

Board Diversity and Corporate Tax Aggressiveness in Nigeria

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Being a Thesis Submitted to the Department of Accounting, Faculty of Management Sciences, University of Benin, Benin City in Partial Fulfillment of the Requirements for the Award of Master of Science (M. Sc.) Degree in Accounting

June, 2024

DECLARATION

I, Abosede Esther EZO, do hereby declare that this thesis is entirely my own work and composition. All references made to works of other persons have been duly acknowledged.

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CERTIFICATION

We the undersigned hereby certify that this thesis was carried out by Abosede Esther EZO of the Department of Accounting, Faculty of Management Sciences, University of Benin, Benin City, under our supervision, and approved as adequate in scope and quality in partial fulfillment of the requirements for the award of Master of Science (M. Sc.) Degree in Accounting

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DEDICATION

This thesis is dedicated to the Almighty God, the fountain of wisdom and knowledge and from whom all blessings flow. To God the royal majesty, possessor and creator of heaven and earth I owe my living and redemption which without His grace, power, strength, direction and help I am naught. To Him I do all things through Christ which strengthens me.

ACKNOWLEDGEMENTS

I glorify the Almighty God for making me find favour amongst men. My sincere appreciation also goes to my supervisor Dr. U. Obazee whose encouragement and counseling have made me excel in my academic pursuit and based on this, I say, 'You are the best'. I also extend my profound gratitude to my able and invaluable lecturers: the Acting Head of Department of Accounting, Dr. O. Obaretin; Professor J. O. Odia; my able programme coordinator Dr. E. Oshodin for his efforts thus far in ensuring that my academic dream come true; the former Dean of Faculty of Management Sciences Professor O. J. Ilaboya; Professor F. I. O. Izedonmi; late Professor A. E. Okoye; Professor C. A. Okafor; Professor J. O. Anyaduba; late Professor (Ms) P. A. Donwa; the Dean of Faculty of Management Sciences, Professor A. E. Enofe; Professor E. L. Dabor; Professor O. A. Oladipupo; Professor E. Eragbhe; Professor C. O. Mgbame; and Professors (Mrs.) P. A. Isenmila for her motherly advice. I also appreciate Dr. Aronmwan E. J. and Dr. O. Ojeaga who made immense contributions to this study at the level of my proposal defence as my discussants. It is my unshakable prayer that the Lord will richly bless and protect you all for me till the end of time, Amen.

I am profoundly indebted to my husband, Mr. Ezo, for giving me the much-needed head-start and protective cloak all these years and for shouldering the financial obligation all through my stay in University of Benin. I also thank my children who encouraged me despite being denied motherly care while undergoing the programme. I must not forget to mention my good friend, Mr. Emmanuel Inegbenoise, Mrs. Ronke Eson and other of my course mates whose inputs are innumerable in ensuring the success of this work. I also thank my colleagues in the office who supported in prayers to ensuring the success of this programme. May God guide and protect you to the end of time.

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ABSTRACT

The broad objective of the study was to investigate the relationship between board diversity and corporate tax aggressiveness in Nigeria. The longitudinal research design was used in investigating the extent of tax aggressive practices of the oil and gas companies. This was appropriate for this study because it revealed the relationship among variables in the same group of individuals over an extended period of time so as to establish more robust results.

The secondary source of data was used and data were sourced from the Nigerian Exchange (NGX) as at 31st December, 2022 for various years. The study covered a time frame of twelve (12) years from 2011 to 2022. The Panel Least Squares (PLS) estimation technique was adopted for analysis purpose. This was carried out with the aid of the E-views (10.0) software and Excel package.

Findings obtained revealed that board independence (BIND) and board ethnic diversity (ETD) have positive and significant relationship with effective tax rate (ETR), board gender diversity has a negative and significant relationship with ETR while board national diversity (NAD), board meeting (BMEET), firm age (FAGE), and firm size (FSIZE) have no significant relationship with ETR. The study concludes that only BIND, GEND, and ETD are good predictors of corporate tax aggressiveness in Nigeria. This study thus recommends that the composition of the board should comprise more non-executive and independence directors, qualified and skillful female directors, and more foreign directors so as to enable the board to perform its supervisory and monitoring roles as expected. This study also recommends that further empirical studies should be conducted using other sectors such as education, service as well as information and communication technology (ICT).

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Taxes are enforced by the government on the profit, income, wealth, consumption, or gains attributable to individuals (citizens), corporations as well as those residing in its jurisdiction for the broad aim of generating revenue, redistributing income, and fiscal exchange (Ilaboya & Aronmwan, 2021; Okafor, 2012; Worlu & Nkoro, 2012). Taxes (precisely company income tax) are instruments through which a nation's economy is restructured and reengineered (Ilaboya & Aronmwan, 2021; Sanni, 2007). Corporation tax is vital for enlightened society as well as government as it is a sustainable source of revenue for the provision of social amenities generally in developing nations (Yahya et al., 2021). Payment of corporation tax by companies is encouraged as companies practically and equitably benefit from the improved infrastructure of the nation (Hilling & Ostas, 2017). Nevertheless, companies may elect to employ some lawful or unlawful technique (known as tax aggressiveness/tax planning/tax management/tax avoidance) to reduce corporate tax obligation. As argued by Lanis et al. (2019) and Yahya et al. (2021), tax aggressiveness may result in conflict of interest; however, it is a lawful approach of improving the corporate earnings after tax.

Prior studies (Armstrong et al., 2019; Halioui et al., 2016; Lanis et al., 2019; Yahya et al., 2021) have attributed the rationale for excessive tax aggressiveness to the management as well as shareholders' motives. Management motive is to reduce tax liability so as to have more resources to finance their extravagant lifestyles whereas shareholders' motive is for the company to have more resources to pay high returns on their investments. Corporate tax aggressiveness results in conflict of interest due to divergence of interests between the managers and shareholders

regarding tax risks as self-centred managers or directors may appropriate corporate resources for personal gain by redesigning corporate structure and decisions (Kubick & Lockhart, 2016, 2017). Admittedly, payment of taxes is a fundamental cost to corporate entities, providers of capital as well as shareholders as it reduces the current cash flow therefore paving way for the use of different tax aggressive methods by managers (Aburajab et al., 2019; Francis et al., 2014; Obazee, 2021; Yahya et al., 2021).

Ogbeide and Ayunku (2020) and Ogbeide and Obaretin (2018) argued that tax aggressiveness is often employed through effective policies which enable companies to reduce tax liabilities and increase income. These policies relate to utilizing allowable deductions within the domain of tax legislations. The effective and efficient use of these policies to reduce tax liabilities is based on the divergence of the board, managerial ability, managerial skills, expertise and honesty geared towards enhancing and increasing shareholders' wealth (Dhahri & Jarboui, 2022). A diverse board maintains unique attributes that can improve the quality of the firm's strategic decision, while identifying and fulfilling stakeholders needs (Khan et al., 2021; Michelon & Parbonetti, 2012; Musa et al., 2020; Nwezoku & Egbunike, 2020).

The issue of board diversity is sustained by two main theories, resource dependency and agency theories which support the advisory and monitoring functions of the board (Alatas, 2017; Ararat et al., 2015). As suggested by resource dependency theory, maximum access to critical resources will be achieved by selecting the best corporate board (Darmadi, 2011). According to Pfeffer and Salancik (1978), the existence of corporate board is advantageous to companies in that it ensures corporate legitimacy, professional advice, counsel and expertise, and availability of useful and adequate communication associations with the corporate external setting (Alatas, 2017). Diversity among directors facilitates access to vital area in the corporate external

environment and ensures varied views in addition to non-traditional method of resolving corporate problems (Carter et al., 2010). From the theoretical lenses of resource dependency theory in relation to stakeholders, a diverse board has been acknowledged by firms and regulatory authorities to help meet the needs of different stakeholders of the firm (Beasy & Gale, 2020; Musa et al., 2020; Umukoro et al., 2019).

The agency theory (AT), on the whole, describes the segregation of proprietorship from the management that controls the firm's resources. Based on this theory, the duty of the board is to reduce costs of operations as well as the apportionment of corporate resources i.e AT describes the corporation's requisite to build internal machineries in directing or managing its external settings. This theory stipulates that the connection of an agency begins when the owners of the company employ another party (the agent) to carry out some services on its behalf which involves delegating some decision-making authority to the agent (Alatas, 2017; Jensen & Meckling, 1976). Admittedly, the AT describes the simple organization structure of the owners and the agents who are involved in a contractual agreement but have diverse objectives and approaches toward risk.

There is a general agreement that effective boards are made up of individuals with diverse skills, knowledge, information and power (Conger & Lawler, 2001; Nwezoku & Egbunike, 2020) which offer a better understanding of corporate market standing and more effective in problem solving (Carter et al., 2003). According to Alfiero et al. (2015) and Arfken et al. (2004), diversity on the board of directors restricts the narrow-mindedness of decision-making processes which may lead to harmful and perhaps wrong decisions. Erstwhile studies (Aburajab et al., 2019; Alfiero et al., 2015; Bosun-Fakunle et al., 2019; Campbell & Mínguez-Vera, 2008; Dhahri & Jarboui, 2022; Nwezoku & Egbunike, 2020) argued that parameters of diversity such as age,

gender, ethnicity, nationality, educational background, industrial experience as well as organisational membership are factors which determine the effectiveness of the board.

Section 2 (2.4) of the Nigerian Code of Corporate Governance (NCCG, 2018) states that the board should uphold diversity of membership across the various characteristics significant for stimulating and enhancing policymaking as well as effective governance. These characteristics comprise knowledge, expertise and experience, age, culture and gender (NCCG, 2018). These characteristics, to a large extent, ensure effective board and skilful management team that perform corporate undertakings with reliability, involve shareholders as well as other stakeholders to attain their corporate objectives and contribute maximally to societal advancement. In a well organised setting, the interests of the board are in agreement with those of the owners of the company as well as other stakeholders.

1.2 Statement of the Research Problem

Admittedly, taxes are collected to provide basic goods and services to humanity. Taxation is the process through which tax revenue is generated to finance public expenditures (Anyaduba, 2000; Ogbeifun et al., 2019). Saleh and Daluma (2017) argued that a fundamental challenge facing the Nigerian economy is expansion of its revenue base. This expansion is imperative with the consciousness that overdependence on revenue from petroleum cannot finance public spending. Furthermore, the economy is confronted with the risk of being grounded if positive efforts are not geared towards sustaining the expansion of the revenue base. The concept of tax aggressiveness has become a topical issue among scholars, the outcome of which still remains inconclusive. According to Braithwaite (2005), tax aggressiveness is a strategy or arrangement established for the sole aim of avoiding tax. This arrangement ultimately results in substantial

costs or benefits for management and a decrease in cash flows accessible to the corporation as well as shareholders (Desai & Dharmapala, 2008). Scholes et al. (2005) claimed that tax aggressiveness does not consider the probable non-tax costs (such as agency costs, transaction costs, financial reporting costs) that are embedded in this arrangement precisely those associated with agency problems. Managerial activities aimed exclusively at decreasing taxes by employing tax aggressive strategies have turned out to be a general practice among companies globally (Boussaidi & Hamed, 2015; Nwezoku & Egbunike, 2020). Similarly, Lanis and Richardson (2011) documented that taxes are elements of motivation for several decisions made by managers. In spite of several anti-avoidance regulations in virtually every nation, multi-national companies globally employ the services of professional Accountants to device techniques of paying lower taxes (Daily Mail, 2010; Nwezoku & Egbunike, 2020). International organisations use transfer pricing to transfer their profits offshore, leaving behind a dwindling tax base in the reporting nations and unavoidable cuts to public services.

According to Ogundeji et al. (2016), a case study of aggressive tax practice is MTN Nigeria which transferred N37.6 Billion to Mauritius through MTN Dubai (tax haven) between 2010 and 2013 as management fee, with neither approval of National Office of Technology Acquisition and Promotion (NOTAP), nor tax payment thereon to FIRS in Nigeria (Premium Times, 2013). Prior studies on tax aggressiveness (Allingham & Sandmo, 1972; Andreoni et al., 1998; Slemrod & Yitzhaki, 2002) claimed that tax aggressiveness is driven by economic motives. Nevertheless, other scholars documented that tax aggressiveness can also be driven by other motives like behavioural factors (Ilaboya & Aronmwan, 2021), fiscal exchange factors (Okoye et al., 2012), and socio-demographic factors (Torgler & Schaltegger, 2007). Consequently, this study anticipates that the approach and personality of whoever openly or indirectly decides the

company tax payment resolution should impact the choice to employ tax aggressive strategy. This is consistent with the upper echelon theory that suggests that executives or managers have an influential role on the performance and corporate value creation through their managerial characteristics, abilities, and behaviours (Aliani, 2014; Hambrick, 2007; Nwezoku & Egbunike, 2020).

The core of corporate tax aggressiveness is a fundamental challenging issue of the 21st century as it engenders a thoughtful loss of revenue to the governments of various advanced and emerging nations (Hundal, 2011; Nwezoku & Egbunike, 2020). Tax aggressiveness is a key element impeding the level of advancement in the African continent. United Nations and the African Union claimed that tax aggressiveness by international companies is an illicit financial flow, with corresponding major drain on government resources across the continent. The illicit financial flows which comprised corruption as well as the proceeds of crime were considered to be costing the continent \$50billion a year (Premium Times, 2013). According to National Bureau of Statistics (NBS, 2023), total tax to Gross Domestic Product (GDP) ratio stood at 10.86% at the end of 2021 for Nigeria compared to the estimated 6% formerly reported which suggested that though there is improvement but several corporations as well as individuals liable to tax payment are still defaulting.

Following the assessment of earlier literature, to the best of the investigator's understanding, most erstwhile literature have concentrated on the financial and manufacturing sectors without considering other sector like the oil and gas sector in Nigeria. Methodological problems in previous studies, to a large extent, also form part of the motivation for the study. These include the wrong use of the ordinary least squares technique for a panel data, logistic regression technique to mention but a few. Against the backdrop, this study tends to examine the link

between board diversity like independence of the board, gender diversity of the board, national diversity of the board, ethnic diversity of the board, and corporate tax aggressiveness in Nigeria.

To this end, this study is intended to response to the following questions:

1. To what extent does board independence relate to corporate tax aggressiveness in Nigeria?
2. What is the link between board gender diversity and corporate tax aggressiveness in Nigeria?
3. What is the link between board national diversity and corporate tax aggressiveness in Nigeria?
4. To what extent does board ethnic diversity relate to corporate tax aggressiveness in Nigeria?

1.3 Objectives of the Study

The general aim of the study is to explore the link between board diversity and corporate tax aggressiveness in Nigeria. However, the specific aims of the study are to:

1. examine the link between board independence and corporate tax aggressiveness in Nigeria;
2. ascertain the link between board gender diversity and corporate tax aggressiveness in Nigeria;
3. evaluate the link between board national diversity and corporate tax aggressiveness in Nigeria;
and
4. determine the link between board ethnic diversity and corporate tax aggressiveness in Nigeria.

1.4 Research Hypotheses

Based on the specific aims, the following hypotheses are stated in null forms:

1. Board independence has no significant link with corporate tax aggressiveness in Nigeria.

2. Board gender diversity has no significant link with corporate tax aggressiveness in Nigeria.
3. Board national diversity has no significant link with corporate tax aggressiveness in Nigeria.
4. Board ethnic diversity has no significant link with corporate tax aggressiveness in Nigeria.

1.5 Scope of the Study

This study is country-specific as it investigated the connection between board diversity and corporate tax aggressiveness in Nigeria. The study considered a period of twelve (12) years from 2011 to 2022. The rationale for starting from 2011 was to take cognisance of the acceptance of International Financial Reporting Standards (IFRS) in Nigeria which became effective in 2012. However, 2022 was chosen so as to incorporate current available data for more robust findings.

