

DIRECT TAX AND ECONOMIC DEVELOPMENT

Ikhide Ejededawe EIGBE

MGS1706339

**DEPARTMENT OF ACCOUNTING
FACULTY OF MANAGEMENT SCIENCES
UNIVERSITY OF BENIN
BENIN CITY**

JANUARY, 2023

DIRECT TAX AND ECONOMIC

Ikhide Ejededawe EIGBE

MGS1706339

**A RESEARCH PROJECT SUBMITTED TO THE DEPARTMENT OF
ACCOUNTING, FACULTY OF MANAGEMENT SCIENCES, UNIVERSITY OF
BENIN, BENIN CITY IN PARTIAL FULFILMENT OF THE REQUIREMENTS
FOR THE AWARD OF BACHELOR OF SCIENCE DEGREE IN ACCOUNTING.**

JANUARY, 2023

DECLARATION

I declare that:

1. This project report is based on the study undertaken by me in the Department of Accounting, University of Benin, under the supervision of **Prof. E. Eragbhe**.
2. This work has not been previously submitted for award of degree elsewhere.
3. All ideas and views are products of my personal research effort.
4. Where the views of others have been expressed, they have duly been acknowledged.

Ikhide Ejededawe EIGBE
MGS1706339

Date: _____

CERTIFICATION

We certify that **Ikhide Ejededawe EIGBE** with the Matriculation Number **MGS1706339** submitted this research work to the Department of Accounting, Faculty of Management Sciences, University of Benin, Benin City.

Prof. E. Eragbhe
Project Supervisor

DATE

Dr. N. Ohonba
Project Co-ordinator

DATE

Prof. K. O. Ogiedu
Head of Department

DATE

DEDICATION

This work is dedicated to God Almighty for giving me the strength and grace to complete this work and also to my family, friends for their unending support throughout my stay in this school.

ACKNOWLEDGEMENTS

First and foremost, praises and thanks to God Almighty, for His blessings throughout my research work to complete the project successfully.

My profound gratitude goes to my supervisor Prof E. Eragbhe for his patience, guidance, enthusiastic encouragement, valuable suggestions and also for the time he spent correcting this work despite his tight schedule to ensure the efficacy of this work.

I would like to thank my friends and my course mates for their support, may God Almighty bless them.

TABLE OF CONTENTS

TITLE.....	i
DECLARATION.....	ii
CERTIFICATION.....	iii
DEDICATION.....	iv
ACKNOWLEDGEMENTS.....	v
TABLE OF CONTENTS.....	vi
ABSTRACT.....	xi

CHAPTER ONE:INTRODUCTION

1.1 Background to the Study.....	1
1.2 Statement of the Research Problem.....	3
1.3 Objectives of the Study.....	4
1.4 Research Hypotheses.....	4
1.5 Scope of the Study.....	5
1.6 Significance of the Study.....	5

CHAPTER TWO: LITERATURE REVIEW

2.1 Introduction	6
2.2 Conceptual Review	6
2.2.1 Firm Value	6
2.2.1.1 Tobin's Q	7
2.2.2 Tax Planning	7
2.2.2.1 Measurements of Tax Planning	12
2.2.2.1.1 Effective Tax Rate	12
2.2.2.1.2 Book-Tax Gap (BTG)	14
2.2.2.1.3 Differential Tax (DTAX)	15
2.2.2.1.4 Tax Shelter Measures	15
2.2.2.2 Challenges of Tax Planning	15
2.2.2.2.1 Direct Costs	16
2.2.2.2.2 Indirect Costs	17
2.2.2.3 Tax Planning Opportunity	18
2.2.2.3.1 Loopholes in Tax Law	18
2.2.3 Tax Planning and Firm Value	19
2.2.3.1 Effective Tax Rate and Firm Value	20

2.2.3.2 Tax Savings and Firm Value	20
2.2.3.2 Firm Size and Firm Value	21
2.2.3.4 Financial Leverage and Firm Value	22
2.2.3.5 Capital Intensity and Firm Value	22
2.3 Review of Previous Studies	23
2.4 Theoretical Review	27
2.4.1 Agency Theory	28
2.4.2 Scholes-Wolfson Tax Planning Framework	29
2.4.3 Hoffman Tax Planning Theory	31
2.5 Conceptual Framework	32
 CHAPTER THREE: METHODOLOGY	
3.1 Introduction	34
3.2 Research Design	34
3.3 Population of the Study	34
3.4 Sample Size and Sampling Technique	34
3.5 Source of Data	35
3.6 Variable Operationalization and Measurement	35

Source: Researchers compilation (2022).....	36
3.7 Theoretical Framework and Model Specification.....	36
3.8 Method of Data Analysis.....	38
 CHAPTER FOUR: PRESENTATION AND ANALYSIS OF DATA	
4.1 Introduction.....	39
4.2 Presentation of Results.....	39
4.2.1 Descriptive Statistics.....	39
4.2.2 Correlation Analysis.....	42
4.2.3 Multicollinearity Analysis.....	43
4.2.4 Unit Root Analysis.....	44
4.2.4 Regression Analysis on Tax Planning and Firm Value of Oil and Gas Firms in Nigeria.....	45
4.3 Test of Hypotheses.....	47
4.4 Discussion of Findings.....	48
 CHAPTER FIVE: SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION	
5.1 Introduction.....	50

5.2 Summary of Findings	50
5.3 Conclusion	50
5.4 Recommendations	51
5.4.1 Policy Recommendations	51
REFERENCES	53
APPENDIX	61

ABSTRACT

The study empirically investigates the relationship between tax planning and firm value in Nigeria.

The study covered a period of ten years (2011-2020) using data for nine listed oil and gas firms in Nigeria. Five variables (effective tax rate, tax savings, firm size, leverage and capital intensity) were used as the explanatory variables. The panel least squares technique was specifically employed to examine the nexus between these explanatory variables and firm value in Nigeria.

The empirical results revealed that: effective tax rate has a negative and insignificant relationship with firm value of oil and gas firms in Nigeria; tax savings has a negative and significant relationship with firm value of oil and gas firms in Nigeria; capital intensity has a positive and insignificant relationship with firm value of oil and gas firms in Nigeria; leverage has a positive and significant relationship with firm value of oil and gas firms in Nigeria; and firm size has a positive and significant relationship with firm value of oil and gas firms in Nigeria. Against the backdrop of the foregoing findings, the study recommended the maximization of tax deductions that will lower their tax rates as well as increasing leverage ratios for oil and gas companies in Nigeria.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Taxation is a major fiscal policy tool used in the management and control of any given economy (Nwaobia et al., 2016). According to Zhu et al. (2019), taxes are used to stimulate economic growth as well as encourage investment. According to Omesì and Appah (2020a), taxes are a major source of revenue for governments all over the world. They contended that it is a mandatory contribution made by members of any given society to the state subject to the government's jurisdiction in order to generate revenue to facilitate economic growth, economic stabilization, income redistribution, promoting fairness and equity, fiscal responsibility and accountability, and the provision of national goods and services (Omesì & Appah, 2020b). Taxpayers, according to Mais and Patmininingih (2017), are expected to contribute to the growth and development of any given economy. However, taxpayers regard tax payment as a burden, so they reduce the burden of corporate income tax by exploiting loopholes in various tax provisions. Tax planning allows for the reduction of one's tax burden. According to Hanlon and Heitzman (2010) and Mappadang (2019), the goal of tax planning is to reduce taxable income.

Corporate tax planning refers to the activities undertaken by company executives to reduce the amount of corporate tax payable (Appah, 2019). According to Uchendu et al. (2016), tax planning entails strategies designed to reduce a company's corporate tax liability and the cash flow effect on the business in terms of when it is most advantageous for a business to settle its tax liability without incurring any penalty. According to Nwaobia et al. (2016), effective corporate tax planning practices reduce the effective tax rate to the point where it is lower than the statutory tax rate. They also claimed that tax planning practices have a positive impact on a company's cash flow and, as a result, improve the firm's after-tax rate of return. According to

Chukwudi et al. (2020), tax planning is a practice that uses the effective tax rate to minimise a company's tax liability, this is achieved when a firm utilises the tax exemptions, deductions, and benefits offered by tax authorities in the best possible way to minimise their liability. According to Dyreng et al. (2008), tax planning entails taking into account the dynamics and loopholes in tax laws in order to minimise corporate tax burden. According to Chen et al. (2016), tax planning has the advantage of reducing firms' tax liabilities thereby resulting in a higher after-tax position. Ftouhi et al. (2014), Nwaobia et al. (2016) and Izevbekhai and Odion (2018) noted that corporate tax planning increases the after tax earnings and improves the interest of shareholders.

Firm value is commonly understood to be an economic measure reflecting the market value of an entire business. It is the sum of the claims of all contributors to a company's assets, namely creditors (secured and unsecured) and equity holders. Firm value is defined in finance as the sum of the market value of equity and the market value of debt (Nwaobia et al., 2015). Firm value is increased when shareholders' wealth is increased through profits and improved cash flow; thus, tax planning is an important component of any entity's financial planning program.

Firm value is a critical component used to assess the performance of managers in any given business entity. Firm value, according to Nwaobia et al. (2016), is an economic measure used to examine the market value of an entire business. Chukwudi et al. (2020) opine that firm value is the price paid by wealthy investors when a company is sold, and it is also the value in the eyes of the public in terms of the corporate survival of business. As a result, it is critical to assess the specific ways in which corporate tax planning affects firm value. Chen et al. (2010) argued that tax planning is essential for shareholders because it reduces corporate tax liability, which creates funds for investment in profitable ventures and in the long run affects the firms' share value and ultimately enhance shareholders' wealth. This is due to the fact that tax planning can have an impact on firm value both positively and negatively.

1.2 Statement of the Research Problem

Prior research has found that large corporations engage in aggressive tax planning (Rego, 2003; Frank, et al., 2009). According to some of these studies, large firms have more resources and better opportunities to implement tax planning strategies, for example, by utilizing the tax incentives provided to them. An effective tax planning strategy will reduce a company's effective tax rates to the point where they are lower than the statutory tax rate.

As a result, tax planning will have a positive impact on a company's cash flow and increase its after-tax rate of return. On the other hand, there are potential costs associated with tax-cutting strategies, such as implementation and transaction costs, potential penalties imposed by tax authorities, and reputation risks that must be considered. Despite this, Khaoula et al. (2013) argue that the role of tax planning in the integration process of streamlining financial and economic activities of companies in accordance with their development strategy has become increasingly important. For a thorough understanding of the relationship between tax planning and firm market value, it is necessary to analyse the specific mechanism through which tax planning affects firm market performance.

Previous research on tax planning and firm value yielded mixed and inconclusive results. While some researchers (e.g., Chashiandani, & Martani, 2012; Nwaobia et al., 2016; Chen et al., 2016; Razali et al., 2018; Kirkpatrick, & Radicic, 2020) found a positive relationship between tax planning and firm value, others (e.g., Ftouhi et al., 2014; Izevbekhai, & Odion, 2018; Oeta et al., 2019; Chukwudi et al., 2020; Nafti et al., 2020) revealed a negative association between tax planning and firm value. Prior studies, however, were inconclusive due to changes in sample size, a lack of independent variable inclusion such as capital intensity and leveraged as well as the use of one or two tax planning variables (effective tax rate, tax savings and firm size) in some studies. This flaw creates a significant gap in previous research. As a result of the aforementioned gap created by previous studies in terms of findings and

conclusions, this study will aim to fill the gap by introducing additional variables such as capital intensity and leverage in the current study. However, in order for the study's objectives to be realized, the following pertinent questions shall be answered:

1. What is the effect of effective tax rate on firm value in Nigeria?
2. To what extent does tax savings impact on firm value in Nigeria?
3. What is the relationship between firm size and firm value in Nigeria?
4. What is the effect of leverage on firm value in Nigeria?
5. What is the effect of capital intensity on firm value in Nigeria?

1.3 Objectives of the Study

The broad objective of this study is to establish the impact of tax planning on firm value in Nigeria. The specific objectives are to:

1. investigate the effect of effective tax rate on firm value in Nigeria;
2. ascertain the effect of tax savings on firm value in Nigeria;
3. determine the effect of firm size on firm value in Nigeria;
4. examine the effect of leverage on firm value in Nigeria; and
5. find out the effect of capital intensity on firm value in Nigeria.

1.4 Research Hypotheses

The following null hypotheses will be tested:

1. Effective tax rate does not have a significant effect on firm value in Nigeria.
2. Tax savings does not have a significant effect on firm value in Nigeria.
3. Firm size does not have a significant effect on firm value in Nigeria.
4. Leverage does not have a significant effect on firm value in Nigeria.
5. Capital intensity does not have a significant effect on firm value in Nigeria.

1.5 Scope of the Study

The study focuses on the effect of tax planning on firm value in Nigeria. The study will be confined to selected firms listed on the floor of the Nigerian Stock Exchange for the period 2011-2020 (11 years) to ensure uniformity of reporting systems and comparable financial data. The study will investigate the effect of effective tax rate, tax savings, firm size, leverage and capital intensity on firm value in Nigeria. Firm value will be proxied by Tobins Q which is gotten by dividing market value of firms' total assets by replacement cost of assets. The study will make its observations based on the financial information provided by the selected listed firms in their annual reports and Nigerian stock exchange Factbook, which are publicly available to investors.

1.6 Significance of the Study

The study of the effect of tax planning on firm value in Nigeria is expected to be beneficial to a number of parties such as policy makers, listed firms, and academicians.

Policy Makers: It is hoped that the study will provoke policy makers to give more attention to tax planning given its contribution to firm value as will be determined by this study. Examples of interested policy makers include the National Treasury (NT), the Federal Inland Revenue Service (FIRS), and the NSE.

Listed Firms: This study will help listed companies in Nigeria in appreciating the value of tax planning and the nexus between tax planning and firm value. This will enable them devise appropriate tax planning strategies for improved firm value.

Academia: The study will contribute to the body of knowledge, and hence, will be of interest to both researchers and academicians who seek to explore the relationship between tax planning and firm value.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This section reviews literatures on tax planning and firm value in Nigeria. The section shall be in three (3) sections namely; conceptual review, review of previous studies and theoretical review. The conceptual review will discuss concepts related to the subject matter, that is, on tax planning and firm value in Nigeria. The review of previous studies will present previous studies, adopted statistical tools and their respective findings while the theoretical review will highlight and briefly discuss relevant theories on the relationship between tax planning and firm value.

2.2 Conceptual Review

2.2.1 Firm Value

The meaning of value can be interpreted in a variety of ways. According to Adegbe et al. (2019), value can be explained by the concepts of fair market value, fair value, investment value, and intrinsic value. As stated by Adegbe et al. (2019), the increase in share price demonstrates investors' confidence in the firm, as they are willing to pay more in order to achieve higher financial returns. According to Chukwudi et al. (2020), firm value is the price paid by wealthy investors when a company is sold, and it is also the value in the eyes of the public in terms of corporate survival. As a result, a firm's value is equal to its total assets. It is made up of the market value of the shares as well as the liabilities. Hidayat et al. (2019) maintained that stock prices, stock returns, earnings per share (EPS), price earnings ratio (PER), Tobin's Q, and price to book value are all used by investors to determine firm value (PBV). According to Adegbe et al. (2019), firm value can be measured using accounting-based indicators such as return on asset, return on equity, price earnings ratio, and price to book value, whereas market-valued indicators typically use Tobin's Q. It is calculated by dividing

total assets by (total assets plus market value of ordinary shares minus book value of ordinary shares minus deferred tax). Tobin's Q is a measure of firm value that demonstrates management performance in managing the firm's assets. Its value describes the condition of the firm's investment opportunities or the firm's growth potential (Adegbie et al., 2019; Hidayat et al., 2019).

2.2.1.1 Tobin's Q

James Tobin developed this market base (ratio) measure of financial performance. He stated that the cost of replacing a firm's assets is equal to their current market value, and thus assets should be stated in current market value rather than book value. A ratio is calculated by dividing the market value of equity by the cost of replacing its current assets.

