



OWNERSHIP STRUCTURE AND CORPORATE TAX AGGRESSIVENESS OF PUBLIC LISTED MANUFACTURING FIRMS IN NIGERIA

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ABSTRACT

This study examined the effect of ownership structure on tax aggressiveness using the ex-post facto research design. Specifically, the study sought to ascertain the effects of managerial ownership, ownership concentration, institutional ownership and foreign ownership on tax aggressiveness in listed manufacturing companies. This study deployed ex-post facto research design. The industrial goods sector was chosen as the focus of study and all fourteen listed companies in the sector constituted the sample size. Data were sourced from annual reports of sampled companies for 2009 to 2018 financial years. The random effects unbalanced panel regression technique were employed for analyses. Results revealed that managerial ownership was a significant predictor of tax aggressiveness at a p value of 0.01. The result of the study also reveals that management becomes more tax-aggressive when they hold a higher portion of shares in the firm. On the other hand, ownership concentration (p value of 0.37; F= 1.0621), institutional ownership (p value of 0.32; F= 1.1804) and foreign ownership (p value of 0.77; F= 0.3755) had insignificant effects. Overall, the study model revealed that ownership structure influences tax aggressiveness of firms. It was recommended that adequate compensation may be given to tactical management to reduce their tendency to engage in managerial opportunism through extreme tax aggressiveness. Firms may also engage the services of professional tax consultants to make utmost advantage of loopholes in tax laws so that tax aggressive practices are within the confines of the law.



1. INTRODUCTION

The payment of taxes is the responsibility of both individuals and corporations. It requires submitting a calculated amount of taxes to the appropriate tax authority. To increase their net income, individuals and corporations often look for ways to reduce their tax liabilities. When a company takes advantage of legitimate tax laws to lower its tax burden, it is referred to as being tax-aggressive (Salaudeen & Ejeh, 2018). The term "tax aggressiveness" is used to describe a variety of acts taken by people and businesses to minimize their tax obligations. This can include doing things that are technically lawful but skirt the legal boundaries set by the tax code, like taking advantage of tax regulations and deductions to reduce taxable income. Aggressive tax behaviour can encompass a broad scope, from lawful tax planning to dishonest tax avoidance. A company may choose to take a more tax-aggressive stance to boost profits, reduce its tax liability, or take advantage of tax breaks and rebates (Mgbame et al., 2017). Studies have demonstrated that numerous aspects, including firm size, leverage, and ownership structure, can influence the level of tax aggressiveness (Ogbeide, 2017; Ribeiro, 2015). Ownership structure refers to the equity allocation in a company, including the percentage of shares held by managers, institutions, government, foreign investors, and family (Abel & Okafor, 2010).

People generally possess a propensity to pay more attention to things they have a stake in, including shares. All shareholders, whether they are institutions, directors, members of management, foreign companies or the general public, aim to maximize their wealth through share ownership. Tax aggressiveness, which involves reducing taxes to increase after-tax profits, might lead to increased value for shareholders in the form of higher earnings per share and possibly higher dividends or reinvestment in new projects. Studies have revealed that businesses with greater director holdings tend to practice more tax aggressiveness as they aim to lower their effective tax rate (Ribeiro, Cerqueira & Brandao, 2015). Further, companies with a large stake held by one or a few larger shareholders are more inclined to engage in tax aggressiveness as they tend to monitor management activities and protect their interests (Li, 2014). Notwithstanding, external factors such as the use of professional tax consultants or interest-bearing debt might also play a role in reducing effective tax rates. Thus, the study seeks to examine the role of ownership structure, including ownership concentration, managerial ownership, institutional ownership, and foreign ownership, in influencing tax aggressiveness. The study also considers the firm size and leverage as control variables. This study closes a void in existing literature as to the best of our knowledge no prior studies have examined the combined effect of these ownership structures on tax aggressiveness in the Nigerian context. Some studies measured only ownership concentration (Handayani & Ibrani, 2019), while



others focused on corporate governance, board characteristics, government control, family ownership and ownership concentration (Putri, Adam & Fuadah, 2018; Prastiwi, 2018; Ogbeide & Obaretin, 2018; Onatuyeh & Odu, 2019; Handayani & Ibrani, 2019; Osebe, Kirui & Naibei, 2019). Most of the works found to use managerial ownership, institutional ownership or foreign ownership were not conducted in the Nigerian environment (Boussaidi & Hamed, 2015; Ying et al, 2017; Putri et al, 2018).