1.6 Significance of the Study

This study is significant in the following ways:

1. most of the erstwhile studies focused mainly on the financial, manufacturing, and healthcare sectors without due consideration to other sectors, hence, this study took different direction by focusing on the oil and gas sector in Nigeria;
2. add to existing studies on the connection between board diversity and corporate tax aggressiveness by extending the scope of prior empirical studies to include current data of 2019, 2020, 2021 and 2022;
3. this study is vital as it took a different focus from erstwhile studies by using a panel regression analysis as most extant studies used the ordinary least squares (OLS), generalised method of moment (GMM), multiple linear regression as well as the logit regression technique. The

justification for this was to account for any endogeneity problem of measurement error which may occur in the independent variables;

4. this study is also significant as it investigated the influence of other variables such as board independence and board ethnic diversity on corporate tax aggressiveness in relation to the oil and gas companies in Nigeria. This is a major methodological improvement to studies in this cycle.

5. this study will be helpful to educational as well as specialised bodies in that, to the educational body, this study simply adds to the limited prevailing studies on the link between board diversity and corporate tax aggressiveness; therefore, fashioning more grounds for further empirical investigations. To the specialised bodies (professional bodies and audit and assurances services companies), this study will guide the factors to look out for before giving assertion on the financial statements of corporations to circumvent any legal liability for negligence.

1.7. Limitations of the Study

The major limitation faced in the course of this study is the smallness of sample size which comprised nine (9) oil and gas companies and this mainly affected the generalization of findings. Another limitation encountered is getting sufficient extant indigenous studies with which to make comparison, in relation to board ethnic diversity and corporate tax aggressiveness. However, prior studies from other nations were employed, together with some of the erstwhile indigenous studies, to make our inferences.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provided an assessment of earlier studies on the regressand and the explanatory variables. It also presented the theoretical underpinnings as well as the conceptual framework.

2.2 Corporate Tax Aggressiveness

Historically, corporate tax aggressiveness (CTA) is linked with international companies as a means of profit repatriation which has resulted in strategic cost saving technique used by companies globally (Otuedon, 2021). Taxes are major costs to companies as well as shareholders and, thus, a decrease in the existing cash flows. Consequently, shareholders will prefer corporate tax aggressive undertakings so as to improve not only the earnings-after-tax but also the cash attributable to shareholders (Otuedon, 2021). Admittedly, tax aggressiveness is a topical concept that has received much interest both in advanced and emerging economies (Giovana & Tiago, 2021). Arguably, tax aggressiveness is also known as tax management (Richardson et al., 2013), tax planning or tax sheltering (Uniamikogbo et al., 2019) or tax avoidance (Hanlon & Shane, 2010) and has substantial costs and benefits for the management and decreases shareholders' cash flows (Desai & Dharmapala, 2008; Obazee, 2021). Aggressiveness is the process of designing one's affairs in order to defer decrease or even eliminates the amount of taxes attributable to the government (Pniowsky, 2010).

According to Braithwaite (2005), tax aggressiveness is a pattern or plan employed with the aim of avoiding tax. Tax aggressiveness is the taxpayers' capacity to plan his financial

undertakings in such a way as to suffer a minimum tax liability (Hoffman, 1961). Kim et al. (2011) see tax aggressiveness as an action of value boosting that transfers the revenue from the state to the company shareholders. Uniamikogbo et al. (2019) opined that tax aggressiveness is allowed within the scope of the tax laws embedded in the Income Tax Act effective in such nations like United Kingdom, Nigeria, Canada and United States of America (USA). Chen et al. (2008) define tax aggressiveness as a downward management of taxable income through tax planning with respect to reducing the tax paid to tax authorities. Khurana and Moser (2013) see tax aggressiveness as all activities designed solely to minimize corporate tax liabilities which legality may be under doubt such as tax evasion, tax avoidance or legitimate saving of taxes. Frischmann et al. (2008) define tax aggressiveness as the act of engaging in significant tax positions with relatively weak supporting facts. Lisowsky (2010) views tax aggressiveness as actions close to the end of a continuum of tax avoidance undertakings that range from legitimate tax planning to investments in abusive tax shelters. To Otuedon (2021), tax aggressiveness is a trigger in tax management undertakings that is employed for tax planning and results in tax evasion. It is basically a technique employed by managers, a set of procedures, practices, resources and choices geared towards maximizing income (Andrea et al., 2020; Boussiadi & Hamed, 2015). This study adopts the definition of Khurana and Moser (2013) in relations to tax aggressiveness.

Tax aggressiveness is the most operational policy for decreasing tax burden subject to regulation. Consequently, tax aggressiveness is captured by using diverse tax rate between dissimilar tax settings and corporate undertakings, and via different tax incentives within the tax legislations. Specifically, tax evasion and tax avoidance are two diverse notions regarding

allowable tax aggressiveness in that tax evasion indicates ‘illegality’ while tax avoidance indicates ‘legality’ (Abdul-Wahab, 2010; Boone et al., 2013; Hoffman, 1961).

In the Nigerian context, extant laws permit corporate taxpayers to design their activities in a way that decreases their tax obligation provided it conforms to relevant tax laws and ethical standards (Aronmwan & Ogbaisi, 2022; Banwo & Ighodalo, 2019). The Chartered Institute of Taxation of Nigeria (CITN, 2017) similarly recognises tax planning techniques that align with tax legislations, though does not encourage corporate taxpayers as well as individuals to engage in tax sheltering. The Companies Income Tax Act (CITA, 2004), in Section 22, also emphasises issues of general anti-avoidance rules (GAARs) of tax law in Nigeria (Aronmwan & Ogbaisi, 2022). The rationale for the establishment of the GAARs by diverse nations is to daunt or thwart intentional tax avoidance arrangements which could relapse into tax evasion (Aronmwan & Ogbaisi, 2022; Banwo & Ighodalo, 2019).

2.2.1 Measures of Corporate Tax Aggressiveness

Measures of corporate tax aggressiveness are vital issues facing researchers in the field of taxation (Otuedon, 2021). These measures are grouped into two (2). The first group comprises those that are based only on book-tax difference (BTD). That is, the difference between accounting profit and taxable profit which include total book-tax difference, residual book-tax difference and tax-effect book-tax difference (Otuedon, 2021). The second group comprises those that measure the comparative amount of taxes to business income which include effective tax rates (ETR) such as accounting ETR, current ETR, cash ETR, long-run cash ETR, ETR differential, ratio of income tax paid to operating cash flows, and ratio of cash taxes paid to operating cash flow (Otuedon, 2021). Prior studies (Rego, 2003; Wilson, 2009) employed the

total difference between book and taxable income (BTD) as a proxy for tax aggressiveness statutory tax rate and found a positive and significant relationship.

The concept of BTD was advanced by Manzon and Plesko (2002) and further corroborated by Desai and Dharmapala (2006, 2009b). BTD is the difference between accounting profit (i.e income disclosed to capital markets) and taxable profit (i.e income disclosed to tax authorities) (Otuedon, 2021). Rego (2003) argued that tax avoidance undertakings generate book-tax differences which could be temporary or permanent differences between corporate accounting profit and taxable profit. Accordingly, BTD is the difference between taxable profit and financial accounting profit (Giovana & Tiago, 2021; Jbir et al., 2021; Otuedon, 2021). Even though the causes of BTD are many and typically categorised as permanent and temporary differences, the magnitude of the gap represents the existence of tax aggressiveness practices (Kim et al., 2011). Prior studies (Badertscher et al., 2010; Otuedon, 2021) argued that BTD can be employed as a proxy for tax planning undertakings.

Manzon and Plesko (2002) advanced a model for determining total BTD and Chen et al. (2010) employed the model for the measurements of tax aggressiveness among US firms. Another BTD model was advanced in Tang and Firth (2011). The measure is called tax-effect BTD which represents the dissimilarity between income tax outflow and current tax outflows, and therefore significant to a corporate environment where companies are compelled to diverse tax rates. It is claimed that frequently employed BTD is an income-effect BTD which uses corporation income tax rate. Admittedly, the corporate tax aggressiveness measured with the BTD can mathematically be defined as $BTD_{it} = FI_{it} - TI_{it}$ where BTD_{it} = book tax difference for company i in year t , FI_{it} = financial income for company i in year t , and TI_{it} = taxable income for company i in year t . Financial income is the income disclosed to capital markets (also called

company's profit before tax) while taxable income is income as per tax computation (Otuedon, 2021). Desai and Dharmapala (2006) calculated abnormal BTB (AbBTB) by employing the residuals from estimating BTB on total accruals. This proxy seeks to segregate total BTB into those that are not associated with tax management (normal BTB) and those that are associated with tax management (abnormal BTB). One major limitation of BTB is that book-tax differences reveal corporate growth in book income as dissimilar measurement errors in the systems employed in income disclosure for both tax and financial statements purposes permits the estimation and precise indicator of present performance than it would be from book income alone.

ETR is frequently employed in prior empirical studies (Dyregang et al., 2008; Obazee, 2021; Richardson et al., 2013; Robinson & Sikes, 2006) as a measure of corporate tax aggressiveness. Consequently, ETR is the most popular measure of the capacity of a firm to reduce its tax liability (Ayers et al., 2009; Chadeaux & Rossignol, 2006; Minnik & Noga, 2010; Rego 2003). According to Otuedon (2021), ETR as a measure of corporate tax aggressiveness is limited by two (2) factors. On the one hand, the book ETR does not justify tax aggressive practices connected with temporary BTB as reductions in existing tax liabilities are settled by resultant rises in deferred tax liabilities since total tax liabilities include present and deferred taxes. On the other hand, both the book ETR and current book ETR may understate a company's extent of tax aggressiveness if the company records ambiguous tax benefits associated with taking aggressive tax stance (De Waegenaere et al., 2010). The ETR is the proportion of total tax outflow to earnings before tax. It is mathematically calculated as $ETR_{it} = TTE_{it} / PTI_{it}$, where ETR_{it} = effective tax rate for company *i* in year *t*, TTE_{it} = total tax expense for company *i* in year *t*, and PTI_{it} = pre-tax income for company *i* in year *t* (Otuedon, 2021). In this study, the ETR was

employed and this is consistent with the studies of Aliani (2013) and Aronmwan and Ogbaisi (2022) who measured tax aggressiveness using the ETR.

2.3 Board Diversity

Corporate diversity is the difference in the age, race, ethnicity, gender, and social/cultural characteristics among the workforces in a particular organisation. Board diversity is a corporate governance mechanism and a modern issue of debate that has attracted attention and significance in the corporate world, and advocates of board diversity document that a diverse board has a wider understanding of complexities in the environment compared to a homogenous board (Aman et al., 2021; Carter et al., 2003; Castro & Diaz, 2015; Khan et al., 2021). The concept of board diversity has emerged as the most prominent issue in corporate governance literature in recent times (Ibrahim & Hanefah, 2016; Rhode & Packel, 2014). Ayuso and Argandona (2009) and Van Knippenberg et al. (2004) defined board diversity as the heterogeneity amongst directors in the board with unique attributes or dimensions. The dimensions of a diverse board can be grouped into observable diversity (like race, ethnicity, educational background, nationality, gender and age) and less observable diversity (functional and occupational background, industry experience and organisational membership) (Kang et al., 2007; King'ori et al., 2019). Walt and Ingley (2003) see diversity as the various blends of attributes, characteristics and skills possess by corporate members.

The importance of diversity of the board cannot be overemphasized as it fosters a better decision and brings about innovation in an organisation (Aifuwa & Embele, 2019; Khan et al., 2021). Kyaw et al. (2017) documented that a more diverse board can attract more resources into an organisation. Michelon and Parbonetti (2012) and Rathnayaka (2018) argued that a diverse board would improve the quality of a firm's strategic decision.

Furthermore, Arora and Sharma (2016) and Butler (2012) argued that diversity in the boardroom will improve a firm's performance, reputation and its global existence.

From agency theory perspective, board diversity ensures board independence and improves quality of monitoring (Aman et al., 2021; Carter et al., 2003). Correspondingly, a mostly independent and diverse board can ensure firm legitimacy as it tends to satisfy the information needs of wider and diverse stakeholder groups and fortify associations between the firm and stakeholders (Aman et al., 2021; Ntim & Soobaroyen, 2013). In relation to the debate on board diversity, gender diversity remains the key focus which suggests that having female directors on the boards will possibly result in a positive influence on the activities of the firms (Adams & Ferreira, 2009; Adeniyi & Fadipe, 2018; Carter et al., 2003; Mahadeo et al., 2012). Beyond the independence of the board and gender diversity, prior studies (Haniffa & Cooke, 2002; Ntim & Soobaroyen, 2013) have examined the influence of ethnic diversity of directors on disclosures. The nomination of female directors and nomination of directors from diverse ethnic groups has been debated to be an act of legitimation (Farrell & Hersch, 2005).

2.3.1 Board Independence

Board independence (BIND) denotes the fraction of non-executive directors (NEDs) on the board. According to Dridi and Boubaker (2016) and based on the agency theory, the board has a number of executive (internal) and non-executive (external) directors which ensures effective and efficient control of managers. Admittedly, NEDs can ensure proficiency and objectivity concurrently; however, executive directors are discouraged by some dependence as their categorised stance relating to the management. This dependence inhibits the capacity of managers against managerial decisions (Drudi & Boubaker, 2016).

2.3.2 Board Gender Diversity

Board gender diversity (GEND) is a variant of board diversity (Imade, 2019) which refers to the diverse proportion of women on the board of corporate firms. However, reduction in the fraction of female directors on the corporate board is a substance of impartiality and effective governance. There are various arguments in favour of gender diversity of the Board (Vacca et al., 2020) such as redress of injustice, better decision making, enhanced corporate performance and innovations, full exploitation of pool of talent, and mirror of the market as women make about 80.5% of consumer decisions.

GEND ensures better understanding of business settings to advance decision making process. According to Farrel and Hersch (2005), women have generally been under-represented on the corporate boards; however, this witnessed a change in the 1990s. Gender diversity has resulted in a large volume of studies linked with gender disparity, whether at work or within a profession (Bosun-Fakunle et al., 2019). Ahmed and Khaoula (2013), Fallan (1999) and Kastlunger et al. (2010) argued that women perform a significant role in tax matters and, as a result, revealed the importance of feminine values in the management of tax related matters. For instance, though tax optimisation is a lawful corporate undertaking designed to lessen the corporate tax burden by employing adequate tax leakages enshrined in the tax laws, the interpretations of conditions as well as tax laws differ contingent upon the masculine and feminine characteristics.

Consistent with the studies of Croson and Gneezy (2009) and Hasseldine (1999) on gender dissimilarities in relation to risk behaviour and tax compliance, this study takes the stance that women are more tax compliant while men are more tax aggressive in nature. This stance is

also consistent with Gërkhani (2007) and Lewis et al. (2009) who documented that women were regularly adjudged more tax suitable than men.

2.3.3 Board National Diversity

National diversity on the board reveals the existence of a foreign director from diverse countries on the boardroom. Oxelheim and Randey (2003) documented that foreign directors are totally concerned about the firm's transparency, accountability and reputation in the competitive market. Consequently, Zachariah et al. (2020) affirmed that national diversity is one of the modern drivers of corporate tax aggressiveness in the present day business world. A board with a high representation of foreign directors from diverse nationalities brings new ideas and perspectives to the boardroom (Ferrero-Ferrero et al., 2015). This is because of their international market engagement, different professional background, religion, language, life experiences, knowledge and culture which may lead to improved decision making in particular (Ferrero-Ferrero et al., 2015), and improved boardroom performance (Estelyi & Nisar, 2016).

According to Zachariah et al. (2020), foreign directors are board members who are not from the nation where the companies are located or where they carry out their corporate operations. Emerging economies are prepared to fascinate foreign direct investment (FDI); conversely, the internal corporate governance mechanisms are challenging in such economies particularly in modern economies. Youssef (2003) argued that shortage of management resources is one of the challenges and in this regards, foreign directors tend to play an exclusive and important role. The existence of foreign directors on the corporate board gives room for other board members to benefit from advanced skills and knowledge on managerial matters as well as corporate decision making. The skills and knowledge provide by foreign directors

invariably improves tactical tax resolutions as tax is a charge to corporations which requires to be decreased. Thus, foreign board of directors who have broader knowledge in tax matters can support in ensuring enhanced tax management undertakings. The existence of foreign directors on the board may indicate the capacity of the corporation to ensure suitable tax management. Furthermore, it assumed that companies with foreign directors may encourage tax planning without breaching tax laws to indicate their managerial abilities and to differentiate themselves from other companies (Zachariah et al., 2020).