A ratio (Tobin's Q) value greater than one indicates that the firm has efficiently used its available assets and may need to consider purchasing more current assets to meet operational expenses and obligations. A ratio (Tobin's Q) less than one indicates to investors that the company may be undervalued and represents a potential avenue for a buyout. In making investment decisions about a company, the Tobin's Q ratio has become a popular tool for determining a company's value. As a result, there has been a call to use this financial performance measure in research (Bhagat & Bolton, 2013; Jeremias & Gani, 2014; O'Reilly et al., 2014). Baulkaran (2014) is another proponent of using the Tobin's Q ratio to measure financial performance. He defines the Tobin's Q ratio as the current value of a company's ordinary stocks and liabilities divided by its total assets.

2.2.2 Tax Planning

Taxes on corporate profits are mandatory and typically represent a large outflow for firms in Nigeria. If not properly planned, this can result in a disproportionate and unwilling transfer of corporate resources to the government, which can have a negative impact on the firm's

operating capacity and value. Tax planning refers to how taxpayers manage and strategize to reduce their income tax burdens by utilising the government's tax incentives within the parameters of tax law provisions (Yusof et al., 2014).

Scholes et al. (2015) argued in their global tax planning framework that tax planning is a tax-favored activity in that the tax planning costs are tax-deductible. While it is undeniably an important managerial tool for increasing firm value, Scholes et al. (2015) demonstrate that tax minimisation and effective tax planning are not the same thing. This implies that different approaches to tax tactics exist; thus, it is critical to understand the consequences of firms' tax strategy selection (Neuman, 2014). According to the Scholes-Wolfson paradigm, when tax planning, "the planner should consider the implications of a proposed transaction for all parties, consider all taxes, and consider all costs involved." The 'all parties' recommendation implies that there are two or more parties in any transaction who have the potential to influence the transaction's price. The phrase "all taxes" was intended to emphasise that not only explicit taxes but also implicit taxes may arise in a transaction or investment (Scholes et al., 2015). The final component of their approach is 'all costs,' which was intended to emphasise that when making a tax planning decision, a planner should consider all costs involved in the planning process.

Tax planning, according to Uchendu et al. (2016), entails strategies designed to reduce a company's corporate tax liability and the cash flow effect on the business in terms of when it is most advantageous for a business to settle its tax liability without incurring any penalty (Chukwudi et al., 2020). According to Nwaobia et al. (2016), effective corporate tax planning practises reduce the effective tax rate to the point where it is lower than the statutory tax rate. They also claimed that tax planning practises have a positive impact on a company's cash flow, which improves the firm's after-tax rate of return. According to Chukwudi et al. (2020), tax planning is a practise that uses the effective tax rate to minimise a company's tax liability.

According to Soufiene et al. (2016), tax planning practises include minimising corporate income tax in order to maximise after-tax income. According to Izevbekhai and Odion (2018), tax planning can be active or passive. An active tax planning situation is one in which financial transactions are carried out with the goal of minimising tax liability. Passive financial planning, on the other hand, implies no intention of reducing tax liability in the financial reporting process. According to Ilaboya et al. (2016), tax planning is the use of exemptions, deductions, rebates, reliefs, and other tax incentives provided by the tax laws for the sole purpose of reducing corporate tax liability. According to Chen et al. (2010), tax planning is an important practise used by corporate executives to minimise tax liabilities, which reduces company and shareholder returns.

Tax planning generally entails lowering taxable income, increasing deductions, and maximising tax credits. The adjustable gross income is the first step in tax planning. Adjusted gross income is generally defined as total gross income less certain deductions. As a result, the first approach to tax planning is to lower the adjusted gross income for a given taxable year. For example, a company's interest income from treasury bonds generates tax exemptions, lowering taxable income. The second method of tax planning is to increase the tax cost. For example, in China, from January 1, 2018 to December 31, 2020, newly acquired fixed assets with a unit value of less than 5 million yuan can be expensed in a single lump sum in the year of purchase. This means that the entire cost of an asset can be treated as an allowable deduction, lowering the adjusted gross income in the year of purchase. This is referred to as accelerated depreciation (Sun et al., 2020).

Charitable contributions, which are tax-deductible up to 12% of the annual accounting profit and any excess amount in the reporting year, can also be carried forward and remain deductible for the next three years. Non-charitable donations, on the other hand, are not tax deductible. As

a result, businesses that choose charitable donations over non-charitable donations can save taxes.

The final step in tax planning is to take advantage of tax credits. Tax credits do not reduce taxable income; instead, they are deducted directly from the tax debt. Apart from common tax credits such as medical expenses for employees, subscriptions, foreign tax credits, and so on, there are also industry-oriented tax credits, geography-based tax credits, and investment tax credits in China. China's income tax law exempts or reduces tax by half for any investment in agriculture, forestry, animal husbandry, or fishery projects. A non-agriculture firm may invest in the agriculture sector and use that investment as a vehicle for tax planning purposes as a tax planning technique. Sheven (2020) emphasised that, while most tax literature avoids referencing Scholes and Wolf's framework, many of their determinants can be classified as non-tax costs and implicit taxes, implying that the framework is present.

Tax planning is an important part of financial planning because it allows a tax manager and the company to reduce the company's tax liability and improve the firm's financial performance (Ogundajo & Onakoya, 2016). According to Morien (2008), paying taxes in business is unavoidable in a well-organized economy. Effective tax planning strategies can benefit the company in terms of wealth creation. As a result, tax planning is an essential component of the company's financial plan, which includes investment, financing, and wealth creation strategies.

Tax planning entails implementing relevant incentive provisions for corporate taxpayers based on enabling legislation such as the CITA, PITA, VAT, and other enactments. Effective tax planning necessitates a thorough understanding of the tax policies and other regulations outlined in the country's fiscal policies. Tax planning, according to Yusof et al. (2014), refers to how taxpayers manage and strategize to reduce their income tax burdens by utilising the government's tax incentives within the boundaries of tax law. Tax avoidance is defined by

Hanlon and Heitzman (2010) as the reduction of explicit taxes per dollar of profit before tax. In the accounting literature, however, there is no universally accepted definition of tax avoidance. Tax avoidance, in this broad sense, represents a continuum of tax planning strategies, encompassing both perfectly legal activities (for example, bond investments, capital allowances, and the use of debt financing) and more aggressive transactions that fall within the tax provisions. According to Choog (2007), tax planning is critical to achieving the goal of minimising or deferring income tax to a later year of assessment within the confines of the law. Taxes can take a large portion of a company's earnings and thus reduce its distributable profit; this may be why companies try to avoid paying taxes. According to Ayers et al. (2018), managers prioritise tax avoidance in order to reduce tax expenses while also improving cash flows.

Tax planning is a component of financial plans that provides an opportunity to reduce an organization's tax liability while increasing its income. Firms that take advantage of tax law loopholes tend to have a lower tax burden. Taxes are deductions from a company's cash flow and income distributed to shareholders. The benefit of increased cash flow from tax avoidance practises will be realised, but at a cost (Annuar et al., 2014). Although tax planning can boost earnings, there are potential costs that can prevent businesses from maximising profits through tax planning. For example, when corporate restructuring is required to obtain the desired tax benefits, potential costs can exist to the extent that tax planning is challenged by tax administration, resulting in reputational cost. Tax planning has traditionally been thought to benefit shareholders by increasing after-tax earnings. It is argued that when there is an information asymmetry between managers and shareholders regarding tax planning, managers may act in their own personal interests, resulting in a negative impact of tax planning on firm value (Abdul Wahab & Holland, 2012). According to Izevbekhai and Odion (2018) and Chukwudi et al. (2020), tax planning practises can be measured using the effective tax rate.

According to Izevbekhai and Odion (2018), a company's ability to conduct proper tax planning is derived from the effective tax rate and tax savings.

2.2.2.1 Measurements of Tax Planning

Prior studies based on financial statements' data used a variety of tax planning measures. Ibrahim et al. (2013) categorise the measures into three categories: tax proportion of business income, the magnitude of the difference between accounting income and taxable income, and others. Hairul et al. (2014) group the measures into three categories, which is similar to this classification. The first category includes measures that take into account the magnitude of the difference between book and taxable income. These are the total book-tax gap, the residual book-tax gap, and the tax-effect book-tax gap. The second category includes constructs that calculate the proportion of taxes paid to business income. These include tax rates that are effective (this comes in several variants like accounting ETR; current ETR; cash ETR; long-run cash ETR; ETR differential; ratio of income tax expense to operating cash flow; and ratio of cash taxes paid to operating cash flow). Other measures in the third group include discretionary permanent differences (PERMIDIFF)/DTAX, unrecognised tax benefits (UTB), and tax shelter estimates. A tax sheltering measure has been identified in addition to the three groups. These measures are discussed further below:

2.2.2.1.1 Effective Tax Rate

ETR is the most commonly used tax planning metric. This is due to the fact that ETR aids in estimating the effectiveness of a company's tax planning activities (Mills et al., 1998; and Phillips, 2003). While ETR is generally defined as the ratio of tax liability to accounting income, there are several variants documented in the literature. The following variants are discussed:

- i. **Accounting ETR:** In the United States, this is known as generally accepted accounting

principles (GAAP) ETR. It is the ETR reported in the financial statements. It is calculated by dividing total tax expenses by accounting income before taxes. As a result, it reflects the total proportion of accounting income payable as tax. As a result, it assesses tax planning in relation to accounting earnings. Chen et al. (2010), as well as Armstrong, Blouin, and Larcker (2012), have used this metric. Accounting ETR has been a widely used measure of tax planning, but it is not without limitations. To begin with, accounting ETR could only capture nonconforming tax planning because it measures tax planning in relation to accounting earnings. Second, it may not reflect tax deferral strategies due to the use of aggregate tax expenses.

- ii. **Current ETR:** This is not the same as accounting ETR. Current ETR is calculated by dividing current-year tax expense by total accounting income before taxes. It reflects a firm's tax deferral strategies by comparing current income tax to total tax expense, giving it an advantage over accounting ETR. Hope et al. (2012), Lanis and Richardson (2012), and others used current ETR because of its merit.
- iii. Although current ETR reflects firms' deferral strategies, it only captures non-conforming tax planning. Accounting and current ETR are also subject to year-to-year volatility and cannot reveal long-term tax planning. As a result, long-run cash ETR is an alternative to the two measures found in the literature.
- iv. **Long-run cash ETR:** Long-term cash flow The ETR is the ratio of cash taxes paid to accounting income before taxes. The use of cash tax paid rather than tax expense helps to minimise the effects of items such as valuation allowance and tax cushions (Dyreng et al., 2008). According to Minnick and Noga (2010), cash tax measured ETR considers the tax benefits of employee stock options, whereas accounting ETR does not. Aside from this advantage, long-run cash ETR uses tax information for multiple years (say, 3-10 years), which helps to eliminate volatility in year-level measures

(Hanlon & Heitzman, 2010).

The timing differences between the treatment of certain items under financial and tax accounting are primarily responsible for the volatility in tax planning measurement (otherwise known as temporary difference). According to Dyreng et al. (2008), this volatility will fade over time, and tax planning should be measured using multiple year data rather than annual data. As a result, studies such as Chen et al. (2010); Dyreng et al. (2010); Minnick and Noga (2010); Kim et al. (2011); Armstrong et al. (2012); Hope et al. (2012), and Huseynov and Klamm (2012) use long-run cash ETR to measure tax planning in addition to accounting ETR or current ETR over time periods ranging from 3 to 16 years.

2.2.2.1.2 Book-Tax Gap (BTG)

The magnitude of the difference between accounting income and taxable income is the focus of the other group of tax planning measures (book-tax gap). Although there are numerous causes of BTG, which are typically classified as permanent and temporary differences, the size of the gap indicates the presence of tax planning practises (Kim et al., 2011). Mills (1998) finds a positive relationship between BTG and larger audit adjustment and tax audit among US firms to support this. Total book-tax gap and residual book-tax gap are two commonly used BTG measures to capture tax planning. Manzon and Plesko (2002) developed a model for measuring total BTG, and Chen et al. (2010) apply the model to tax planning in US companies. Because total BTG can be influenced by the firm's earning management practises, Desai and Dharmapala (2006) attempt to capture the unexplained portion of total BTG, also known as abnormal total BTG (Hanlon & Heitzman, 2010), and thus develop residual BTG. In Chen et al. (2010), Desai and Dharmapala (2007), and Kim et al. (2010), this metric was used to assess tax planning. Tang and Firth (2011) are working on another variant of BTG. The metric is known as Tax-effect BTG. The most commonly used BTG is an income-effect BTG, which employs the general corporate income tax rate. Tax-effect BTG, on the other hand, is based on the

difference between income tax expense and current tax expenses, and is thus relevant in a business setting where firms face different tax rates.

2.2.2.1.3 Differential Tax (DTAX)

DTAX is an ETR differential tax planning measure. The difference between the statutory company income tax rate and a firm's ETR is defined as the ETR differential; the unexplained portion of the ETR differential is captured in the differentiation developed by Frank et al (2009). It was created with the discretionary permanent difference in mind (PERMDIFF). In their study of the effects of tax directors' compensation on tax planning, Armstrong et al. (2012) use this measure in addition to the other measures of tax planning. This metric is also known as tax savings. Several tax researchers, either directly or indirectly, believe that tax savings are a result of tax planning (Scholes et al., 1992; Rego, 2003; and Slemrod, 2004).

2.2.2.1.4 Tax Shelter Measures

Wilson (2009) created a model for investigating tax avoidance firms. The metric has proven to be a useful guide in estimating tax planning. While this metric is useful for inferring tax planning, it was developed with selection biases (Hanlon & Heitzman, 2010). This is due to the sample used by the accused firms. In this study, GAAP ETR is used to calculate tax planning. GAAP ETR captures tax planning strategies through accounting accruals, which has an impact on accounting earnings. It is primarily used in tax planning.

2.2.2.2 Challenges of Tax Planning

Companies face some challenges in achieving their tax planning objectives. According to Scholes et al. (2008), firms must practise optimal tax planning, which includes considering the effects of tax planning on all costs, all parties, and all taxes. Prior research has found that the costs of tax planning are important in several cases, allowing us to interpret the restrictions and their effects through costs and non-tax costs. The authors added that these costs must be

assessed before beginning tax planning activities because tax planning and tax reduction can be costly. As a result, the activity will continue only if the costs are expected to be less than the tax cuts. These circumstances would be unfavourable if the government later raised the company's tax rates in response to low tax revenues (Tran-Nam & Evans, 2000; Rego, 2003; Slemrod, 2004; and Rego & Wilson, 2012).

Overall, the costs incurred by firms as a result of tax planning are a result of the current tax planning strategies in place. Curry et al. (2007) distinguish two types of tax planning costs. The first is related to current costs incurred as a result of tax planning practise, whereas the second is related to future costs incurred as a result of additional tax planning activities pursued through the application of new tax planning methods in the future.

2.2.2.2.1 Direct Costs

Legal fees are borne by corporations as part of the cost of compliance in order to achieve the goal of tax planning. This is due to the limitations of the judicial and legislative branches in tax planning. The Internal Revenue Service (IRS) and courts may use judicial doctrines and legislative provisions to challenge tax planning strategies. Legal costs of tax planning can also be associated with foreign aid, for example, fees paid to lawyers, accountants, and other relevant parties (Howell O'Neill, 2012). In addition, additional costs of foreign aid and expenses in the conduct of tax planning were discovered in a study to examine investments in tax planning (including home countries) (Hanlon & Heitzman, 2010). According to Howell O'Neill (2012), 'home' costs include salaries for the company and the IRS, as well as fringe benefits. Direct costs are cash flows that tax planners must incur directly in order to achieve the goal of tax planning. These expenses include the costs of taxes and legal counsel (Jones & Rhoades-Catanach, 2005; Schreiber & Fuehrich, 2007; Armstrong et al. 2012).