1.1 Objectives of the Study

The specific objectives of the study are to:

1. Ascertain the influence of managerial ownership on the effective tax rate.
2. Examine the influence of ownership concentration on the effective tax rate.
3. Determine the influence of institutional ownership on the effective tax rate.
4. Determine the influence of foreign ownership on the effective tax rate.

1.2 Hypotheses

- i. H_{01} : Managerial ownership has no significant influence on effective tax rate.
- ii. H_{02} : Ownership concentration has no significant influence on effective tax rate.
- iii. H_{03} : Institutional ownership does not significantly affect effective tax rate.
- iv. H_{04} : Foreign ownership does not significantly affect effective tax rate.

2. LITERATURE REVIEW

2.1 Conceptual review

2.1.1 Ownership structure

Ownership structure refers to the equity allocation and control in a company, as well as the personality of the equity investors. It is a crucial component of corporate governance, as it affects the risk and control of the business (La-Porta et al, 2000). Ownership structure consists of managerial ownership, ownership concentration, institutional ownership, foreign ownership etc. Understanding the ownership structure of a company is crucial for the owners as it determines their rights and responsibilities.

2.1.2 Managerial ownership and tax aggressiveness

Managerial ownership relates to the ownership interest of executive directors, both direct and indirect, in a company (Kamardin, 2014). Executives hold shares in their companies for four reasons: bonding, financing, control, and timing. Bonding helps align management and shareholder



interests, particularly in companies with agency problems. Financing is used to obtain capital, especially for young or financially constrained firms. Control helps increase firm value and prevent outsiders from taking over, but can lead to insider trading. Timing involves buying shares when the company is undervalued and selling when overvalued for speculative purposes (Fahlenbrach & Stulz, 2009).

Studies have shown a negative connection between managerial ownership and tax aggressiveness, suggesting that firms with high managerial ownership tend to have lower effective tax rates (Chen et al., 2010; Ribeiro et al., 2015). However, there are other views on the nexus between managerial ownership and tax aggressiveness, with some studies showing a positive relationship (Boussaidi & Hamed, 2015) and others showing no relationship (Li, 2014), which may be due to the varying levels of ownership by managers.

2.1.3 Ownership Concentration and tax aggressiveness

This refers to a sizeable portion of ownership rights (usually shareholdings) concentrated in the hands of few shareholders (Claessens, Djankov & Lang, 2002). Concentrated ownership is also referred to as block holding. Blockholders are owners of a large portion of a company's shares and/or bonds. In terms of shares, these owners are often able to influence the company with the voting rights awarded with their holdings. A shareholder's voting rights are more significant if they are a block holder (Chen, 2017). According to Ribeiro et al. (2015), ownership concentration can support value-maximizing actions like tax avoidance that boost after-tax firm value and hide management rent extraction practices. Higher ownership concentrations may lead to more tax-aggressive behaviour on the part of businesses since large shareholders may keep an eye on managers and provide incentives for greater tax savings. Due to implementation and agency costs, businesses having a stronger concentration of ownership could be less tax aggressive. Concentrated ownership was linked favourably to tax aggression, according to Li (2014) and Ribeiro et al (2015). According to Desai and Dharmapala (2008), businesses with concentrated ownership have stronger incentives to minimize their tax obligations, and Khurana and Moser (2013) discovered that in the US, businesses with higher institutional ownership and ownership concentration tend to be more aggressive with regards to paying their taxes.

2.1.4 Institutional ownership and tax aggressiveness

The ownership share in a company held by significant financial organizations, pension funds, or endowments is referred to as institutional ownership. Institutions generally purchase large blocks of a company's outstanding shares and can exert considerable influence upon its management.



Chen et al (2010) suggest that institutional shareholders can effectively discipline and monitor managers to ensure the long-term maximization of firm value by discouraging tax aggressiveness, as large shareholders have different risk preferences from those with more diversified portfolios. However, Khurana and Moser (2013) found that US firms with higher levels of short-term institutional ownership tend to be more tax aggressive, while those with higher long-term institutional investors tend to be less tax aggressive. Institutional ownership may, therefore, lead to either less or more aggressive tax strategies, depending on the nature of the institutional investors.