2.3.4 Board Ethnic Diversity

The issue of ethnic multiplicity on the board as it relates to corporate tax aggressiveness cannot be over-emphasised. For instance, there are several ethnic groups in Nigeria but the most pronounced ones are the Yorubas, the Igbos and the Hausas (Osemeke & Osemeke, 2017). An ethnic group is a collection of persons who share the same uniqueness, interact mutually in common language, religion, and ideology. According to Hofstede (1984), individuals from one group can be differentiated from other individuals from other groups via culture even as Harris (1987) documented, the learning, social traditions, way of life, thought process, feelings, and behaviour of individuals are revealed by their culture. Following from this, extant literature has documented mixed findings between ethnic diversity on the board and corporate tax aggressiveness. Thus, board members who hail from diverse ethnic group will offer resourceful ways of thinking, cultural belief and attitudes which will reduce corporate tax aggressiveness.

According to Ujunwa et al. (2012), ethnic diversity on the board is one that is ethnically spread along main tribal lines. Consequently, ethnic diversity is characterised by culture, language, religion, and traditions which is dependent on a person or group's uniqueness (Kumudha & Jennet, 2016). According to Hassan et al. (2015), ethnic diversity is the measure

or representation of a racial, ethnic or socio-cultural group on a board in contrast to the total number of directors serving on the board of the organisation. Sharma (2016) documented that ethnic diversity provides a wide range of ideas in form of diversities in attitudes, rational development, values and norms. Similarly, Mba et al. (2018) documented that ethnicity is the utmost significant aspect of diversity specifically in Nigeria where there is high division of ethnicity along each group (s) yelling for recognition.

Based on the foregoing, the diagrammatic presentation of board diversity mechanisms and corporate tax aggressiveness is given as follows:

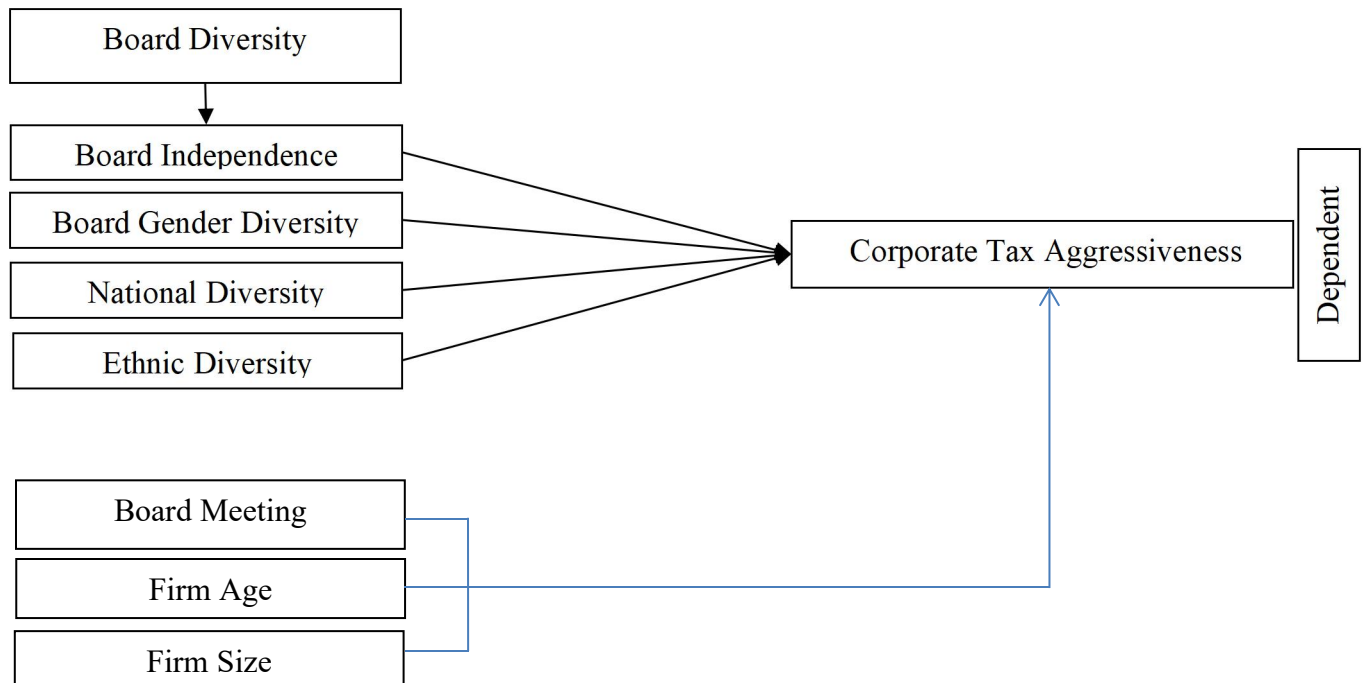


Figure 2.1: Schematic Presentation of Board Diversity and Corporate Tax Aggressiveness

2.4 Empirical Review on Board Diversity and Corporate Tax Aggressiveness

2.4.1 Board Independence and Corporate Tax Aggressiveness

Aliani and Zarai (2012) explored the nexus between board of directors and the corporate tax planning among thirty-two (32) listed corporations in Tunisia for the period of eight (8) years from 2000 to 2007. The data collected were evaluated by means of the regression technique and revealed no significant association between board independence and corporate tax aggressiveness in Tunisia. Gonzalez and Garcia-Meca (2013) studied the influence of corporate governance on earnings management among companies listed on the Latin American markets for the period of four (4) years from 2006 to 2009. The data sourced were evaluated by means of the regression technique and showed an adverse and significant association between board independence and earnings management.

Armstrong et al. (2014) examined the influence of corporate governance, incentives, on tax avoidance and found a positive and significant relationship between board independence and tax avoidance in the upper end of the distribution of tax evasion and a negative relationship in the lower end. Richardson et al. (2013) studied the influence of the board on tax aggressiveness quoted Australian companies. The data collected were evaluated by means of the Ordinary Least Squares (OLS) and found an adverse and significant link between board independence and tax aggressiveness. Lanis and Richardson (2011) examined the influence of board of director on corporate tax aggressiveness among thirty-two (32) comprising sixteen (16) tax aggressive and sixteen (16) non-tax aggressive Australian companies for the period of six (6) years from 2001 to 2006. The data employed were evaluated by means of a logit regression technique and showed an adverse and significant link between board independence and corporate tax aggressiveness. It

indicates that the presence of a high fraction of non-executive members on the corporate board decreases the chances of aggressive tax policies.

Jalali et al. (2013) investigated the impact of the board of directors' structure on tax avoidance among companies listed in Tehran Stock Exchange for the period of three (3) years from 2010 to 2012. The data sourced were evaluated by means of regression analysis and revealed an adverse and significant link between board independence and tax aggressiveness. Ahmed and Khaoula (2013) examined the effects of board of directors' characteristics on tax aggressiveness among seventy-three (73) quoted companies in Tunisia for the period of twelve (12) years from 2000 to 2011. The data collected were evaluated by means of the regression technique and showed an adverse and significant association between board independence and corporate tax aggressiveness in Tunisia.

Aburajab et al. (2019) investigated the effect of board of directors' characteristics on tax aggressiveness among one hundred and forty (140) Jordanian listed firms for the period of five (5) years from 2013 to 2017. The data assembled were evaluated by means of regression technique and revealed an adverse and significant link between board independence and tax aggressiveness. Zachariah et al. (2020) studied the influence of board attributes on tax planning among forty-eight (48) out of one hundred and six (106) listed non-financial companies in Nigeria for the period of ten (10) years from 2008 to 2017. The data gathered were evaluated by means of pearson product-moment regression technique and showed an adverse and significant link between board independence and corporate tax planning in Nigeria.

2.4.2 Board Gender Diversity and Corporate Tax Aggressiveness

Dhahri and Jarboui (2022) studied the link between boards of directors' characteristics and tax aggressiveness among forty-seven (47) quoted firms on the Tunis Stock Exchange for the period of seven (7) years from 2012 to 2018. The data sourced were evaluated by means of regression technique and revealed no significant link between board gender diversity and tax aggressiveness in Tunisia. Aliani and Zarai (2012) examined the impact of the board of directors on the corporate tax planning among thirty-two (32) quoted companies in Tunisia for the period of eight (8) years from 2000 to 2007. The data sourced were evaluated by means of regression technique and showed a positive and significant association between board gender diversity and corporate tax aggressiveness in Tunisia. This suggests that female moralities like recognition and adherence to tax laws and risk aversion inhibit profitable attitudes towards tax optimisation policies of management. Francis et al. (2014) studied gender differences in financial reporting decision-making among listed companies in US and found a negative and significant relationship between board gender diversity and tax aggressiveness. The result implied that female Chief Finance Officers (CFOs) are less tax aggressive than male CFOs.

Boussaidi and Hamed (2015) investigated the impact of governance mechanisms on tax aggressiveness among thirty-nine (39) listed companies on the Tunisian stock exchange (TSE) for the period of seven (7) years from 2006 to 2012. The data sourced were evaluated by means of multiple regression technique and showed an adverse and significant link between board gender diversity and tax aggressiveness. Riguen et al. (2019) studied whether women on the corporate board represent less corporate tax avoidance among two hundred and seventy (270) listed companies in the UK for the period of thirteen (13) years from 2005 to 2017. The data sourced were evaluated by means of the regression technique and revealed an adverse and

significant link between board gender diversity and tax aggressiveness. The findings suggest that women are liable for safeguarding the wellbeing of stockholders by strengthening the control mechanisms of the organisation. Ahmed and Khaoula (2013) examined the effects of board of directors' characteristics on tax aggressiveness among seventy-three (73) quoted companies in France for the period of five (5) years from 2006 to 2010. The data assembled were evaluated by means of the regression technique and showed an adverse and significant connection between board gender diversity and corporate tax aggressiveness in France.

Aburajab et al. (2019) investigated the effect of board of directors' characteristics on tax aggressiveness among one hundred and forty (140) Jordanian listed firms for the period of five (5) years from 2013 to 2017. The data assembled were evaluated by means of the regression technique and revealed an adverse and significant connection between board gender diversity and tax aggressiveness. Hoseini et al. (2018) studied the influence of demographic characteristics of the board of directors' structure on tax avoidance among quoted companies on the Tehran Stock Exchange. The data assembled were evaluated by means of the panel regression technique and showed an adverse and significant connection between board gender diversity and corporate tax avoidance. Richardson et al. (2016) examined the influence of women on the board of directors on corporate tax aggressiveness among listed firms in Australia. The data sourced were analysed by means of multivariate regression technique as well as the two-stage Heckman procedure and found an adverse and significant connection between board gender diversity and corporate tax aggressiveness.

Lanis et al. (2015) studied the influence of board of director gender on corporate tax aggressiveness using the Ordinary Least Squares (OLS) to analyse the data source. The results revealed an adverse and significant connection between board gender diversity and corporate tax

aggressiveness. Zachariah et al. (2020) studied the influence of board attributes on tax planning among forty-eight (48) out of one hundred and six (106) listed non-financial companies in Nigeria for the period of ten (10) years from 2008 to 2017. The secondary data gathered were evaluated by means of pearson product-moment regression analysis and revealed a positive but insignificant link between board gender diversity and corporate tax planning in Nigeria.

2.4.3 Board National Diversity and Corporate Tax Aggressiveness

Zachariah et al. (2020) studied the link between board attributes and tax planning among forty-eight (48) out of one hundred and six (106) listed non-financial companies in Nigeria for the period of ten (10) years from 2008 to 2017. The data sourced were evaluated by means of pearson product-moment regression technique and showed an adverse but insignificant link between national diversity of the board and corporate tax planning in Nigeria. Ibrahim et al. (2015) studied the influence of foreign investors' interests on corporate tax avoidance among one hundred (100) quoted companies in Malaysia for the period of three (3) years from 2009 to 2011. The data sourced were evaluated by means of generalised methods of moment (GMM) of the regression technique and showed a positive and significant link between national diversity of the board and corporate tax avoidance among large Malaysian companies. Harry and Gaetan (2006) studied the influence of foreign ownership on corporate income taxation among European listed companies for the year 2000. The data sourced were evaluated by means of regression technique and revealed a positive and significant link between national diversity of the board and tax planning.

Shi et al. (2020) conducted a study on the effects of foreign ownership on the level of tax avoidance across Philippine publicly listed firms for the period of seven (7) years from 2009 to

2015. The data sourced were evaluated by means of GMM regression technique and showed a positive and significant connection between national diversity of the board and corporate tax avoidance. It implies that a percentage rise in the proportion of foreign directors on the board will result in a rise in corporate tax avoidance in Philippine. Wen et al. (2020) examined the impact of directors with foreign experience on corporate tax avoidance among Chinese listed companies for the period of sixteen (16) years from 2001 to 2016. The data assembled were evaluated by means of the regression technique and revealed an adverse and significant link between national diversity of the board and corporate tax avoidance in China. It implies that the inclusion of directors with foreign experience on the board will decrease the corporate tax avoidance strategy in China.

2.4.4 Board Ethnic Diversity and Corporate Tax Aggressiveness

Jaffar et al. (2021) studied the determinants of tax aggressiveness among twenty-one (21) listed corporations in Malaysia for the period of five (5) years from 2014 to 2018. The data sourced were evaluated by means of the SPSS and STATA software and showed no significant connection between ethnic diversity of the board and corporate tax aggressiveness in Malaysia. Wahab et al. (2017) explored the nexus between political connections, corporate governance, and tax aggressiveness among quoted companies in Malaysia. The data assembled were evaluated by means of regression technique and revealed an adverse and significant link between ethnic diversity of the board and tax aggressiveness in Malaysia. Kasipillai and Abdul Jabbar (2006) explored the influence of gender and ethnic dissimilarities on tax compliance attitude and behaviour. The primary data was used and analysed by means of the regression analysis and revealed an adverse and significant connection between ethnic diversity of the board and tax compliance behaviour.

2.5 Gaps in Literature

Flowing from the review of prior studies in the preceding section, to the best of the student's understanding, most erstwhile literature have concentrated on the financial, manufacturing, and healthcare sectors without considering other sectors like the oil and gas sector in Nigeria. Methodological problems (in terms of wrong use of ordinary least squares (OLS), GMM, multiple linear regression and the logit regression technique on non-time series data) in earlier studies, to a large extent, also form part of the gaps for the study. This study takes a diverse focus from erstwhile literature by employing a panel regression analysis. The descriptive and inferential statistics were conducted; descriptive statistics involves the mean, median, minimum and maximum values while the inferential statistic involves variances and skewness. The justification for this is to account for any endogeneity problem of measurement error which may occur in the independent variables.

2.6 Review of Theories

Several theories like agency theory, upper echelon theory, and stakeholder theory are employed in discussing the link between board diversity and corporate tax aggressiveness. Nevertheless, this study is affixed on the upper echelon theory and against the backdrop; some of these theories are explained thus:

2.6.1 Agency Theory

Companies are possessed by stockholders, and mostly in listed corporations, the distribution of shareholding occasions the segregation of proprietorship and control, thus the agency conflict. According to Izedonmi (2016), agency theory (AT) is rooted in the study of Berle and Means (1932) focusing on the separation of corporate ownership from management.

AT exponents argued that there is an inevitable conflict between parties such as owners and managers (Jensen & Meckling, 1976; Felix et al., 2021). AT assumes that individuals are egocentric and unprincipled rather than charitable. AT also resolves matters involving the different approaches that shareholders and agents have regarding risk, the acceptance of risk and the method of assessing uncertain circumstances. Agency conflict, also called conflict of interests, arises as a result of information asymmetry and the theory states that the existence of information asymmetry exposes the manager to some fortunate information regarding the firm, a situation which induces opportunistic tendencies (Felix et al., 2021).

