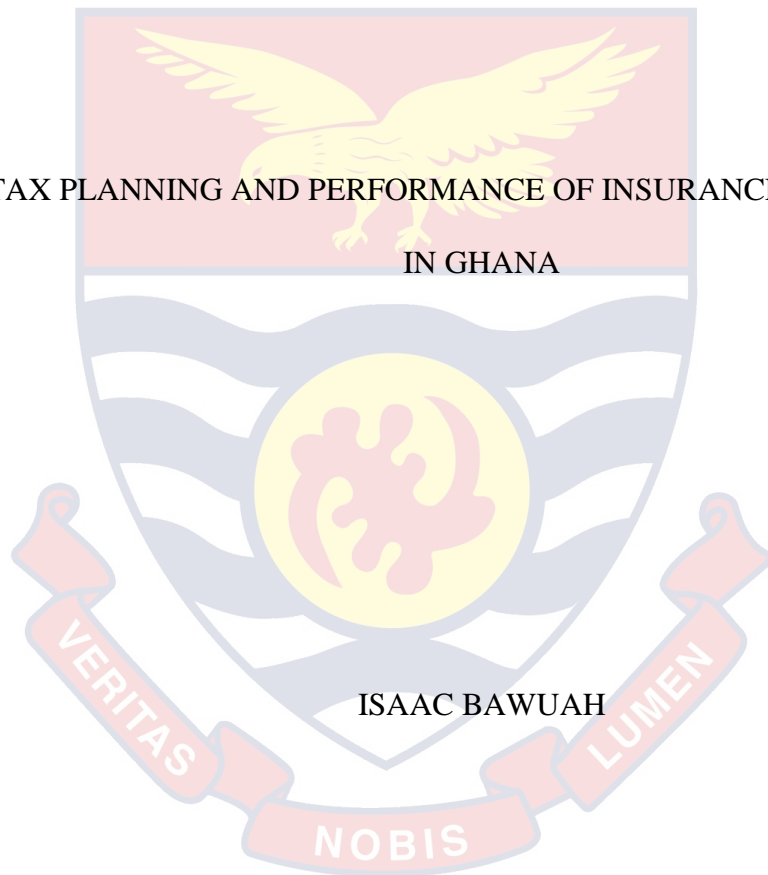


UNIVERSITY OF CAPE COAST

TAX PLANNING AND PERFORMANCE OF INSURANCE COMPANIES
IN GHANA



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UNIVERSITY OF CAPE COAST

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BY
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in Accounting

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DECLARATION

Candidate's Declaration

I hereby declare that this thesis is the result of my own original research and that no part of it has been presented for another degree in this university or elsewhere.

Candidates signature..... Date.....

Name: Isaac Bawuah

Supervisors' Declaration

We hereby declare that the preparation and presentation of the thesis were supervised in accordance with the guidelines on supervision of thesis laid down by the University of Cape Coast.

Principal Supervisor's Signature..... Date.....

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ABSTRACT

Many firms, including the insurance companies, in their bid to improve upon their financial soundness and contribute to shareholders' value maximization include tax planning in the overall financial management decisions. Thus, within such firms, tax managers learn to take advantage of the tax planning opportunities to mitigate their firms' tax liabilities and improve upon their after-tax returns. To what extent, therefore, is tax planning by firms related to firms' performance? It is in this bid that this study examined the relationship between tax planning and performance of insurance firms in Ghana. The study employed panel data for the period of 2012 to 2017 of 40 insurance companies in both the life and non-life insurance industries in Ghana. Based on the results of the Hausman (1978), fixed and random effects model of regression were used to analyse both models of the panel data. The study revealed that, on the average, insurance firms in Ghana have low effective tax rate (ETR). However, non-life insurance firms have higher ETR than the life insurance firms, implying that life insurance firms were better tax managers than the non-life firms. The study also revealed that tax planning was positively and significantly related to performance of insurance firms, but only at lower ETRs from 0% up to maximum thresholds of 20.36% and 19.7% computed for ROE and ROA models employed, and beyond these optimal levels of ETR, tax planning assumed a significant negative relationship with firm performance. The study recommends that managers of insurance companies must be incentivised to undertake more aggressive tax planning aimed at managing their ETRs within the boundaries of the computed optimal ETR levels. The study is relevant to tax planning managers in maximizing returns by managing ETR within the computed optimal ETR levels.

KEY WORDS

Effective Tax Rate

Effective Tax Rate squared

Returns on Equity

Returns on Assets



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DEDICATION

To my parents Mr. Daniel Owusu Brobbey and Mrs. Mary Boateng, and all
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LIST OF ACRONYMS

BTD	-	Book Tax Difference
CATA	-	Common Wealth Association of Tax Administration
ETR	-	Effective Tax Rate
EU	-	European Union
GDP	-	Gross Domestic Product
GLS	-	Generalized Least Square
IRC	-	Internal Revenue Commissioner
NIC	-	National Insurance Commission
OECD	-	Organization for Economic Co-operation and Development
OLS	-	Ordinary Least Square
ROA	-	Returns on Assets
ROE	-	Returns on Equity
ROI	-	Returns on Investment
STR	-	Statutory Tax Rate
USA	-	United States of America
VIF	-	Variance Inflation Factor

CHAPTER ONE

INTRODUCTION

Background to the Study

The insurance industry forms an essential part of a country's financial sector. The industry comprises insurance companies that have access to huge long-term funds. Many developed countries that have learnt to properly manage these long-term funds secured from the insurance companies have seen significant improvements in their economic fortunes (Boadi, Antwi, & Lartey, 2013). Boadi, Antwi and Lartey (2013) further note that in such countries, insurance companies are major sources for mobilizing funds that have facilitated the development of such nations. However, in Ghana, like many other developing countries, the reverse is true. The insurance industry's penetration, that is, its contribution to gross domestic product (GDP), has been found to be very low, below 2% (National Insurance Commission (NIC), 2018), emphasizing the requirement of improved performance in the industry.

In terms of financial performance, tax exactions have been found to be a major challenge within the insurance industry. For instance, in 2014, when the policy of making non-life insurance firms to pay 17.5% VAT was passed, the firms were put to sheer fear of having to either lose the existing few clients by raising price of products or maintaining customers by bearing the tax incident themselves (MyjoyOnline, 2014). Moreover, in 2016, it was discovered that the decline in the industry's profitability in terms of ROE and premium growth from 16% and 32% respectively in 2015 to 9% and 28% respectively in 2016 was partly as a result of the huge tax expenditure (NIC, 2018). This presupposes that in order to achieve good financial performance

with the attendant desirable profit, insurance firms must deem tax planning as an indispensable part of their overall financial planning strategies, as tax planning has been discovered to be a subset of firms' overall financial planning which takes into account investment, financing and wealth building strategies of the company (Ogundajo & Onakoya, 2016). But whether tax planning translates into economic fortune for corporate firms or not is a debatable question that has not fully been empirically resolved. Thus, even as the insurance industry has good reasons to engage in tax planning, the relationship between tax planning and insurance firms' performance must be clearly specified.

Tax planning has been found to be the legal practice of many corporate firms as the law does not frown on a tax payer who can exploit the detailed provisions of the tax laws to avoid paying tax or reduce the total amount of tax payable (Ayrshire Pullman Motor services and David M. Ritchie v. Commissioner of Inland Revenue (1929) in TC 745). In this case, the Lord President (Lord Clyde) stated, No man in this country is under the smallest obligation, moral or otherwise, so as to arrange his legal relations to his business or to his property as to enable the Inland Revenue to put the largest possible shovel into his stores. The Inland Revenue is not slow and quite rightly to take every advantage which is open to it under the taxing statutes for the purpose of depleting the taxpayer's pocket. And the taxpayer is in like manner entitled to be astute to prevent so far as he honestly can the depletion of his means by the Revenue.

This view was reiterated in IRC V. Duke of Westminster (1936) 19 TC 490 by Lord Temlin when he averred that:

Every man is entitled if he can, to order his affairs so that the tax attracting under the appropriate Acts is less than it otherwise would be. If he succeeds in ordering them so as to secure this result, then, however unappreciative the Commissioners of Inland Revenue or his fellow taxpayers may be of his ingenuity he cannot be compelled to pay an increased tax.

Therefore, from the above case, a company is not to be labelled as a bad corporate citizen for exploiting the tax laws and managing its affairs to take advantage of the opportunities therein to mitigate or avoid paying needless tax. This is the concept and essence of tax planning.