2.2.2.2 Indirect Costs

Tax planning becomes ineffective due to the production efficiency of neutral tax, which avoids both direct and indirect costs of tax planning (tax costs and legal advice, as well as the cost to the government to tackle tax evasion). Indirect costs arise as a result of the taxpayer changing his financing plans due to the presence of taxes and investments (deadweight loss) (Schreiber & Fuehrich, 2007; Howell O'Neill, 2012). Furthermore, director compensation and reputation, political costs, and implicit tax are all indirect costs that must be considered in tax planning. In the case of performance-based remuneration, which reduces remuneration and reporting income, executive compensation may suffer. This could be viewed as tax disadvantageous for the corporation's administration, which relies on performance-based rewards for employees, particularly when it comes to granting financial incentives to managers (Stapledon, 2004).

Previous research suggests that managerial incentives influence tax planning options. Nonetheless, there is little evidence associated with the precise incentives of tax directors, who directly participate in a firm's tax decisions (Armstrong et al. 2012). Conflicts arise as a result of the reputation, which reflects the compensation of managers, as well as the political and implicit costs. Nonetheless, it is important to note that the impact of financial reporting and tax planning can operate in two ways, influencing financial accounting and tax planning decisions (Shackelford & Shevlin, 2001). However, one significant limitation of this model is that shareholders are unable to monitor the compensation contract or determine whether managers are engaging in legal tax planning or illegal tax evasion (Armstrong et al. 2012).

Rego et al. (2012) discovered a positive relationship between stock return volatility and a company's tax aggressiveness, which is consistent with the finding that equity risk-taking incentives encourage managers to engage in more aggressive tax planning. However, tax planning imposes significant costs on businesses and their managers.

This could take the form of attorney and accountant fees, as well as the time that they and their employees devote to planning and resolving tax authority audits. Rego et al. (2012) show that if tax authorities are successful in challenging an aggressive tax position, costs can skyrocket.

2.2.2.3 Tax Planning Opportunity

Tax planning opportunity deals with how tax law loopholes and firm characteristics contribute to tax planning. According to Slemrod (2004), tax law loopholes create a tax planning opportunity because ambiguity in tax law leads to creative compliance by taxpayers. Similarly, firms with certain unique characteristics have a better chance of effective tax planning than other firms.

2.2.2.3.1 Loopholes in Tax Law

The existence of loopholes in tax law may cause taxpayers to avoid paying taxes without violating the law. In tax jargon, a loophole is defined by Saxton (1999) as a technicality that allows one to circumvent the law's intent without violating the letter of the law. Hoffman (1961) claims that the existence of loopholes is a reason for more effective tax planning activities in the context of effective tax planning because of detailed elaboration in response to sophisticated problems and situations among different groups of tax payers. As a result, it is likely that loopholes in tax law have arisen as a result of the law's complexity, with the more complex the law, the more loopholes will be available (Abdul-Wahab, 2010). As Slemrod (2004) points out, the complexity of tax law, which leads to open interpretation, could facilitate creative compliance, which would then aid ethical rationalisation.

As long as tax authorities do not discover loopholes in tax law, the opportunity for effective tax planning exists. The authority is concerned about the tax planning opportunity provided by the complexity of the law because the main purpose of tax law is to ensure that tax functions as a social instrument (Aharony & Geva, 2003), which is related to the ethical or moral function of tax payers. According to Aharony and Geva (2003), from a Kantian ethics standpoint, efforts

to exploit tax loopholes are based on the expectation that the tax authority will not discover the avoidance opportunity. However, a tax payer should be aware of the temporary nature of loopholes because the tax authority may quickly close the opportunity for tax planning by issuing supplementary government legislation or its own rulings (Hoffman, 1961).

From a utilitarian standpoint, Aharony and Geva (2003) emphasised the possibility of adding a new layer of complexity to the law, which would then undermine the law's efficiency. This is also consistent with James and Wallschutzky (1997), who argue that having more legislation creates more loopholes and revisions to tax law. Alternatively, the authority may emphasise to taxpayers the ethical and moral implications of tax planning in order to reduce tax planning opportunities through tax law loopholes. In dealing with tax planning strategies designed to exploit loopholes, Murphy (2005) emphasises efforts to restore faith and equity to the system. In other words, the authorities' alternative strategy for closing loopholes or convincing taxpayers not to exploit them could be ethics and moral views.

Because the law is not violated, it could be inferred that tax law provides an opportunity for tax planning activities such as avoidance. However, the opportunities provided by the loopholes may not last for long because authorities may impose new rules and regulations. Furthermore, prior research (James et al., 1997) emphasises that efforts to close loopholes by enforcing more rules and regulations will incur additional costs as well as provide additional opportunities for tax planning.

2.2.3 Tax Planning and Firm Value

The relationship between tax planning and firm value can be explained from two perspectives. The first point made was that tax planning increases after-tax profits, which is of interest to shareholders (Wahab & Holland, 2012). The second angle implies that tax planning is complicated and may allow for managerial opportunism. This can result in a decrease in firm value when managers underreport accounting profit, as well as an incentive to reduce

corporate income tax liability by understating a firm's taxable income (Wahab & Holland, 2012). Previous empirical research found a positive and negative relationship between tax planning and firm value. Oeta et al. (2019); Razali, et al. (2018); and Kirkpatrick and Radicic (2020) found a positive relationship between tax planning and firm value, whereas other studies found a negative relationship.

2.2.3.1 Effective Tax Rate and Firm Value

This is used to explain how much a company pays in taxes as a percentage of its pre-tax earnings (Johnson et al., 2012). According to Izevbekhai and Odion (2018), the effective tax rate for corporations is calculated as the total tax expense divided by earnings before tax. Several empirical studies have been conducted on the effective tax rate and firm value. Previous research (Minnick & Noga, 2010; Timothy et al., 2020) found a positive relationship between effective tax rate and tax planning, whereas other research (Nanik & Ratna, 2015; Izevbekhai & Odion, 2018) found a negative relationship.

2.2.3.2 Tax Savings and Firm Value

This is the difference between the statutory and effective tax rates (Ftouhi et al., 2010; Izevbekhai & Odion, 2018; Ilaboya et al., 2016). It is used as a tax planning metric to demonstrate that managers have the ability to reduce tax expense in annual financial reports because tax is viewed as a tool through which businesses can generate permanent tax savings and/or temporary tax savings through tax deferrals (Izevbekhai & Odion, 2018). Lisowsky et al. (2013) discovered a link between tax savings and financial performance. This is because the cost of tax planning is less than the cost of tax savings. In contrast, Armstrong, Blouin, and Larcker (2012) discovered a negative relationship between tax savings and firm value because capital providers lack sufficient knowledge of the tax planning practises of firm managers.

2.2.3.2 Firm Size and Firm Value

According to Hapsoro and Falih (2020), company size is the total value of a company's assets, which can be used to calculate company value. According to Harahap et al. (2020), as the size of the company grows, assets turn around faster, increasing net sales and company profits and, ultimately, firm value. According to Harahap et al. (2020), increasing the company's size will increase its production capacity and sales, resulting in an increase in company profits and, ultimately, the company's value. However, the larger firm size, as measured by total assets, does not always have an impact on both the company and the investors. When the firm size as measured by total assets is too large, it is regarded as a negative signal by investors. A large firm is known to cause a lack of efficacy in management's monitoring of organisational operations and plans, resulting in a decrease in the company's value. Putu et al. (2014) demonstrated that firm size has a positive impact on PBV. However, this study contradicts the findings of Susanti and Restiana (2018), who discovered that firm size has a negative impact on PBV. Meanwhile, Djameluddin et al. (2018) discovered that the size of the firm has no effect on PBV.

Once proper strategic tax planning is in place, the size of a company influences firm value. Corporate tax planning is a practise that necessitates specific knowledge and abilities. As a result, the size of a firm and its capacity in terms of human resource availability are thought to have a direct influence on the extent to which tax planning is practised (Nwaobia et al., 2016). According to Salawu and Adedeji (2017), the size of the board influences its effectiveness. This is due to the fact that the size of the board has an impact on the company's management policy. According to Ftouhi et al. (2014) in Nwaobia et al. (2016), larger firms can achieve better tax planning practises due to the abundance of resources and incentives available to them. The findings of Oeta et al. (2019); Timothy et al. (2020) indicate a positive but insignificant relationship between firm size and firm value. On the contrary, Banchuenvijit

(2012) and Nwaobia et al. (2016) found a negative relationship between firm size and firm value. This is because large size incurs additional costs due to diseconomies of scale. The natural log of total assets is used to approximate firm size.

2.2.3.4 Financial Leverage and Firm Value

Financial leverage is another dimension that has been used in previous studies to assess firm value. According to Ftouhi et al. (2014), companies with higher debt-to-equity ratios are more efficient at reducing corporate income tax. They stated that better-leveraged companies have lower effective tax rates because they use debt deductions to reduce corporate income tax payments. According to Nwaobia et al. (2016), financial leverage provides a tax shield as a tax planning practise that improves shareholders' earnings, thereby increasing the firm's value. The findings of Oeta et al. (2019); Timothy et al. (2020) indicate a negative insignificant relationship between financial leverage and firm value.

2.2.3.5 Capital Intensity and Firm Value

According to Ilaboya et al. (2016), capital intensity is the amount of non-current asset investment, and there is a positive relationship between capital intensity and firm value (Shaheen & Malik, 2012; Oeta et al., 2019). According to Nwaobia et al. (2016), capital intensity is the level of a firm's investment in non-current assets and, by extension, the level of tangible assets associated with a firm's tax incentives. This is the context in which capital intensity is used in this study, and it has been proven to be a good tax planning practise. Previous research has also found a negative relationship between capital intensity and firm value (Nwaobia et al., 2016; Razali et al., 2018). According to Akintoye et al. (2020), capital intensity is the amount of money spent to produce one Naira output, and the more capital used to produce that same unit, the more capital intensive the firm is said to be. It is calculated by dividing total non-current assets by total assets (Zhu et al., 2019; Oeta et al., 2019; Akintoye et al., 2020).

2.3 Review of Previous Studies

Fagbemi et al. (2019) investigated the corporate tax planning and financial performance of Nigerian deposit money banks from 2006 to 2016. The study used an ex post factor research design, with the population consisting of all the listed banks on the Nigeria Stock Exchange during the study period. The data for the study were obtained from the sampled banks' published annual reports, and the information gathered was analysed using descriptive, diagnostic, and inferential statistics. The pooled ordinary least squares model guided the inferential statistics. The findings revealed that the effective tax rate has a negative and significant impact on the financial performance of banks. The study also found that capitalization has a positive significant effect on financial performance, whereas capital intensity and lease option had an insignificant effect. They concluded that corporate tax planning has an impact on bank financial performance based on the tax planning strategy used.

Timothy et al. (2020) investigated corporate tax planning, board compensation, and firm value in Nigeria from 2008 to 2015. Ex post facto research was used in this study. The study population included non-financial and non-oil and gas firms listed on the Nigerian Stock Exchange (NSE), while the sample included 71 firms from the study population for the time period under consideration. The study's data came from the published financial statements of sample firms. The dependent variable (return on assets) and independent variable (effective tax rate) are the dependent variables, while the control variables are the independent variables (firm size and leverage). Secondary data was analysed using descriptive and inferential statistics like correlation and regression analysis. Their findings indicate a positive and significant relationship between tax planning practises and firm value of Nigerian listed non-financial firms.

Chukwudi et al. (2020) investigated the tax planning and firm value of Nigerian Stock Exchange-listed consumer goods companies from 2009 to 2018. Their study used an ex post

facto research design, and the population consisted of all consumer goods companies, with a sample size of twenty-one. Secondary data from the sampled firms' published financial statements and accounts were used to generate the study's data. Descriptive and inferential statistics were used to analyse the collected data. A panel multiple regression model guided the inferential statistics. The empirical analysis revealed that tax planning, as proxied by the effective tax rate, has a negative and significant impact on firm value, whereas book tax difference has a positive and significant impact on firm value.

Salawo et al. (2017) examined corporate tax planning and firm value of non-financial firms listed on the Nigerian Stock Exchange between 2004 and 2014. The study used an ex post facto and correlational research design with a population of 151 companies and a sample of fifty (50) companies using stratified sampling. The study used secondary sources of data from the sampled companies' published financial statements, and the data was analysed using econometric models such as the stationarity test, panel cointegration test, vector autoregression, and granger causality. (Tobin Q) was the dependent variable, and (Tobin Q) was the independent variable (tax planning). The findings revealed a significant non-directional causality between tax planning (ETR) and FirmValue.

Between 2010 and 2014, Nwaobia et al. (2016) conducted a study on tax planning and firm value in Nigeria's listed consumer goods industrial sector. Their study used an ex post facto research design, with a population of 80 listed consumer goods firms and a sample of ten (10) firms. The data for their study came from the ten sample companies' published financial statements and accounts for the time period under consideration. The obtained secondary data were analysed using descriptive and inferential statistics. A panel regression model guided the inferential statistics. The findings indicate a significant positive relationship between effective tax rate, dividend, and firm age and firm value. In addition, the study found a negative relationship between firm size, tangibility, and financial leverage and firm value.

For the period 2010 to 2016, Izevbekhai and Odion (2018) examined tax planning and firm value of companies listed on the Nigerian Stock Exchange. The study made use of an ex post facto research design. The population of their study included all companies listed on the Nigerian Stock Exchange, and the sample included 89 firms. The data was obtained from the sample firms' published financial statements. TobinQ was the dependent variable, while the independent variables (Effective Tax Rate and Tax Savings) and several control variables were present. The information gathered from the businesses was analysed using descriptive, diagnostic, and inferential statistics. A panel regression model guided the inferential statistics. The panel regression analysis revealed a negative relationship between effective tax rate and firm value, whereas tax savings revealed both a positive and negative relationship with firm value. Firm size, as a control variable, had a positive relationship with firm value, whereas leverage and capital intensity had a negative relationship with firm value.

Omesi and Appah (2021) investigated the effects of corporate tax planning on the firm value of Nigerian listed consumer goods companies from 2015 to 2019. Ex post facto and correlational research designs were used in the study. The study's sample size was determined using Taro Yamen's formula, which included twenty-six companies. The data for the study were obtained from the sampled companies' published annual financial statements, and data analysis was performed using pooled ordinary least squares. The analysis' findings revealed a negative and insignificant relationship between the effective tax rate, tax savings, and capital intensity on corporate firm value. Furthermore, the study found a positive but insignificant relationship between firm size and leverage on firm value. The paper concluded that tax planning (effective tax rate and tax savings) has no effect on a firm's value for the period under consideration, which runs from 2015 to 2019.

Akintoye et al. (2020) used an ex post facto research design to investigate the tax planning strategies and profitability of listed manufacturing firms in Nigeria from 2008 to 2017. The

study's population was fifty-two (52) firms, with a sample size of forty-six (46) firms calculated using Taro Yamini's model. The study drew data from the annual reports of the sample firms as secondary sources. Descriptive and inferential statistics were used to analyse the data obtained from the published financial statements. Multiple regression analysis revealed no significant relationship between tax planning and return on assets (ROA) of Nigerian listed manufacturing firms. Their research also found that tax planning strategies have a positive and negative impact on the financial performance of Nigerian listed manufacturing firms.

Oeta et al. (2019) conducted a study of tax planning and financial performance of Nairobi Stock Exchange-listed companies from 2010 to 2017. They used positivism research and an exploratory research design in their study. The data for this study was obtained from the sampled companies' published annual reports, and the data was analysed using descriptive and inferential statistics from multiple regression analysis. According to the findings of the study, there is no statistically significant relationship between tax planning and corporate financial performance of Kenyan listed manufacturing companies. As a result, the study concluded that tax planning has no effect on the level of financial performance of Kenyan listed companies.

Silvy (2019) investigated corporate tax planning and firm value of Indonesian Stock Exchange-listed manufacturing firms from 2014 to 2016. Ex post facto and correlational research designs were used in the study. Purposive sampling was used to arrive at a sample size of 43 firms from a study population of all manufacturing firms. Secondary sources of data were gathered from the sampled firms' annual reports and accounts. Multiple regression analysis was used to analyse secondary data using descriptive and inferential statistics. According to the regression results, tax planning (cash effective tax) has a negative impact on firm value.