Conflict of interests can be categorised in different ways which, according to Linder and Foss (2015), involve conflict in outcome-type preferences, conflict in risk preferences, and conflict in time horizon. Conflict of interest involving outcome-type preferences illustrates the fact that the board of directors may crave for ‘empire building’, consumption of perks, and leisure time as a substitute to increasing stockholders’ wealth. Agency problem in risk inclinations shows that the board of directors and investors differ in risk strategy taking. Conflict of time horizon suggests that the board of directors plan to exit the corporation in a short while, therefore circumventing the long-standing shareholders’ wealth.

Based on this, there are a number of forms of conflict of interests, which need to be decreased. The interests of different groups of stakeholders should be secured or balanced and this can be guaranteed via sound system of governance mechanisms. Overall, AT defines the conflict that arises when two or more parties are bent towards attaining different objectives and are also keen to segregation of labour. AT clearly defines the connection between one or more parties called owners (principal or stockholders) and management (agents) in which the owners appoint the management to monitor, supervise and control the business on their behalf. The

major principle of this theory is that the parties are assumed as logical economic-optimising bodies therefore signifying that there will be decisions made by the management that may not definitely represent the wellbeing of the shareholders due to the separation of proprietorship and control between the two parties. This will ultimately result in agency costs that are suffered in ensuring that the management is organised.

The connection between the parties regularly describes the performance of any corporation in the varying business setting. Abdullahi (2017) suggested that good associations between the owner and employee improve corporate productivity, however, in modern competitive companies, good management practices ranging from management styles, policies, culture, structure, board of directors and technology can increase employee drive to work towards corporate goals. The AT is pertinent in this study in the sense that quoted companies on the Nigerian Exchange Group are perhaps to sustain long-standing associations with their clients if they offer precise market information to clients, readiness to implement client-oriented strategies, have good managerial and valuable trademark. Thus, corporate governance mechanisms will enhance decisions pronounced by the stockholders and sustain client connections in the long-term.

2.6.2 Upper Echelon Theory

The upper echelon theory (UET) is credited to Hambrick and Mason (1984). The UET is based on the fact that the board of directors possess important characteristics such as skills, professional qualification, knowledge, experience, and other characteristics which frankly associate with organisational performance and policies (Hambrick & Mason, 1984). According to Abatecola and Cristofaro (2018), the UET states that corporate performances are wholly

predicted by the diversity of the board as well as managerial background characteristics of the top level management team. Hambrick and Mason (1984) argued that the board of directors ensure the achievement of the strategic vision designed by the chief executive officer (CEO) and direct the organisation based on their understanding of the business environment. Consequent upon this, the achievement of the strategic vision of the company is dependent on the diversity of the board in relations to independence, gender, size, nationality, and ethnicity as well as the frequency of attendance of meetings to solving perceived fundamental corporate problems and decision making process.

2.6.3 Stakeholder Theory

Stakeholder theory (ST) states that there is an interdependent link between an organisation, its external and internal shareholders as the corporate value is dependent on the company's ability to meet the needs of its stakeholders (Onuorah et al., 2019). Consistent with this, the company's directors are charged with the duty of guaranteeing that the demands of both the internal and external stockholders of the organisation are achieved. The theory specifies the tripartite association that exists between the principal (owners of the company), agents (managers) and stakeholders (suppliers, suppliers, local community, investors and the public) (Freeman, 1984; Musa et al., 2020). ST concentrates on the expectations of specific stakeholder groups in the society and considers the effect of their expectation on information disclosure, bearing in mind the existence of more powerful stakeholders (Font et al., 2016; Ngu & Amran, 2018). Thus, the survival of a firm specifically depends on the support of stakeholder; hence, they must adjust their business model to address stakeholders concerns and needs (Freeman, 1984; Musa et al., 2020). Therefore, the presence of diverse board increases the anticipated benefit as noted by (Fasan & Moi, 2016).

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter described the methods and techniques used in achieving the general objective of the study. These comprise: research design, population of the study, sample size and sampling technique, sources of data collection, model specification, and method of data analysis and operationalisation of variables.

3.2 Research Design

The longitudinal research design was adopted in investigating the connection between board diversity and corporate tax aggressiveness in Nigeria for twelve (12) years from 2011 to 2022. This design is suitable in this study as it enables us to investigate possible relationships among variables in the same group of individuals over a lengthy period so as to ascertain more robust results.

3.3 Population of the Study

The total population of the study comprised all the one hundred and fifty-six (156) registered corporations on the Nigerian Exchange (NGX) as at 31st December, 2022. However, this study was limited to the oil and gas sector which comprises nine (9) companies. The rationale for this is that the Nigerian economy is arguably oil revenue-driven, thus the need to investigate the tax aggressive behaviours of companies in the sector.

3.4 Sample Size and Sampling Technique

Using the census sampling method, all the companies were taken as sample. The companies are as follows:

Table 3.1: List of Corporations

S/N	Corporations	Sector	Date Quoted	Date Incorporated
1	Cap Oil PLC	Oil and Gas	24/05/1978	21/09/1965
2	Conoil PLC	Oil and Gas	-	30/06/1970
3	Eterna PLC	Oil and Gas	-	13/01/1989
4	Japaul Gold and Ventures PLC	Oil and Gas	10/08/2005	29/09/1994
5	MRS Oil Nigeria PLC	Oil and Gas	-	12/08/1969
6	Oando PLC	Oil and Gas	24/02/1992	25/08/1969
7	RAK Unity Petroleum Company PLC	Oil and Gas	-	20/12/1982
8	SEPLAT Energy PLC	Oil and Gas	-	17/06/2009
9	Total Energy Marketing Nigeria PLC	Oil and Gas	-	06/01/1956

Source: Nigerian Exchange Group (2022)

3.5 Sources of Data Collection

Secondary data were adopted in this study. The data were obtained from the NGX and the annual reports of the corporations under review for the respective years.

3.6 Model Specification

Nwezoku and Egbunike (2020) examined the relationship between board diversity and corporate tax aggressiveness behaviour of listed manufacturing firms in the health sector in Nigeria using the following model:

$$ETR_{(i,t)} = \alpha_0 + ND_{(i,t)} + ETR(-1) + DO_{(i,t)} + ROA_{(i,t)} + CAPINT_{(i,t)} + LEV_{(i,t)} + Size_{(i,t)} + \mu \dots\dots\dots(1)$$

$$ETR_{(i,t)} = \alpha_0 + AD_{(i,t)} + ETR(-1) + DO_{(i,t)} + ROA_{(i,t)} + CAPINT_{(i,t)} + LEV_{(i,t)} + Size_{(i,t)} + \mu \dots\dots\dots(2)$$

$$ETR_{(i,t)} = \alpha_0 + GD_{(i,t)} + ETR(-1) + DO_{(i,t)} + ROA_{(i,t)} + CAPINT_{(i,t)} + LEV_{(i,t)} + Size_{(i,t)} + \mu \dots\dots\dots(3)$$

Where:

ETR = Effective Tax Rate;

ND = Nationality Diversity;

AD = Age Diversity;

GD = Gender Diversity;

ROA = Return on Assets (a proxy for Profitability);

CAPINT = Capital Intensity of Firms;

LEV = Leverage;

i = Company;

t = Time Period Covered;

μ = Estimation Error Term;

For the purpose of this study and based on the upper echelon theory on which this study is anchored, the study adapted the model by Nwezoku and Egbunike (2020) and improve on the variables by adding board independence and board ethnic diversity as possible variables to suit the study. Thus, the functional model specified for this study is stated thus:

$$\text{Corporate tax aggressiveness} = f(\text{Board Diversity}) \dots\dots\dots(4)$$

$$\text{Corporate tax aggressiveness} = f(\text{BIND}, \text{GEND}, \text{NAD}, \text{ETD}) \dots \dots \dots (5)$$

Flowing from the functional model, the econometric model incorporates board meeting, firm age, and firm size as control variables as these largely influence the tax aggressive behaviours of corporations. The econometric model is stated thus:

$$\text{ETR}_{it} = \beta_0 + \beta_1 \text{BIND}_{it} + \beta_2 \text{GEND}_{it} + \beta_3 \text{NAD}_{it} + \beta_4 \text{ETD}_{it} + \beta_5 \text{BMEET}_{it} + \beta_6 \text{FAGE}_{it} + \beta_7 \text{FSIZE}_{it} + \nu_{jt} \dots \dots (6)$$

Where:

ETR = Effective Tax Rate;

BIND = Board Independence;

GEND = Board Gender Diversity;

NAD = Board National Diversity;

ETD = Board Ethnic Diversity;

BMEET = Board Meeting;

FAGE = Firm Age;

FSIZE = Firm Size;

i = Companies;

t = Period Covered;

ν = The Stochastic Error Term;

β_0 = Intercept;

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7$ = Estimation Parameters;

A priori expectations are $\beta_1 < 0$, $\beta_2 < 0$, $\beta_3 < 0$, $\beta_4 < 0$, $\beta_5 < 0$, $\beta_6 > 0$ and $\beta_7 > 0$ which suggests that the regressors are expected to have adverse and significant association with ETR (good predictors of corporate tax aggressiveness) except for $\beta_6 > 0$ and $\beta_7 > 0$ (firm age and firm size) which are expected to have positive and significant associations with ETR specifically to be consistent with existing theory (upper echelon theory) on which this study is anchored. Thus:

$\beta_1 < 0$: a unit increase in board independence will decrease corporate tax aggressiveness.

$\beta_2 < 0$: a rise in board gender diversity will decrease corporate tax aggressiveness.

$\beta_3 < 0$: an increase in national diversity will decrease corporate tax aggressiveness.

$\beta_4 < 0$: a unit increase in ethnic diversity will decrease corporate tax aggressiveness.

$\beta_5 < 0$: a unit increase in board meeting will decrease corporate tax aggressiveness.

$\beta_6 > 0$: a rise in firm age will result in a rise in corporate tax aggressiveness.

$\beta_7 > 0$: a rise in firm size will result in a rise in corporate tax aggressiveness.

3.7 Operationalisation of Variables

Table 3.2: Measurements of Data

S/N	Variables	Codes	Indicators/Measurements	Sources	Apriori Sign
Dependent					
1	Corporate Tax Aggressiveness	ETR	ETR was captured as the logarithm of total tax outflow divided by income before tax for corporation i in year t i.e <i>Total Tax Expense</i> Income Before Tax	Aliani (2013)	
Independent					
2	Board Independence	BIND	BIND was captured as the logarithm of the total non-executive directors on the board	Dhahri and Jarboui (2022)	-
3	Board Gender Diversity	GEND	GEND was measured as a dichotomous index if the board comprised female directors, one (1) was assigned and zero (0) if otherwise.	Dhahri and Jarboui (2022); Nwezoku and Egbunike (2020)	-
4	Board National Diversity	NAD	NAD was measured as a dichotomous index if the board comprised foreign directors, one (1) was assigned and zero (0) if otherwise.	Nwezoku and Egbunike (2020)	-
5	Board Ethnic Diversity	ETD	ETD was measured as a dichotomous index if the board has the three main ethnic sets (Hausa, Igbo and Yoruba), one (1) was assigned and zero (0) if otherwise.	Mba et al. (2018)	-
Control					
6	Board Meeting	BMEET	BMEET was measured as the logarithm of total frequency of meetings held by the board of a corporation in a fiscal year	Al-Shaer and Zaman (2018)	-
7	Firm Age	FAGE	FAGE was captured as the logarithm of total years from the year of incorporation on the stock exchange till date	Ilaboya and Aronmwan (2021)	+
8	Firm Size	FSIZE	FSIZE was captured as the logarithm of total assets in the company	Otuedon (2021)	+

Source: Researcher's Compilation (2024)

3.8 Method of Data Analysis

This study employed the descriptive and inferential statistics to evaluate the data. The descriptive statistics includes the mean, median, minimum, maximum, standard deviation, skewness, kurtosis and Jarque-Bera statistics. The panel least squares (PLS) was used as an inferential statistic to test the hypotheses of the study. The justification for making use of the PLS is due to the fact that the data contained properties of time-series and cross-section.

Prior to the estimation of the model with the PLS, a pilot or diagnostic test to fulfil the fundamental conventions of regression was carried out. Diagnostics test such as serial correlation (Breusch-Godfrey Serial Correlation LM Test), Normality (kurtosis, skewness & Jarque-Bera), Linearity (bivariate analysis), Constant residual error test (Breusch-Pagan-Godfrey Heteroskedasticity test) and Multicollinearity (variance inflation factor test) was carried out.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 Introduction

This chapter offered the analysis and interpretation of results obtained from the study. The statistical technique of descriptive statistics, correlation analysis, and regression analysis was employed in this study.

4.2 Data Presentation and Interpretation

4.2.1 Descriptive Analysis

Descriptive analysis helps in describing the features and statistical characteristics of any dataset. In this study, emphasis is placed on the values of the mean, minimum, maximum, and standard deviations, as these are the statistics commonly used by most researchers.

Table 4.1: Descriptive Statistics

	ETR	BIND	GEND	NAD	ETD	BMEET	FAGE	FSIZE
Mean	0.658	0.686	0.722	0.750	0.638	0.664	1.501	7.674
Median	0.493	0.698	1.000	1.000	1.000	0.698	1.556	7.739
Maximum	2.531	1.079	1.000	1.000	1.000	1.113	1.819	9.435
Minimum	-2.803	0.301	0.000	0.000	0.000	0.000	0.301	5.822
Std. Dev.	0.726	0.161	0.449	0.435	0.482	0.211	0.294	1.005
Skewness	0.014	-0.110	-0.992	-1.154	-0.578	-0.982	-1.806	-0.197
Kurtosis	6.847	2.693	1.984	2.333	1.334	4.888	6.572	2.238
Jarque-Bera	66.606	0.641	22.362	26.000	18.503	33.411	116.162	3.310
Probability	0.000	0.725	0.000	0.000	0.000	0.000	0.000	0.191
Sum	71.159	74.195	78.000	81.000	69.000	71.766	162.164	828.881
Sum Sq. Dev.	56.439	2.796	21.666	20.250	24.916	4.806	9.294	108.116
Observations	108	108	108	108	108	108	108	108

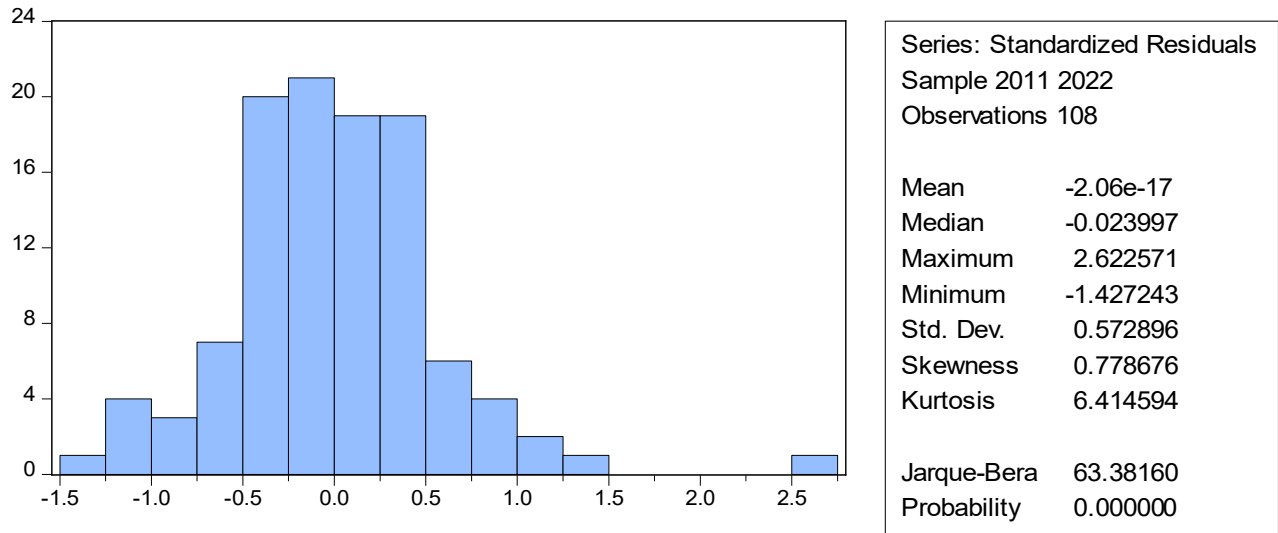
Source: Researcher's Computation (2024)

The outcome of the descriptive statistics is offered in Table 4.1 and effective tax rate (ETR, a substitute of corporate tax aggressiveness) constitutes the key variable of interest as it is

the regressand. The mean value of ETR is 0.658; this denotes approximately 66% which is significantly below the petroleum income tax rate of 85% payable to the government by companies carrying on petroleum businesses. This will result in a significant drop in the tax revenue generation of government as a result of corporate tax aggressive practices while the median value is 0.493. Both the mean and median values indicate that board diversity is relative to ETR. It has highest and lowest values of 2.531 and -2.803 with a positive skewness of 0.014 signifying that the values for ETR are geared to the right thus suggesting high skewness. The Jarque-Bera statistic of 66.606 and p-value of 0.000 indicate that the values for ETR are not normally distributed. Looking at other variables, it can be observed that the highest and lowest values of BIND are 1.079 and 0.301, highest and lowest values of GEND are 1.000 and 0.000, highest and lowest values of NAD are 1.000 and 0.000, highest and lowest values of ETD are 1.000 and 0.000, highest and lowest values of BMEET are 1.113 and 0.000, highest and lowest values of FAGE are 1.819 and 0.301, highest and lowest values of FSIZE are 9.435 and 5.822. Following the Jarque-Bera statistics of the regressors and the associated p-values of 0.000, it can be said that the variables are not normally distributed at 5% significant level. This implies that robust results would be ascertained. From the highest and lowest values of BIND, GEND, NAD, ETD, BMEET, FAGE, and FSIZE, it is observed that FSIZE has the maximum/highest value of 9.432 thus suggesting that larger firms are more tax aggressive than smaller firms due to their financial buoyancy to employ the services of tax expertise to help them reduce tax liability due in the business while other variables (GEND, NAD, ETD, and BMEET) with the minimum/lowest values of 0.000 suggest that these diverse characteristics should reduce corporate tax aggressiveness.