According to Leite Santa and Rezende (2016), corporate tax planning (tax avoiding) is a value-generating management practice, resulting in wealth transference from the state to the shareholders, through an increasing net income by the actual taxes amount saved; or legal activities designed by tax payers to lower the effective tax rate (ETR), described as the actual measure of the company's tax burden (Sabli & Md Noor, 2012). Ayers, Jiang and Laplante (2009) described it as managing taxable income downward; all activities designed to produce a tax benefit (Wahab & Holland, 2012). It is expected that effectively planning of taxes can result in a weighty reduction of tax liability and create opportunities for business organizations to make savings, increase profitability and maximize after-tax value or after-tax rate of return to investors and shareholders of the firm (Murphy, 2004; Desai & Hines, 2002; Chen, Chen, Chen & Shelvin, 2010) However, these benefits are limited by the available tax planning opportunities and intensity which

differ across countries as far as cross-country tax laws also differ (Kawor & Kportogbi, 2014).

In Ghana, commentators on tax behavior of Ghanaian firms paint a picture that suggests that opportunities for tax planning exist, especially for large firms which frequently engage in tax planning activities. For instance Common Wealth Association of Tax Administrators (CATA) (2009) posits that Ghana Revenue Authority lost seventy-four million pounds between 2005 and 2007 to the European Union (EU) in tax revenue as a result of tax avoidance by several multinational companies. Murphy (2004) also reported that firms have complex gamut of arsenals to reduce their tax burden. The reports indicate that the tax avoiding mechanism of firms are largely allowed by the tax laws. There are also indications that the firms take advantage of the loopholes in the tax laws to derive unintended tax benefits. According to Kawor and Kportogbi (2014), the avenues for tax planning in Ghana usually revolve around locational reliefs, industry-specific concessions and capital allowance provisions. Others are time variables and entity variables.

Since opportunities for tax planning exist in Ghana, some firms have explored it and tapped its significance. In the light of its significance, tax planning has attracted not only the attention of the corporate world but also scholars, resulting in the rife literature that explain tax planning behaviour in relation to other variables of firms, such as cost of equity (Goh, Lee, Lim, & Shevlin, 2016), the term structure of debt (Platikanova, 2015) and firm value (Ftouhi, Ayed & Zemzem, 2015)

Though it is expected that tax planning should be positively related to firm's financial performance, the works that studied tax planning in relation to

firm performance had inconclusive results. For instance, Desai and Hines (2002), Chen, Chen, Chen and Shelvin (2010), Lestari and Wardhani (2015) reported positive association between tax planning savings and firm performance, arguing that tax represents cost of doing business, and any action that has the potential of minimizing tax cost reflects in higher firm performance. This argument presupposes that tax planning cost and risk do not exceed the savings from the planning. On the contrary, Desai and Dharmaphala (2007), while acknowledging that tax planning had a positive relationship with accounting performance, reported just as Kawor and Kportorgbi (2014) underscore that tax planning had a neutral association with market performance. In the same vein, Leite Santa and Rezende (2016) and Abdul-Wahab (2010) found a negative association between tax planning and firm performance. Kportorgbi (2013) suggested that corporate governance strength plays a mediating factor in the tax planning-firm performance relationship. Several of these studies have been undertaken in the developed nations, whereas the developing nations, such as Ghana have recorded only a few. Besides, the variant studies on tax planning and firm performance have been conducted for most of the corporate sectors to the neglect of the financial institutions, especially, the insurance industry, due to their special regulatory framework. Thus the findings of these studies may not be applicable to the financial institutions and for that matter the insurance firms.

Statement of the Problem

According to Nnadi and Akpomi (2005), tax policy defines the cost structure of firms which is factored into pricing. Nwaobia (2014) emphasizes that without effective tax planning, tax exactions may be so great that when featured into the cost component of firms, it increases the firm's cost structure considerably, thereby eating up the distributable profits of corporate organizations. Hence, the huge tax exactions on insurance firms (NIC, 2018) makes tax planning indispensable in the insurance industry, which according to Ogundajo and Onakoya (2016), reduces the negative impacts of tax exactions on corporate's profitability.

Conventionally, tax planning is envisaged to be positively related to firm's financial performance. However, the works that studied tax planning in relation to firm performance had inconclusive results. For instance, Desai and Hines (2002), Chen, Chen, Chen and Shelvin (2010), Lestari and Wardhani (2015) reported positive association between tax planning and firm performance. On the contrary, Leite Santa and Rezende (2016) and Abdul-Wahab (2010) found a negative association between tax planning and firm performance. Whereas Kawor and Kportogbi (2014) discovered that tax planning had a neutral association with market performance. Thus, whether tax planning engagement by insurance firms yields financial fortunes or not remains an enquiry yet to be unveiled.

Besides, in both developed and developing countries, only a scant of tax planning literature have been conducted in relation to the financial institutions owing to their special regulatory framework, that are intended to regulate their risk exposure. In Ghana, the only few recorded related to only

banks (Yimbila, 2017; Agyei, Marfo-Yiadom, Ansong & Asare 2017), with no study both in developed and developing countries investigating tax planning within the insurance industry. Meanwhile, the insurance firms as inferred from the 2016 Annual Report of the National Insurance Commission (NIC, 2018) are as much concerned as any other firm, about the dwindling impact of the weighty tax expenditure on their declared profit, thus vindicating this study's inclusion.

Furthermore, it has been discovered in the tax planning literature that higher Effective Tax Rate (ETR) leads to lower firm profitability and lower firm value, whereas lower effective tax rate translates into higher firm performance and higher firm value (Yimbila, 2017; Ogundajo & Onakoya, 2016; Chashiandani & Martani, 2012). Yet this is the only work among tax planning literature that hypothesizes a non-linear relationship between ETR (proxy for tax planning) and firm performance and further evaluates the optimal level of ETR at which performance is maximized for the insurance industry. In our opinion, it will be in the interest of the insurance firms to know the exact value maximization level of ETR below or up to which ETR must be managed and beyond which ETR must be deemed too high, and thus demands control in order to avoid negative contribution to firm value. Therefore, the current study hypothesizes a non-linear relationship between ETR and firm performance by the inclusion of the squared term of the ETR, and assesses afterwards the value maximization level of ETR up to which insurance firms must sustain their ETR in order to maximize their financial performance.

This study therefore contributes to the existing literature on tax planning by addressing the above-mentioned gaps.

Purpose of the Study

The primary objective of this study is to investigate the relationship between tax planning and firm performance of Insurance companies in Ghana.

Research Objectives

The study specifically seeks to:

1. ascertain the level of tax planning in Ghana's insurance industry.
2. examine the impact of tax planning on the performance of insurance firms in Ghana.
3. evaluate the optimal level of tax planning at which performance is maximized in Ghana's insurance industry.
4. investigate the effectiveness of the tax planning efforts of the insurance firms in Ghana based on the computed optimal level of tax planning.

Research Questions

The study seeks to answer the following questions:

1. what is the level of tax planning in Ghana's insurance industry?
2. does tax planning impact on the performance of insurance firms in Ghana?
3. what is the optimal level of tax planning at which performance is maximized in Ghana's insurance industry?
4. how effective were the tax planning efforts of insurance firms in Ghana based on the computed optimal level of tax planning?

Research Hypotheses

In order to achieve the aforementioned objectives, objectives 2 and 3 were hypothesized as follows:

1. Ho: Tax planning does not significantly impact on the performance of insurance firms in Ghana.
2. Ho: Effective tax rate is not non-linearly related to firm performance.

Significance of the Study

In the developing countries and for that matter Ghana, empirical studies are yet to be conducted on the tax planning activities of financial institutions, especially the insurance industry, owing to their specialized regulatory framework. This supposes that tax planning activities applicable to non-financial institutions are not applicable to financial institutions and vice-versa. As there exist no empirical studies on tax planning of insurance firms, this study addresses the gap in literature. This will bridge the knowledge gap and serve as a reference guide for future studies on the problem.

There are both practical and theoretical impacts of this study. This study uncovers tax planning activities of both life and non-life insurance firms, which is expected to broaden the knowledge and understanding of academicians, researchers, practitioners, managers, administrators and policy makers on the tax planning activities of the insurance industry. The study equally benefits the insurance firms, their managers and their shareholders as, apart from showing how tax planning translates into economic fortunes of insurance companies, the study unearths the value maximization (optimal) ETR level within which ETR should be managed in order to improve upon shareholders' wealth maximization, which is the sole objectives of managers.

In a country like Ghana where people's interest is being aroused in purchasing insurance products, insurance firms can expand and improve on their operations if, premised on the results and information this study discloses, they can develop robust tax planning activities to reduce their cost of operation.

The study's significance to the government cannot also be downplayed. It will help to develop government policies aimed at improving upon tax regulations of the insurance industry, as the study brings to light the opportunities in the tax laws available for insurance industries to plan their tax and how this opportunities have been exploited. In a nutshell, the study contributes to literature and serves as a reference piece for future studies; also, it aids academicians, researchers, managers, shareholders, practitioners and government policy makers by shedding light on tax planning of insurance firms and how it affects the value of the insurance firms.