2.1.5 Foreign ownership and tax aggressiveness

Foreign ownership represents ownership rights exercised by non-citizens. Foreign investors have gradually emerged as key players in domestic ownership structure systems (Ahmadjian & Robbins, 2005). Foreign investors have stronger incentives to monitor the local firms in which they have equity ownership and impact their policies and governance structure (Desender et al., 2016). According to Salihu (2013), foreign banks pay lower taxes in their host countries compared to their domestic counterparts. Their study sheds light on the impact of foreign ownership on tax aggressiveness, which contradicts the common belief that foreign investors typically adhere to global standards. However, it's important to note that this conclusion is specific to the banking industry and cannot be generalized to other sectors.

2.1.6 Tax Aggressiveness

Tax

aggressiveness is tax planning undertaken by the company to minimize tax payments (Panggabean, 2018). Tax aggressiveness is a term used to describe the lowering of tax expenses (Aliani & Zarai, 2012). Typically, a company's and its shareholders' operational costs include tax expenses. The fact that taxes are deductions from the cash flows available to a firm, and hence the dividends distributable to the shareholders suggests that firm owners would strive to maximize their wealth through various tax-aggressive practices (Salihu, 2013). Tax aggressiveness is often carried out through effective strategies. These strategies become effective if they enable firms to reduce tax costs and increase earnings (Fitria, 2019). The tactics used by stated companies to engage in tax avoidance take the shape of permissible things that are tax-deductible. They are deductions permitted in tax laws which managers can take advantage of to reduce tax costs. The boards of directors and management employ every known and available strategy to minimize tax expenses legally. They identify the types of tax expenses that are advantageous if they decrease them within the confines of the tax laws and take use of them to avoid paying too much in excess taxes for a while to boost net earnings (Ogbeide & Obaretin, 2018). Tax aggressiveness has benefits such as



increasing after-tax firm value and influencing shareholder wealth maximization, but it also has costs including the potential for penalties and reputational damage. Tax aggressiveness may not increase firm value as some studies suggest, and it may be used by managers to mask rent extraction activities (Chen et al, 2010; Desai & Dharmapala, 2006). For this study, the effective tax rate is used as a proxy to measure tax aggressiveness.

2.1.7 Effective Tax Rate

Effective Tax

Rate is an index for measuring tax planning effectiveness, based on the actual average tax paid on pre-tax income (Salawu, 2017). Lower effective tax rates benefit companies by increasing cash savings for investment, leading to increased shareholder wealth. Various studies have shown that effective tax rates are always lower than statutory tax rates (Fernandez-Rodriguez, Garcia-Fernandez and Martinez-Arias, 2019). Tax aggressiveness is calculated as the effective tax rate and is multiplied by -1 to obtain a direct measure of tax avoidance. The lower the effective tax rate, the more tax-aggressive firms are and the closer they get to tax avoidance and possibly tax evasion. The computation of effective tax rates is typically included in the notes to accounts of listed companies in Nigeria, and firms reporting losses are excluded from the sample.

2.2 Theoretical Review

2.2.1 Institutional Theory

The

institutional theory was propounded by Friedland & Alford in 1991. The theory arises from the idea that the myths, beliefs and social reality of organizations will shape them in a process called the "institutionalization process", emphasizing that organizations are subject to the pressures of the social environment. The justification for the theory is that: corporate tax aggressiveness activities are attempts by managers (agents) who form part of the corporate governance system of modern corporations to improve after-tax income for shareholders. However, a conflict of interest might occur if incentives for higher performance are attached as tax aggressiveness and extends beyond the confines of the law. For institutional theory, decisions on corporate tax avoidance are made by firm managers (Desai & Dharmapala, 2006); and as such these have become industry norms with tax consultants being engaged to reduce tax liabilities within the loopholes in tax laws.

2.3 Empirical Review

Onatuyeh and Odu (2019) investigated whether corporate board characteristics are associated with tax aggressiveness among manufacturing firms in Nigeria using data from 49 firms listed on the Nigeria stock exchange between 2011 and 2016. The study found that board size and board independence have negative and significant impacts on tax aggressiveness, while board gender does



not have a significant effect. The research adopted an agency theory approach and estimated the econometric model using panel data regression with a fixed effect model based on the result of the Hausman test.