4.2.2 Test of Normality

Figure 4.1: Histogram Normality Test



Source: Researcher's Computation (2024)

The normality and other mean statistics of the residuals presented in Figure 4.1 show a Jarque-Bera test of 63.381 with a related probability value of 0.000 which denote that the variables are standard and not normally dispersed. The mean positive kurtosis of 6.414 shows a positive kurtosis in excess of 3.00 which indicates a leptokurtic kurtosis. The mean positive skewness of 0.778 means the residual from the model is rightward skewed and the average standard deviation of 0.572 revealed that the nonconformity from the mean is relatively high.

4.2.3 Correlation Analysis

Table 4.2: Correlation Matrix

Correlation								
t-Statistic								
Probability	ETR	BIND	GEND	NAD	ETD	BMEET	FAGE	FSIZE
ETR	1.000							

BIND	0.115	1.000						
	1.198	-----						
	0.233	-----						
GEND	0.056	0.478	1.000					
	0.585	5.612	-----					
	0.559	0.000	-----					
NAD	-0.058	0.421	0.596	1.000				
	-0.601	4.792	7.656	-----				
	0.549	0.000	0.000	-----				
ETD	0.160	0.556	0.566	0.411	1.000			
	1.671	6.903	7.080	4.652	-----			
	0.097	0.000	0.000	0.000	-----			
BMEET	-0.081	0.694	0.321	0.387	0.471	1.000		
	-0.843	9.941	3.490	4.330	5.498	-----		
	0.400	0.000	0.000	0.000	0.000	-----		
FAGE	0.006	-0.171	-0.057	-0.074	-0.075	-0.108	1.000	
	0.062	-1.786	-0.597	-0.768	-0.778	-1.125	-----	
	0.950	0.076	0.551	0.443	0.438	0.262	-----	
FSIZE	-0.084	-0.248	-0.429	-0.206	-0.135	-0.056	0.557	1.000
	-0.877	-2.643	-4.901	-2.167	-1.409	-0.581	6.908	-----
	0.382	0.009	0.000	0.032	0.161	0.562	0.000	-----

Source: Researcher's Computation (2024)

The correlation matrix offered in Table 4.2 revealed the degree of link between the regressors and the regressand (ETR). Certainly, the association between a variable and itself is one (1). In addition, Table 4.2 revealed that the link between ETR and BIND is positive and weak based on a correlation coefficient of 0.115. The association between ETR and GEND is positive and weak based on the correlation coefficient of 0.056. The association between ETR and NAD is negative and weak based on a correlation coefficient of -0.058. Also, the association between ETR and ETD is positive and strong based on a correlation coefficient of 0.160. The association between ETR and BMEET is negative and weak based on a correlation coefficient of -0.081. The association between ETR and FAGE is positive and weak based on a correlation coefficient of 0.006. Similarly, the link between ETR and FSIZE is negative and weak based on a correlation coefficient of -0.084. In terms of the relationship among the regressors, the study observed that the strongest link is between BMEET and BIND with correlation coefficient of 0.694 while the least is between FSIZE and GEND with correlation coefficient of -0.429.

4.2.4 Diagnostic Tests

In this study, the following diagnostic tests were carried out:

4.2.4.1 Test of Heteroskedasticity

Table 4.3: Test of Heteroskedasticity

Specification: ETR C BIND GEND NAD ETD BMEET FAGE FSIZE			
	Value	df	Probability
Likelihood ratio	97.56187	9	0.0000
LR test summary:			
	Value	df	
Restricted LogL	-112.0530	100	
Unrestricted LogL	-63.27203	100	

Source: Researcher's Computation (2024)

The test of heteroskedasticity was carried out using Breuch-Pagan-Godfrey panel cross-section LR test. The test reveals a likelihood ratio value of 97.561 and a probability of 0.000. This is consistent with the null hypothesis of homoskedastic residuals. In addition; the result revealed that the residuals are homoskedastic as the p-values are all less than the benchmark of 0.05. This indicates that there is no evidence for heteroskedasticity.

4.2.4.2 Multi-Collinearity Test

Table 4.4: Variance Inflation Factor (VIF)

	Coefficient	Uncentered	Centered
Variable	Variance	VIF	VIF
C	1123.783	118.3432	NA
BIND	5.243817	16.92438	2.288778
GEND	127.7452	9.715751	2.698820
NAD	83.85506	6.622951	1.655738
ETD	76.71614	5.161467	1.863863
BMEET	3.887763	12.71831	2.061768
FAGE	0.054413	9.533361	1.570571
FSIZE	18.58880	117.2650	1.959659

Source: Researcher's Computation (2024)

The test of multi-collinearity was carried out using Breuch-Pagan-Godfrey test. The test reveals that the centered VIF of the respective regressors are not up to the rule of the tomb of 10. This denotes the lack of multicollinearity in the model.

4.2.4.3 Serial Correlation Test

Table 4.5: Breusch-Godfrey Serial Correlation LM Test

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	2.237219	Prob. F(2,98)	0.1122
Obs*R-squared	4.715706	Prob. Chi-Square(2)	0.0946

Source: Researcher's Computation (2024)

The test of serial correlation was carried out using Breuch-Pagan-Godfrey test. The test revealed an Obs*R-squared of 4.715 and a probability of 0.094. This is consistent with the null hypothesis of no serial correlation residuals. In addition; the result revealed that the residuals are non-serially linked as the p-values are more than the benchmark of 0.05. This denotes that there is no evidence for serial correlation in the model.

4.2.4.4 Cross-Sectional Dependence

Table 4.6: Cross-Sectional Dependence Test

Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	36.13814	36	0.4622
Pesaran scaled LM	0.016280		0.9870
Bias-corrected scaled LM	-0.392811		0.6945
Pesaran CD	-2.315401		0.0206

Source: Researcher's Computation (2024)

The cross-sectional dependence was carried out using Breuch-Pagan-Godfrey test. The test revealed a Breusch-Pagan LM statistic of 36.138 and a probability of 0.462. This is consistent with the null hypothesis residuals. In addition; the result reveals that there is lack of cross-sectional dependence (correlation) in residuals in the hypotheses.

4.3 Regression Analysis

Table 4.7: Panel Estimation Output

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.011	2.446	-0.821	0.413
BIND	2.078	1.038	2.000	0.048
GEND	-0.510	0.267	-1.909	0.059
NAD	0.208	0.423	0.492	0.623
ETD	0.530	0.246	2.149	0.034
BMEET	0.029	0.514	0.056	0.954
FAGE	0.216	0.976	0.221	0.825
FSIZE	-0.071	0.247	-0.287	0.774
Effects Specification				
Cross-section fixed (dummy variables)				
Period fixed (dummy variables)				
R-squared	0.377	Mean dependent var	-0.658	
Adjusted R-squared	0.178	S.D. dependent var	0.726	
S.E. of regression	0.658	Akaike info criterion	2.214	
Sum squared resid	35.118	Schwarz criterion	2.885	
Log likelihood	-92.581	Hannan-Quinn criter.	2.486	
F-statistic	1.891	Durbin-Watson stat	1.998	
Prob(F-statistic)	0.016			

Source: Researcher's Computation (2024)

The output of the panel regression indicated the association between board diversity and corporate tax aggressiveness as measured by the effective tax rate (ETR). The R-Squared of the model is 0.377 (37%) with an adjusted R-Squared of 0.178 (17%). This puts forward that the observed regressors explained 17% systemic variation in the regressand (ETR). The F-stat of 1.891 with an associated p-value of 0.016 is significant at 1%. It indicates that there is a significant linear association between the regressand (ETR) and the regressors. The Durbin-Watson (DW) statistics of 1.998 revealed the absence of autocorrelation in the model. The coefficient and p-values of the four (4) independent variables observed (BIND, GEND, NAD, and ETD) are presented as follows: 2.078 (0.048), -0.510 (0.059), 0.208 (0.623), and 0.530 (0.034) respectively. The outcome revealed that BIND has a positive and significant association

with ETR at 4% significant level, GEND has an adverse and significant association with ETR at 5%, NAD has a positive but insignificant connection with ETR coefficient at 5%, and ETD has a positive and significant connection with ETR at 3% significant level. Looking at the control variables, the coefficient and p-values of BMEET, FAGE and FSIZE are 0.029 (0.954), 0.216 (0.825) and -0.071 (0.774) respectively. The outcome revealed that BMEET has a positive but insignificant association with ETR at 5% level of significance; FAGE has a positive but insignificant association with ETR at 5% level of significance while FSIZE has an adverse but insignificant relationship with ETR at 5% level of significance.

4.4 Test of Hypotheses

Hypotheses formulated earlier, in chapter one, were tested in this section. The decision rule is to accept the null hypothesis (H_0) if the P-value calculated is greater than P-value critical which stood at 5% level of significance, otherwise we reject. The hypotheses were tested as follows:

Test of Hypothesis One

- i. Board independence has no significant relationship with corporate tax aggressiveness.
- ii. Test Statistic and Decision: BIND has a coefficient of 2.078 with an associated p-value of 0.048 that is not up to 5% significant level. The study therefore settles that BIND has a positive and significant link with corporate tax aggressiveness (ETR) thus resulting in the adoption of the alternative hypothesis that there is a significant link between board independence and corporate tax aggressiveness in Nigeria and rejection of the null hypothesis.

Test of Hypothesis Two

- i. Board gender diversity has no significant relationship with corporate tax aggressiveness.
- ii. Test Statistic and Decision: GEND has a coefficient of -0.510 with an associated p-value of 0.059 that is not up to 5% significant level. The study thus settles that GEND has a negative and significant link with ETR thus leading to the acceptance of the alternative hypothesis that board gender diversity has significant relationship with corporate tax aggressiveness in Nigeria and rejection of the null hypothesis.

Test of Hypothesis Three

- i. Board national diversity has no significant relationship with corporate tax aggressiveness.
- ii. Test Statistic and Decision: NAD has a coefficient of 0.208 with an associated p-value of 0.623 that is higher than 5% significant level. The study thus settles that NAD has a positive but insignificant link with ETR thus leading to the acceptance of the null hypothesis that board national diversity has no significant relationship with corporate tax aggressiveness in Nigeria and rejection of the alternative hypothesis.

Test of Hypothesis Four

- i. Board ethnic diversity has no significant relationship with corporate tax aggressiveness.
- ii. Test Statistic and Decision: ETD has a coefficient of 0.530 with an associated p-value of 0.034 that is not up to 5% significant level. The study thus settles that NAD has a positive and significant connection with ETR thus leading to the acceptance of the alternative hypothesis that board ethnic diversity has significant association with corporate tax aggressiveness in Nigeria and rejection of the null hypothesis.

Table 4.5: Summary of Test of Hypotheses

Variables	Coefficient	p-value	Remarks	Interpretations
BIND	2.078	0.048	Alternative hypothesis was recognised while null hypothesis was disallowed	Board independence has a positive and significant association with corporate tax aggressiveness.
GEND	-0.510	0.05	Alternative hypothesis was recognised while null hypothesis was disallowed	Board gender diversity has an adverse and significant link with corporate tax aggressiveness.
NAD	0.208	0.623	Null hypothesis was recognised while alternative hypothesis was disallowed	Board national diversity has a positive but insignificant link with corporate tax aggressiveness.
ETD	0.530	0.03	Alternative hypothesis was recognised while null hypothesis was disallowed	Board ethnic diversity has a positive and significant link with corporate tax aggressiveness.
	Control Variables			
BMEET	0.029	0.954	Null hypothesis was recognised while alternative hypothesis was disallowed	Board meeting has a positive but insignificant link with corporate tax aggressiveness.
FAGE	0.216	0.825	Null hypothesis was recognised while alternative hypothesis was disallowed	Firm age has a positive but insignificant link with corporate tax aggressiveness.
FSIZE	-0.071	0.772	Null hypothesis was recognised while alternative hypothesis was disallowed	Firm size has an adverse but insignificant link with corporate tax aggressiveness.

Source: Researcher's Compilation (2024)

4.4 Discussion of Findings

Board independence (BIND) shows a positive and significant association with corporate tax aggressiveness (ETR) which denotes that as BIND increases, there is corresponding increase in corporate tax aggressiveness and this does not align with the apriori expectation ($\beta_1 < 0$). This, of course, is attributable to the failure of the non-executive directors to perform their monitoring and control functions as board members on the operations of the corporation which is their fundamental responsibility. This result indicates that the existence of non-executive directors on the corporate board increases agency problem thus increasing the propensity for corporate tax aggressive practices. The result does not align with the findings of Aburajab et al. (2019), Ahmed and Khaoula (2013), Aliani and Zarai (2012), Gonzalez and Garcia-Meca (2013), Lanis and Richardson (2011) but aligns with Onyali and Okafor (2018), Ying (2015), and Zemzem and Flouhi (2013).

Board gender diversity (GEND) was revealed to have an adverse and significant association with ETR at 5% significant level. Following from the finding, GEND has a coefficient of -0.510 with an associated p-value of 0.059 which implies that as GEND increases, there is a significant decrease in corporate tax aggressiveness and this aligns with the apriori expectation ($\beta_2 < 0$). Arguably, a higher fraction of female directors on the corporate board should reduce corporate tax aggressive practices; this, of course, is traceable to the fact that the proportion of female directors on the corporate board tends to exercise thorough checking and control measures on the operations of the corporate board to ensure high tax payment compliance. This is contingent upon the fact that most of the female board members have requisite knowledge on corporate tax policies and matters. The result aligns with the findings of Aburajab

et al. (2019), Ahmed and Khaoula (2013), Boussaidi and Hamed (2015), Francis et al. (2014), Hoseini et al. (2018), Onyali and Okafor (2018), and Riguen et al. (2019) but contradicts the findings of Aliani and Zarai (2012), Dhahri and Jarboui (2022), and Zachariah et al. (2020).

The result showed a positive but insignificant connection between board national diversity (NAD) and ETR at 5%. Based on the research outcome, NAD has a coefficient of 0.208 with an associated p-value of 0.623 that is higher than 5% significant level which suggests that as NAD increases, there is no corresponding and significant rise in corporate tax aggressiveness (ETR) and this is inconsistent with the apriori expectation ($\beta_3 < 0$). This shows that a higher percentage of foreign board members do not have a substantial influence on corporate tax circumvention strategy. This implies that the existence of foreign board members does not ensure advisory or monitoring role on the operations of the corporate board. This also denotes that as the fraction of foreign board members in the Nigerian companies rises, their presence on the board does not discourage corporate managerial opportunism in relation to aggressive tax practices. This finding contradicts the findings of Harry and Gaetan (2006), Ibrahim et al. (2015), Shi et al. (2020), Wen et al. (2020), Zachariah et al. (2020).