Scope of the Study

This study stems from corporate tax planning, concentrating mainly on tax planning of the insurance industry. Tax planning was measured using the effective tax rate, which is defined as the percentage of profit before tax, paid as income tax less deferred tax. The study was conducted for a six-year period. Data for the work was extracted from the insurance firms' financial reports covering the period of 2012 to 2017, taken from the NIC's head office, Accra. The analysis of the data has been painstakingly carried out to give a true reflection of tax planning activities of insurance firms.

Limitations of the Study

The study adopted the econometric approach for data analysis but this approach is probabilistic in nature, predictable under certain chances and conditions. Besides, the study covered only the life and non-life insurance companies within the insurance industry. It failed to include the insurance brokerage firms, reinsurance firms and loss adjusters, which equally fall under the insurance industry. The panel period was very short due to the fact that NIC does not keep, for more than six years, financial data of insurance companies (Insurance Act, 2006). And even with the six years data taken, most of the companies did not have their financial statements for all the six (6) years period within which the study was undertaken, thus the data was unbalanced, and this may hamper effective generalization.

Organization of the Study

The study is structured into five chapters. The first chapter, Chapter One touches on the background to the study, problem statement, purpose of the study, objectives, research questions and hypothesis, study's significance, scope of the study, limitations, delimitations and organization of the study. Chapter Two reviews related literature by explaining concepts and theories (conceptual and theoretical framework), reviewing control variables employed and empirically reviewing related works. Chapter Three addresses the methods employed in the study. It delineates the research approach and design, population, sources and method of data collection, estimation models and mode of measurement of all variables employed in the study. Chapter Four reports and discusses the results and implications of the study. Chapter Five finalizes the work by providing summary, conclusions and recommendations.

CHAPTER TWO

LITERATURE REVIEW

Introduction

This chapter explores the concepts and theories of tax planning and review related literature on the study. This chapter first gives an overview of the insurance industry, explains the concept of tax planning and reviews two related theories: Agency theory and Scholes-Wolfson's tax planning Framework. Objectives, constraints, opportunities and some means of tax planning were the next discussed issues. The chapter reviewed the variables used and the appropriate proxies chosen to represent them. The chapter concludes with the empirical literature review on tax planning and the performance of insurance firms.

Overview of the Insurance Industry in Ghana

According to a survey conducted by Bank of Ghana (n.d.), Ghana's insurance history can be traced from the colonial era in 1924, which saw the establishment of Royal Guardian Enterprise, currently known as Enterprise Insurance Company Limited as the first foreign Insurance Company of the Coast. The year 1955 witnessed the founding of the first indigenous private insurance firm known as Gold Coast Insurance Company and after which followed the establishment of State Insurance Company in 1962. By the year 2008, licensed insurance companies within the country had increased to 39 – with 17 in the life insurance and 22 for non-life insurance (National Insurance Commission, 2010). Insurance companies in Ghana fall into two main groups namely: Life Insurance and Non-Life Insurance companies. According to Boadu, Fokuo, Boakye and Frimpong, (2014), the players of the insurance

market consist of insurance companies (insurers) and policy holders (insured/assured). The insurance market suppliers are both the life and non-life insurance firms while the consumers are the policy holders (insured/assured). Thus the insurance market has both supply and demand side. The demand side of the Life market is constituted by the policy holders who seek compensation upon death, terminal illness or critical illness, while the Non-Life market demand size is formed by the automobile and home owners' policy holders. The supply side of both markets is populated by insurers who seek to indemnify policy holders.

The insurance industry helps the national economy in many ways: by creating jobs, paying taxes to government for other developmental activities and protecting the citizenry from loss of properties among others (Boadu, Fokuo, Boakye & Frimpong, 2014). The 1989 insurance law, PNDC Law 229, established the National Insurance Commission (NIC) (Gadahn, 2010), as the authoritative body in charge of insurance issues in Ghana. It is mandated to ensure effective administration, supervision, regulation and control of activities as enacted in the Insurance Act, 2006 (Act 724).

Globally, at the earlier stages of the insurance industry, insurance was to provide the mechanism for risk transfer but now the sector helps in channeling funds in an appropriate way to support the business activities in the economy (Boadu, Fokuo, Boakye & Frimpong, 2014). Besides, the insurance industry also supports government policies by paying requisite tax, which in recent times has seen a great upsurge following the proliferation of insurance firms in Ghana. For instance, in the year 2014, a policy was passed which mandated all non-life insurance firms to pass 17.5% of VAT to their policy

holders (MyjoyOnline, 2014). Though, this policy was vehemently opposed to by the industry, it seems to have brought a vast increase in tax revenue for the government. For instance, according to Mr. Kofi Andoh, Deputy Commissioner of Insurance, the insurance industry paid GH¢50 million to the government in corporate taxes in 2017 (B&FTonline, 2018).

It is noteworthy that even though the insurance industry has been a very great contributor to government's revenue in terms of tax payment, the industry has not taken the payment of taxes with light concerns. For instance, in 2016, the industry attributed its decline in profit to the numerous tax policies the industry had to comply with (National Insurance Commission, 2018). This implies that tax planning within the industry is indispensable following their insatiable desire to limit their tax expenditure and report higher after-tax profit.

Definition of Corporate Tax Planning

It must be noted that in literature, the term "tax planning" has been paralleled with other terms such as tax aggressiveness, tax shelter, tax management, tax avoidance among others. They all mean the same concept and can be used interchangeably. Tax planning, in literature, has so far assumed multiplicity of definitions with several dimensions to it. Hoffman (1961) define tax planning as, "taxpayer's capacity to arrange his financial activities in such a manner as to suffer minimum expenditure for taxes" (p. 274). Tiley (2005) defines tax planning as "what all sensible people do in order to reduce their tax liabilities" (p. 94). Ogundajo and Onakoya (2016) define tax planning as the ability of tax payers to take advantage of enabling laws and other enactments to reduce tax liabilities. All the above definitions,

though explain tax planning in its general terms, allude to the fact that tax planners have legal right to explore the tax laws and take advantage of the provisions therein to mitigate their tax liabilities. The legality of tax planning dates back from the case between IRC v Duke of Westminster (1936) in which the following decision ensued:

Every man is entitled if he can to arrange his affairs so that the tax attaching under the appropriate Act is less than it otherwise would be. If he succeeds in ordering them so as to secure the result, then however unappreciative the commissioner of Inland Revenue or his fellow taxpayers may be of his ingenuity, he cannot be compelled to pay an increased tax (Tiley, 2005: 105).

Thus tax planning can be considered legal in the light of the above-mentioned judgement.

Narrowing it to the corporate sense too, we have several authors who have also explained tax planning in the business dimension. According to Heitzman and Ogneva (2016), “tax planning reflects efforts by managers to structure the organization and its investments, transactions, and reporting to exploit tax-based opportunities to increase firm value” (p. 7). These opportunities according to Heitzman and Ogneva arise from tax-favored investments, the obscurity of the tax laws, location and timing preferences, and deductions in tax returns among others. Kawor and Kportogbi (2014) further explain this opportunities as revolving around locational reliefs, industry-specific concessions and capital allowance provisions, with others being time variables and entity variables.

The concept of tax planning has been identified in literature to comprise both tax avoidance and tax evasion. For instance, Bruce, Deskins

and Fox (2007) define tax planning as, “a broad set of tax avoidance and evasion schemes that affect only the financial arrangements of firms” (p. 226). Similarly, Frank et al. (2009), define aggressive tax reporting as, “... downward manipulation of taxable income through tax planning that may or may not be considered fraudulent tax evasion” (p.468). Thus, tax planning cannot be said to have been well expounded without explaining these two components. Earlier studies have tried to differentiate the two from each other by assessing what is legal from what is illegal. For instance, Hoffman (1961) defines:

Tax avoidance is usually the ultimate goal to achieve by tax planning. In this sense, the exercise of legal prerogative may aid in the avoidance of taxes. Tax evasion, however, connotes a misrepresentation or omission of key financial information in an effort to evade taxes that are legally enforceable. One is fraudulent and abhorrent to any decent and honest practitioner, and the other is completely acceptable. (p. 275).

In the same vein, Kirchler, Maciejovsky & Schneider (2003) state that: “tax avoidance refers to an attempt to reduce tax payments by legal means, for instance by achieving tax-loopholes, whereas tax evasion refers to an illegal reduction of tax payments, for instance by underreporting income or by stating higher deduction rates.” (p.43). However, Amankwa (2014) sees tax planning as the same as tax avoidance and treats it differently from tax evasion, though underlying the same concept of what is legal or acceptable and what is illegal, unethical and unacceptable. But it can be concluded from literature that tax planning is the broad concept encompassing tax avoidance, which explains

legally acceptable tax deductions and manipulations, and tax evasion, which explains legally unacceptable or fraudulent tax manipulations and deductions.