Lestari and Wardhani (2015) investigated the tax planning and firm value of Indonesian listed non-banking and financial firms from 2010 to 2011. Ex post facto and correlational research designs were used in their study. Purposive sampling was used to obtain a sample of 221 firms from a population of all listed non-banking and financial firms. The study gathered information from the financial reports of the sampled firms. The study's dependent variable was firm value; the independent variable was tax planning (tax savings); and board diversity served as a moderator variable. The data from the annual report was analysed using a multiple regression model's descriptive and inferential analysis. The findings suggested a link between tax planning and firm value. Furthermore, board diversity increases the positive impact of tax planning and firm value.

Razali et al. (2018) conducted a study on tax planning and firm value in Malaysia from 2014 to 2016. Ex post facto and correlational research designs were used in the study. The secondary data came from the financial statements of 387 firms chosen at random. The dependent variable (firm value) and the independent variables (effective tax rate and book tax differences) were the dependent variables, while the control variables were firm size, leverage, asset tangibility, firm age, and dividend. For the purpose of data analysis, descriptive and inferential statistics were used. The results of the multiple regression analysis revealed that the effective tax rate has a positive and significant influence on firm value, whereas the book tax difference has a significant negative influence on firm value. The control variables leverage, asset tangibility, dividend, and firm age all showed a negative relationship. Their research concluded that the effective tax rate has a significant impact on firm value.

2.4 Theoretical Review

Three theories have been discovered to be the most commonly used in the literature when assessing the effects of tax planning on firm value. Agency theory, the Scholes-Wolfson tax planning framework, and the Hoffman tax planning theory are examples of these.

2.4.1 Agency Theory

Agency theory is a theory that identifies the agency relationship in which one party, the principal, delegated work to another, the agent. The owners are the principal in the context of a corporation, and the directors are the agents (Mallin, 2007). When one or more people, known as principals, hire one or more other people, known as agents, to perform some services on their behalf, an agency relationship is formed. In business, the most important agency relationships are those between stockholders and managers, as well as those between debt holders and stockholders. These are not always harmonious relationships. Agency theory, in fact, is concerned with the conflicts of interest that arise between agents and principals.

The information asymmetry between principal and agent is central to agency theory. It assumes that both principals and agents are rational, and that agents will be motivated to take advantage of any opportunity to increase their wealth, including attacking the interests of principals (Solomon & Aris 2004). According to agency theory, managers may engage in tax planning to further their own interests, consuming company resources from tax savings while harming the interests of other shareholders. Simultaneously, big shareholders may advocate some tax planning activities that harm the interests of small shareholders and other stakeholders in order to gain personal gain in the enterprise with the dominant equity structure.

Agency comes with costs, which result in agency costs, which are expenses incurred to maintain an effective agency relationship. As a result, agency theory has emerged as a dominant model in the literature of financial economics and is widely discussed in the literature of business ethics. According to Bowie and Edward (1992), formal agency theory emerged in the early 1970s, but the concepts underlying it have a long and varied history.

According to the principal-agent model, managers are less likely to engage in strictly profit-maximizing behaviour in the absence of strict shareholder oversight (Prowse, 1992; Agrawal &

Knoeber, 1996). As a result, if owner-controlled firms are more profitable than manager-controlled firms, concentrated ownership appears to provide better monitoring, which leads to better performance. This may also explain why some managers prefer to avoid taxes more than others.

However, an emerging body of literature (Desai et al. 2006, Desai et al., 2007) that examines tax planning in an agency theory framework suggests that managerial diversion and tax sheltering are complementary, providing opportunities for managers to use tax sheltering technologies to advance their own managerial interests rather than shareholders' interests, and managers at well-governed firms are more likely to pursue value-economy strategies.

Tax sheltering, in particular, has the effect of making a firm's financial issues less transparent to outsiders, which facilitates managerial opportunism; thus, managers frequently attempt to blur the underlying intent of tax planning transactions in order to shield income from tax authorities, creating a shield that can potentially be used in the appropriation of firm wealth by insiders such as managers and controlling shareholders (Desai et al., 2006). As a result, an increase in managerial diversion may tend to accompany an increase in tax planning activity, adding costs on top of the costs associated with aggressive tax planning. As a result, the agency theory of tax planning suggests that shareholders may not always desire tax planning due to the combined costs, which include costs directly related to tax planning activities such as tax planning costs, IRS tax penalties, and additional compliance costs, as well as non-tax costs.

2.4.2 Scholes-Wolfson Tax Planning Framework

Scholes and Wolfson's (1992) framework revolutionised tax planning theory around the world by incorporating three basic aspects of efficient tax planning: all parties, all taxes, and all costs. The authors introduced the previously fragmented concept of tax efficiency, which resulted in an analysis of tax planning actions in a new, more responsible, and broader light (Antonio &

Andre, 2014). The framework emphasises that efficient tax planning must consider all parties involved in the process, all taxes levied, whether implicit or explicit, and all related costs, even if they are uncertain. Furthermore, they demonstrated that taxes are only one of many costs that can be influenced by tax planning (Scholes et al., 2008). They used concepts from risk and return theory to define what they call implicit taxes. This is the marginal difference between the acquisition cost of an asset that provides a certain rate of return and what it would be worth if the tax rate were to change (Scholes et al., 2008).

The authors also introduced the concept of tax clienteles, which is similar to the definition of implicit taxes. While the former captures the marginal effect of an asset's cost before and after a change in its tax burden (time section), the latter extracts this difference by comparing an asset's tax burden to a similar one (cross section) with the same risk and subtracting the effect of the difference from the transaction cost. The premises of the two concepts are the theory of efficient markets, the absence of arbitrage (except for transaction cost), the theory of balanced prices, and the theory of risk and return.

The explanations for implicit taxes and tax clienteles are based on the same financial theory. When there is a marginal variation in the effective tax rate on this asset, in time or in space, that is, between the assets, they involve the marginal value aggregated to the firm in proportion to its discounted free cash flow. This theory contributes to risk theory by introducing new perspectives on the tax aspect as a relevant factor for understanding, analysing, and empirically demonstrating risk. Until then, asset pricing theory in the financial literature approached the tax aspect only by considering the firm's explicit tax rate, net of the tax benefit of debt financing, known as tax shielding.

Other than the tax shield, tax planning can have other effects on the pricing of an asset. We also look into whether it affects a firm's market risk and, as a result, its cost of equity capital.

Scholes et al. (2008) identified all costs as an additional aspect of tax planning. They suggested that managers monitor all costs in a tax plan, including the other indirect costs that this process may bring to the company. Thus, effective tax planning is more than just tax minimisation; it takes into account all taxes, all parties, and all costs when maximising earnings after tax.

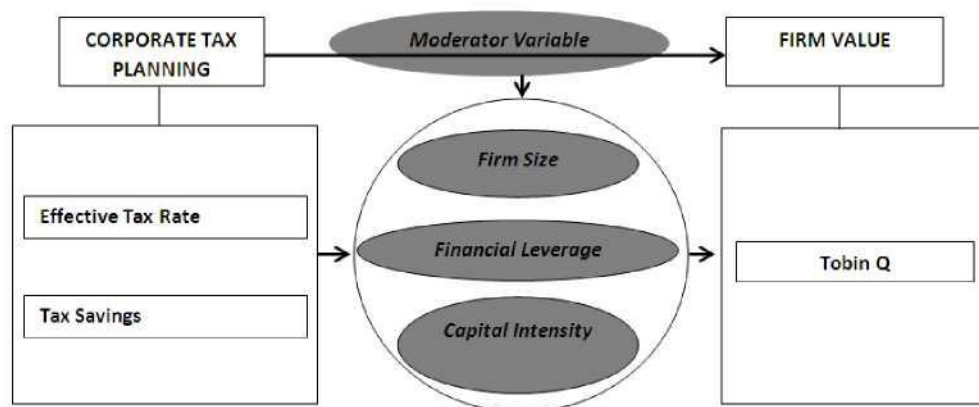
2.4.3 Hoffman Tax Planning Theory

Hoffman tax planning theory advocates firms redirecting corporate returns to other firms rather than to government authorities (Hoffman, 1961). Due to the sophisticated nature of tax processes and structures, legal loopholes are unavoidable, allowing tax payers to benefit from favourable tax positions. Tax planning, according to Hoffman (1961), seeks to divert cash that would otherwise flow to tax authorities to corporate entities. Tax planning activities are desirable insofar as they reduce taxable income to the bare minimum while preserving accounting income. The theory is based on the fact that a company's tax liability is determined by its taxable income rather than its accounting income. Thus, the goal is to increase the number of activities that reduce taxable income but have no indirect impact on accounting profit. As a result, the theory recognised a positive relationship between firm tax planning activity and firm performance.

Hoffman explained that tax planning entails businesses using legal means to reduce tax liabilities by exploiting loopholes in tax laws or the legal system. According to the theory, a tax plan should be flexible in order to accommodate changes in tax law, personalised according to the needs of the taxpayers, and a professional product that is well coordinated to include and support the various types of taxes - corporate, income, capital gains, and gifts. He went on to say that a tax plan should be able to reconcile the competing interests of the parties involved, be time conscious in order to account for the taxpayer's future tax obligations, and be completely honest (Hanlon & Heitzman, 2009).

Hoffman (1961) recognised the role of tax cost in tax planning activities as well. According to the theory, the positive relationship between tax planning and corporate performance is based on the basic assumption that tax benefits from tax planning outweigh tax costs. The scope of Hoffman's tax planning theory excludes tax planning dynamics and market performance. As capital markets mature and the separation of corporate ownership and control becomes more common, the need for a comprehensive tax planning theory becomes critical (Inger, 2012).

2.5 Conceptual Framework



CHAPTER THREE

METHODOLOGY

3.1 Introduction

This study's methodology included research design, study population, sample size and sampling techniques, source of data, measurement of variables, theoretical framework and model specification as well as method of data analysis.

3.2 Research Design

The purpose of this study is to examine tax planning and firm value in Nigeria. The study will adopt an ex post facto and a correlational research design. According to Ndiyo (2005), an ex post facto research design is a systematic empirical study in which the researcher does not control or manipulate the independent variables because the situation under study already exists or has occurred, while, correlational design demonstrates the relationships between independent and dependent variables (Ndiyo, 2005). These research designs were deemed appropriate because they allow for a comprehensive view of the study's major research questions and hypotheses.

3.3 Population of the Study

A population is a group of objectives, cases, or individuals who share observable characteristics. In addition, the target population is defined as the group to which a researcher intends to normalize the findings of his or her study (Mugenda & Mugenda, 2003). The study's population will include oil and gas companies listed on the Nigerian stock exchange.

3.4 Sample Size and Sampling Technique

The study will focus on the Oil and Gas sector of Nigeria due to the central role the sector plays in the Nigerian economy which is further stressed by Nigeria being the leading producer of crude oil in Africa, hence, the Nigerian economic performance is to a large extent dependent

on the Oil and Gas sector. Nine (9) oil and gas firms listed on the floor of the Nigerian Stock Exchange will be purposively chosen as the study's sample. The selection of the nine (9) companies will be based on the availability of their financial statements/annual reports during the time period studied. Capital Oil Plc, Conoil Plc, Eterna Oil Plc, Forte Oil Plc, Japaul Oil and Maritime Service Plc, Mobil Oil Nigeria, Oando Plc, and Total Nigeria Plc are the nine (9) companies.

3.5 Source of Data

The data will be secondary in nature and carefully sourced from the financial statements/annual reports of oil and gas companies listed on the Nigerian Stock Exchange. The data ranges from 2011 to 2020, a ten-year period. The data will be based on annual parameters as stated in these companies' financial statements/annual reports.

3.6 Variable Operationalization and Measurement

Corporate tax planning is the independent variable, and firm value is the dependent variable. Corporate tax planning is measured by the effective tax rate and tax savings, whereas firm value is measured by the Tobin-Q coefficient. In addition, the study used control variables such as leverage, size, capital intensity and growth. Table 3.1 shows the measurement and operationalization of the variables.

Table 3.1: Measurement of Variables

Variables	Type of Variable	Symbol	Measurement	Sources
Tobin Q	Dependent	TBQ	Market value of firms total assets divided by replacement cost of assets.	Izevbekhai & Odion (2018), Adegbie et al. (2019)
Effective Tax Rate	Independent	ETR	Total tax cash expenses divided by pretax income expressed as a percentage	Chytis et al. (2019), Oeta et al. (2019), Chukwudi et al. (2020)
Tax savings	Independent	TAS	The difference between statutory tax rate and effective tax rate	Izevbekhai & Odion (2018)
Size	Control	SIZ	Log of total assets	Zhu et al. (2019), Oeta et al. (2019)
Leverage	Control	LEV	Total long term debt divided by total assets	Chytis et al. (2019), Zhu et al. (2019), Oeta et al., (2019)
Capital intensity	Control	CAI	Tangible assets divided by total assets	Zhu et al. (2019), Oeta et al. (2019)

Source: Researchers compilation (2022)

3.7 Theoretical Framework and Model Specification

The Agency Theory will serve as the foundation for this research. This theory was proposed by Jensen and Meckling in 1976, and it has since become a widely used theory in the fields of management and social sciences (Ezelibe et al., 2017). According to agency perspective of tax, the problem that investors must solve is simply managerial shirking. Another type of agency problem that avoidance considers is managerial opportunism or resource diversion (Desai & Dharmapala, 2009b). Complex tax avoidance transactions, according to Desai and Dharmapala (2006), can give management the tools, masks, and justifications they need to engage in

opportunistic managerial behaviours like earnings manipulations, related party transactions, and other resource-diverting activities. To put it another way, tax evasion and managerial espionage can be complementary.

The model for this study will be developed using multiple regression analysis. Multiple regression analysis shows the variation in the value of the dependent variable on the basis of the variation in the independent and control variables. The assumption is that the dependent variable is a linear function of the independent variables. The model of this study is expressed in the functional form below;

$$\text{Firm Value} = f(\text{Tax Planning}) \text{-----(1)}$$

$$\text{TBQ} = f(\text{effective tax rate, tax savings, firm size, leverage, capital intensity}) \text{-----(2)}$$

The multiple regression expressed in its econometric form is showed below:

$$\text{TBQ}_{it} = \beta_0 + \beta_1 \text{ETR}_{it} + \beta_2 \text{TAS}_{it} + \beta_3 \text{LEV}_{it} + \beta_4 \text{SIZ}_{it} + \beta_5 \text{CAI}_{it} + \varepsilon \text{-----(3)}$$

Where;

TBQ – Tobins Q,

ETR – Effective tax rate,

TAS – Tax savings,

LEV - Leverage,

SIZ – Firm size,

CAI- Capital intensity,

β_0 - Slope

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$ - Coefficients

ε – Error term

3.8 Method of Data Analysis

For data analysis, the study will use the Random Effect Regression (Generalized Least Squares) technique. This technique is being considered because it is very effective in estimating relationships and the impact of one variable on another variable, which is in line with the study's objective. Before deciding on the data analysis technique to use, robustness tests will be conducted to see if the traditional OLS is effective in the analysis due to the OLS technique's classical assumptions, which panel data does not meet. For example, OLS assumes that the error term's variance is constant and consistent across all observations (homoscedastic), which is rarely the case with panel data due to time variation and heterogeneity of the units that make up the panel. This usually causes the OLS estimators to have a problem with heteroskedasticity, which biases the coefficients and the conclusions drawn from them.

On the other hand, multiple regression is usually associated with the problem of multicollinearity, if the independent variables are perfectly correlated. The OLS estimators are also skewed as a result of this. When these effects are taken into account, however, OLS estimation can produce estimators that are the best linear unbiased estimators (BLUE).

Due to the aforementioned issues, the study's model will be subjected to robustness tests to ensure that the results are not skewed and can provide fitted coefficients to meet the study's objectives. Therefore, in addition to the robustness tests, fixed and random effects regression models will be used; and two important tests will be used to determine which model is best for the study: the Hausman Specification Test and the Breusch and Pagan langrangian multiplier test for random effects.

CHAPTER FOUR

PRESENTATION AND ANALYSIS OF DATA

4.1 Introduction

This chapter presents the analysis and estimation results for the study. The study used five explanatory variables as indicators of tax planning while TOBINSQ was used to proxy the dependent variable firm value. The data used for generating the estimation for the analysis is presented in appendix A while some estimation results such as unit root test results not presented in this chapter are presented in appendix B.

