive and insignificant relationship with tax aggressiveness in Nigerian

5.2 Recommendations

Following the analyses and the findings of this research work, these recommendations are made:

i. Increasing penalties for taking aggressive tax positions:

ii. Increased reputational risk resulting from news articles, reports by non-governmental organization, accusations by whistleblowers, and high profile government hearings;

iii. Establishing effective disclosure and advanced rulings system,

iv. Improving specific anti-avoidance provision,

v. The tax system should be improved, so that companies won't take advantage of loopholes in the tax system

5.3 Conclusion

In line with the broad objective of our study which is to investigate the determinants of tax aggressiveness in Nigeria, empirical analyses have been conducted and discussion on findings offered. This study has attempted to identify the determinants of tax aggressiveness in Nigeria. A multiple regression analysis within the framework of ordinary least square regression pertaining to sixty-four (64) manufacturing firms were selected from among those listed on the Nigeria Stock Exchange Market over the period of 5years (2018--2023). The study has chosen firm size, debts, corporate profitability, multinationalism as possible determinants of tax aggressiveness in Nigerian manufacturing companies. The results indicate that the variables, firm size, debts, corporate profitability and multinationalism are insignificant determinants of tax aggressiveness in Nigeria. Wealso found that all variables except corporate profitability, had a positive relationship with tax aggressiveness in Nigeria within the period under review.

ISSN: 2811-177X (Paper), ISSN: 2811-1788 (Online) Vol 1 No 2, Pgs 52 - 78: 2025

BIBLIOGRAPHY

Abudlrazaq, M, T. (1992). The legal nature of tax evasion and avoidance. *Nigerian Financial Review*, 4(3), 65–74.

Alli, F. (2009). Nigeria820 Manufacturing Companies Close Down in 9years-MAN. *African Vanguard.* Retrieved from: http://allafrica.com/stories/200907240878.

Ahmad, B. (2010). The impact of global economic meltdown on the performance of manufacturing sector in Nigeria. *Social Science Research Network,* electronic publishing @2011.

Alm, J., Bahl, R., &Murray, M. N. (1990). Tax structure and tax compliance. *The Review of Economics and Statistics,*72(4), 603–13.

Andreoni, J., Erard, B. and Feinstein, J. (1998). Tax compliance. *Journal of Economic Literature*, 36(2), 818-60.

Martinez, A. L. (2017). Tax aggressiveness, a literature survey. *Journal of Education and Research in Accounting*, 6(1), 104-121

Appah, E. (2013). *Principles and Practice of Nigerian Taxation (2nd ed.).* Port Harcourt, Ezevin Printing and Publishing.

Armstrong, C., Blouin, J., Jagolinzer, A., &Larcker, D. (2015). Corporate governance, incentives, and tax avoidance. *Journal of Accounting and Economics*, 60(1), 1–17.

Armstrong, C., Blouin, J., & Larcker, D. (2012). The incentives for tax planning. *Journal of Accounting and Economics*, 53(1), 391–411.

Benvignati, A. M. (1985). An empirical investigation of international transfer pricing by U.S. manufacturing firms. In: A. M. Rugman & L. Eden, (Ed.),

Bernard, A. B., Jensen, J. B., &Schott, P. K. (2006). *Transfer Pricing by U.S.-Based Multinational Firms*. NBER Working Paper 12493.

Bernard, A. B., Jensen, J. B., & Schott, P. K. (2006). *Transfer Pricing by U.S.-Based Multinational Firms*. NBER Working Paper 12493.

Blaylock& Bradley, (2012). *Do Managers Extract Economically Significant Rents through Tax Aggressive Transactions?* Working Paper, Oklahoma State University.

Bowen, R., Call, A., &Rajgopal, S. (2010). Whistle-Blowing: Target Firm Characteristics and Economic Consequences. *The Accounting Review,* 85(4), 1239-1271.

Braithwaite, J. (2005), *Markets of Vice, Markets of Virtue,* Federation Press, Sydney.

Carpenter,V.L. & Feroz,E.H.(2001). Institutional Theory and Accounting Rule Choice: An Analysis of Four US State Governments'Decisions to Adopt Generally Accepted Accounting Principles. *Accounting, Organizations and Society*, 26, 565–596.

Chen, S., Chen, X., Cheng, Q., & Shevlin, T. (2010). Are family firms more tax aggressive than non-family firms? *Journal of Financial Economics,* 95,41–61.