In literature, differentiating “acceptable avoidance” from “unacceptable avoidance” has been a bone of contention (Bond, Gammie & Whiting, 2006) since what is acceptable to one party may not be acceptable to another party. Thus for the purpose of this study, tax planning comprise both tax avoidance and tax evasion since the study focuses on the relationship between tax planning and firm value, thus the legality and illegality of tax planning is not empirically tested.

According to Wahab and Shaipah, (2010), tax planning can also be regarded as “active” in which case a firm’s transaction and some business arrangements are undertaken with the intent of minimizing tax liability or “passive” which implies that the firm’s engagement in transactions was not purposed on tax reduction, yet the transaction resulted in minimizing tax. Thus, “active” tax planning is a deliberate one while passive is a non-deliberate or unintended tax planning. In a nutshell, tax planning can be defined as deliberate or unintended means of minimizing, either legally or illegally, the amount of tax liability so as to achieve greater tax savings.

Theories of Corporate Tax Planning

Tax planning activities have been explained in literature by several theories such as Agency theory (Yimbila, 2017), Hoffman’s theory of tax (Kawor & Kportogbi, 2014), Schole-Wolfson framework of tax (Wahab & Shaipah, 2010), political cost and power theory (Aganyo, 2014) among others. For the purpose of explaining how tax planning can impact on firm’s

performance, agency theory and Schole-Wolfson theory of tax have been adopted in this study.

Agency Theory

Among the primitive theories underpinning tax planning is agency theory. The problem of agency between owners and managers in the organizations due to the separation of ownership from control was found since the birth of large corporations (Berle & Gardiner, 1932). The owners assign the task to the managers to manage the firm with a hope that managers will work for the benefit of the owners. However, managers are more interested in their compensation maximization. The argument on the agent's self-satisfying behaviour is based on the rationality of human behaviour (Sen, 1987; Williamson, 1985), which states that human actions are rational and motivated to maximize their own ends. The misalignment of interest between principal and agent and the lack of proper monitoring due to diffused ownership structure lead to the conflict, which is known as principal-agent conflict. In relation to tax planning, the problem occurs when management uses the discretion available to them within the boundaries of the tax laws to manipulate tax liability for their own or their shareholders' benefit. Desai and Dharmapala (2006) argue that complex tax avoidance transactions can provide management with the tools, masks, and justifications for opportunistic managerial behaviours, such as earnings manipulations, related party transactions, and other resource-diverting activities. This emphasizes the fact that tax avoidance can be championed to foster managerial diversion. This agency problem related with tax planning has attracted rife literature.

For instance, Desai and Dharmapala (2006) show that strengthened equity incentives actually decrease tax avoidance for firms with weaker governance, consistent with the view that tax avoidance facilitates managerial diversion. Chen et al. (2010) find that family firms are less tax aggressive than their non-family counterparts. The authors conclude that family owners appear to forgo tax benefits to avoid the non-tax cost of a potential price discount arising from minority shareholders' concern about family rent seeking masked by tax avoidance activities. Kawor and Kportorgbi (2014) found that tax savings enhanced after tax earnings of Ghanaian firms but does not reflect in the firm's value. The result is consistent with the Agency theory notion that not all management strategies tend towards the achievement of wealth maximization objectives. In a similar vein, the adoption of the Generalized Least Squares (GLS) regression model by Ftouhi, Ayed and Zemzem (2015) to examine the relationship between firms' value and tax planning with firm size, leverage, capital intensity, dividend and earnings management as control variables found a significant and negative relationship between firm value and tax planning also supports the Agency cost theory of tax planning.

It can therefore be implied that due to the opportunistic behaviour of managers, which lead them to undertake tax planning for their benefit instead of the company's benefit, tax planning will lead to a dwindling effect on firm performance. However, where the managers are motivated by the shareholders, they will undertake tax planning for the company's benefit, in which case tax planning will lead an improved performance of the insurance companies.

In the light of this opportunistic behaviour that may underpin tax planning in firms, this study hypothesizes that tax planning does not significantly impact on the value of insurance firms in Ghana.

The Scholes-Wolfson Framework

According to Scholes-Wolfson, the objective of tax planning can be achieved if tax planning embraces three underlying principles – “all contracting parties”, “all taxes” and “all costs” – as stated: “all contracting parties must be taken into account in tax planning: importance of hidden taxes – all taxes must be taken into account; and importance of non-tax costs – all costs of business must be considered, not just tax costs” (Scholes & Wolfson, 1992: p.3). In the first place, the framework proffers that tax planning should be considered in the perspective of all contracting parties. Thus tax planning should factor the interest of all individuals who are affected by it – the shareholders, the firm, the managers and the society. This is especially relevant as tax planning decisions of firms affect largely the society. According to Slemrod (2004), tax planning activities can hamper efficient resource allocation, which has the possibility to affect the society’s welfare. More so, shareholders will value tax planning and permit it when they can identify it in relation to their wealth maximization (Desai & Darmapala, 2009a).

The second factor the framework emphasizes is consideration of “all taxes”. Tax planning should be undertaken in the light of all taxes, that is both obvious (the actual tax paid to the tax commissioner) and hidden taxes (tax-induced reductions) the firm incurs, as tax planning achieves its purpose of high after-tax returns if it is deployed for tax in its entirety without any

undetected tax liability, which has the possibility of derailing the tax planning of its objective of maximum after-tax returns.

The third other important principle Scholes-Wolfson framework considers is “all cost”. Both explicit – management incentives and transaction costs – and implicit costs – direct misappropriation by the managers of the tax savings accomplished with tax avoidance activities, the loss of financial statement credibility, reputational loss, potential penalties imposed by tax authorities (Desai & Dharmapala, 2006; Santana & Rezende, 2017) – consequent to tax planning must be factored in order to ensure that cost of tax planning does not exceed the benefits of tax planning. The objective of tax planning which is to attain a high after-tax returns can only be attained when overall cost of tax planning does not exceed the benefits of tax planning.

Empirically, the Scholes-Wolfson framework has been validated in several works even until the second decade of the twenty-first century (Wahab, Ntim & Adnan, 2018; Cen, Maydew, Zhang, & Zuo, 2018; Akamah, Omer, & Shu, 2016). This therefore confirms that Scholes-Wolfson’s framework offers a constructive means of planning tax and achieving the purpose for which the tax is planned.

Thus, it can be concluded that when all contracting parties, all taxes and all costs are factored into tax planning by the insurance companies, tax planning can result in the attainment of the objective of maximum after tax returns, which will translate into high performance level for the insurance industry. Otherwise, tax planning will translate into dwindling performance for the industry since cost may outweigh benefit.

Tax Planning Objectives

According to Hoffman (1961), tax planning refers to a taxpayer's ability to arrange his financial activities in order to minimize the tax expenditure incurred there upon. This definition connotes that the objective of tax planning is to minimize the tax liability. However, given the possibility of non-tax cost, the objective of tax planning is not just concerned with the minimization of the tax liability per se but the optimal objective is to maximize after-tax return through the minimization of the tax liability (Scholes & Wolfson, 1992). Thus tax planning must aim at reducing tax liability concurrently with increasing after-tax returns. In order to ensure that tax planning proffers the main aim of maximizing after-tax returns, Scholes and Wolfson propound in their framework, three underlying principles such as explained above under Scholes Wolfson Framework.

Constraints of Tax Planning

In the bid to pursuing tax planning, companies may be exposed to certain factors that may hinder them from achieving the expected benefit of tax planning. The factors can be referred to as explicit/direct cost and implicit/indirect cost of tax planning. Wahab and Holland (2012) explains explicit cost as those such as legal consulting fees, remuneration of tax directors, among others that the firm or tax payer incurs in the activity of the tax planning. Another explicit cost suggested is also pre-filing costs, which include obtaining tax guidance and information and maintaining tax-related records (Slemrod & Venkatesh, 2002).

Apart from the direct/explicit cost, there are other indirect/implicit cost which equally leach the taxpayer of the expected benefits from tax planning.

Desai and Dharmapala (2006) note agency cost can surface in the tax planning activity. According to Desai and Dharmapala managers can expropriate the tax savings resulting from the tax planning activity and hence, the tax planning activity will not yield the firm any benefit. Beside the agency cost, the risk of detection could also be another possible implicit/indirect cost (Chen et al. 2010). According to Chen et al. (2010), this cost can be estimated as the product of the probability of being audited, being found and the expected penalties once found.

Other non-tax cost or implicit cost worthy of note is reputational cost. According to Leite Santa and Rezende, (2016), Firms face the problem of widespread social rejection as a punishment for its lack of citizenship, when it becomes evident to the public that the firm dodges paying taxes. Firms will thus lose market share, thus resulting in a negative impact of tax planning on the firm's profitability. Hanlon and Slemrod (2009) report that General Electric, SBC and WalMart make efforts to show publicly that they are good corporate citizens because they pay their taxes appropriately. Another implicit or non-tax cost will be the loss of financial statements' credibility. Leite Santa and Rezende, (2016) opine that firms that consistently reduce their tax burden relative to similar companies raise the suspicion of investors concerning the reliability of their financial statements. Frank, Lynch and Rego (2009), for instance, find evidence that there is a strong association between aggressive accounting and tax aggressiveness.