4.2 Presentation of Results

The estimation results presented and analyzed are descriptive statistics, correlation matrix, unit root test and ordinary least square regression. The unit root result is conducted because of the output of the descriptive statistics. The correlation results examine the relationship between the variables used in the study; the direction of relationship and the significance of those relationships are also examined. It also provides some information on multicollinearity of the series used.

4.2.1 Descriptive Statistics

The result of the descriptive statistics used for describing the characteristics of the data and ultimately the normality status of each series is presented in table 4.1. The results of the mean which shows the average value of the variables revealed that TAS (-.0949) being the lowest mean value while other variables TOBINSQ, ETR, TAS, CAI, LEV and SIZ had a mean value of 876.1419, 0.3949, 0.498425, 0.186713 and 3.17 respectively.

Maximum value of TobinsQ for a given time is 6.456500 with a minimum of 0.304414. Maximum value of ETR for a given time is 11.446 with a minimum of -2.3897. Maximum value of TAS for a given time is 2.6897 with a minimum of -11.146. Maximum value of CAI for a given time is 3.623531 with a minimum of 0.000836. The results of the standard

deviation showed that four of the variables had relatively low standard deviation, ETR (1.304), TAS (1.304), CAI (0.262) and LEV (0.306) which implies that they were all found to be oscillating around the mean point while TobinsQ and SIZ exhibited comparative disparity from the mean point. However, the variable CAI (0.262) had the least deviation from the mean point. The results of the Skewness showed that all the variables except TAS and CAI were positively skewed away from the origin. Only CAI (2.743) was found to pass the kurtosis test, all other variables failed the test as they all had a kurtosis value greater than approximately 3 which implies that they produce extreme outliers.

The Jarque-Bera statistic and its probability revealed that TobinsQ (Jarque-Bera=117.1840 & Probability = 0.0000 < 0.05), ETR (Jarque-Bera=12648.54 & Probability = 0.0000 < 0.05), TAS (Jarque-Bera=12648.54 & Probability = 0.0000 < 0.05), LEV (Jarque-Bera=637.9346 & Probability = 0.0000 < 0.05) and SIZ (Jarque-Bera=211.8127 & Probability = 0.0000 < 0.05) failed the test of normality at 5% level of statistical significance while only CAI (Jarque-Bera=2.310268 & Probability = 0.3150 > 0.05) implying that only CAI was normally distributed. In order not to have spurious regression results, we have to examine the stationarity property of the series by conducting a unit root test.

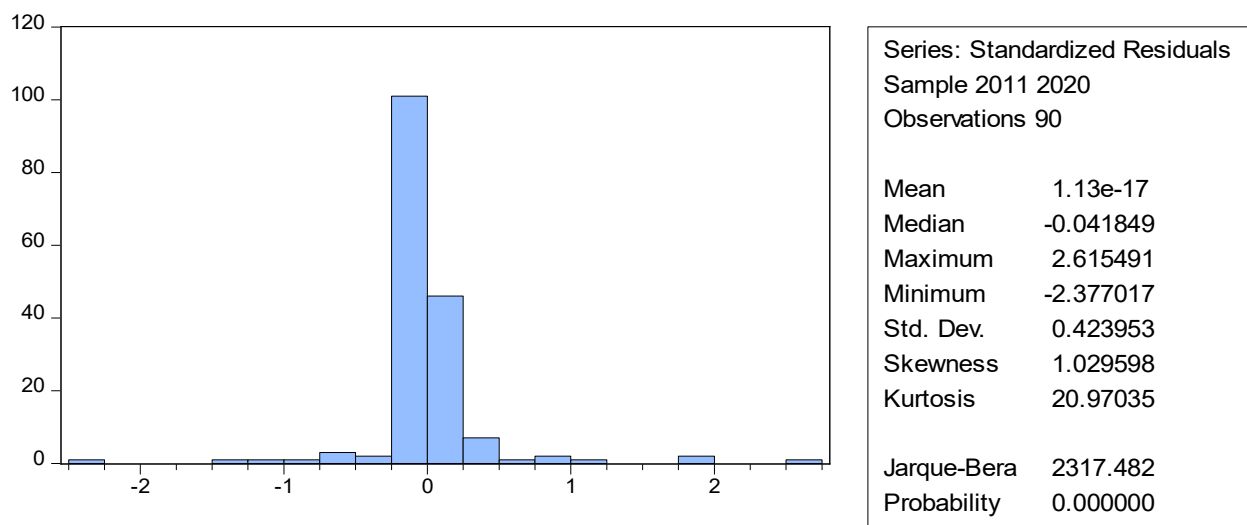
Table 4.1: Descriptive Statistics with Common Sample on Tax Planning and Firm Value of Oil and Gas Firms in Nigeria

Date: 11/12/22
 Time: 14:27
 Sample: 2011 2020

	TOBINSQ	ETR	TAS	CAI	LEV	SIZ
Mean	876.1419	0.394885	-0.094885	0.498425	0.186713	3.17E+08
Median	318.4701	0.310950	-0.010950	0.553211	0.064004	69610415
Maximum	6.456500	11.44632	2.689769	3.623531	1.801022	2.73E+09
Minimum	0.304414	-2.389769	-11.14632	0.000836	0.000273	13971764
Std. Dev.	1296.759	1.304388	1.304388	0.261954	0.306844	6.16E+08
Skewness	2.089905	6.980553	-6.980553	-0.370968	3.159063	2.555592
Kurtosis	6.711907	59.37403	59.37403	2.743869	14.41040	8.509917
Jarque-Bera Probability	117.1840	12648.54	12648.54	2.310268	637.9346	211.8127
	0.000000	0.000000	0.000000	0.315015	0.000000	0.000000
Sum	78852.77	35.53968	-8.539678	44.85826	16.80414	2.85E+10
Sum Sq. Dev.	1.50E+08	151.4271	151.4271	6.107175	8.379621	3.38E+19
Observations	90	90	90	90	90	90

Source: Author's Estimation from EView 10, 2022.

Figure 4.1: Test for Normality



Source: Author's Estimation from EView 10, 2022.

The overall Jarque-Bera statistic value of 2317.482 and probability value of 0.0000 indicates that the variables failed the test for normality, hence, they are not normally distributed.

4.2.2 Correlation Analysis

The correlation results shed some light on the nature and direction of the relationship between the dependent and independent variables. Although the correlation coefficient does not imply functional dependence between the variables, it is a good starting point for investigating the degree and direction of the relationship between the variables. The findings are presented and discussed further below:

Table 4.2: Correlation Analysis

Covariance Analysis: Ordinary
 Date: 11/11/22 Time: 09:51
 Sample: 0001 0090
 Included observations: 90

Correlation t-Statistic Probability	TOBINSQ	ETR	TAS	CAI	LEV	SIZ
TOBINSQ	1.000000 ----- -----					
ETR	0.317601 6.468828 0.0000	1.000000 ----- -----				
TAS	0.191749 3.773316 0.0002	0.362571 7.513658 0.0000	1.000000 ----- -----			
CAI	0.247008 4.923072 0.0000	0.303557 6.152993 0.0000	0.375963 7.835948 0.0000	1.000000 ----- -----		
LEV	0.261658 5.235868 0.0000	0.217573 4.305172 0.0000	0.310112 6.299829 0.0000	0.510493 11.46584 0.0000	1.000000 ----- -----	
SIZ	0.168381 3.299083 0.0011	0.176031 3.453646 0.0006	0.315300 6.416755 0.0000	0.461360 10.04306 0.0000	0.649304 16.48873 0.0000	1.000000 ----- -----

Source: Author's Estimation from EView 10, 2022.

As seen, TOBINSQ was positively correlated with ETR ($r= 0.3176$, $p=0.0000$), implying that increased ETR was associated with higher firm value, which is significant at 5%. There was also a positive correlation between TOBINSQ and TAS ($r= 0.1917$, $p=0.0002$), implying that increased tax savings was associated with improved firm value, and this relationship is also significant at 5%. TOBINSQ was also positively correlated with CAI ($r= 0.2470$, $p=0.0000$), implying that increases in capital intensity was associated with higher firm value, which was statistically significant at 5%. Similarly, in the case of LEV, a positive correlation with TOBINSQ ($r=0.2617$, $p=0.0000$) was observed, implying that increases in leverage are associated with higher firm value, which is significant at 5%. Finally, TOBINSQ was found to be positively correlated with SIZ ($r= 0.1684$, $p=0.0011$), which is statistically significant at 5%. Furthermore, none of the variables have a coefficient value greater than 0.80, indicating the absence of a multicollinearity problem, which denotes a situation in which some of the explanatory variables in a model are correlated, limiting and altering the efficiency of the regression results. However, we would perform a Variance Inflation Factor Test to confirm the existence of a multicollinearity problem.

4.2.3 Multicollinearity Analysis

The presence of multicollinearity among independent variables indicates that they are perfectly correlated. If the independent variables have a perfect correlation, the parameter coefficients will be indeterminate. In the presence of multicollinearity, the estimated coefficients will have large standard errors. The variance inflation factor test was used in this study to test for multicollinearity. The end result is as follows:

Table 4.3 Variance Inflation Factor Test

Variable	Centered VIF
ETR	1.198923
TAS	1.304594
CAI	1.536031
LEV	1.928843
SIZ	1.823974
C	NA

Source: Author's Estimation from EView 10, 2022.

Before conducting the regression, the variance inflation factor was used to test for multicollinearity between the variables (VIF). Essentially, the VIF explains how much of the variance of a regressor's coefficient estimate has been inflated due to collinearity with the other regressors. Essentially, VIFs greater than 10 are regarded as a cause for concern. As can be seen, none of the variables had VIF values greater than 10, indicating that there was no serious indication of multicollinearity. As a result, the study's variables are free of the problem of multicollinearity, implying that we can proceed with the execution of other diagnostic tests to determine the suitability of the Ordinary Least Square Regression Analysis techniques.

4.2.4 Unit Root Analysis

The results for unit root test presented in table 4.3 shows results for Levin, Lin & Chu t unit root, ADF – Fisher unit root, and PP - Fisher unit root. The results are examined using 5% level of significance. None of the series was found to be stationary at level. All the variables were found to be stationary at first difference. Giving that the variables are all stationary at some level of difference not more than second difference, we can proceed with the data for conducting estimations that will be used to test the hypotheses of the study.

Table 4.3: Unit Root Result

Variable (Series)	Levin, Lin & Chu t*	Prob.	ADF - Fisher Chi-square	Prob.	PP - Fisher Chi-square	Prob.	Remark
TOBINSQ	-12.9699	0.0000	-2.77174	0.0028	66.9689	0.0048	
D(TOBINSQ)	-8.68409	0.0000	51.0028	0.1140	69.1673	0.0028	I(1)
ETR	-57.0309	0.0000	93.9242	0.0000	133.730	0.0000	
D(ETR)	-59.0933	0.0000	122.322	0.0000	137.562	0.0000	I(1)
TAS	-72.8566	0.0000	-13.8480	0.0000	85.7148	0.0001	
D(TAS)	-65.5724	0.0000	96.1058	0.0000	116.167	0.0000	I(1)
CAI	-9.73815	0.0000	59.6489	0.0377	86.0561	0.0001	
D(CAI)	-29.0036	0.0000	87.5140	0.0000	98.4299	0.0000	I(1)
LEV	-31.9202	0.0000	101.635	0.0000	117.895	0.0000	
D(LEV)	-138.383	0.0000	102.187	0.0000	123.587	0.0000	I(1)
SIZ	-23.9745	0.0000	75.7589	0.0011	89.1125	0.0000	
D(SIZ)	-72.1015	0.0000	85.2280	0.0001	100.194	0.0000	I(1)

Source: Author's Estimation from EView 10, 2022.

4.2.4 Regression Analysis on Tax Planning and Firm Value of Oil and Gas Firms in Nigeria

In choosing which of the regression effect to base the test of our hypotheses and draw our findings for the study, we conduct the Hausman test. Using the 5% level of statistical significance, the probability value of the Hausman test is 0.0000 which is lesser than 5% implying that the fixed effect panel least square is more appropriate for testing the hypotheses of the study. The result of the Hausman test is presented in table 4.4a.

Table 4.4a: Hausman Test

Correlated Random Effects - Hausman Test
Equation: Untitled
Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	27.734647	5	0.0000

** WARNING: estimated cross-section random effects variance is zero.

Source: Author's Estimation from EView 10, 2022.

Table 4.4b: Fixed Effect Panel Least Square

Dependent Variable: TOBINSQ
Method: Panel Least Squares
Date: 11/11/22 Time: 10:45
Sample: 2011 2020
Periods included: 10
Cross-sections included: 9
Total panel (balanced) observations: 90

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ETR	-0.016716	0.008612	-1.940933	0.0551
TAS	-0.241414	0.073507	-3.284218	0.0014
CAI	0.003227	0.008842	0.364977	0.7159
LEV	0.046173	0.020697	2.230929	0.0279
SIZ	0.095082	0.031486	3.019830	0.0032
C	0.139810	0.013077	10.69164	0.0000
R-squared	0.205038	Mean dependent var	0.104479	
Adjusted R-squared	0.164889	S.D. dependent var	0.083950	
S.E. of regression	0.076717	Akaike info criterion	-2.241930	
Sum squared resid	0.582671	Schwarz criterion	-2.090275	
Log likelihood	123.7013	Hannan-Quinn criter.	-2.180477	
F-statistic	5.106856	Durbin-Watson stat	1.776378	
Prob(F-statistic)	0.000330			

Source: Author's Estimation from EView 10, 2022.

The result in table 4.5 revealed that ETR with a t-value of -1.940933 and a probability value of 0.0551 which is equal to the 5% confidence level significantly affect firm value (TOBINSQ).

Also, TAS with a t-value of -3.284218 and a probability value of 0.0014 which is less than 5% statistical significant level significantly affect firm value (TOBINSQ). CAI is seen to have a positive effect on firm value (TOBINSQ) implying that the greater the capital intensity, the

higher the firm value the firms but such increment is insignificant. LEV is seen to have a positive effect on firm value (TOBINSQ), that is, the higher the leverage, the higher the firm value and this increment is statistically significant. Furthermore, SIZ (t-value = 3.019830 & probability = 0.0032 < 0.05) were also found to have significant effect on firm value (TOBINSQ). A unit change in SIZ will result in 0.095% increase in firm value (TOBINSQ) of the sampled firms.

The result of the R-squared value of 20.50% shows that a very low proportion of the variation in the dependent variable is accounted for by the independent variables. The F-statistic value of 5.11 and probability value of 0.000330 shows that the independent variables have a statistical significant joint relationship with the dependent variable. The Durbin Watson value which is approximately equal to two (1.77) shows that there no autocorrelation problem in the model of the study. The variables and their coefficient are represented in the model below:

$$TOBINSQ = 0.1398 - 0.02 * ETR - 0.24 * TAS + 0.003 * CAI + 0.05 * LEV + 0.095 * SIZ + eqn_01_efct$$

4.3 Test of Hypotheses

The hypotheses that are stated in the chapter one of the study are tested in this section using 5% level of statistical significance. The probability values for the test of hypotheses are derived from the regression result.

Hypothesis One

It had earlier been stated that effective tax rate does not have a significant effect on firm value in Nigeria. The regression results in table 4.4b revealed that we accept the null hypothesis that effective tax rate does not have a significant effect on firm value in Nigeria and reject the alternative hypothesis (ETR Prob. 0.0551 < 0.05).

Hypothesis Two

Also, it was stated that tax savings does not have a significant effect on firm value in Nigeria. The results of the regression revealed that we reject the null hypothesis that tax savings does not have a significant effect on firm value in Nigeria (TAS Prob. $0.0014 < 0.05$).