Following from the research finding, board ethnic diversity (ETD) has a coefficient of 0.530 with an associated p-value of 0.034 that is not up to 5%. The result suggests that as ETD increases, there is corresponding increase in corporate tax aggressiveness (ETR) and this is inconsistent with the apriori expectation ($\beta_4 < 0$). This reveals that a greater proportion of directors from diverse ethnic groups in Nigeria who are members of the corporate board support higher effective tax rates which is linked to managerial opportunistic behaviours. This finding is

inconsistent with the findings of Jaffar et al. (2021), Kasipillai and Abdul Jabbar (2006) and Wahab et al. (2017).

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

The chapter provides the summary of research findings, conclusion and policy recommendations, contribution to knowledge as well as recommendations for further studies.

5.2 Summary of Findings

1. Board independence has a positive and significant relationship with corporate tax aggressiveness.
2. Board gender diversity has an adverse and significant association with corporate tax aggressiveness.
3. Board national diversity has a positive but insignificant link with corporate tax aggressiveness.
4. Board ethnic diversity has a positive and significant link with corporate tax aggressiveness.

5.3 Conclusion

The general objective of the study was to explore the connection between board diversity and corporate tax aggressiveness in Nigeria. Precisely, corporate tax aggressiveness is a contemporary subject of discourse which will continue to draw the attentions of scholars and other stakeholders in the Nigerian economy due to its significance. Also, the relevant theories reviewed (agency theory, upper echelon theory, and stakeholder theory) have shown the impact of corporate tax aggressiveness for the interest of all stakeholders (citizens). Consequent upon the numerous reviews, results of analysis, interpretations and hypotheses tested, the study

discovered that board independence (BIND) and board ethnic diversity (ETD) have positive and significant relationships with corporate tax aggressiveness, board gender diversity (GEND) has an adverse and significant relationship with corporate tax aggressiveness, board national diversity (NAD), board meeting (BMEET), and firm age (FAGE) have positive but insignificant relationships with corporate tax aggressiveness while firm size (FSIZE) has an adverse but insignificant relationships with corporate tax aggressiveness. Following the empirical findings, the study can conclude that the observed explanatory variables (BIND, GEND, and ETD) are good predictors of corporate tax aggressiveness while other variables (NAD, BMEET, FAGE and FSIZE) are not good predictors of corporate tax aggressiveness in Nigeria.

5.4 Recommendations

Having explored the link between board diversity such as BIND, GEND NAD, and ETD and corporate tax aggressiveness in Nigeria and, flowing from the research findings, this study thus provides the resulting policy recommendations that:

1. the composition of the board should comprise more non-executive directors and independence non-executive directors so as to assist the board to achieve its supervisory and monitoring roles as expected.
2. more qualified and skillful female directors should be encouraged to join the corporate board to ensure its independence and objective tax decision-making process.
3. companies should reduce ethnicity on the corporate board so as to ensure that the interests of the various ethnic groups are not fundamental in taking corporate tax decisions.

5.5 Contributions to Knowledge

The study adds to prevailing studies in that the crux of this study was to critically examine the link between board diversity such as BIND, GEND, NAD, and ETD and corporate tax aggressiveness in Nigeria. Several literature reviewed focused on financial, manufacturing, and healthcare sectors; however, few indigenous studies examined the oil and gas industry in Nigeria. To the best of the student's understanding, this is the leading study to investigate the relationship between board diversity and corporate tax aggressiveness of listed oil and gas corporations in Nigeria after the implementation of the CBN cashless policy in Nigeria.

Most existing studies used the ordinary least squares (OLS), generalised method of moment (GMM), multiple linear regression as well as the logit regression technique in analysing data for the observed variable (s). This study takes a diverse focus from erstwhile literature by employing a panel regression analysis. The justification for this was to account for any endogeneity problem of measurement error which may occur in the independent variables.

This current study also contributes to knowledge by investigating the influence of other variables such as board independence and board ethnic diversity, being modification to the model of Nwezoku and Egbunike (2020), on corporate tax aggressiveness in relation to the oil and gas companies in Nigeria. This is a major methodological improvement to studies in this cycle.

5.6 Recommendations for Further Studies

The broad objective of this study was to explore the link between board diversity and corporate tax aggressiveness in Nigeria. Flowing from the research findings, this study thus recommends for further studies that:

1. Studies should be conducted on the link between board diversity and corporate tax aggressiveness in Nigeria by considering other sectors like education sector, service sector, and information and communication technology (ICT) sectors.
2. Studies should be carried out using other board diversity measures such as board professional qualification and board political affiliation to thoroughly and further investigate the connection between board diversity and corporate tax aggressiveness in Nigeria.

References

- Aburajab, L., Maali, B., Jaradat, M., & Alsharairi, M. (2019). Board of directors' characteristics and tax aggressiveness: Evidence from Jordanian listed firms. *Theoretical Economics Letters*, 9, 2732 - 2745. Doi: 10.4236/tel.2019.97171.
- Ahmed, Z., & Khaoula, F. (2013). The effects of board of directors' characteristics on tax aggressiveness. *Research Journal of Finance and Accounting*, 4(4), 140 – 147.
- Ahmed, Z., & Khaoula, F. (2013). Moderating effects of board of directors on the relationship between tax planning and bank performance: Evidence from Tunisia. *European Journal of Business and Management*, 5(32), 148-154.
- Alatas, S. S. (2017). *Board diversity impact to tax avoidance in European countries*. Published Masters Thesis, University of Groningen.
- Aliani, K. (2013). Does corporate governance affect tax planning? Evidence from American companies. *International Journal of Advanced Research*, 1(10), 864 - 879.
- Aliani, K., & Zarai, M. A. (2012). The board of directors and the corporate tax planning: Empirical evidence from Tunisia. *International Journal of Accounting and Financial Reporting*, 2(2), 142 - 157. <http://dx.doi.org/10.5296/ijafr.v2i2.2525>
- Al-Shaer, H., & Zaman, M. (2018). Credibility of sustainability reports: The contribution of audit committees. *Business Strategy and the Environment*, 27, 973–986. <https://doi.org/10.1002/bse.2046>
- Ararat, M., Aksu, M., & Cetin, A. T. (2015). How board diversity affects firm performance in emerging markets: Evidence on channels in controlled firms. *Corporate Governance: An International Review*, 23(2), 83 - 103.
- Armstrong, C. S., Blouin, J. L., Jagolinzer, A. D., & Larcker, D. F. (2014). *Corporate governance, incentives, and tax avoidance*. Working paper, The Wharton School. <http://dx.doi.org/10.2139/ssrn>
- Armstrong, C. S., Glaeser, S., & Kepler, J. D. (2019). Strategic reactions in corporate tax planning. *Journal of Accounting and Economics*, 68(1), 35 - 78. Doi:10.1016/j.jacceco.2019.03.003
- Aronmwan, E. J., & Ogbaisi, S. H. (2022). The nexus between standalone risk committees and tax aggressiveness: evidence from Nigeria. *Future Business Journal*, 8(1), 1 – 12. <https://doi.org/10.1186/s43093-022-00120-0>
- Banwo, F., & Ighodalo, A. (2019). Examining the limits of tax planning and management in Nigeria: Grey matter. <https://www.banwo-ighodalo.com/grey-matter/examining-limits-tax-planning-management-nigeria>. Accessed 2 December 2023.
- Barros, V., & Sarmiento, J. (2020). Board meeting attendance and corporate tax avoidance: Evidence from the UK. *Business Perspectives and Research*, 8(103), 51 – 66. DOI:10.1177/2278533719860021

- Bosun-Fakunle, Y. F., Josiah, M., & Olowoyo, B. J. (2019). Board of directors characteristics and tax aggressiveness. *International Journal of Management Sciences Research*, 5(1), 133 – 152.
- Boussaidi, A., & Hamed, M. S. (2015). The impact of governance mechanisms on tax Aggressiveness: Empirical evidence from Tunisian context. *Journal of Asian Business Strategy*, 5(1), 1 - 12. <https://doi.org/10.18488/journal.1006/2015.5.1/1006.1.1.12>
- Carter, D. A., D'souza, F., Simkins, B. J., & Simpson, W. G. (2010). The gender and ethnic diversity of US boards and board committees and firm financial performance. *Corporate Governance: An International Review*, 18(5), 396 - 414.
- Chartered Institute of Taxation of Nigeria (2017). Exposure draft: Statement of taxation standard 9 on tax planning
- Croson, R., & Gneezy, U. (2009). Gender differences in preferences. *Journal of Economic Literature*, 47(2), 448 – 474.
- Darmadi, S. (2011). Board diversity and firm performance: The Indonesian evidence. *Corporate Ownership and Control*, 8(2), 45 - 67.
- Dhahri, T., & Jarbouï, A. (2022). Boards of directors' characteristics and tax aggressiveness: A study of Tunisian context. *Revue D'Etudes en Management et Finance D'Organisation*, 14, 1 – 13. <http://revues.imist.ma/?journal=REMFO&page=about>
- Dridi, W., & Boubaker, A. (2016). Corporate governance and book-tax differences: Tunisian evidence. *International Journal of Economics and Finance*, 8(1), 171 – 186. : <http://dx.doi.org/10.5539/ijef.v8n1p171>
- Estélyi, K. S., & Nisar, T. M. (2016). Diverse boards: Why do firms get foreign nationals on their boards? *Journal of Corporate Finance*, 39, 174 - 192. doi:10.1016/j.jcorpfin.2016.02.006
- Fallan, L. (1999). Gender, exposure to tax knowledge, and attitudes towards taxation: An experimental approach. *Journal of Business Ethics* 18(2), 173 – 184.
- Farrel, K. A., & Hersch, P. L. (2005). Additions to corporate board: The effect of gender. *Journal of Corporate Finance*, 11, 85 - 106.
- Felix, R. O., Uwahimire, U. O., Wilson, O. A., Adaze, F. A. & Shedrack, O. I. (2021). Creative accounting: A review of literature. *FUO Quarterly Journal of Contemporary Research*, 9(3), 1 – 22. www.fuojournals.com
- Ferrero-Ferrero, I., Fernandez-Izquierdo, M. A., & Munoz-Torres, M. J. (2015). Integrating sustainability into corporate governance: An empirical study on board diversity. *Corporate Social Responsibility and Environmental Management*, 4, 193-207. doi:<https://doi.org/10.1002/csr.1333>.
- Francis, B., Hasan, I., Park, J. C., & Yan Wu, Q. (2014). Gender differences in financial reporting decision-making: Evidence from accounting conservatism. *Contemporary Accounting Research*, 7(2), 46 - 56. <https://doi.org/10.1111/1911-3846.12098>

- Frank, M. M., Lynch, J. L., & Rego, S. O. (2009). Tax reporting aggressiveness and its relation to aggressive financial reporting. *The Accounting Review*, 84(2), 467 – 496.
- Gërxxhani, K. (2007). Explaining gender differences in tax evasion: The case of Tirana, Albania. *Feminist Economics*, 13(2), 119 – 155.
- Gonzalez, J. S., & Garcia-Meca, E. (2013). Does corporate governance influence earnings management in Latin American markets? *Journal of Business Ethics*, 121(3), 419 - 440. <http://dx.doi.org/10.1007/s10551-031-1700-8>
- Halioui, K., Neifar, S., & Ben Abdelaziz, F. (2016). Corporate governance, CEO compensation and tax aggressiveness: Evidence from American firms listed on the NASDAQ 100. *Review of Accounting and Finance*, 15(4), 445 – 462.
- Harris, M. (1987). *Why nothing works: The anthropology of daily life*. New York: Touchstone.
- Harry, H., & Gaetan, N. (2006). Foreign ownership and corporate income taxation: An empirical evaluation. *European Economic Review*, 50(5), 1223 - 1244. www.europa.eu.int (accessed 26/04/2022)
- Hassan, R., Marimuthu, M., & Johl, S. K. (2015). Diversity, corporate governance and implication on firm financial performance. *Global Business and Management Research: An International Journal*, 7(2), 28-36.
- Hasseldine, J. (1999). Gender differences in tax compliance. *Asia-Pacific Journal of Taxation*, 3(2), 73 – 89.
- Hilling, A., & Ostas, D. T. (2017). *Corporate taxation and social responsibility*. 1st ed., Wolters Kluwer, Skattebiblioteket.
- Hoseini, M., & Gerayli, M. S. (2018). The presence of women on the board and tax avoidance: Evidence from Tehran Stock Exchange. *International Journal of Finance and Managerial Accounting*, 3(9), 53 - 62.
- Ibrahim, A. S., Hairul, A. A., & Siti, N. S. O. (2015). Foreign investors' interests and corporate tax avoidance: Evidence from an emerging economy. *Journal of Contemporary Accounting and Economics*, 11(2), 138 – 147.
- Ilaboya, O. J., & Aronmwan, E. J. (2021). Overconfident CEOs and corporate tax avoidance. *Journal of Accounting and Management*, 11(2), 70 – 80.
- Imade, O. G. (2019). Board gender diversity, non-executive director's composition and corporate performance: Evidence from listed firms in Nigeria. *African Journal of Business Management*, 13(9), 283-290. doi: 10.5897/AJBM2019.8766.
- Jaffar, R., Derashid, C., & Taha, R. (2021). Determinants of tax aggressiveness: Empirical evidence from Malaysia. *Journal of Asian Finance, Economics and Business*, 8(5), 0179 – 0188. doi:10.13106/jafeb.2021.vol8.no5.0179

- Jalali, M., Jalali, F., Moridi, F., Garshasbi, A., & Foroodi, M. (2013). The impact of the board of directors' structure on tax avoidance in the companies listed in Tehran Stock Exchange. *International Research Journal of Applied and Basic Sciences*, 4(9), 2526 - 2531.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behaviour, agency costs and ownership structure. *Journal of Financial Economics*, 3(4), 305 - 360.
- Kasipillai, J., & Abdul Jabbar, H. (2006). Gender and ethnicity differences in tax compliance. *Asian Academy of Management Journal*, 11(2), 73 – 88.
- Kastlunger, B., Dressler, S., Kirchler, E., Mittone, L., & Voracek, M. (2010). Sex differences in tax compliance: Differentiating between demographic sex, gender-role orientation, and prenatal masculinization (2D:4D). *Journal of Economic Psychology*, 31(4), 542 - 552.
- Kristina, M., & Tracy, N. (2010). Do Corporate Governance Characteristics Influence Tax Management? *Journal of Corporate Finance*, 16(5), 703 - 718. <https://www.researchgate.net/publication/222647457>
- Kubick, T. R., & Lockhart, G. B. (2016). Do external labor market incentives motivate CEOs to adopt more aggressive corporate tax reporting preferences? *Journal of Corporate Finance*, 36, 255 – 277. <https://doi.org/10.1016/j.jcorpfin.2015.12.003>
- Kubick, T. R., & Lockhart, G. B. (2017). Corporate tax aggressiveness and the maturity structure of debt. *Advances in Accounting*, 36, 50 – 57. <https://doi.org/10.1016/j.adiac.2016.10.001>
- Kumudha, A., & Jennet, R. (2016). An empirical study about cultural, ethnic and workforce diversity influences on employees in their workplace with special reference to Jebel Ali international hospital in Dubai. *International Journal of Multidisciplinary Research and Development*, 3(4), 262-268.
- Lanis, R., & Richardson, G. (2011). The effect of board of director composition on corporate tax aggressiveness. *The Journal of Accounting and Public Policy*, 30, 50 - 70. <http://dx.doi.org/10.1016/j.jaccpubpol.2010.09.003>
- Lanis, R., Richardson, D., Liu, C., & McClure, R. (2019). The impact of corporate tax avoidance on board of directors and CEO reputation. *Journal of Business Ethics*, 160, 463 – 498. <https://doi.org/10.1007/s10551-018-3949-4>
- Lanis, R., Richardson, G., & Taylor, G. (2015). Board of director gender and corporate tax aggressiveness: An empirical analysis. *Journal of Business Ethics*, 144(3), 577 - 596.
- Lewis, A., Carrera, S., Cullis, J., & Jones, P. (2009). Individual, cognitive and cultural differences in tax compliance, UK and Italy compared. *Journal of Economic Psychology*, 30(3), 431 – 445.
- Liu, H., Wang, H., & Wu, L. (2016). Removing vacant chairs: Does independent directors' attendance at board meetings matter? *Journal of Business Ethics*, 133(2), 375 - 393.