Tax Planning Opportunities

Yimbila (2017) apprise that the "loopholes" in the tax laws could provide opportunities for taxpayers to plan their taxes. Saxton (1999) defined a

“loophole” in tax terminology as *“a technicality making it possible to circumvent the law’s intent without violating the letter of the law”* (Saxton, 1999: p.9). Previous research found that loopholes in tax laws and firm characteristics were the driving wheel of tax planning (e.g. Hoffman, 1961; Slemrod, 2004; Abdul-Wahab, 2010). Even though the exploitation of loopholes in the tax laws to identify opportunities for tax planning is lawful, the tax authorities are concerned about discovering and expunging the opportunities identified by tax payers (Aharony & Geva, 2003). This means that the taxpayer should be aware of the transience of the opportunity being exploited for tax planning.

According to James and Wallschutzky (1997), the tax authorities usually stop the opportunities being exploited by taxpayers by increasing the level of legislation and revising the tax laws, which further results in the creation of more loopholes in the tax laws. Thus as an alternative means of fostering tax compliance by tax payers, Abdul-Wahab (2010) suggests that the authorities should stress the ethics and moral implication of tax payment to tax payers so as to reduce taxpayers insatiable quest to indulge in tax planning.

Kawor and Kportogbi (2014) identify that the avenue for tax planning usually revolve around locational reliefs, industry-specific concessions and capital allowance provision. Others are variable and entity variables.

Some Means of Tax Planning

There are several approaches by which firms plan their taxes. From literature, the following are some means through which firms plan their taxes: income shifting or profit sharing, modification of income characteristics, transfer pricing, tax-exemptions and organizational structure. These enlisted

strategies adopted by firms in avoiding tax are the pivot around which this section revolves. However, it must be noted as Abdul-Wahab (2010) posits that these approaches may not be prolonged into the future as approach could be easily detected and annulled by the authorities.

Income Shifting or Profit Sharing

Akakpo (2008) explains income shifting the transfer of income from an entity with higher marginal tax rate to an entity with lower marginal tax rate. The thrust for income shifting is founded upon taxpayers' willingness to take advantage of lower tax rates existing elsewhere. Taxpayers disguise the nature of income or profit with the view of allotting with or transferring the income to related parties that are subject to lower tax jurisdictions. Gordon and Slemrod (2002) opine that income-shifting is of much concern to tax authorities because it has several negative impacts. In view of its negative implications, Ghana's tax laws, Income Tax Act, 2015 (Act 896) provides an anti-tax avoidance laws against income shifting. The Acts provides that where a person attempt to share profit with another person, the commissioner may adjust the chargeable income of both persons to prevent a reduction in the tax payable as a result of sharing of profit.

Modification of income characteristics

This is also another means by which firms and for that matter insurance companies in Ghana may adopt to avoid tax. This approach involves changing the nature of income either from revenue-income to capital-gain income or from domestically-received income to foreign income. According to Kportorgbi (2013), firms change domestic-sourced income to foreign income in order to take advantage of double taxation, and equally convert revenue-

income to capital-gain income in order to suffer lower tax rate. Other means of modifying income characteristics are: reclassifying and non-business income as business income so as to take advantage of capital allowance deductions (Abdul-Wahab, 2010), and reclassifying business income as non-business income to avoid higher business income tax (Bruce et al., 2007).

Transfer Pricing

This is a transaction in which prices are not decided at arm's length (Ali-Nakyea, 2008), usually being effected between related parties. Organisation for Economic Co-operation and Development (OECD) (2013) refers to transfer pricing as the shifting of risks and intangibles, the artificial splitting of ownership of asset between legal entities within a group, and transactions between such entities that would rarely take place between independents. In a typical aggressive transfer pricing deal, a company may produce or buy an asset or product through a low-tax foreign subsidiary and then sell it to the parent company at an above-market price (Hanlon & Heitzman, 2010). Transfer pricing has the effect of subjecting a disproportional amount of profit from the ultimate sale of asset to the subsidiary in a relatively low tax rate jurisdiction (McClure & Lanis, 2015). In combating transfer pricing, in Ghana, section 70 of the Income Tax Act, gives power to the tax commissioner to disallow for tax purposes, any transfer price which is not in an arm's length. In addition, the OECD guidelines regarding financial institutions transfer pricing also frowns on non-arm's length transactions (OECD, 2009).

Tax-Exemptions

Tax-exemptions approach to tax planning is an efficient means of avoiding tax. Tax exemption involves a person or organization not being taxed on a purchase or income that normally would be subject to some form of taxes (Mgammal & Ismail, 2015). In many jurisdictions, some categories of organizations, items of property, and some form of taxable income may be exempt from paying the full tax required, pay relatively lower tax or be given tax credit. For example, in Ghana's Income Tax Act 2015 (Act 896) are provisions for industrial concessions and capital allowance for specific class of fixed assets. Insurance firms may avoid tax by investing in some of these classes of fixed assets attracting capital allowances. According to Mgammal and Ismail (2015) tax-favored investments may enjoy numerous types of tax-favored status, tax credits (a personal exemption allowance or type of currency (Manzon & Plesko, 2002) and full tax exemption, actually, the investment might enjoy further than one tax-favored status.

Organizational Structure

Insurance firms in Ghana can also employ this means to avoid paying tax. According to Yimbila (2017), using organizational structure approach involves changing the nature of a firm's business operation with the aim of minimizing the tax burden. Stonham (1997) documented that in 1996, corporations benefited from their tax planning through a demerger strategy in which they successfully achieved the U.S. tax authorities' consent of a tax-free sharing of the stock dividend to their nationals. This allowed the corporations to gain some advantages in the form of tax exemption, a tax shield and a lesser tax bill. Apart from demerger strategy under this approach, other strategies

that insurance firms can utilize are share reorganizations, mergers and demergers, amalgamations, reconstructions, management buyouts and share purchases, whilst international corporations may be engaged in transformation from subsidiary to branch or vice-versa, or multinational mergers and reorganizations and reorganizations by both international and domestic corporations (Abdul-Wahab, 2010). But it must be borne in mind by the insurance companies that while the Income Tax Act 2015 (Act 896) does not censure reorganization of firms, Section 101 (1) exempt capital gains accruing to or derived by a company arising from a merger, amalgamation or reorganization of the company, where there is continuity of underlying ownership in the asset of at least twenty-five percent.

Insurance Firm Performance Measurement

Dess and Robinson (1984) suggested that performance could be measured either objectively or subjectively. Objective measures of performance such as returns on assets, market share, sales etc. rely on financial statements while subjective measures such as innovation, learning, customers' satisfaction etc. depend on managerial assessments (Tayeh, Al-Jarrah, & Tarhini, 2015). In this study, the performance of insurance firms in relation to tax planning was assessed using the objective measures of performance due to the availability of the financial statements. Since market ratios were not available from the financial statements, the study limited the measurement to profitability-based ratios which were returns on assets (ROA) and returns on equity (ROE) to assess the performance of insurance firms in relation to tax planning.

Return on Assets (ROA) measures the return by using assets to produce income. Analysts use ROA to assess a firm's operating performance relative to investments made without considering whether the firm used debt or equity capital to finance the investments (Stickney, 1996). The ratio measures the relationship between the amount of profit before interest and tax, and the total assets number expressed as a percentage. Although ROA shows how productive the firm's total assets are in producing profit, Tayeh, Al-Jarrah, and Tarhini, (2015) emphasised that it ignores the means and costs of financing the assets (i.e. the proportion of debt versus equity financing, and the cost of those forms of capital).

Return on Equity (ROE): Return on equity relates to the return made by a firm for its shareholders with the finance made available to the firm by the shareholders. In other words, it indicates the management's success or failure at maximizing the return to stockholders based on their investment in the firm (Alexander and Nobes, 2001). However, although ROE is at the apex of the ratio pyramid, it does not tell the owners if firm is creating shareholders' wealth or destroying it (Duffy, 1995).

These two measures were chosen to assess performance of insurance firms because the composite of the two gives rise to the ratio called returns on investment (ROI), which is a measure of how firm are able to generate profit with the given level of investment: investment in assets and investment made by shareholders in the form of equity. Several works have employed these measures (ROA & ROE) in measuring performance of firms (e.g. Yimbila, 2017; Amankwah, 2014, Ahmed & Khaoula, 2013; Kportorgbi, 203).