Hypothesis Three

It was also stated in the third hypothesis that firm size does not have a significant effect on firm value in Nigeria. The regression result revealed that we accept the null hypothesis that there is no significant relationship between firm size and firm value in Nigeria (SIZ Prob. $0.7159 > 0.05$). **Hypothesis Four**

It was stated that leverage does not have a significant effect on firm value in Nigeria. The regression result revealed that we reject the null hypothesis that leverage does not have a significant effect on firm value in Nigeria and accept the alternative hypothesis (LEV Prob. $0.0279 < 0.05$).

Hypothesis Five

It was stated that capital intensity does not have a significant effect on firm value in Nigeria. The regression result revealed that we reject the null hypothesis that capital intensity does not have a significant effect on firm value in Nigeria and accept the alternative hypothesis (CAI Prob. $0.0279 < 0.05$).

4.4 Discussion of Findings

The panel regression analysis revealed that the effective tax rate has a negative and insignificant relationship with firm value in Nigeria. Previous studies have produced mixed (some negative, others positive) on the relationship between tax planning and firm value. Specifically, Minnick and Noga (2010); Timothy et al. (2020) presented a positive relationship between effective tax rate and firm value while other studies (Nanik & Ratna, 2015; Izevbekhai & Odion, 2018) showed a negative relationship. This contradiction in research findings may be as a result of the variables utilised, methodology adopted, time

covered, sector covered as well as differences in the economic environment of the countries of the studies.

Furthermore, the analysis revealed that tax savings has a negative and significant relationship with firm value. This finding is in line with Armstrong et al. (2012), who presented a negative association between tax savings and firm value emphasising that the reason for the negative association is because the providers of capital (investors) lacks sufficient knowledge of the tax planning practices of the managers of firms. While, the finding contradicts Lisowsky et al. (2013) who reported a positive association between tax savings and financial performance.

Also, the analysis revealed that capital intensity has a positive and insignificant relationship with firm value. This is contrary to previous studies which revealed negative relationship between capital intensity and firm value (Nwaobia et al., 2016; Razali et al., 2018).

Again, the analysis showed that leverage has a positive and significant relationship with firm value in Nigeria. This is contrary with previous studies such as Oeta et al. (2019); Timothy et al. (2020) which suggested a negative insignificant relationship between financial leverage and value of a firm.

Finally, the regression analysis revealed that firm size has a positive and significant relationship with firm value. Putu et al. (2014) showed that firm size has a positive influence on firm value. But this research contradicts the research by Susanti and Restiana (2018) who showed that firm size has a negative impact on firm value. Meanwhile, analysis by Djamaluddin et al. (2018) revealed that the size of the firm has no impact on firm value.

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATION

5.1 Introduction

The findings from the analysis of data for tax planning and firm value of oil and gas firms in Nigeria are summarized in this section from which conclusions are drawn and recommendation made with suggestions for further studies.

5.2 Summary of Findings

Based on the empirical analysis carried out in the study, the following findings were arrived at:

1. Effective tax rate has a negative and insignificant relationship with firm value of oil and gas firms in Nigeria.
2. Tax savings has a negative and significant relationship with firm value of oil and gas firms in Nigeria.
3. Capital intensity has a positive and insignificant relationship with firm value of oil and gas firms in Nigeria.
4. Leverage has a positive and significant relationship with firm value of oil and gas firms in Nigeria.
5. Firm size has a positive and significant relationship with firm value of oil and gas firms in Nigeria.

5.3 Conclusion

The purpose of this study was to ascertain the effect of tax planning on firm value in Nigeria. However, in order to achieve the objectives of this study, we utilised five explanatory variables as proxies for tax planning (effective tax rate, tax savings, capital intensity, leverage and firm size) and TOBINSQ as proxy of tax planning. The study covered a time period of

2011-2020 (10years) and utilised nine (9) firms in the oil and gas sector of Nigeria as the sample size.

In the study's analysis several analytical test was done (unit root test, multicollinearity and variance inflator test) preceding the conduction of the panel regression analysis for inferences to be drawn on the hypotheses raised. The result revealed that effective tax rate has a negative and insignificant relationship with firm value of oil and gas firms in Nigeria; tax savings has a negative and significant relationship with firm value of oil and gas firms in Nigeria; leverage and firm size has a positive and significant relationship with firm value of oil and gas firms in Nigeria; and capital intensity has a positive and insignificant relationship with firm value of oil and gas firms in Nigeria. Therefore, From the empirical investigation conducted in this study, we conclude that tax planning has a significant effect on firm value of oil and gas firms in Nigeria.

5.4 Recommendations

5.4.1 Policy Recommendations

In view of the salient findings from this study, the following specific policy recommendations are raised:

1. Since tax planning is a crucial determinant of oil and gas firms' financial performance, management of these firms should be devoted to it. This is so that tax planning activities can deliver outcomes that are effective. These activities need the deployment of resources and the expertise of qualified practitioners.
2. To maximise tax deductions that will lower their tax rates, oil and gas companies in Nigeria should increase their leverage ratio. This is because debt interest payments are an acceptable expense that lowers the chargeable earnings for corporate tax and leverage had a beneficial effect on firm value.

3. Firms in Nigeria's oil and gas sector, as well as those in other sectors, should keep expanding. The firm's value will increase as a result of this.
4. Given that the effective tax rate and tax savings revealed an inverse relationship with firm value, the tax authorities in Nigeria ought to be involved in ongoing tax reforms where the corporate tax rate is to be changed.
5. Additionally, it is advised that corporations implement effective tax planning tactics to lessen their tax obligations and, as a result, raise the worth of the company as a whole.

5.4.2 Suggestions for Further Studies

We suggest that future research may extend the scope of this study to include other sector of the economy such as the manufacturing sector as well as the financial sectors such as the insurance and banking sector which is known to be highly susceptible to tax planning.

REFERENCES

- Abdul-Wahab, N. S. (2010). Tax planning and corporate governance: Effects on shareholders valuation. (Unpublished Doctoral Thesis), University of Southampton, Southampton UK. <http://eprints.soton.ac.uk/162801/> (Accessed on 5 June, 2017).
- Abdul-Wahab, N. S., & Holland, K. (2012). Tax planning, corporate governance and equity value. *The British Accounting Review*, 44 (1), 1-14.
- Abdul-Wahab, N. S., & Holland, K. (2012). Tax planning, Corporate Governance and Equity Value. *British Accounting Review*, 44, 111-124.
- Abdul-Wahab, N.S. (2016). Malaysian multi-national companies (MNC): permanent and temporary nature of tax planning. *Cogent Business and Management*, 3, 1248644.
- Adegbie, F.F., Akintoye, I. R. & Isiaka, B. (2019). Evaluation of integrated reporting and the value of listed manufacturing firms in Nigeria. *European Journal of Accounting, Auditing & Finance Research*, 7(7), 31-59.
- Adegbie, F.F., Akintoye, I. R., & Isiaka, B. (2019). Evaluation of integrated reporting and the value of listed manufacturing firms in Nigeria. *European Journal of Accounting, Auditing & Finance Research*, 7(7), 31-59.
- Adegboyegun, A. E., Alade, M.E., Ben-Caleb, E., Ademola, A. O., Eluyela, D. F. & Oladipo, O. A. (2020), Integrated reporting and corporate performance in Nigeria: Evidence from the banking industry. *Cogent Business & Management*, 7(1), 1736866.
- Adhikari, A., Derashid, C., & Zhang, H. (2006). Public policy, political connections, and effective tax rates: longitudinal evidence from Malaysia. *Journal of Accounting and Public Policy*, 25: 574-595.
- Ahmed, B., & Mounira, S. H. (2015). The impact of governance mechanisms on tax aggressiveness: empirical evidence from Tunisian Context. *Journal of Asian Business Strategy*, 5(1), 1-12.
- 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.
- Akintoye, I.R., Adegbie, F.F. & Iheme-Onyeka, C.V. (2020). Tax planning strategies and profitability of quoted manufacturing companies in Nigeria. *Journal of Finance and Accounting*, 8(3), 148-157.
- Ali, S., & Mohammed, H. (2014). Investigating the relationship between corporate governance and tax violations in Tehran stock exchange. *International Journal of Accounting Research*, 1(12), 77-85
- Aliani, K. (2013). Does corporate governance affect tax planning? evidence from American companies. *International Journal of Advanced Research*, 1(10): 864879.
- Aliani, K., & Zarai, M. A. (2012a). Demographic diversity in the board and corporate tax planning in American firms. *Business Management and Strategy*, 3(1): 7286.

- Aliani, K., Hamid, I., & Zarai, M. A. (2011). Diversity in kind in the board of directors and tax optimization: validation in the Tunisian context. *Journal of Management and Global Business Research*, 11: 41-50.
- Andrew, B., & Stephen, A. K. (2015). *Governance and Taxes: Evidence from Regression Discontinuity*. Tepper School of Business, Carnegie Mellon University, USA.
- Antonio, L.M., & Andre, V. (2014). Efficient Tax Planning: An Analysis of its Relationship with Market Risk in Brazil. *Australian Journal of Basic and Applied Sciences*, 8(3): 393-405
- Antonio, L.P., & Giliard, C.R. (2014). Family Firms and Tax Aggressiveness in Brazil. *International Business Research*, 7(3): 129-136.
- Antonio, P.M.G. (2015). Corporate Governance Characteristics as a Stimulus to Tax Management. DOI: 10.1590/1808-057x201500750.
- Appah, E. (2019). *Principles & Practice of Nigerian Taxation*. Port Harcourt, Nigeria: Vinson Printing and Publishing Venture.
- Armstrong, C. S., Blouin, J. L., & Larcker, D. F. (2012). The Incentives for Tax Planning. *Journal of Accounting and Economics*, 53(1): 391-411.
- Armstrong, C. S., Blouin, J. L., Jagolizner, A. D. & Larcker, D. F. (2015). Corporate Governance, Incentives and Tax Avoidance. *Working Paper No.136*, Rock Center for Corporate Governance. Electronic copy available at, <http://ssrn.com/abstract=2252682> (accessed on 17/02/2018).
- Arthur, W. (2005). Tax tips for overseas investors. Available on www.property-tax-portal.co.uk/taxarticle39.shtml (accessed 23/02/2018)
- Bariyima, D. K. & Cletus, O. A. (2014). Tax planning and corporate governance in Nigerian banks. *European Journal of Business and Management*, 6(19), 235 - 243.
- Bariyima, D.K., & Cletus, O.A. (2014). Tax Planning and Corporate Governance in Nigerian Banks. *European Journal of Business and Management*, 6(19): 235-243.
- Belz, T., Hagen, D.V. & Steffens, C. (2019). Taxes and firm size: Political cost or political power? *Journal of Accounting Literature*, 42, 1-28.
- Beryl, A. O. (2014). The Relationship between Ownership Structure and Tax Avoidance of Companies Listed at the Nairobi Securities Exchange, (Unpublished MBA Project), University of Nairobi, Kenya.
- Bond, S., Gammie, M., & Whiting, J. (2012). Tax Avoidance. The IFS Green Budget January. <http://www.ifs.org.uk/budgets/gb2012/gb2012.pdf>. (Accessed 04/06/2017).
- Brad, B., Sharon, P.K., & Sonja, O.R. (2010). The Impact of Private Equity Ownership on Portfolio Firms' Corporate Tax Planning. Harvard Business School, Working Paper 10-004.
- Bradshaw, M., Liao, G. & Ma, M. (2013). Ownership Structure and Tax Avoidance: Evidence from Agency Costs of State Ownership in China. Available at: <http://ssrn.com/abstract> (accessed 15/06/2017).

- Chasbiandani, T., & Martani, D. (2012). The effect tax avoidance long run to firm value (Pengaruh tax avoidance jangka panjang terhadap nilai perusahaan). Simposium National Accounting (Simposium Nasional Akuntansi). Banjarmasin Kalimantan Timur (east Kalimantan Provisi Indonesia): Ikatan Akuntan Indonesia (Associated Accountant Indonesia).
- Chen, S., Chen, X., Cheng, Q. & Shevlin, T. (2010). Are family firms more tax aggressive than non-family firms. *Journal of Financial Economics*, 95(1), 41-61.
- Chen, S., Chen, X., Cheng, Q., & Shevlin, T. (2010). Are family firms more tax aggressive than non-family firms. *Journal of Financial Economics*, 95(1), 41-61.
- Chen, S., Chen, X., Cheng, Q., & Shevlin, T. (2010). Are Family Firms more Tax Aggressive than Non-Family Firms? *Journal of Financial Economics*, (95): 4161.
- Chen, Z., Cheok, C. K. & Raziah, R. (2016). Corporate tax avoidance and performance: Evidence from China's listed companies. *Institutions and Economies*, 8(3), 61-83.
- Chen, Z., Cheok, C. K., & Raziah, R. (2016). Corporate tax avoidance and performance: Evidence from China's listed companies. *Institutions and Economies*, 8(3), 61-83.
- Chris, H. (n.d). The Influence of Corporate Governance Measures on the Efficiency of Tax Planning Undertaken by Multinational Companies, (Unpublished Master Thesis) International Business Taxation / track: International Business Tax Law, Tilburg School of Law, Tilburg University.
- Christopher, S.A., Jennifer, L.B., Alan, D.J., & David, F.L. (2015). Corporate Governance, Incentives, and Tax Avoidance. *Journal of Accounting and Economics*, 60: 1-17.
- Chukwudi, U.V., Okonkwo, O.T. & Asika, E.R. (2020). Effect of tax planning on firm value of quoted consumer good manufacturing firms in Nigeria. *International Journal of Finance and Banking Research*, 6(1), 1-10.
- Chukwudi, U.V., Okonkwo, O.T. & Asika, E.R. (2020). Effect of tax planning on firm value of quoted consumer good manufacturing firms in Nigeria. *International Journal of Finance and Banking Research*, 6(1), 1-10.
- Chukwudi, U.V., Okonkwo, O.T., & Asika, E.R. (2020). Effect of tax planning on firm value of quoted consumer good manufacturing firms in Nigeria. *International Journal of Finance and Banking Research*, 6(1), 1-10.
- Chytis, E., Tasios, S., Georgopoulos, I. & Hortis, Z. (2019). The relationship between tax avoidance, company characteristics and corporate governance: evidence from Greece. *Corporate Governance and Control*, 16(4), 77 - 86.
- Chytis, E., Tasios, S., Georgopoulos, I., & Hortis, Z. (2019). The relationship between tax avoidance, company characteristics and corporate governance: evidence from Greece. *Corporate Governance and Control*, 16(4), 77 – 86.
- Crocker, K. J. & Slemrod, J. (2005). Corporate Tax Evasion with Agency Costs. *Journal of Public Economics*, 89: 1593-1610.
- Curry, P. A., Hill, C. A., & Parisi, F. (2007). Creating Failures in the Market for Tax Planning. *Virginia Tax Review*, 26(4): 943-969.

- Derashid, C., & Zhang, H. (2003). Effective Tax Rates and the Industrial Policy Hypothesis: Evidence from Malaysia. *Journal of International Accounting, Auditing, and Taxation*, 12(1): 45-62.
- Desai, M. A. & Dharmika, D. (2009). Corporate Tax Avoidance and Firm Value. *Review of Economics and Statistics* (91): 537-546..
- Desai, M. A. & Dharmapala, D. (2006). Corporate tax avoidance and high-powered incentives. *Journal of Financial Economics*, 79, 145-179.
- Desai, M. A. & Dharmapala, D. (2006). Corporate Tax Avoidance and High-Powered Incentives. *Journal of Financial Economics* (79): 145-179.
- Desai, M. A. & Dharmapala, D. (2009b). Earnings management, corporate tax shelters, and book-tax alignment. *National Tax Journal*, 62, 169-186.
- Desai, M. A., & Dharmapala, D. (2009). Tax avoidance. *Review of Economics and Statistics*, 9(3), 537-546.
- Desai, M.A., Dyck, A. & Zingales, L. (2007). Theft and Taxes. *Journal of Financial Economics* 84(3): 591-623.
- Dhaliwal, D., Gal-Or, R., Naiker, V., & Sharma, D. S. (2011). Auditor-Provided Tax Services and Book-Tax Differences. Working paper, University of Arizona, Northeastern University, University of Auckland, and Kennesaw State University.
- Dyreng, S. D., Hanlon, M., & Maydew, E. L. (2008). Long run corporate tax avoidance. *Accounting Review*, 83 (1), 61-82
- Dyreng, S. D., Hanlon, M., & Maydew, E. L. (2008). Longrun corporate tax avoidance. *Accounting Review*, 83(1), 61-82.
- Dyreng, S., Hanlon, M., & Maydew, E. (2008). Long Run Corporate Tax Avoidance. *The Accounting Review*, 38: 61-82. <http://dx.doi.org/10.2308/accr.2008.83.1.61>.
- Dyreng, S., Hanlon, M., & Maydew, E. (2010). The Effects of Executives on Corporate Tax Avoidance. *The Accounting Review*, 85(4): 1163-1189.
- Erle, B. (2007). Tax Risk Management and Board Responsibility. *KPMG Tax in the Boardroom*, 207-220.
- Ezelibe, C. P., Nwosu, O., & Orazulike, S. (2017). Empirical investigation of corporate governance and financial reporting quality of quoted companies in Nigeria. *International Journal of Economics, Business and Management Research*, 1(5), 117-137.
- Fagbemi, T.O., Olaniyi, T.A. & Ogundipe, A.A. (2019). The corporate tax planning and financial performance of systemically important banks in Nigeria. *Ekonomiki Horizonti*, 21(1), 15-28.
- Fallan, L., Hammervold, R., & Gronhaug, K.(1995). Adoption of Tax Planning Instruments in Business Organizations: A Structural Equation Modelling Approach. *Scandinavian Journal of Management*, 11(2): 177-190.