From 2011 to 2017, Osebe et al. (2019) performed research on the effects of board independence, the board size, board gender diversity, and company ownership structure on effective corporate tax rates among Kenyan listed companies. The study used a longitudinal methodology and examined data from a selective sample of 40 companies chosen from Kenya's 67 listed companies. The results showed that while ownership structure had a negative and significant impact on effective tax rates, the board size, board independence, and board gender diversity had a positive and significant impact. According to the study's findings, corporate governance significantly affected the sampled enterprises' effective tax rates.

In their 2019 study, Norman, Grahita, and Sunardi took corporate social responsibility into account while analyzing the effects of the ultimate ownership structure of tax avoidance strategies. The size of the sample is 46 companies manufacturing with an observation period of 5 years, so there are 230 observation data. The findings of the study are that CSR further motivates controlling shareholders to practice tax avoidance in manufacturing companies in Indonesia.

A 2019 study by Handayani and Ibrani looked at the impact of share ownership structure and corporate governance on tax evasion. The share ownership structure makes use of controlling shareholders, who hold the majority of the company's shares (20–50%). With 99 observational data points and multiple linear regression analysis, this study examined manufacturing companies that were listed on the Indonesia Stock Exchange (IDX) between 2015 and 2017. The study's findings demonstrate that company governance and the share ownership structure as represented by controlling shareholders both have an impact on tax evasion.

Using the effective tax rate as a benchmark, Fitria (2019) looked into how compensation for directors, independent commissioners, and government ownership affected tax management. This study used the Agency theory method and sought to determine how government ownership affects tax administration. The study used 41 financial reports and 16 non-financial State-Owned Enterprises (BUMN) registered on the Indonesia Stock Exchange between 2015 and 2017. The data were analyzed using multiple linear regression analysis, and the findings revealed that while



independent commissioners and government ownership had little effect on effective tax rates, directors' salaries had a considerable impact on tax management.

Aburajab et al. (2019) analyzed the relationship between board characteristics (board duality, composition, and independence) and tax aggressiveness using data from 140 Jordanian firms from 2013 to 2017. Regression analysis was used to investigate the effects of these variables along with CEO duality, return on assets (ROA), and firm size on tax aggressiveness. The study found that there is a negative relationship between board composition and independence with tax aggressiveness, while there is a positive relationship between board duality and tax aggressiveness. The control variables, ROA and firm size were found to be positively related to tax aggressiveness.

The study by Panggabean (2018) investigated the impact of tax aggressiveness, firm size, and foreign ownership on the corporate social responsibility (CSR) of mining companies listed on the Indonesia Stock Exchange between 2010 to 2015. Logistic regression was used to analyze the data, with profitability, leverage, and market-to-book ratio as control variables. The study found that firm size has a significant effect on the company's CSR, while tax aggressiveness and foreign ownership do not have a significant effect.

40 non-financial listed corporations in Nigeria were the subject of an investigation by Salaudeen and Egeh (2018) into the effect of ownership structure on corporate tax aggressiveness from 2010 to 2014. According to the research, managerial ownership has a significantly negative impact on tax aggression, whereas ownership concentration has a favourable but minor impact. The study also found that firm size has no discernible association with tax aggressiveness and that leverage has a negative correlation with tax aggressiveness while return on assets has a positive correlation.

Onyali and Okafor (2018) looked into how corporate governance practices affected how tax-aggressive manufacturing companies listed on the Nigerian Stock Exchange behaved. Secondary data was gathered from annual reports and accounts from 2005 to 2016 and utilized to analyze a sample of 44 businesses. The findings revealed that board diversity and independent directors had a positive significant influence on tax aggression whereas board size had a negative non-significant effect. Tax aggression was significantly impacted negatively by the ratio of non-executive to executive directors.



The moderating impact of company governance on the link between aggressive tax planning and earnings management was examined by Prastiwi (2018). The study relies on secondary data from yearly reports from 2011 to 2015 and a sample of 756 firm-year observations. Data analysis methods included multiple regression and Principal Component Analysis (PCA). The findings demonstrated that company governance modifies the association between aggressive tax planning and earnings management. The study identified four components of corporate governance: institutional ownership, independent board of directors, board of directors, and audit committee.