Level of Tax Planning of Insurance Firms

Effective tax rate (ETR) was used as a proxy for tax planning. ETR is the percentage of a company's taxable income paid as tax expense. It is estimated as the total tax expenses divided by pre-tax accounting income. ETR can impact tax liability with minimum or no impact on accounting income and this account for its acceptance over other variables as a proxy of tax planning (Derashid & Zhang, 2003). ETR provides a basic summary statistic of tax performance that explains the amount of tax paid by a company from its gross profit. ETR is mostly preferred to book-tax gap measure. ETR has found usage among policymakers and interest groups in tax reform debates, especially those related to corporate tax provisions, the reason being that they summarize conveniently in one statistic, the cumulative effect of various tax preferences (Richardson & Lanis, 2015).

Tax Planning and Insurance Firms' Performance

Tax planning are usually assessed by inferring ETR information which reflects tax planning activities, and this is publicly available in the company's annual report for 46shareholders' scrutiny. Slemrod (2004) argued that shareholders could discipline management when the ETR is high because this high ETR could have a detrimental effect on share price. Tax planning in insurance firms can impact on its returns as have been found among many other firms. However, the direction of the relationship has been found in literature to be diverse, depending on several factors.

Ogundajo and Onakoya (2016) found a negative relationship between ETR and Return on Asset (ROA) resulting from the inability of Nigerian firms to take advantage of the tax laws efficiently to reduce the firms' high ETRs

which were found to be greater than the statutory tax rate. This contradicted the findings of Desai and Hines (2002), Chen, Chen, Chen and Shevlin (2010), Armstrong, Blouin and Larcker (2012), Heitzman and Ogneva (2015), Desai and Dharmapala (2009) who rather found a positive relationship between ETR and firm value. Because of this mixed result, it is suggested that shareholders should weigh tax planning related information in valuing firms, that is, only valid information about tax planning activities should be considered.

Similarly, Ftouhi, Ayed and Zemzem (2015) found a significant negative relationship between ETR as a proxy for tax planning and firm value. The study attributes the negative results to shareholders' concerns about moral hazard risk in tax or other tax planning related risks, for example, risk related to inspection by tax authorities. However, Salawu, Ogundipe and Yeye (2017) discover no causal nexus between ETR and Tobin Q, as proxies for tax planning and firm performance respectively. This implies tax planning did not granger cause firm value and vice versa. This result indicates that causality do not runs in any direction between Tax Planning (ETR) to Firm Value (Tobin Q). These suggest that there is a significant non-directional causality between Tax Planning (ETR) to Firm Value (Tobin Q).

Empirical Review of Tax Planning and Firm Performance

This section reviews major works done by others on the relationship between tax planning and firm value. Several works have been done both in developed and developing countries about tax planning and performance of firms within diverse industries, and these studies have precipitated mixed findings. The ensuing paragraphs detail a few of them.

Yee, Sapiel and Abdullah (2018) examined the link between tax avoidance and firm value and assessed the moderating effect of corporate governance. Using a sample of Malaysian Public Listed Companies which ranked the top 100 companies of good disclosure in the Malaysia-ASEAN corporate governance report 2014, the study provides evidence in both models employed (one with the interactive variable of corporate governance and the other without) that corporate tax avoidance is significantly and negatively related to firm value. This implies that tax avoidance reduced firm value of Malaysian Listed firms, though corporate governance has been employed to safeguard shareholders' interest. Consistent with the study of Wang (2011), the result indicates that the benefits of tax avoidance are offset by the associated agency costs. A major drawback of this study is the usage of cross sectional data, as apart from not being able to determine whether the outcome followed exposure in time or exposure resulted from the outcome, findings of cross sectional data analysis are also susceptible to bias due to low response and misclassification due to recall bias.

Pratama (2018) also assessed the impact of related party transaction and tax avoidance on the market value of 184 Indonesian manufacturing firms, with 2012 – 2015 as the observation year and employing multiple regression analysis. The study concluded that a positive relationship existed between either of the independent variables (Related Party Transactions and Tax Avoidance) and firm value. This implies that manufacturing firms in Indonesia benefited from tax avoidance and related party transactions, even though the positive association between tax avoidance and firm value was less significant (a little beyond 0.1 probability), indicative of the little engagement in tax

planning by the firms. However, the study was conducted among only manufacturing firms and thus findings could not be extended to the financial sector which is subject to different tax opportunities and tax planning approach.

Zhang, Cheong and Rasiah (2017) investigated the relationship between tax avoidance and firm performance among listed firms in China. Using structural equation modeling (SEM), the study found a direct significant negative relationship between tax avoidance and market value. This result was attributed to the opacity of the Chinese stock market which lends opportunity for managers to engage in rent seeking activities. Nevertheless, the study also found an indirect positive relationship between tax avoidance and market value through the moderating effect of firm growth and profitability. Thus, as firms engaged in tax planning, firm growth is stimulated and profitability increases which eventually helps expand the market value. The study concludes that tax avoidance can be a value-adding activity provided there is strengthened internal supervision and management capability. In this study, the inclusion of financial and non-financial listed firms may blur the findings as financial firms are highly regulated and their tax expenditure as such differ from non-financial firms.

In Ghana, Yimbila (2017) turned attention to the neglected financial sector in tax planning literature. This study examined the relationship between tax planning and performance of banks in Ghana in the presence of good governance structures. The study used panel data generated from the annual reports of 18 sampled commercial banks for a ten-year period, 2004-2014. The study employed fixed effect model of regression via GLS based on the

outcome of the Hausman (1978) specification test. The results reveal that on average, banks in Ghana have high effective tax rate. But foreign owned banks have higher effective tax rate than Ghanaian owned banks, suggesting that Ghanaian owned banks, for the period of study were more effective in managing their tax burden than foreign owned banks. The results also show a significant negative relationship between tax planning and performance. Regarding corporate governance, the results reveal that corporate governance moderate the relationship between tax planning and performance. The study even though brings the financial sectors into the scope of tax planning literature, the insurance sector and other financial institutions were not included.

Corroborating the findings of Pratama (2018), Lugtu and Ferrer (2017) also examined the effects of corporate tax avoidance on financial performance and firm value of 29 publicly-listed industrial companies in Philippines, using data from 2012 to 2016. The study concluded that corporate tax avoidance positively and significantly related to financial performance of firms, affirming the stewardship theory, whereas for firm value, the relationship was positive but insignificant.

Within the Nigerian context, Salawu, Ogundipe and Yeye (2017) in Nigeria similarly examined the causal nexus between corporate tax planning and firm value of 50 non-financial quoted firms in Nigeria between 2004 and 2014. Using pairwise VAR Granger Causality test conducted between tax planning and firm value shows that there is no causality that between tax planning and firm value within the sampled period at 5% level of significance. This implies tax planning did not granger cause firm value and vice versa. The

study thus concluded that there was no significant causal nexus between tax planning (ETR) and Firm value (Tobin Q). This study confirmed the findings of Kawor (2014). Within the same Nigerian setting, a contrary finding was indicated by Nwaobia, Kwarbai and Ogundajo (2016). They examined the effect of tax planning on firm value. Ex-post facto research design was adopted. The study covered 50 firm-year observations for the period, 2010-2014. Data were drawn from the published financial statements of the sampled companies and analyzed using descriptive and inferential statistics centered on specified panel regression model. The joint effect of the considered tax planning proxies on the firm value was significant (F-stat. =2.580; P-value = 0.032). While effective tax rate (ETR), Dividend (DIV) and Firm age (FAG) positively and significantly related to firm value, firm size, leverage and tangibility exerted negative effect on firm value. However, neither of the two studies focused on the financial sector of the economy.

In Brazil, Santan and Rezende (2016) investigated the relationship between corporate tax avoidance and firm value. By conducting a regression analysis of panel data comprising 310 publicly traded firms in years 2007 to 2012, summing up 1432 firm year observation and using BTD, controlled for accruals as proxy for tax avoidance and Tobin's q as proxy for firm value, the study concluded that tax avoidance and firm value are negatively related in Brazil. By introducing corporate governance as a moderator, the study finds that corporate governance helped mitigate the value destruction impact of tax avoidance. This corroborates the agency theory. Their result is in sync with that of Ftouhi, Ayed and Zemzem (2015) who examined the impact of corporate tax planning in the European context. Using a sample of 73 firms

listed in the Euronext 100 index for the period from 2008 to 2012, they find a negative relationship between tax planning and firm value, resulting from the agency problem and the permanent difference component of tax savings. Their result is in consistence with that of Wahab and Holland (2012). Yet these results may prove otherwise for financial sector where information opacity may necessitate the choice of effective tax rate (ETR) over book tax difference (BTD) as a proxy for tax planning.