- Frank, M. M., Lynch, L. J. & Rego, S. O. (2009). Tax Reporting Aggressiveness and its Relation to Aggressive Financial Reporting. *Accounting Review* (84): 1-47.
- Frank, M.M., Lynch, L.J., & Rego, S.O. (2009) Tax Reporting Aggressiveness and Its Relation to Aggressive Financial Reporting. *The Accounting Review*, 84, 467-496.
- Ftouhi, K., Ayed, A. & Zemzem, A. (2014). Tax planning and firm value: Evidence from European companies. *International Journal of Economics and Strategic Management of Business Processes*, 4(73-78).
- Ftouhi, K., Ayed, A., & Zemzem, A. (2014). Tax planning and firm value: Evidence from European companies. *International Journal of Economics and Strategic Management of Business Processes*, 4(73-78).
- Gordon, R. H., & Slemrod, J. B. (2000). Are real responses to taxes simply income shifting between corporate and personal tax bases? In Slemrod, J. (ed.) *Does Atlas Shrug? The Economic Consequences of Taxing the Rich*. Russel Sage Foundation and Harvard University Press, 240-280.
- Graham, J. R. (1996). Debt and the marginal tax rate. *Journal of Financial Economics*, 41: 41-74.
- Grant, R. & Roman, L. (2007). Determinants of the Variability in Corporate Effective Tax Rates and Tax Reform: Evidence from Australia. *Journal of Accounting and Public Policy*, 26: 689-704.
- Grant, R., Grantley, T., & Roman, L (2013). The Impact of Board of Director Oversight Characteristics on Corporate Tax Aggressiveness: An Empirical Analysis. *Journal of Accounting Public Policy*, 32: 68-88.
- Hanlon, M., & Heitzman, S. (2010). A Review of Tax Research. *SSRN Electronic Journal* 50(2-3), 127-178.
- Hidayat, R., Wahyudi, S., Muharam, H., Shaferi, I., & Puspitasari, I. (2019). The improve level of firm value with liquidity, debt policy and investment in Indonesian emerging market. *Revista Espaciosa*, 40(40), 1-9.
- Hoffman, W. H. (1961). The theory of tax planning. *The Accounting Review*, 36(2), 274-281.
- Ilaboya, O. J., Izevbekhai, M. O. & Ohiokha, F. I. (2016). Tax planning and firm value: A review of literature. *Business and Management Research*, 5 (2), 81-91. Doi:10.5430/bmr.v5n2p81. Retrieved from: <http://bmr.sciedupress.com>. Retrieved: 07/12/2018.
- Izedonmi, P.F. (2016). *A quick guide to project writing, for social and management sciences students*. ZionPraise Publishers & Anointed Publishers.
- Izevbekhai, M.O. & Odion, A.O. (2018). Tax planning and firm value. *Nigerian Academy of Management Journal*, 13(1), 94-119.
- Izevbekhai, M.O. & Odion, A.O. (2018). Tax planning and firm value. *Nigerian Academy of Management Journal*, 13(1), 94-119.

- Izevbekhai, M.O., & Odion, A.O. (2018). Tax planning and firm value. *Nigerian Academy of Management Journal*, 13(1), 94-119.
- Johnson, R., Rosenberg, J., & Williams, R. (2012). Measuring effective tax rates, tax policy centre. Urban Institute and Brookings Institute. <http://www.taxpolicycentre.org/taxmodel/income.cfm>.
- Khaoula Ftouhi, Amor & Ayed Ahmed (2013) Tax planning and firm value: evidence from European companies. *International journal of Economics and strategic management Business. 2nd International conference on Business, marketing and Management*, 4, 73-78.
- Kirkpatrick, A.K. & Radicic, D. (2020). Tax planning activities and firm value: A dynamic panel analysis. *Advances in Taxation*, 27(103-123).
- Kirkpatrick, A.K., & Radicic, D. (2020). Tax planning activities and firm value: A dynamic panel analysis. *Advances in Taxation*, 27(103-123).
- Lestari, N. & Wardhani, R. (2015). The effect of the tax planning on firm value with moderating board diversity. *International Journal of Economics and Financial Issues*, 5, 515-323.
- Ling, W. T. & Abdul-Wahab, N. S. (2018). Roles of taxplanning in market valuation of corporate social responsibility. *Accounting, Corporate Governance & Business Ethics Research Article*, 5, 1482595, 1 - 16.
- Lisowsky, P., Lennox C., & Pittman, J. (2013). Tax aggressiveness and accounting fraud. *Journal of Accounting Research*, 51 (4), 739-778.
- Lisowsky, P., Lennox C., & Pittman, J. (2013). Tax aggressiveness and accounting fraud. *Journal of Accounting Research*, 51 (4), 739-778.
- Mais, R. G. & Patminigih, D. (2017). Effects of good corporate governance on tax avoidance of the company listed on the Indonesia Stock Exchange. *Journal of STEI Economics*, 26(2), 230-243.
- Mais, R. G., & Patminigih, D. (2017). Effects of good corporate governance on tax avoidance of the company listed on the Indonesia Stock Exchange. *Journal of STEI Economics*, 26(2), 230-243.
- Mappadang, A. (2019). Do corporate governance mechanism influences tax avoidance and firm value? *International Journal of Academic Research in Business and Social Sciences*, 9(10), 203-217.
- Mappadang, A. (2019). Do corporate governance mechanism influences tax avoidance and firm value? *International Journal of Academic Research in Business and Social Sciences*, 9(10), 203-217.
- Mugenda, O. M., & Mugenda, A. G. (2003). *Research methods, quantitative and qualitative approaches*. ACT, Nairobi.
- Munnick, & Noga, T. (2010). Do corporate governance characteristic influence tax management. *Journal of Corporate Finance*, 16, 703-718.

- Nafti, O., Kateb, I., & Masghouni, O. (2020). Tax evasion, firm's value and governance: evidence from Tunisian Stock Exchange. *Journal of Financial Crime*, 27(3) 781-799
- Ndiyo, N. A. (2005). *Fundamentals of research in behavioural sciences and humanities*. Wusen Publishers, 182-189.
- Nnamani, J. N. & Onyekwelu, U. L. (2017). Effect of sustainability accounting and reporting on financial performance of firms in Nigeria's brewery sector. *European Journal of Business and Innovation Research*, 5(1), 1-15.
- Nwanji, T. I. & Howell, K. (2007). Shareholdership, Stakeholdership and the Modern Global Business Environment: A Survey of the Literature. *Journal of Interdisciplinary Economics*, 18(4), 347-361.
- Nwaobia A.N., Kwarbai, J. D. & Ayodeji A. T (2015). Corporate risk management and firms' value: Empirical evidence from selected listed manufacturing companies in Nigeria. *Program on policy, Conflict & Strategic studies International Journal series*, 2(1).
- Nwaobia, A. N. & Jayeoba, O. O. (2016). Tax planning and firm's liquidity. *IJRD Journal of Business Management*, 2(10),1-22.
- Nwaobia, A. N., & Jayeoba, O. O. (2016). Tax planning and firm's liquidity. *IJRD Journal of Business Management*, 2(10), 1-22.
- Nwaobia, A., Kwarbai, J., & Ogundajo, G. (2016). Tax Planning and Firm Value: Empirical evidence from Nigerian consumer goods industrial sector. *Research Journal of Finance and Accounting*, 7(12), 172-183.
- Oeta, S.M., Kiai, R. & Muchiri, J. (2019). Influence of tax planning on financial performance of manufacturing companies listed at Nairobi Securities Exchange. *International Journal of Research in Business and Social Sciences*, 8(6), 262-269.
- Oeta, S.M., Kiai, R. & Muchiri, J. (2019). Influence of tax planning on financial performance of manufacturing companies listed at Nairobi Securities Exchange. *International Journal of Research in Business and Social Sciences*, 8(6), 262-269.
- Ogundajo, G. O. & Onakoya, A. B. (2016). Tax planning and financial performance of Nigerian manufacturing companies. *International Journal of Advanced Academic Research for Social and Management Sciences*, 2 (7), 64 – 79.
- Omesi, I. & Appah, E. (2020a). Tax structure and economic growth in Nigeria: An auto regressive distributive lag evidence from 1980 to 2018. *International Journal of Innovations in Marketing and Accounting Research*, 8(1), 108-124.
- Omesi, I. & Appah, E. (2020b). Taxes and income inequality in Nigeria: Cointegration and error correction mechanisms evidence from 1980 - 2018. *International Journal of Innovations in Management and Accounting*, 8(2), 1-17.
- Omesi, I., & Appah, E. (2020b). Taxes and income inequality in Nigeria: Cointegration and error correction mechanisms evidence from 1980 – 2018. *International Journal of Innovations in Management and Accounting*, 8(2), 1-17.
- Razali, M.W.M., Ghazali, S.S., Lunyai, J. & Hwang, J.Y.T. (2018). Tax planning and firm

- value: Evidence from Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 8 (11), 210-222.
- Razali, M.W.M., Ghazali, S.S., Lunyai, J., & Hwang, J.Y.T. (2018). Tax planning and firm value: Evidence from Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 8(11), 210-222.
- Rego, S. (2003). Tax Avoidance Activities of U.S. Multinational Corporations. *Contemporary Accounting Research*, 20, 805-833.
- Salaw, R.O. & Adedeji, Z.A. (2017). Corporate governance and tax planning among non-financial quoted companies in Nigeria. *African Research Review: An International Multi-Disciplinary Journal*, 11(3), 42-59.
- Salawo, R.O., Ogundipe, L.O. & Yeye, O. (2017). Granger causality between corporate tax planning and firm value of non-financial quoted companies in Nigeria. *International Journal of Business and Social Sciences*, 8(9), 91-101.
- Shaheen, S. & Malik, Q. A. (2012). The impact of capital intensity, size of firm and profitability on debt financing in textile industry of Pakistan. *Interdisciplinary Journal of Contemporary Research in Business*, 3 (10), 1061-1066.
- Soufiene A., Khoula A., & Mohamed A. O. (2016). Tax optimization and the firm's value: Evidence from the Tunisian context. *Borsa Istanbul Review*, 16 (3), 177-184.
- Timothy, O.U., Izilin, M.O. & Ndifereke, B.A. (2020). Corporate tax planning, board compensation and firm value. *Accounting and Taxation Review*, 4(3), 11-28.
- Uchendu, O., Ironkwe, U.I. & Nwaiwu, J.N. (2016). Corporate governance mechanism and tax planning in Nigeria. *International Journal of Advanced Academic Research*, 2(9), 45-59.
- Uchendu, O., Ironkwe, U.I., & Nwaiwu, J.N. (2016). Corporate governance mechanism and tax planning in Nigeria. *International Journal of Advanced Academic Research*, 2(9), 45-59.
- Umobong, A. A. & Agburuga, U. T. (2018). Corporate tax and corporate social responsibility of firms in Nigeria. *Research Journal of Finance and Accounting*, 9(10), 8 - 25.
- Zhang, C., Cheong, K. C., Rajah, R. (2016). Corporate tax avoidance and performance: Evidence from China's Listed Companies. *Institutions and Economies*, 8(3), 61-83.
- Zhu, N., Mbroh, N., Monney, A. & Bonsu, M.O.A. (2019). Corporate tax avoidance and firm performance. *European Scientific Research*, 15(7), 61- 70.
- Zhu, N., Mbroh, N., Monney, A. & Bonsu, M.O.A. (2019). Corporate tax avoidance and firm performance. *European Scientific Research*, 15(7), 61- 70.
- Zhu, N., Mbroh, N., Monney, A., & Bonsu, M.O.A. (2019). Corporate tax avoidance and firm performance. *European Scientific Research*, 15(7), 61- 70.

APPENDIX

Date: 11/12/22
 Time: 14:27
 Sample: 2011 2020

	TOBINSQ	ETR	TAS	CAI	LEV	SIZ
Mean	876.1419	0.394885	-0.094885	0.498425	0.186713	3.17E+08
Median	318.4701	0.310950	-0.010950	0.553211	0.064004	69610415
Maximum	6.456500	11.44632	2.689769	3.623531	1.801022	2.73E+09
Minimum	0.304414	-2.389769	-11.14632	0.000836	0.000273	13971764
Std. Dev.	1296.759	1.304388	1.304388	0.261954	0.306844	6.16E+08
Skewness	2.089905	6.980553	-6.980553	-0.370968	3.159063	2.555592
Kurtosis	6.711907	59.37403	59.37403	2.743869	14.41040	8.509917
Jarque-Bera	117.1840	12648.54	12648.54	2.310268	637.9346	211.8127
Probability	0.000000	0.000000	0.000000	0.315015	0.000000	0.000000
Sum	78852.77	35.53968	-8.539678	44.85826	16.80414	2.85E+10
Sum Sq. Dev.	1.50E+08	151.4271	151.4271	6.107175	8.379621	3.38E+19
Observations	90	90	90	90	90	90

Dependent Variable: TOBINSQ
 Method: Panel Least Squares
 Date: 11/11/22 Time: 10:45
 Sample: 2011 2020
 Periods included: 10
 Cross-sections included: 9
 Total panel (balanced) observations: 90

Variable	Coefficient	Std. Error	t-Statistic	Prob.
ETR	-0.016716	0.008612	-1.940933	0.0551
TAS	-0.241414	0.073507	-3.284218	0.0014
CAI	0.003227	0.008842	0.364977	0.7159
LEV	0.046173	0.020697	2.230929	0.0279
SIZ	0.095082	0.031486	3.019830	0.0032
C	0.139810	0.013077	10.69164	0.0000
R-squared	0.205038	Mean dependent var	0.104479	
Adjusted R-squared	0.164889	S.D. dependent var	0.083950	
S.E. of regression	0.076717	Akaike info criterion	-2.241930	
Sum squared resid	0.582671	Schwarz criterion	-2.090275	
Log likelihood	123.7013	Hannan-Quinn criter.	-2.180477	
F-statistic	5.106856	Durbin-Watson stat	1.776378	
Prob(F-statistic)	0.000330			

Panel unit root test: Summary

Series: TOBINSQ

Date: 11/11/22 Time: 12:40

Sample: 2011 2020

Exogenous variables: Individual effects

Automatic selection of maximum lags

Automatic lag length selection based on SIC: 0

Newey-West automatic bandwidth selection and Bartlett kernel

Balanced observations for each test

Method	Statistic	Prob.**	Cross- sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-12.9699	0.0000	9	90
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-2.77174	0.0028	9	90
ADF - Fisher Chi-square	56.8840	0.0405	9	90
PP - Fisher Chi-square	66.9689	0.0048	9	90

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

Panel unit root test: Summary

Series: D(TOBINSQ)