3. MATERIAL AND METHOD

The research design used in this study is ex-post facto research design, which means that the events to be studied had taken place and data already exist. The population of the study comprised 160 manufacturing firms listed on the Nigerian Stock Exchange, classified under eleven sectors, while the sample size included fourteen quoted Industrial Goods Manufacturing Firms selected from the population. The sampling technique used is judgemental sampling.

The study utilized secondary data from the annual reports of quoted companies in the industrial goods sector in Nigeria from 2009 to 2018. The data were obtained from the Directors' reports and Notes to the Account sections of the annual reports. In other words, the researcher did not collect new data but rather relied on pre-existing data from company reports.

Table 1: Description of firms included in the sample

S/No	Company	Ticker
1	Austin Laz & Company Plc[Mrf]	AUSTINLAZ
2	Berger Paints Plc	BERGER
3	Beta Glass Plc.	BETAGLAS
4	Cap Plc	CAP
5	Cement Co. Of North.Nig. Plc	CCNN
6	Cutix Plc.	CUTIX
7	Dangote Cement Plc	DANGCEM
8	First Aluminium Nigeria Plc	FIRSTALUM
9	Greif Nigeria Plc	VANLEER
10	Lafarge Africa Plc.	WAPCO
11	Meyer Plc.	MEYER
12	Paints And Coatings Manufactures Plc[Dip]	PAINTCOM
13	Portland Paints & Products Nigeria Plc	PORTPAINT



Source: Nigerian Stock Exchange, 2018

Table 2: Description of variable

Type of Variable	Operationalised variables	Measurement
Independent	Ownership concentration	Measured as the ratio of shares owned by the largest shareholder to the total number of shares outstanding.
	Managerial ownership	Measured by the ratio of shares owned by all board members to the total shares outstanding
	Institutional ownership	Measured as the ratio of shares owned by corporate entities to the total number of shares outstanding
	Foreign ownership	Measured as the ratio of shares owned by foreign entities to the total number of shares outstanding
Dependent	Tax Aggressiveness (Effective tax rate)	Measured as the ratio of total tax payable after deductions to pre-tax earnings in a given period
Control	Leverage (Debt ratio)	Measured as the ratio of debt to total assets at the year's end. (Debt/Total Assets)
	Firm size	Natural logarithm of total assets

Source: Researcher’s Compilation

3.1 Model Specification

The model below is a modification of the models from the study of Ogbeide and Obaretin (2018). The model is specified below:

$$ETR_{it} = f(MO_{it}, OC_{it}, IO_{it}, FO_{it}, FS_{it}, DR_{it}) \dots\dots\dots(I)$$

$$ETR_{i, t} = \beta_0 + \beta_1MO_{it} + \beta_2OC_{it} + \beta_3IO_{it} + \beta_4FO_{it} + \beta_5FS_{it} + \beta_6DR_{it} + \epsilon_{it} \dots\dots\dots (II)$$

Where:

β_0 = Constant of equation;

β_1 - β_6 =Parameter estimates;

MO=Managerial ownership;



OC= Ownership concentration;

IO= Institutional Ownership;

FO=Foreign Ownership;

FS= Firm Size;

DR= Debt Ratio;

ε = stochastic error term; i ,

t = Time and Cross-section respectively

3.2 Decision Rule

The decision rule is based on the sign and significance of the computed t-statistic from the regression output. If the p-value of the f statistic $< .05$ (the chosen alpha level) the null hypothesis is rejected; and, the variable is postulated to have a significant effect.

4. RESULT AND DISCUSSIONS

4.1 Data Analysis

4.1.1 Hypotheses Testing

4.1.1.1: Hypothesis 1

Ho: Managerial ownership has no significant influence on the effective tax rate.

Table 3: ETR and Managerial ownership

Dependent Variable: ETR

Method: Panel EGLS (Cross-section random effects)

Date: 01/11/20 Time: 03:36

Sample: 2009 2018

Periods included: 10

Cross-sections included: 14

Total panel (unbalanced) observations: 99

Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.178929	51.51410	0.119946	0.9048
MO	-0.548849	0.186979	-2.935353	0.0042
FS	-1.824133	4.991074	-0.365479	0.7156
DR	-0.262197	0.181755	-1.442588	0.1524



Effects Specification			
		S.D.	Rho
Cross-section random		9.756103	0.0836
Idiosyncratic random		32.30792	0.9164