Again supporting the evidence of positive relationship between tax planning and firm performance, Lestari and Wardhani (2015) in Indonesia analyzed the impact activities tax planning (*TP*) on firm value with board diversity as moderating variable. The research was conducted for non-banking and financial firms in Indonesia stock exchange for 2010-2011. Using ETR as a proxy for tax planning and conducting a panel regression analysis, the study found evidence of positive relationship between *TP* and firm value. Secondly, they found evidence that board diversity (*AGE* and *BSTUDY* of member director could increase the positive influence of *TP* into firm value, except for *MINORITY* could decrease the positive influence of *TP* into firm value. Their findings corroborate that of Desai and Dharmapala (2009). Even still, this study focused on the non-financial sector to the desertion of the financial firms.

Heitzman and Ogneva (2015) evaluated the relationship between Corporate Tax Planning and Stock Returns of all U.S. firms traded on NYSE, AMEX or Nasdaq from 1988 to 2013 using panel regression analysis; they concluded that high tax planning firms do indeed earn higher returns, but only during periods when tax enforcement is low; the study also discovered that

small firms have less diversified tax strategies than large, complex firms due to: lack of scale and complexity, high exposure to adverse consequences of government actions inability to finance high fixed costs of tax planning strategies. The study found that large firms are less exposed to tax policy risk due because they are consistently audited. The study suggested that boards and managers should primarily focus on the expected incremental cash flows from tax planning.

Kawor and Kportorgbi (2014) found that tax savings enhanced after tax earnings of Ghanaian firms but does not reflect in the firm's value. The result is consistent with the Agency theory notion that not all management strategies tends towards the achievement of wealth maximization objectives. In a similar vein, the adoption of the Generalized Least Squares (GLS) regression model by Ftouhi, Ayed and Zemzem (2014) to examine the relationship between firms' value and tax planning with firm size, leverage, capital intensity, dividend and earnings management as control variables found a significant and negative relationship between firm value and tax planning, also supporting the Agency cost theory of tax planning. In China the negative findings by Kawor and Kportogbi (2014) was confirmed by Chen, Hu, Wang and Tang (2014) who adjusted the methodology of Desai and Dharmapala (2009a) to investigate this issue in China also found evidence that in general there is a negative relationship between tax planning and firm value in Chinese capital markets, because "tax avoidance behavior increases agency costs". They also detect an increase in firm value for those listed companies which show to have a more transparent management.

Similarly, Abdul Wahab and Holland (2012) studied the same question in the context of the United Kingdom. There, they found a negative relationship between the intensity of tax planning and firm value, regardless of the presence of corporate governance mechanisms, meaning that investors do not appreciate tax avoidance activities at all, because “the information asymmetry generally associated with tax planning can result in moral hazard or fear of moral hazard”. They conclude that UK corporate governance mechanisms may be ineffective or there is not enough tax-related information available for such mechanisms.

On the other hand, adding to the positive direction, Wang (2011) examined the relationship among tax avoidance, corporate transparency and firm value. The authors used cash effective rates and permanent book-tax difference to measure tax avoidance, and used Tobin’s Q as proxy for firm value and employed sample S and P 1500 firms in the period 1994-2001. He found positive significant relationship between tax avoidance and firm value.

The study by Desai and Dharmapala (2009a) found no relationship between tax avoidance and firm value; however, they do find a positive relation between the two for firms with high institutional ownership. Their findings suggest that tax avoidance has a net benefit in an environment in which monitoring and control effectively constrain managerial opportunism afforded by tax avoidance activities. On the contrary, Hanlon and Slemrod (2009) examined the market reaction to news about a firm’s involvement in tax shelters. The authors found a negative market reaction to tax shelter disclosure, suggesting that investors are concerned about the possibility that tax shelters are intertwined with managerial diversion and performance

manipulation. Furthermore, the authors find that the negative reaction is less pronounced for firms with stronger governance; however, this result seems to be sensitive to how governance is empirically measured. Choosing a single measure of corporate governance could lead to a flawed conclusion.

Obtaining a result similar to the work done later in 2009, Desai and Dharmapala (2007) provided a comprehensive study that incorporates tax planning, corporate governance and firm performance. The study used 4,492 observations on 862 firms over the period 1993 to 2001. This panel data was drawn from the Compustat and Execucomp databases, merged with data on institutional ownership of firms from the CDA/Spectrum database. Firms' performance is measured using Tobin's q and governance quality is proxied by the level of institutional ownership. Tax planning is measured by inferring the difference between the income reported to capital markets and tax authorities (the book-tax-gap). Two analysis models were adopted—the OLS model and the IV estimation model. The OLS results shows that the average effect of tax planning on corporate performance is not significantly different from zero. In other words, there is no relationship between tax planning and firm performance.

Desai and Hines (2002) provide evidence on firm performance and tax planning behavior of firms. The study investigated the relationship between tightening of tax systems and market value of firms. This study of 850 listed US firms, which drew data from year 2000 and adopted a correlative-descriptive design established that intensive tax planning is associated with higher firm performance. Though this study finds the existence of association

between tax planning and firm performance, no causal nexus between the two variables was examined.

Empirical Review of Control Variables

Firm Size and Firm Performance

According to Niresh and Velnampy (2014), the size of a firm is the amount and variety of production capacity and ability a firm possesses or the amount and variety of services a firm can provide concurrently to its customers. Since large firms can have easy access to funds, enjoy economies of scale, and usually have more competitive advantage among other benefits, it can be inferred that size positively affects the profitability or value of the firm. Accordingly, studies such as Ozgulbas et al. (2006), Josson (2007), Vijayakumar and Tamizhselvan (2010), Saliha and Abdessatar (2011) found a positive relationship between firm size and firm value.

On the other hand, some studies have also found negative relationship between firm size and firm value. Becker-Blease, Kaen, Etebari and Baumann (2010) studied the effects of firm size on profitability in the firms operating in manufacturing sector in USA using the data of years 1987 to 2002. Results of the study showed that negative and statistically significant relations exist between the total assets, total sales and number of employees of the firms and their profitability. Banchuenvijit (2012) studied factors affecting performances of the firms operating in Vietnam and found a negative relationship between total asset (as a proxy for firm size) and profitability. The negative relationship was found to be as a result of the higher of the cost of running the large organization (cost of monitoring) over the benefits derived thereof.

Velnampy and Niresh (2014) found a neutral relationship between firm size and profitability, using total asset and total sales as a proxy for firm size, and also using returns on assets and net profit as proxies for profitability. The study attributes the neutrality of relationship to the separation of ownership from management in modern corporations, adamant organizational structure, used technology and a change in tactical logic of firms (Velnampy & Niresh, 2014). Thus, from the foregoing discussion it can be inferred that firm there is a huge knowledge gap between firm size and firm value and this study will contribute to bridging this gap.

Firm Age and Firm Performance

While some theoretical models considered the firm size as linearly related to firm age (Greiner, 1972), the others postulated specific predictions regarding the influence of firm age on its performance (Pervan, Pervan & Curak, 2017). Whether older firms are more profitable than young firms or whether the reverse holds has been an issue of academic concern. Even though progress has been made to understand the relationship between firm's age and profitability, Coad, Segarra, Teruel, (2013) note that the research has not reached maturity due to the scarcity of data on firm's age in administrative datasets or surveys. Empirical studies document mixed results.

For instance, Dogan (2013), running a multiple regression on data from 200 listed companies between the years 2008-2011 found a negative relation between firm age and return on assets. On the contrary, studies like Ghafoorifard, Sheykh, Shakibae, and Joshaghan (2014) analyzing the relationship among 97 listed firms on the Tehran Stock Exchange and Coad et al. (2013) examining the relationship among manufacturing firms in the

Spanish context, found that older firms enjoy higher productivity and profits than smaller firms. This positive relationship has also been confirmed Kipasha (2013) and Osunsan, Nowak, Mabonga, Pule, Kibirige and Baliruno (2015) for microfinance institutions in Tanzania and for SMEs in Uganda respectively.

Thus gap exists to clarify the understanding of the relationship between firm age and firm value, and this study will therefore be a good contributor.

Leverage and Firm Performance

Financial leverage is the existence of debt in the capital structure of a firm (Pandey, 2004). Financial leverage is the composition of debt in the capital structure of a firm. Financial leverage is the use of fixed charge sources of funds to finance the firms' investment projects (Olang, 2017). In literature, several works have been done to examine the impact that financial leverage has on firm's value and profitability. And as are the case of other determinants of firm value, there is an inconclusive result.

Saeed, Gull and Rasheed (2013) conducted a study on the relationship between capital structure and banking performance in Pakistan and using multiple regression model on the data from bank between 2007 and 2011 found a positive relationship. Similarly Akhtar, Javed, Maryam and Sadia (2012) finds that financial leverage has a positive impact on the profitability of firms in the fuel and energy sector in Pakistan.