Date: 11/11/22 Time: 12:46

Sample: 2011 2020

Exogenous variables: Individual effects

Automatic selection of maximum lags

Automatic lag length selection based on SIC: 0

Newey-West automatic bandwidth selection and Bartlett kernel

Balanced observations for each test

Method	Statistic	Prob.**	Cross- sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-8.68409	0.0000	9	60

Null: Unit root (assumes individual unit root process)

ADF - Fisher Chi-square	51.0028	0.1140	9	60
PP - Fisher Chi-square	69.1673	0.0028	9	60

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

Panel unit root test: Summary

Series: TAS

Date: 11/11/22 Time: 12:42

Sample: 2011 2020

Exogenous variables: Individual effects

Automatic selection of maximum lags

Automatic lag length selection based on SIC: 0

Newey-West automatic bandwidth selection and Bartlett kernel

Balanced observations for each test

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-72.8566	0.0000	21	84

Null: Unit root (assumes individual unit root process)

Im, Pesaran and Shin W-stat	-13.8490	0.0000	21	84
ADF - Fisher Chi-square	85.7148	0.0001	21	84
PP - Fisher Chi-square	97.8442	0.0000	21	84

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

Panel unit root test: Summary

Series: D(TAS)

Date: 11/11/22 Time: 12:51

Sample: 2011 2020

Exogenous variables: Individual effects

Automatic selection of maximum lags

Automatic lag length selection based on SIC: 0

Newey-West automatic bandwidth selection and Bartlett kernel

Balanced observations for each test

Method	Statistic	Prob.**	Cross- sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-65.5724	0.0000	21	63
Null: Unit root (assumes individual unit root process)				
ADF - Fisher Chi-square	96.1058	0.0000	21	63
PP - Fisher Chi-square	116.167	0.0000	21	63

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

Panel unit root test: Summary

Series: CAI

Date: 11/11/22 Time: 12:54

Sample: 2011 2020

Exogenous variables: Individual effects

Automatic selection of maximum lags

Automatic lag length selection based on SIC: 0

Newey-West automatic bandwidth selection and Bartlett kernel

Balanced observations for each test

Method	Statistic	Prob.**	Cross- sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-9.73815	0.0000	21	84
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-3.15131	0.0008	21	84
ADF - Fisher Chi-square	59.6489	0.0377	21	84
PP - Fisher Chi-square	86.0561	0.0001	21	84

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

Panel unit root test: Summary

Series: D(CAI)

Date: 11/11/22 Time: 12:57

Sample: 2011 2020

Exogenous variables: Individual effects

Automatic selection of maximum lags

Automatic lag length selection based on SIC: 0
 Newey-West automatic bandwidth selection and Bartlett kernel
 Balanced observations for each test

Method	Statistic	Prob.**	Cross- sections	Obs
<u>Null: Unit root (assumes common unit root process)</u>				
Levin, Lin & Chu t*	-29.0036	0.0000	21	63
<u>Null: Unit root (assumes individual unit root process)</u>				
ADF - Fisher Chi-square	87.5140	0.0000	21	63
PP - Fisher Chi-square	98.4299	0.0000	21	63

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

Panel unit root test: Summary

Series: LEV

Date: 11/11/22 Time: 13:00

Sample: 2011 2020

Exogenous variables: Individual effects

Automatic selection of maximum lags

Automatic lag length selection based on SIC: 0

Newey-West automatic bandwidth selection and Bartlett kernel

Balanced observations for each test

Method	Statistic	Prob.**	Cross- sections	Obs
<u>Null: Unit root (assumes common unit root process)</u>				
Levin, Lin & Chu t*	-31.992	0.0000	21	84
<u>Null: Unit root (assumes individual unit root process)</u>				
Im, Pesaran and Shin W-stat	-9.93148	0.0000	21	84
ADF - Fisher Chi-square	101.635	0.0000	21	84
PP - Fisher Chi-square	117.895	0.0000	21	84

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

Panel unit root test: Summary

Series: D(LEV)

Date: 11/11/22 Time: 13:03

Sample: 2011 2020

Exogenous variables: Individual effects
Automatic selection of maximum lags
Automatic lag length selection based on SIC: 0
Newey-West automatic bandwidth selection and Bartlett kernel
Balanced observations for each test

Method	Statistic	Prob.**	Cross- sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-138.383	0.0000	21	63
Null: Unit root (assumes individual unit root process)				
ADF - Fisher Chi-square	102.187	0.0000	21	63
PP - Fisher Chi-square	123.587	0.0000	21	63

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

Panel unit root test: Summary

Series: SIZ

Date: 11/11/22 Time: 13:06

Sample: 2011 2020

Exogenous variables: Individual effects

Automatic selection of maximum lags

Automatic lag length selection based on SIC: 0

Newey-West automatic bandwidth selection and Bartlett kernel

Balanced observations for each test

Method	Statistic	Prob.**	Cross- sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-23.9745	0.0000	21	84
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-5.73459	0.0000	21	84
ADF - Fisher Chi-square	75.7589	0.0011	21	84
PP - Fisher Chi-square	89.1125	0.0000	21	84

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

Panel unit root test: Summary

Series: D(SIZ)

Date: 11/11/22 Time: 13:08

Sample: 2011 2020

Exogenous variables: Individual effects

Automatic selection of maximum lags

Automatic lag length selection based on SIC: 0

Newey-West automatic bandwidth selection and Bartlett kernel

Balanced observations for each test

Method	Statistic	Prob.**	Cross- sections	Obs
<hr/> Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-72.1015	0.0000	21	63
<hr/> Null: Unit root (assumes individual unit root process)				
ADF - Fisher Chi-square	85.2290	0.0001	21	63
PP - Fisher Chi-square	100.194	0.0000	21	63

** Probabilities for Fisher tests are computed using an asymptotic Chi
-square distribution. All other tests assume asymptotic
normality.

DATA

YE R	COY	TOTAL ASSETS	EFFECTI VE TAX RATE	TOBIN Q	TAX SAVING S	LEV	CINT
					-		
2011	Eterna Plc.	14284448	0.44204	0.760520783	0.1420404 6	0.0649 5	0.5558 72
					-		
2012	Eterna Plc.	32444467	0.333343	0.885340206	0.0333431 2	0.0225 07	0.2142 42
					-		
2013	Eterna Plc.	17122764	0.35085	0.929316898	0.0508501 1	0.1113 69	0.5424 37
2014	Eterna Plc.	18048814	0.285513	0.925186667	0.0144868 86	0.0735 91	0.6415 89
2015	Eterna Plc.	27,845,70 8	0.004221	0.817534703	0.2957793 67	0.0376 8	0.3212 16
					-		
2016	Eterna Plc.	31,101,28 9	0.379898	1.079939269	0.0798976 8	0.0808 5	0.5533 76
2017	Eterna Plc.	47,154,88 1	0.28646	1.040851120	0.0135399 63	0.0410 49	0.3935 31
					-		
2018	Eterna Plc.	52,690,69 4	0.461887	0.956830387	0.1618868 6	0.0694 15	0.3879 74
					-		
2019	Eterna Plc.	28,310,17 5	1.188601	0.927701463	0.8886008 3	0.0722 84	0.5699 77
					-		
2020	Eterna Plc.	35,792,31 5	0.629016	0.975212295	0.3290160 4	0.0554 4	0.5667 19
2011	ARDO VA Plc.	42,299,94 3	-0.02364	0.824105712	0.3236374 64	0.0157 79	0.4706 07
					-		
2012	ARDO VA Plc.	37,464,00 0	0.339122	0.782631542	0.0391218 1	0.0028 78	0.6506 19
2013	ARDO VA Plc.	65,316,08 9	0.250043	0.778666577	0.0499565 56	0.1316 2	0.3758 21
					-		
2014	ARDO VA Plc.	93,678,40 6	0.372799	0.825812012	0.0727988 7	0.0504 34	0.3927 8
2015	ARDO VA Plc.	65,740,96 0	0.17785	0.787519096	0.1221501 07	0.0513 71	0.4653 27
					-		
2016	ARDO VA Plc.	73,458,99 5	0.40545	1.409511786	0.1054497 6	0.1591 63	0.4248 87
					-		
2017	ARDO VA Plc.	62,117,62 9	0.334242	1.223205942	0.0342417 2	0.1730 33	0.2584 98
2018	ARDO VA Plc.	60,729,73 3	3.866702	1.191041711	0.1221501 - 3.5667018	0.1241 92	0.5154 15

		47,018,95			6		
2019	ARDO VA Plc.	4	0.158785	1.499569992	0.1412153 72	0.0893 12	0.5978 14
					-		
2020	ARDO VA Plc.	1	0.355013	1.337216065	0.0550132 1	0.0194 02	0.4684 72
	MRS Nig.	72,700,23		1,834.820973	0.2643888	0.0956	0.5486
2011	Plc.	8	0.564389	711	3	17	73
	MRS Nig.	55,595,68		1,591.394382	0.1584335	0.1161	0.6591
2012	Plc.	8	0.458434	418	5	42	52
	MRS Nig.	65,694,62		1,905.212332	0.2491446	0.0912	0.6422
2013	Plc.	6	0.549145	632	1	88	06
	MRS Nig.	57,846,62		1,926.945492	0.1178056	0.0957	0.2994
2014	Plc.	6	0.417806	819	6	4	78
	MRS Nig.	66,893,74		2,009.888632	0.0595307		0.6740
2015	Plc.	1	0.359531	092	6	0.0796	33
	MRS Nig.	81,364,81		2,759.078281	0.0591243	0.0630	0.4463
2016	Plc.	5	0.359124	716	5	59	53
	MRS Nig.	62,190,31		3,403.517921	2.6897687	0.0348	0.4277
2017	Plc.	8	-2.38977	417	06	39	58
	MRS Nig.	54,283,20			0.4138444	0.0244	0.4302
2018	Plc.	2	-0.11384	0.304414045	27	9	65
	MRS Nig.	44,209,64			0.4475084	0.0320	0.5530
2019	Plc.	8	-0.14751	0.331306871	25	68	47
	MRS Nig.	36,659,09			0.4462722	0.0257	0.6289
2020	Plc.	4	-0.14627	0.438373558	68	32	23
					-		
2011	Total	0	0.349129	816.8585348 85	0.0491288 8	0.0449 24	0.6805 66
					-		
2012	Total	5	0.341955	814.5755733 50	0.0419550 4	0.0369 91	0.6141 53
2013	Total	7	0.343094	686.9457618 85	- 0.0430937	0.0378 2	0.5659 4
2014	Total	8	0.204125	708.9290025 97	0.0958750 53	0.0311 86	0.5885 81
2015	Total	5	0.376935	735.5940036	0.0769348	0.0413 75	0.6453 41

				47	7		
2016	Total	136,928,160	0.27298	1,005.685116232	0.027020083	0.001791	0.59866
2017	Total	107,981,873	0.320127	1,194.861259649	0.0201267	0.026092	0.623705
2018	Total	132,520,783	0.341991	558.624260662	0.04199138	0.043811	0.52818
2019	Total	133,787,731	0.257785	1,114.053623718	0.042215137	0.041646	0.57817
2020	Total	143,612,885	0.290699	1,006.890819030	0.009301494	0.039298	0.61862
2011	Oando	157,440,449	0.007343	95.074632846	0.292657268	0.342116	0.106693
2012	Oando	227,319,478	0.066364	76.011674819	0.233635887	0.212928	0.021184
2013	Oando	263,063,315	0.155593	155.014664526	0.144407276	0.049921	0.015884
2014	Oando	277,958,523	-0.01559	219.414970473	0.315594549	0.01862	0.019883
2015	Oando	946321309	-0.00427	123.620399373	0.304269243	0.002732	0.002734
2016	Oando	991544975	-0.00432	112.133165965	0.304321813	0.088855	0.008316
2017	Oando	213845118	-0.00052	108.069051176	0.300519747	0.408337	0.016443
2018	Oando	236366708	-0.03541	106.124505488	0.335408648	0.295544	0.177885
2019	Oando	223142393	-0.0171	109.514548586	0.317101486	0.102525	0.127251
2020	Oando	223142393	-0.0171	115.179187601	0.317101486	0.102525	0.127251
2011	Japaul	25283218	0.16483	719.742558692	0.135170114	0.05031	0.581016

2012	Japaul	33161470	0.16531	1,323.815560 498	0.1346900 66	0.2925 39	0.7931 73
2013	Japaul	17709257	0.758392	485.8218362 90	0.4583922 7	0.9610 9	0.8969 3
2014	Japaul	13971764	-0.09003	287.0267992 43	0.3900310 66	0.9524 07	1.2098 24
2015	Japaul	35022432	-0.00612	315.1493723 10	0.3061194 26	0.6340 3	0.6437 23
2016	Japaul	39028011	-0.00038	321.7908158 85	0.3003847 46	0.9746 77	0.5527 97
2017	Japaul	29054179	-0.00517	324.9535337 44	0.3051710 51	1.5289 03	0.7051 92
2018	Japaul	25620330	-0.00145	322.5524438 94	0.3014505 82	1.8010 22	0.6758 23
2019	Japaul	18776757	-0.00307	352.0890356 84	0.3030689 21	0.2940 3	0.1718 74
2020	Japaul	17517415	-0.00026	351.3002483 62	0.3002561 75	0.2580 88	0.1280 18
2011	Mobil	33105200 0	0.423864	1,559.835533 738	0.1238639 3	0.0002 8	0.0008 36
2012	Mobil	33379500 0	0.394342	1,328.757041 907	- 0.0943424	0.0002 94	0.0008 56
2013	Mobil	34680800 0	0.420422	1,167.705657 620	0.1204224 5	0.0002 73	0.0008 67
2014	Mobil	34949300 0	0.348925	1,170.662425 777	0.0489250 4	0.0002 97	0.0008 95
2015	Mobil	54072089	0.294425	1,115.949013 929	0.0055751 24	0.4517 72	0.8506 73
2016	Mobil	61701329	0.3216	977.2399560 38	0.0216001 4	0.3471 93	0.8237 17
2017	Mobil	74648928	0.324941	851.5543293 70	0.0249407 5	0.2565 58	0.6305 2
2018	Mobil	70660798	0.31883		-	0.2485	0.7723

			780.151566803	0.01883006	15	19
2019	Mobil		739.61486555	0.02225875	0.178605	0.795488
2020	Mobil		763.440068313	0.00682966	0.214131	0.579098
2011	Capital		3,017.658218274	11.1463208	0.026981	0.9092
2012	Capital		4,834.177000233	1.24903433	0.034094	0.772742
2013	Capital		4,379.176021822	0.335288941	0.351156	0.753839
2014	Capital		468.781752615	0.458308085	0.421174	0.751227
2015	Capital		622.859633396	0.401480965	0.444311	0.774619
2016	Capital		225.384533132	0.309841275	0.561906	0.924942
2017	Capital		239.959991019	0.335288941	0.351156	0.753839
2018	Capital		236.168180878	0.458308085	0.421174	0.751227
2019	Capital		223.948288035	0.401480965	0.444311	0.774619
2020	Capital		206.210869432	1.24903433	0.034094	0.772742
2011	Conoil		218.286492062	0.01604979	0.037371	0.546828
2012	Conoil		218.797608724	0.07763825	0.027888	0.292039
2013	Conoil		225.897896407	0.0290627	-0.010647	0.531152
2014	Conoil		241.960528830	0.15540063	0.016727	0.468983

2015	Conoil	69387365	0.330832	223.2745689 44	- 8	0.0308318 76	0.0177 7	0.5621
2016	Conoil	69833464	0.337028	5,626.669401 604	- 3	0.0370280 86	0.0140	0.7208 1
2017	Conoil	62855084	0.315071	5,103.723247 155	- 1	0.0150705 89	0.0145	0.5449 64
2018	Conoil	60897246	0.30027	4,576.896834 902	- 8	0.0002701 74	0.0156	0.4569 55
2019	Conoil	63584866	0.303674	4,279.099515 990	- 3	0.0036739 45	0.0203	0.3172 92
2020	Conoil	48864665	0.328739	3,109.626055 581	- 6	0.0287393 44	0.0197	0.3219 3