- Mba, M. N., Ofobruku, S. A., Nwanah, C. P., & Anikwe, N. M. (2018). Ethnic diversity and performance of Nigeria Breweries Plc. Enugu State, Nigeria. *International Journal of Social Sciences and Management Research*, 4(5), 75-84. www.iiardpub.org
- Mohamed, M. S., Junaid, M. S., Poh-Ling, H., & Anbalagan, K. (2014). The influence of board characteristics on sustainability reporting: Empirical evidence from Sri Lankan firms. *Asian Review of Accounting*, 22(2), 78-97. DOI 10.1108/ARA-09-2013-0060
- National Bureau of Statistics (2023). *Tax-to-GDP ratio revised computation*. Report Date: June 2023
- Nigerian Code of Corporate Governance (2018)
- Nik, N. B. (2011). *Corporate governance and tax aggressiveness: Evidence from Malaysia*. (Unpublished MBA Research Project), Universiti Sains, Malaysia.
- Nwezoku, N. C., & Egbunike, P. A. (2020). Board diversity and corporate tax aggressiveness behaviour of quoted healthcare manufacturing firms in Nigeria. *International Journal of Advanced Academic Research | Social and Management Sciences*, 6(2), 66 – 96.
- Okafor, R. G. (2012). Tax revenue generation and Nigerian economic development. *European Journal of Business and Management*, 4(19), 49 – 57. <http://www.iiste.org>
- Onyali, C. I., & Okafor, T. G. (2018). Empirical assessment of tax aggressiveness of listed firms in Nigeria. *Accounting and Taxation Review*, 2(3), 13 – 29.
- Osemeke, N., & Osemeke, L. (2017). The role of ethnic directors in corporate social responsibility: Does culture matter? The cultural trait theory perspectives. *International Journal of Disclosure and Governance*, 1 – 48. <http://researchonline.ljmu.ac.uk/id/eprint/5495/>
- Otuedon, A. M. (2021). *Corporate governance and tax aggressiveness in non-financial quoted firms in Nigeria*. Published PhD Thesis, Igbinedion University, Okada, Edo State, Nigeria.
- Oxelheim, L., & Randey, T. (2003). The impact of foreign board membership on firm value. *Journal of Banking and Finance*, 27(12), 2369 – 2392. [https://doi.org/10.1016/S0378-4266\(02\)00395-3](https://doi.org/10.1016/S0378-4266(02)00395-3)
- Pfeffer, J., & Salancik, G. R. (1978). *The external control of organizations: A resource dependence perspective*. Harper and Row, New York.
- Riguen, R., Salhi, B., & Jarboui, A. (2019). Do women in board represent less corporate tax avoidance? A moderation analysis. *International Journal of Sociology and Social Policy*, 6(11), 67 - 89. <https://doi.org/10.1108/IJSSP-10-2019-0211>.
- Sanni, A. U. (2007). *Tax reform in the capital market: A welcome development*. Seminar Paper Ogun State Internal Revenue Service Seminar

- Sarkar, J., Sarkar, S., & Sen, K. (2008). Board of directors and opportunistic earnings management: Evidence from India. *Journal of Accounting, Auditing and Finance*, 23(4), 517 - 551.
- Shi, A. A., Francis, R. C., Cheri, M. R. L., Trisha, A. T. O. H. H., & Angelo, A. U. (2020). An analysis of the effects of foreign ownership on the level of tax avoidance across Philippine publicly listed firms. *DLSU Business & Economics Review*, 30(1), 1 – 14.
- Torgler, B., & Schaltegger, C. A. (2007). Government accountability and fiscal discipline: A panel analysis with Swiss data. *Journal of Public Economics*, 91(1), 117 - 140.
- Uchendu, O., Ironkwe, U. I., & Nwaiwu, J. N. (2016). Corporate governance mechanisms and tax planning in Nigeria. *International Journal of Advanced Academic Research*, 2(9), 45 - 59.
- Ujunwa, A. (2012). Board characteristics and the financial performance of Nigerian quoted firms. *Corporate Governance*, 12(5), 656 - 674.
- Ujunwa, A., Okoyeuzu, C., & Nwakoby, I. (2012). Corporate board diversity and firm performance: Evidence from Nigeria. *Review of International Comparative Management*, 13(4), 605 – 620. Retrieved from www.virtusinterpress.org.
- Vacca, A., Iazzi, A., Vrontis, D., & Fait, M. (2020). The role of gender diversity on tax aggressiveness and corporate social responsibility: Evidence from Italian listed companies. *Sustainability*, 12, 1 – 14. doi:10.3390/su12052007. www.mdpi.com/journal/sustainability
- Wahab, E. A. A., Ariff, A. M., Marzuki, M. M., & Sanusi, Z. M. (2017). Political connections, corporate governance, and tax aggressiveness in Malaysia. *Asian Review of Accounting*, 25(3), 424 – 451. <https://doi.org/10.1108/ARA-05-2016-0053>
- Wen, W., Huijie, C., & Yun, K. (2020). Directors with foreign experience and corporate tax avoidance. *Journal of Corporate Finance*, 62(11), 101 – 624. DOI:10.1016/j.jcorpfin.2020.101624
- Wilson, R. (2009). An examination of corporate tax shelter participants. *The Accounting Review* 84(3), 969 – 999.
- Worlu, C. N., & Nkoro, E. (2012). Tax revenue and economic development in Nigeria: A macro-econometric approach. *Academic Journal of Interdisciplinary Studies*, 1(2), 212 - 218. <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.660.9641&rep=rep1&type=pdf> last assessed 20 October, 2023.
- Yahya, F., Manan, A., Jan Khan, M. W., & Hashmi, M. S. (2021). The moderating role of board gender diversity between power-based corporate governance and tax aggressiveness. *Economics and Business Letters*, 10(2), 140 - 147. DOI: 10.17811/ebl.10.2.2021.140-147

- Ying, T. (2015). *Corporate governance and tax strategies in Chinese listed firms*. Published Master's Thesis, University of Nottingham, Nottingham. <http://eprints.nottingham.ac.uk/28838/>.
- Youssef, S. (2003). Business strategies in a transition economy: The case of Egypt. *Journal of the Academy of Business and Economics*, 3(2), 56 – 78.
- Zachariah, P., Tahir, K. H., & Mohammed, I. (2020). Board attributes and tax planning of listed non-financial companies in Nigeria. *International Journal of Accounting & Finance (IJAF)*, 9(1), 132 – 148.
- Zemzem, A., & Flouhi, K. (2013). The effects of board of directors' characteristics on tax aggressiveness. *Research Journal of Finance and Accounting*, 4(4), 140 – 147.

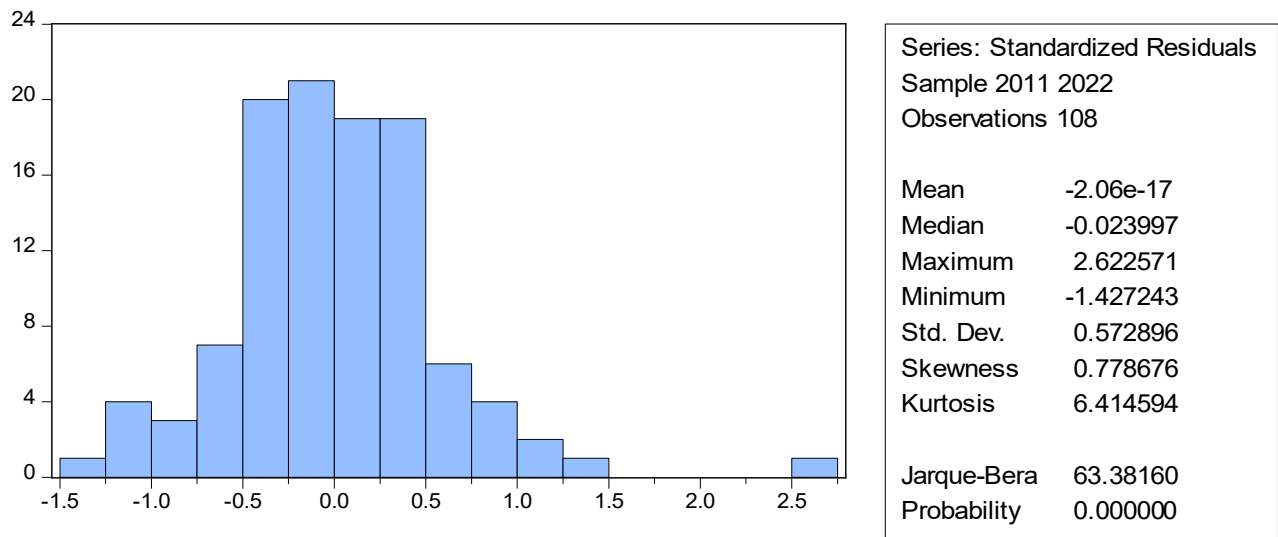
APPENDIX I: RESULT OF ANALYSIS

Descriptive Statistics

	ETR	BIND	GEND	NAD	ETD	BMEET	FAGE	FSIZE
Mean	0.658	0.686	0.722	0.750	0.638	0.664	1.501	7.674
Median	0.493	0.698	1.000	1.000	1.000	0.698	1.556	7.739
Maximum	2.531	1.079	1.000	1.000	1.000	1.113	1.819	9.435
Minimum	-2.803	0.301	0.000	0.000	0.000	0.000	0.301	5.822
Std. Dev.	0.726	0.161	0.449	0.435	0.482	0.211	0.294	1.005
Skewness	0.014	-0.110	-0.992	-1.154	-0.578	-0.982	-1.806	-0.197
Kurtosis	6.847	2.693	1.984	2.333	1.334	4.888	6.572	2.238
Jarque-Bera	66.606	0.641	22.362	26.000	18.503	33.411	116.162	3.310
Probability	0.000	0.725	0.000	0.000	0.000	0.000	0.000	0.191
Sum	71.159	74.195	78.000	81.000	69.000	71.766	162.164	828.881
Sum Sq. Dev.	56.439	2.796	21.666	20.250	24.916	4.806	9.294	108.116
Observations	108	108	108	108	108	108	108	108

Source: Researcher's Computation (2024)

Figure 4.1: Histogram Normality Test



Source: Researcher's Computation (2024)

Correlation Matrix

Covariance Analysis: Ordinary								
Date: 03/01/24 Time: 20:08								
Sample: 2011 2022								
Included observations: 108								
Correlation								
t-Statistic								
Probability	ETR	BIND	GEND	NAD	ETD	BMEET	FAGE	FSIZE
ETR	1.000000							

BIND	0.115648	1.000000						
	1.198710	-----						
	0.2333	-----						
GEND	0.056821	0.478668	1.000000					
	0.585955	5.612990	-----					
	0.5592	0.0000	-----					
NAD	-0.058292	0.421982	0.596762	1.000000				
	-0.601174	4.792143	7.656913	-----				
	0.5490	0.0000	0.0000	-----				
ETD	0.160260	0.556907	0.566676	0.411798	1.000000			
	1.671582	6.903296	7.080954	4.652514	-----			
	0.0976	0.0000	0.0000	0.0000	-----			
BMEET	-0.081650	0.694632	0.321086	0.387730	0.471083	1.000000		
	-0.843451	9.941652	3.490611	4.330704	5.498422	-----		
	0.4009	0.0000	0.0007	0.0000	0.0000	-----		
FAGE	0.006071	-0.171008	-0.057936	-0.074455	-0.075399	-0.108699	1.000000	
	0.062503	-1.786960	-0.597494	-0.768697	-0.778500	-1.125795	-----	
	0.9503	0.0768	0.5515	0.4438	0.4380	0.2628	-----	
FSIZE	-0.084956	-0.248704	-0.429853	-0.206001	-0.135669	-0.056387	0.557222	1.000000
	-0.877854	-2.643631	-4.901554	-2.167395	-1.409830	-0.581465	6.908971	-----
	0.3820	0.0094	0.0000	0.0324	0.1615	0.5622	0.0000	-----

Source: Researcher's Computation (2024)

Test of Heteroskedasticity

Specification: ETR C BIND GEND NAD ETD BMEET FAGE FSIZE			
	Value	df	Probability
Likelihood ratio	97.56187	9	0.0000
LR test summary:			
	Value	df	
Restricted LogL	-112.0530	100	
Unrestricted LogL	-63.27203	100	

Source: Researcher's Computation (2024)

Variance Inflation Factor (VIF)

Variance Inflation Factors			
Date: 03/01/24 Time: 16:01			
Sample: 1 108			
Included observations: 108			
	Coefficient	Uncentered	Centered
Variable	Variance	VIF	VIF
C	1123.783	118.3432	NA
BIND	5.243817	16.92438	2.288778
GEND	127.7452	9.715751	2.698820
NAD	83.85506	6.622951	1.655738
ETD	76.71614	5.161467	1.863863
BMEET	3.887763	12.71831	2.061768
FAGE	0.054413	9.533361	1.570571
FSIZE	18.58880	117.2650	1.959659

Source: Researcher's Computation (2024)

Breusch-Godfrey Serial Correlation LM Test

Breusch-Godfrey Serial Correlation LM Test:			
F-statistic	2.237219	Prob. F(2,98)	0.1122
Obs*R-squared	4.715706	Prob. Chi-Square(2)	0.0946

Source: Researcher's Computation (2024)

Cross-Sectional Dependence Test

Residual Cross-Section Dependence Test			
Null hypothesis: No cross-section dependence (correlation) in residuals			
Equation: Untitled			
Periods included: 12			
Cross-sections included: 9			
Total panel observations: 108			
Cross-section effects were removed during estimation			
Test	Statistic	d.f.	Prob.
Breusch-Pagan LM	36.13814	36	0.4622
Pesaran scaled LM	0.016280		0.9870
Bias-corrected scaled LM	-0.392811		0.6945
Pesaran CD	-2.315401		0.0206

Source: Researcher's Computation (2024)

Panel Estimation Output

Dependent Variable: ETR				
Method: Panel Least Squares				
Date: 03/01/24 Time: 20:11				
Sample: 2011 2022				
Periods included: 12				
Cross-sections included: 9				
Total panel (balanced) observations: 108				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.011075	2.446927	-0.821878	0.4136
BIND	2.078457	1.038916	2.000601	0.0488
GEND	-0.510155	0.267148	-1.909633	0.0597
NAD	0.208366	0.423216	0.492341	0.6238
ETD	0.530383	0.246713	2.149795	0.0346
BMEET	0.029203	0.514624	0.056746	0.9549
FAGE	0.216297	0.976917	0.221408	0.8253
FSIZE	-0.071216	0.247421	-0.287832	0.7742
Effects Specification				
Cross-section fixed (dummy variables)				
Period fixed (dummy variables)				
R-squared	0.377764	Mean dependent var	-0.658884	
Adjusted R-squared	0.178034	S.D. dependent var	0.726270	
S.E. of regression	0.658453	Akaike info criterion	2.214471	
Sum squared resid	35.11840	Schwarz criterion	2.885004	
Log likelihood	-92.58143	Hannan-Quinn criter.	2.486348	
F-statistic	1.891372	Durbin-Watson stat	1.998154	
Prob(F-statistic)	0.016061			

Source: Researcher's Computation (2024)