Child, J.

and taxes. *Journal of Financial Economics*, 84 (3), 591-623.

Desai, M., &Dharmapala, D. (2009). Corporate Tax Avoidance and Firm Value. *Review of Economics and Statistics,*91(3), 537-546.

Desai, M., Dharmapala, D., &Fung, W. (2007a). Taxation and the Evolution of Aggregate Corporate Ownership Concentration, in A. Auerbach et al., *Taxing Corporate Inco*

inez, A. L. (2015). Tributação Implícita e Clientelas, Arbitragem, Restrições e Fricções. *Revista de Administração e Contabilidade da,*7(1),5–18.

Freedman, J. (2003). Tax and corporate responsibility. *Tax Journal,*695(2), 1-4.

Freeman,R.E.(1984).*StakeholderManagement:FrameworkandPhilosophy*.Mansfield,MA.:Pitman

Fontraine, C., Harman, A., & Schmid, S. (2006). *The Stakeholder Theory*.

Freeman, R. E. (1984). *Stakeholder Management: Framework and Philosophy*. Mansfield, MA.: Pitman

Freeman, R. E. ,Wicks, A. C., & Parmar, B.(2004). Stakeholder Theory and The Corporate Objective Revisited. *Organization Science,*15 (3),364–369.

Freise, A., Link, S., & Mayer, S. (2008). Taxation and corporate governance – the state of the art", in W. Schon(Ed.), *Tax and Corporate Governance,* Springer-Verlag, Berlin and Hei

variability in corporate effective tax rates: Evidence from longitudinal data. *Journal of Accounting and Public Policy*, 16, 1–34.

Guerreiro, M. S., Rodrigues, L.L., & Craig, R. (2012). Voluntary Adoption of International Financial Reporting Standards by Large Unlisted Companies in Portugal–Institutional Logics and Strategic Responses. *Accounting, Organizations and Society,37* (7), 482–499.

Hanlon, M., &Heitzman. S. (2010). A review of tax research. *Journal of Accounting and Economics,* 50(2-3), 127-178.

Hanlon, M., Mills, L., & Slemrod, J. (2007). *An empirical examination of corporate tax noncompliance.* In Taxing Corporate Income in the 21st Century (pp. 171-210). Cambridge University Press.

Hanlon, M., &Heitzman, S. (2010). A review of tax research. *Journal of Accounting and Economics,* 50, 127–178.

Hanlon, M., &Slemrod, J. (2009). What does tax aggressiveness signal? Evidence from stock price reactions to news about tax shelter involvement. *Journal of Public Economics,* 93 (1-2), 126-141.

Hanlon, M., &Slemrod, J. (2009). What does tax aggressiveness signal? Evidence from stock price reactions to news about tax shelter involvement. *Journal of Public Economics,* 93(1-2), 126-141.

Hanlon, M., &Heitzman, S. (2010). A review of tax research. *Journal of Accounting and Economics*, 50 (2-3), 127-17.

Hartnett, D. (2008), The link between taxation and corporate governance, in W. Schon, (Ed.), *Tax and Corporate Governance*, Springer-Verlag, Berlin and Heidelberg.

Hawkins D (2006). *Corporate social responsibility: balancing tomorrow's sustainability and today's profitability*, Basingstoke, Palgrave Macmillan.

Herbert, T., & Overesch, M. (2015). *Measuring the Aggressive Part of International Tax Avoidance,* Working Paper.

Hines, J. R. (1996). *Tax policy and the activities of multinational corporations*. NBER Working Paper.

Khurana, I., &Moser, W. J. (2013). Institutional shareholders' investment horizons and tax avoidance. *American Accounting Association,* 35 (1), 111-134.

Ishola, W. A. (2006). Market reform and De-industrialization in Nigeria: 1960-2003, in M. Feridun and S. I. Akindele (Ed.), *Nigeria economy; Essay on Economic Development, USA.*

Jacob, J. (1996). Taxes and transfer pricing: income shifting and the volume of intrafirm transfers. *Journal of Accounting Research,* 34 (2), 301–313.

Katz, S., Khan, U., &Schmidt, A. (2013). *Tax Avoidance and Future Profitability*. Working Paper, Columbia Business School, North Carolina State University.

Killian S, &Kolitz M. (2004). Revenue approach to income tax evasion: a comparative study of Ireland and South Africa. *Journal of Accounting, Ethics and Public Policy 2004,* 4(4), 235–57.