Weighted Statistics			
R-squared	0.104748	Mean dependent var	23.78182
Adjusted R-squared	0.076477	S.D. dependent var	33.56908
S.E. of regression	32.16366	Sum squared resid	98277.60
F-statistic	3.705139	Durbin-Watson stat	1.505140
Prob(F-statistic)	0.014317		

Unweighted Statistics			
R-squared	0.148973	Mean dependent var	30.85051
Sum squared resid	104708.4	Durbin-Watson stat	1.412699

Source: E-Views 9

In the table above, the independent variable, managerial ownership had a negative effect on the effective tax rate. The regression coefficient stood at -0.5488 with a p-value of t statistic at 0.004. this negative effect was found to be significant ($p < .05$). Thus, the more portion of total shareholdings managers and directors have, the more tax-aggressive they are. Managers will want to reduce tax liabilities more when they are shareholders. Control variables, firm size and financial leverage were not significant in predicting effective tax rates.

Adjusted R^2 is 0.076 revealing that 7.6% of the variation in effective tax rate is caused by managerial ownership. Durbin Watson's value of 1.5 showed the absence of autocorrelation ($DW < 2$).

In line with the decision rule, we reject the null hypothesis and accept the alternate hypothesis that Managerial ownership has a significant influence on the effective tax rate.



4.1.1.2 Hypothesis 2

Ho: Ownership concentration has no significant influence on the effective tax rate.

Table 4: ETR and Ownership Structure

Dependent Variable: ETR

Method: Panel EGLS (Cross-section random effects)

Date: 01/11/20 Time: 03:38

Sample: 2009 2018

Periods included: 10

Cross-sections included: 13

Total panel (unbalanced) observations: 84

Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	48.23926	69.79434	0.691163	0.4915
OC	0.327014	0.256919	1.272830	0.2068
FS	-4.624300	7.189050	-0.643242	0.5219
DR	0.244504	0.237392	1.029957	0.3061
Effects Specification				
			S.D.	Rho
Cross-section random			16.41573	0.1795
Idiosyncratic random			35.09442	0.8205
Weighted Statistics				
R-squared	0.038305	Mean dependent var		19.65314
Adjusted R-squared	0.002241	S.D. dependent var		34.77936
S.E. of regression	34.68545	Sum squared resid		96246.45
F-statistic	1.062148	Durbin-Watson stat		1.494306
Prob(F-statistic)	0.369954			
Unweighted Statistics				
R-squared	0.077106	Mean dependent var		31.28119
Sum squared resid	111157.6	Durbin-Watson stat		1.293853



Source: E-Views 9

In Table 4 above, the independent variable, ownership concentration had a positive regression coefficient of 0.3270 with a p-value of t statistic at 0.20. This implied a positive effect found to be insignificant (p>.05). Thus, irrespective of a single shareholder holding a large portion of shares or more than 5% of total shareholding, this does not affect the extent to which the company seeks to reduce its tax liabilities. Control variables, firm size and financial leverage were also not significant in predicting effective tax rates in this model.

Adjusted R² is 0.002 revealing that 0.2% of the variation in effective tax rate is caused by managerial ownership. Durbin Watson's value of 1.49 showed the absence of autocorrelation (DW< 2).

In line with the decision rule, we accept the null hypothesis Ownership concentration has no significant influence on the effective tax rate.

4.1.1.3 Hypothesis 3

Ho: Institutional ownership does not significantly affect the effective tax rate.

Table 5: ETR and Institutional Ownership

Dependent Variable: ETR

Method: Panel EGLS (Cross-section random effects)

Date: 01/11/20 Time: 03:39

Sample: 2009 2018

Periods included: 10

Cross-sections included: 14

Total panel (unbalanced) observations: 88

Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	6.710817	61.94933	0.108328	0.9140
IO	-0.238714	0.193427	-1.234128	0.2206
FS	2.274052	6.329467	0.359280	0.7203
DR	0.285082	0.220293	1.294105	0.1992
Effects Specification				
			S.D.	Rho



Cross-section random	13.99429	0.1417
Idiosyncratic random	34.44176	0.8583

Weighted Statistics

R-squared	0.040453	Mean dependent var	21.20045
Adjusted R-squared	0.006183	S.D. dependent var	34.46268
S.E. of regression	34.31634	Sum squared resid	98919.32
F-statistic	1.180431	Durbin-Watson stat	1.513928
Prob(F-statistic)	0.322172		

Unweighted Statistics

R-squared	0.080370	Mean dependent var	31.01841
Sum squared resid	111239.6	Durbin-Watson stat	1.346253

Source: E-Views 9

In Table 5 above, the independent variable, institutional ownership had a negative regression coefficient of -0.2387 with a p-value of t statistic at 0.22. This implied a negative effect found to be insignificant ($p > .05$). Thus, the holding of shares by institutions does not have a significant effect on the actions of a company to reduce its tax liabilities. Control variables, firm size and financial leverage were also not significant in predicting effective tax rates in this model.