APPENDIX II: MEASURED DATA

S/N	Companies	Years	Sector	ETR	BIND	GEND	NAD	ETD	BMEET	FAGE	FSIZE
1	Capital Oil PLC	2011	Oil and Gas	1.05866 5914	0.477 121	0	0	0	0.47712 1	1.4149 73	9.35222
	Capital Oil PLC	2012	Oil and Gas	0.19006 1044	0.477 121	0	0	0	0.47712 1	1.4313 64	9.435637
	Capital Oil PLC	2013	Oil and Gas	- 1.45236 1373	0.477 121	0	0	0	0.47712 1	1.4471 58	9.269536
	Capital Oil PLC	2014	Oil and Gas	- 0.80049 6904	0.477 121	0	0	0	0.47712 1	1.4623 98	9.230374
	Capital Oil PLC	2015	Oil and Gas	- 0.99361 5412	0.477 121	0	0	0	0.47712 1	1.4771 21	9.216415
	Capital Oil PLC	2016	Oil and Gas	- 2.00694 8645	0.477 121	0	0	0	0.47712 1	1.4913 62	9.116228
	Capital Oil PLC	2017	Oil and Gas	- 1.56624 1923	0.477 121	0	0	0	0.47712 1	1.5051 5	9.053452
	Capital Oil PLC	2018	Oil and Gas	- 0.46598 4846	0.477 121	0	0	0	0.47712 1	1.5185 14	9.042024
	Capital Oil PLC	2019	Oil and Gas	- 0.58874 2588	0.477 121	0	0	0	0.47712 1	1.5314 79	9.004202
	Capital Oil PLC	2020	Oil and Gas	- 0.53655 72	0.477 121	0	0	0	0.47712 1	1.5440 68	9.257307
	Capital Oil PLC	2021	Oil and Gas	- 0.49342 8956	0.477 121	0	0	0	0.47712 1	1.5563 03	9.082786
	Capital Oil PLC	2022	Oil and Gas	- 0.46474 036	0.477 121	0	0	0	0.47712 1	1.5682 02	9.193926
2	Conoil PLC	2011	Oil and Gas	- 0.48390 9588	0.778 151	1	1	0	0.84509 8	1.7075 7	7.791281
	Conoil PLC	2012	Oil and	- 0.42292	0.477 121	0	1	0	0.84509 8	1.7160 03	7.800002

			Gas	402							
	Conoil PLC	2013	Oil and Gas	- 0.48272 1343	0.698 97	1	1	0	0.77815 1	1.7242 76	7.91578
	Conoil PLC	2014	Oil and Gas	- 0.34160 6376	0.698 97	1	1	1	0.69897	1.7323 94	7.94214
	Conoil PLC	2015	Oil and Gas	- 0.48039 2645	0.698 97	1	1	1	0.69897	1.7403 63	7.84128
	Conoil PLC	2016	Oil and Gas	- 0.47233 3977	0.698 97	1	1	0	0.60206	1.7481 88	7.844064
	Conoil PLC	2017	Oil and Gas	- 0.50159 2247	0.903 09	1	1	0	0.60206	1.7558 75	7.79834
	Conoil PLC	2018	Oil and Gas	- 0.52248 7789	0.903 09	1	1	1	0.60206	1.7634 28	7.784598
	Conoil PLC	2019	Oil and Gas	- 0.51759 2486	0.903 09	1	1	1	0.60206	1.7708 52	7.803354
	Conoil PLC	2020	Oil and Gas	- 0.48314 8292	0.845 098	1	1	0	0.60206	1.7781 51	7.688995
	Conoil PLC	2021	Oil and Gas	- 0.70887 6828	0.845 098	1	1	0	0.60206	1.7853 3	7.732244
	Conoil PLC	2022	Oil and Gas	- 0.71700 7973	0.845 098	1	1	0	0.60206	1.7923 92	7.77811
3	Eterna PLC	2011	Oil and Gas	- 0.49035 2134	0.477 121	1	1	1	0.30103	1.3424 23	7.167666
	Eterna PLC	2012	Oil and Gas	- 0.48107 6705	0.477 121	1	1	1	0.30103	1.3617 28	7.521306
	Eterna PLC	2013	Oil and Gas	- 0.46539 5262	0.477 121	1	1	1	0.30103	1.3802 11	7.261338
	Eterna PLC	2014	Oil and Gas	- 0.55221 707	0.301 03	1	1	0	0.30103	1.3979 4	7.268739
	Eterna PLC	2015	Oil and Gas	- 1.66110 9986	0.301 03	0	1	0	0.30103	1.4149 73	7.45584

	Eterna PLC	2016	Oil and Gas	- 0.41522 2795	0.698 97	0	1	0	0.77815 1	1.4313 64	7.500923
	Eterna PLC	2017	Oil and Gas	- 0.54011 8885	0.698 97	0	1	0	0.77815 1	1.4471 58	7.681655
	Eterna PLC	2018	Oil and Gas	- 0.30720 4971	0.698 97	0	1	0	0.69897	1.4623 98	7.725393
	Eterna PLC	2019	Oil and Gas	0.36073 8877	0.698 97	1	1	1	0.60206	1.4771 21	7.455353
	Eterna PLC	2020	Oil and Gas	- 0.14461 8642	0.698 97	1	1	1	0.90309	1.4913 62	7.553489
	Eterna PLC	2021	Oil and Gas	- 0.75737 4584	0.698 97	1	1	1	0.90309	1.5051 5	7.663534
	Eterna PLC	2022	Oil and Gas	- 0.28610 0765	0.698 97	1	1	1	0.90309	1.5185 14	7.732322
4	Japaul Gold	2011	Oil and Gas	- 0.80423 8756	0.602 06	1	1	1	0.77815 1	1.2304 49	7.435757
	Japaul Gold	2012	Oil and Gas	- 0.43499 0249	0.602 06	1	1	1	0.77815 1	1.2552 73	7.51403
	Japaul Gold	2013	Oil and Gas	- 0.31955 0735	0.602 06	1	1	1	0.77815 1	1.2787 54	7.58857
	Japaul Gold	2014	Oil and Gas	- 0.77385 7792	0.602 06	1	1	1	0.77815 1	1.3010 3	7.587559
	Japaul Gold	2015	Oil and Gas	- 1.75811 4867	0.602 06	1	1	0	0.69897	1.3222 19	7.530067
	Japaul Gold	2016	Oil and Gas	- 2.34351 5386	0.602 06	1	1	0	0.69897	1.3424 23	7.47637
	Japaul Gold	2017	Oil and Gas	- 2.01233 7504	0.602 06	1	1	0	0.69897	1.3617 28	7.447182
	Japaul Gold	2018	Oil and Gas	- 2.80341 8064	0.602 06	1	1	1	0.60206	1.3802 11	7.380905
	Japaul	2019	Oil	-	0.602	1	1	1	0.60206	1.3979	7.365736

	Gold		and Gas	2.56598 4886	06					4	
	Japaul Gold	2020	Oil and Gas	- 0.69604 3885	0.602 06	0	1	0	0.60206	1.4149 73	7.193302
	Japaul Gold	2021	Oil and Gas	- 2.25604 8404	0.602 06	0	1	0	0.60206	1.4313 64	7.116914
	Japaul Gold	2022	Oil and Gas	- 0.73109 5747	0.477 121	0	1	0	0.60206	1.4471 58	7.120477
5	Mrs Oil Nigeria PLC	2011	Oil and Gas	- 0.31060 8078	0.602 06	1	1	1	0.60206	1.6232 49	7.829208
	Mrs Oil Nigeria PLC	2012	Oil and Gas	- 0.33872 3605	0.602 06	1	1	1	0.60206	1.6334 68	7.745041
	Mrs Oil Nigeria PLC	2013	Oil and Gas	- 0.26031 3271	0.602 06	1	1	1	0.69897	1.6434 53	7.81753
	Mrs Oil Nigeria PLC	2014	Oil and Gas	- 0.37902 5681	0.602 06	1	1	1	0.69897	1.6532 13	7.762278
	Mrs Oil Nigeria PLC	2015	Oil and Gas	- 0.44426 3942	0.698 97	1	1	1	0.77815 1	1.6627 58	7.825385
	Mrs Oil Nigeria PLC	2016	Oil and Gas	- 0.44475 5149	0.698 97	1	1	1	0.77815 1	1.6720 98	7.910437
	Mrs Oil Nigeria PLC	2017	Oil and Gas	- 0.37835 587	0.698 97	1	1	1	0.77815 1	1.6812 41	7.793723
	Mrs Oil Nigeria PLC	2018	Oil and Gas	- 0.94368 8223	0.698 97	1	1	1	0.77815 1	1.6901 96	7.734665
	Mrs Oil Nigeria PLC	2019	Oil and Gas	- 0.58237 9711	0.778 151	1	1	1	0.77815 1	1.6989 7	7.645517
	Mrs Oil Nigeria PLC	2020	Oil and Gas	- 0.83483 8006	0.778 151	1	1	1	0.69897	1.7075 7	7.564182
	Mrs Oil Nigeria PLC	2021	Oil and Gas	- 1.34024 8808	0.698 97	1	1	1	0.77815 1	1.7160 03	7.570605
	Mrs Oil Nigeria	2022	Oil and	- 0.34081	0.698 97	1	1	1	0.69897	1.7242 76	7.607735

	PLC		Gas	2407							
6	Oando PLC	2011	Oil and Gas	- 0.09128 99	0.778 151	1	1	1	0.69897	1.6232 49	8.608146
	Oando PLC	2012	Oil and Gas	- 0.41393 3444	0.778 151	1	1	1	0.69897	1.6334 68	8.711861
	Oando PLC	2013	Oil and Gas	- 0.87833 0623	0.903 09	1	1	1	0.77815 1	1.6434 53	8.772246
	Oando PLC	2014	Oil and Gas	- 1.33296 0839	0.778 151	1	1	1	0.84509 8	1.6532 13	8.949084
	Oando PLC	2015	Oil and Gas	- 2.15582 0384	0.778 151	1	1	1	0.84509 8	1.6627 58	8.976039
	Oando PLC	2016	Oil and Gas	- 2.14263 5798	0.778 151	1	1	1	0.77815 1	1.6720 98	8.996312
	Oando PLC	2017	Oil and Gas	- 0.45427 6171	0.845 098	0	0	1	0.95424 3	1.6812 41	9.017107
	Oando PLC	2018	Oil and Gas	- 1.32768 0559	0.845 098	0	0	1	0.95424 3	1.6901 96	9.031453
	Oando PLC	2019	Oil and Gas	- 0.34551 0953	0.845 098	0	0	1	0.95424 3	1.6989 7	8.981349
	Oando PLC	2020	Oil and Gas	- 1.32240 4384	0.778 151	0	0	1	0.95424 3	1.7075 7	9.142764
	Oando PLC	2021	Oil and Gas	- 0.60610 5845	0.778 151	0	1	1	0.95424 3	1.7160 03	8.998287
	Oando PLC	2022	Oil and Gas	- 1.17385 2254	0.778 151	0	1	1	0.95424 3	1.7242 76	8.772246
7	Rak Unity PLC	2011	Oil and Gas	- 0.18434 286	0.477 121	0	0	0	0	1.4623 98	6.119771
	Rak Unity PLC	2012	Oil and Gas	- 0.19997 6007	0.477 121	0	0	0	0	1.4771 21	6.381961
	Rak Unity PLC	2013	Oil and Gas	- 0.49485 0035	0.477 121	0	0	0	0	1.4913 62	8.681922

	Rak Unity PLC	2014	Oil and Gas	- 0.49433 8061	0.301 03	0	0	0	0	1.5051 5	6.074024
	Rak Unity PLC	2015	Oil and Gas	- 0.49300 1632	0.698 97	1	0	1	0.60206	1.5185 14	5.842697
	Rak Unity PLC	2016	Oil and Gas	2.53170 5416	0.698 97	1	0	1	0.47712 1	1.5314 79	6.149125
	Rak Unity PLC	2017	Oil and Gas	- 0.48238 3271	0.698 97	1	0	1	0.69897	1.5440 68	6.172128
	Rak Unity PLC	2018	Oil and Gas	- 0.46098 4561	0.698 97	1	0	1	0.69897	1.5563 03	6.299681
	Rak Unity PLC	2019	Oil and Gas	- 0.22709 7085	0.602 06	1	0	0	0.69897	1.5682 02	6.308321
	Rak Unity PLC	2020	Oil and Gas	- 1.48762 6896	0.602 06	1	0	0	0.69897	1.5797 84	6.118628
	Rak Unity PLC	2021	Oil and Gas	- 0.69604 3885	0.602 06	1	1	0	0.69897	1.5910 65	6.271219
	Rak Unity PLC	2022	Oil and Gas	- 2.25604 8404	0.602 06	1	0	0	0.69897	1.6020 6	6.28416
8	Seplat Petroleum PLC	2011	Oil and Gas	- 0.18434 286	0.903 09	1	1	1	0.77815 1	0.3010 3	5.826841
	Seplat Petroleum PLC	2012	Oil and Gas	- 0.19997 6007	0.903 09	1	1	1	0.77815 1	0.4771 21	5.95433
	Seplat Petroleum PLC	2013	Oil and Gas	- 0.69312 2426	0.903 09	1	1	1	0.77815 1	0.6020 6	6.119771
	Seplat Petroleum PLC	2014	Oil and Gas	- 0.59721 3113	0.903 09	1	1	1	0.69897	0.6989 7	6.381961
	Seplat Petroleum PLC	2015	Oil and Gas	- 0.60804 0935	0.903 09	1	1	1	0.77815 1	0.7781 51	6.43805
	Seplat Petroleum PLC	2016	Oil and Gas	- 1.36738 7978	0.903 09	1	1	1	0.77815 1	0.8450 98	5.82261
	Seplat	2017	Oil	0.70146	0.903	1	1	1	0.77815	0.9030	5.902847

	Petroleum PLC		and Gas	1313	09				1	9	
	Seplat Petroleum PLC	2018	Oil and Gas	0.35316 4109	0.903 09	1	1	1	1.11394 3	0.9542 43	5.889669
	Seplat Petroleum PLC	2019	Oil and Gas	1.00253 8381	0.903 09	1	1	1	1.04139 3	1	6.001834
	Seplat Petroleum PLC	2020	Oil and Gas	1.19565 9046	1.041 393	1	1	1	1	1.0413 93	6.117549
	Seplat Petroleum PLC	2021	Oil and Gas	0.46946 6608	1.079 181	1	1	1	0.95424 3	1.0791 81	6.205079
	Seplat Petroleum PLC	2022	Oil and Gas	0.31185 9781	1.041 393	1	1	1	1.04139 3	1.1139 43	6.1991
9	Total Nigeria PLC	2011	Oil and Gas	0.45701 4224	0.778 151	1	1	1	0.60206	1.7403 63	7.768785
	Total Nigeria PLC	2012	Oil and Gas	0.46603 1114	0.778 151	1	1	1	0.60206	1.7481 88	7.881197
	Total Nigeria PLC	2013	Oil and Gas	0.46458 726	0.778 151	1	1	1	0.60206	1.7558 75	7.89984
	Total Nigeria PLC	2014	Oil and Gas	0.69010 3915	0.778 151	1	1	1	0.60206	1.7634 28	7.98006
	Total Nigeria PLC	2015	Oil and Gas	0.42373 3682	0.778 151	1	1	1	0.60206	1.7708 52	7.922484
	Total Nigeria PLC	2016	Oil and Gas	0.56386 9302	0.778 151	1	1	1	0.84509 8	1.7781 51	8.136493
	Total Nigeria PLC	2017	Oil and Gas	0.49467 8105	0.778 151	1	1	1	0.60206	1.7853 3	8.033351
	Total Nigeria PLC	2018	Oil and Gas	0.46598 4846	0.778 151	1	1	1	0.69897	1.7923 92	8.122284
	Total Nigeria PLC	2019	Oil and Gas	0.58874 2588	0.778 151	1	1	1	0.60206	1.7993 41	8.126416
	Total Nigeria	2020	Oil and	0.53655	0.698 97	1	1	1	0.69897	1.8061 8	8.157193

	PLC		Gas	72							
	Total Nigeria PLC	2021	Oil and Gas	- 0.49342 8956	0.698 97	1	1	1	0.77815 1	1.8129 13	8.319583
	Total Nigeria PLC	2022	Oil and Gas	- 0.46474 036	0.698 97	1	1	1	0.60206	1.8195 44	8.488291