Kim, J., Li, Y., &Zhang, L. (2011). Corporate tax avoidance and stock price crash risk: Firm-level analysis. *Journal of Financial Economics,* 100 (3), 639-662.

Klein, L. R. (2004). *Importance of taxes.* Retrieved from http://richardkleincpa.com/importance-of-taxes/

Kostova, T., &Roth, K. (2002). Adoption of an organizational practice by subsidiaries of multinational corporations: Institutional and relational effects. Acad. Manage. J. 45(1), 215-233.

Kwaghfan, A. (2015). *Impact of Sustainability Reporting On Corporate Performance of Selected Quoted Companies in Nigeria.* [Ph.D. Thesis] Department of Accountancy, University of Nigeria, Enugu.

Landolf, U. (2006). Tax and corporate responsibility. *International Tax Review*, 29, 6-9.

Marshall, J. R., Smith, M., & Armstrong, R. W. (1997). Self-assessment and tax audit lottery: *The Australian Experience.* Manage. Audit. J. 12 (1), 1-8.

Newberry, K. Y., &Dhaliwal, D. S. (2001). Cross-jurisdictional income shifting by U.S. multinationals: evidence from international bond offerings. *Journal of Accounting Research,*39 (3), 643–662.

Oats, L. (2005). Distinguishing closely held companies for taxation purposes: The Australian experience 1930–1972. *Accounting, Business and Financial History,* 15(1), 335–61.

Oliver, C. (1991). Strategic Responses to Institutional Processes. *Academy of Management Review,* 16(1),145–179.

Scholes, M.,Wolfson, M., Erickson, M., Hanlon, M., Maydew, E., & Shevlin, T. (2015). *Taxes and Business Strategy:* Prentice Hall.

Schon, W. (2008). Tax and corporate governance: a legal approach, in W. Schon, (Ed.), *Tax and Corporate Governance,* Springer-Verlag, Berlin and Heidelberg.

Scott, W. R. (1995). *Institutions and organization*s. Sage: Thousand Oaks, CA.

Sikka, P. (2010). Smoke and mirrors, corporate social responsibility and tax avoidance. In Centre for global accountability, *seminar series*. UK: University of Essex; 2010.

Sikka, P. (2010), Smoke and mirrors: corporate social responsibility and tax avoidance, *Accounting Forum,* 34(3-4), 153-68.

Sikka, P. (2013). Smoke and mirrors: Corporate social responsibility and tax avoidance – A reply to Hasseldine and Morris. *Accounting Forum.*

ISSN: 2811-177X (Paper), ISSN: 2811-1788 (Online) Vol 1 No 2, Pgs 52 - 78: 2025

Slemrod, J. (2001). A general model of the behavior response to taxation. *International Tax and Public Finance,* 8(2), 119–128.

Slemrod, J. (2004). The economics of corporate tax selfishness. *National Tax Journal,* 57(4), 877-99.

Soderbom, M., & Teal, F. (2002). *The performance of the Nigerian manufacturing firms.* Report on the Nigerian manufacturing Enterprise Survey 2001, UK. Center for the study of African economics, University of oxford.

Taylor, G., &Richardson, G., (2012). International corporate tax avoidance practices: evidence from Australian firms. *Int. J. Account,* 47, 469–496.

The Institute of Chartered Accountants of Nigeria. (2014). *Advanced Taxation, Professional level.* Tax planning and Incentives. p. 50-80.

Walsh, E. J., & Ryan, J. (1997). Agency and tax explanations of security issuance decisions. *J. Bus. Finan. Account,* 24(7-8), 943 961.

Weisbach, D. (2001). Ten truths about tax shelters. *Tax Law Review,* 55, 215.

Weisbach, D. (2002). Ten truths about tax shelters, *Tax Law Review,* 55(215), 215-253.

Wilkie, P. (1988). Corporate average effective tax rates and inferences about relative tax preferences. *Journal of the American Taxation Association,* 10(2), 75– 88.

Wilkie, P., &Limberg, S. (1993). Measuring explicit tax (dis)advantage for corporate taxpayers: an alternative to average effective tax rates. *Journal of the American Taxation Association,* 15(1), 46–71.

Williams, D.F. (2007). *Tax and Corporate Social Responsibility*, KPMG, London.

Wilson, R. (2009). An Examination of Corporate Tax Shelter Participants. *The Accounting Review,* 84(3), 969-999.