Adjusted R^2 is 0.006 revealing that 0.6% of the variation in effective tax rate is caused by managerial ownership. Durbin Watson's value of 1.51 showed the absence of autocorrelation ($DW < 2$).

In line with the decision rule, we accept the null hypothesis Institutional ownership does not significantly affect the effective tax rate.



4.1.1.4 Hypothesis 4

Ho: Foreign ownership does not significantly affect the effective tax rate.

Table 6: ETR and Foreign Ownership

Dependent Variable: ETR

Method: Panel EGLS (Cross-section random effects)

Date: 01/11/20 Time: 03:42

Sample: 2009 2018

Periods included: 10

Cross-sections included: 14

Total panel (unbalanced) observations: 102

Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	28.18803	64.09479	0.439787	0.6611
FO	0.016149	0.235241	0.068649	0.9454
FS	-0.779984	6.289405	-0.124016	0.9016
DR	0.212110	0.209882	1.010616	0.3147

Effects Specification		S.D.	Rho
Cross-section random		17.48484	0.2341
Idiosyncratic random		31.62461	0.7659

Weighted Statistics			
R-squared	0.011367	Mean dependent var	17.08177
Adjusted R-squared	0.000898	S.D. dependent var	31.45356
S.E. of regression	31.61181	Sum squared resid	97932.06
F-statistic	0.375576	Durbin-Watson stat	1.488138
Prob(F-statistic)	0.770805		

Unweighted Statistics			
R-squared	0.028341	Mean dependent var	30.88422



Sum squared resid	119597.9	Durbin-Watson stat	1.218553
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Source: E-Views 9

In Table 6 above, the independent variable, foreign ownership had a positive regression coefficient of 0.0161 with a p-value of t statistic at 0.94. This implied a positive effect found to be insignificant ($p > .05$). Ownership by foreign investors was not found to influence the effective tax rates of companies. Tax-aggressive activities are almost independent of whether foreign shareholding exists. Control variables, firm size and financial leverage were also not significant in predicting effective tax rates in this model.

Adjusted R^2 is 0.0008 revealing that 0.08% of the variation in effective tax rate is caused by managerial ownership. Durbin Watson's value of 1.48 showed the absence of autocorrelation ($DW < 2$).

In line with the decision rule, we accept the null hypothesis Foreign ownership does not significantly affect the effective tax rate.

CONCLUSION AND RECOMMENDATIONS

This study empirically tests the effect of ownership structure on tax aggressiveness specifically examining the influence of managerial ownership, ownership structure, institutional ownership and foreign ownership on tax aggressiveness. The average effective tax rate of sampled companies being lower than the statutory rate, 30% shows that firms practice tax aggressiveness. This supports the institutional theory that management of different firms considers it a norm to engage tax consultants to reduce their tax liabilities as much as can be reduced while staying within the confines of the law. Given a choice-based sample of 14 companies in the Industrial Goods sector, the study used panel regression analysis to test the proposition that these components of ownership structure impact tax aggressiveness. Singly, only managerial ownership was found to be significant in determining tax aggressiveness. Higher managerial ownership was found to cause more tax-aggressive behaviour in managers. Overall, the results showed a statistically significant association between ownership structure and tax aggressiveness.

Hence, the following recommendations were proffered in line with the study findings:

- i. Management (top and middle especially) may be compensated adequately to reduce their tendency to engage in managerial opportunism through extreme tax aggressiveness.
- ii. Block and minority shareholders may take a keen interest in tax decisions as it might affect the legitimacy of their companies if tax evasion occurs.



- iii. Firms need to institute better tax planning practices to ensure they are legally compliant.
- iv. Firms may engage the services of professional tax consultants to make utmost advantage of loopholes in tax laws so that tax aggressive practices are within the confines of the law.

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