On the contrary, Pouraghajan (2012) studying the impact of capital structure on financial performance of 40 firms listed in the Tehran Stock Exchange document a significant negative relationship. Chinaemerem and Anthony (2012) studied the impact of financial leverage on financial performance using 30 non-financial institutions listed on the Nigeria Stock

Exchange and discovered a negative relationship between leverage and the profitability ratios.

Nevertheless, Nduati (2010) examined the relationship between leverage and financial performance of firms listed on the NSE. Using descriptive research design on both primary data from interviews and secondary data and analyzing the data using SPSS, the study concluded that financial leverage did not contribute to financial performance of firms listed in the NSE.

Capital Intensity and Firm Performance

According to Sen and Farzin (2000), capital intensity explains a firm's efficiency in deploying its fixed or total assets to produce goods and services. It is often measured the ratio of fixed or total assets to sales. Though according to Shapiro and Titman (1986), firms that are highly capital-intensive are considered very risky and thus negatively related to firm value, others too are of the view that capital intensity contributes to firms' ability to reduce risk and improve upon firms' performance (Barton, 1988; Hurdle, 1974). The former argument is premised on firm's inability to match its high level of fixed cost to sales level changes, thus reducing the operating income for a firm (Brealey & Myers, 1984), while the latter school of thought is founded upon the fact that capital-intensive firm can enjoy cost savings, especially in periods of economic recession, from previous investment in tangible/fixed assets (Barton, 1988; Hurdle, 1974).

Empirical works that support the above propositions are very scanty. Shaheen and Malik (2012) in their work lend evidence to the positive relationship that according to Barton (1988) and Hurdle (1974) exists between

capital intensity and firm value. Shahean and Malik (2012) opine that the positive relationship is due to the ability of capital intensive firms to improve upon its quality of production and on-time production, which in effect translates into higher firm value.

On the other hand, Leung, Meh and Terajima, (2008) who confirm the negative relationship between capital intensity and firm value for smaller firms lend that smaller firms are faced with capital constraint which in effect affects their production levels and firm value.

Dividend and Firm Performance

Dividend refers to the reward investors receive from any corporate entity for which they have provided equity capital. Some theories have been developed to explain the relationship between dividend pay-out and firm value. Miller and Modigliani irrelevant hypothesis proposes that a firm's dividend pay-out policy has no implication on the market value of a firm because the firm's value is determined by its basic earning power and its investment decision (Miller & Modigliani, 1961).

Other theories such as the Bird-in-hand and Clientele effects challenge the proposition of Miller and Modigliani's irrelevant hypothesis. Bird-in-hand opines that a bird in hand is worth twice in the bush, suggesting that shareholders will prefer to be paid dividend presently than postpone it for future settlement. Thus according to this hypothesis, dividend has positive relationship with firm value, as investors will value firms that pay dividend more highly than those that defer dividend payment.

The clientele effect theory on the other hand lends that investors respond differently to the same dividend policy adopted by a firm. According

to this theory, while some investors prefer firms to pay significant portion of its earnings as dividend, others prefer firms to retain a significant portion of earnings. The relationship between dividend and firm value therefore will be positive for the former shareholders, while for the latter shareholders will be negative.

Several empirical works have been done to investigate the relationship between dividend and firm value. Oyinlola, Oyinlola and Adeniran (2014) analyzed the impact of dividend policy on performance of two major brewery companies quoted on the Nigerian Stock Exchange for the period 2002-2010. Findings reveal that dividend policy is relevant and that a firm's dividend policy is relevant in determining a firm's performance. Positive significant relationship thus exists between the dividend policy and performance. This positive significant relationship has been found in several other studies (Agyei & Marfo-Yiadom, 2011; Gul, Sajid, Razzaq, Iqbai, & Khan, 2012; Murekefu & Ouma, 2013).

However, Osegbu, Ifurueze, and Ifurueze (2014) in analyzing the extent of relationships between dividend payment and corporate performance in the Nigerian banking industry between 1990 and 2010 reveals an insignificant relationship between dividend policy and performance. The inconsistency revealed both in the theoretical underpinnings and the empirical review spell out a gap that this study would explore.

Premium Growth and Firm Performance

In this study, Growth of insurance firms was measured in terms of the growth in premium, which was estimated as current premium less previous premium divided by previous premium. Dyreng et al. (2008) provide evidence that firm size and growth may play a role in tax management. The authors found that small firms with higher growth have higher tax rates. Firm's growth has been found by prior studies to have impact on firm's performance. For instance, Wang (2011) found positive relationship between firms' growth and performance.

Contribution of the Work to Literature

From the foregoing empirical review, it could be inferred that tax planning is an issue well-researched about both in developed and developing countries. It is however surprising that only few of these studies have been concentrated on the financial sector, with focus on the banking industry, without a single study investigating tax planning concerns in relation to insurance firms. Nevertheless, given the difference in tax levy and expenditure between the banking and the insurance industries, we can conclude that tax planning opportunities for the two industries will be different, which undermine the applicability of findings from the banking industry to the insurance industry. Furthermore, while most of the studies like Yimbila (2017), Ogundajo and Onakoya, (2016) and Chashiandani and Martani (2012) found that higher ETRs culminated into lower profitability and lower ETRs led to higher profitability, none of these studies attempted to prove such a non-linear relationship with firm performance with the attendant optimal ETR threshold of significant effect. This work thus contributes much to literature by

establishing the non-linear relationship between ETR and firm performance and goes further to evaluate the optimal ETR threshold at which performance is maximized. Besides, both across and within nations, no clear-cut relationship between tax planning and firm performance has been established as divergent results seem to surface in all studies, with none appearing to be more pervasive than the other. This justifies the requirement of further studies to establish a uniform relationship. More so, in Ghana, apart from the fact that only few works have been done to evaluate the relationship between tax planning and other firm variables, these works, proffered little attention to the financial sector, especially the insurance industry owing to their special regulatory framework which are intended to limit their risk exposure. These noticeable gaps, which need to be addressed, vindicate this study's inclusion.

Conceptual Framework

The above discussion on the relationship between tax planning and performance of insurance firms has been represented in the diagram below. From the Figure 1, it can be inferred that tax planning can impact on the performance of insurance companies. Besides, from literature, other variables that were found to affect firm performance such as leverage, size, age, capital intensity, dividend policy, and premium growth were included as control variables. Accordingly, the study therefore proposes this framework to describe the relationship under study. Thus in line with the research objectives, the conceptual framework illustrates that tax planning measured by ETR can impact on the financial performance of the general insurance industry.

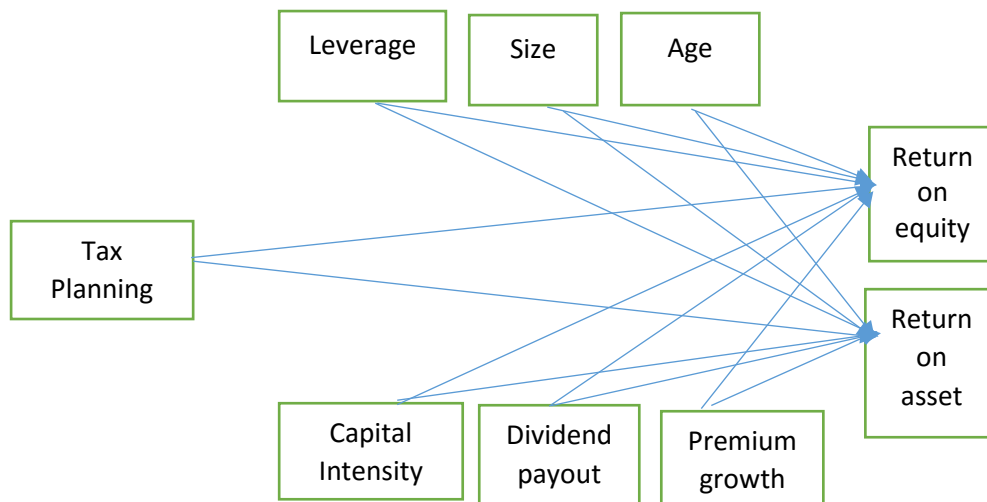


Figure 1: Conceptual framework

Source: Author's construct (2019)

Chapter Summary

This chapter reviewed literature related to the relationship between tax planning and firm performance. It touched on aspects like the overview of the insurance industry in Ghana, definition, theories, objectives, constraints and approaches to tax planning. The chapter further delineates the proxies chosen in respect of the dependent, independent and all control variables. The chapter finally discusses the empirical literature related to the tax planning and firm performance, bringing to light some gaps that the current study seeks to bridge.

CHAPTER THREE

RESEARCH METHODS

Introduction

This section explores the design, study area, population and the sampling procedures of the research. It proceeds to explicate the procedures of the data collection, processing and analysis. It also details when, how, for how long the data was taken and also explains the measurement of variables and concludes with the discussion of the analysis.

Research Approach

The three research approaches are quantitative, qualitative and mixed-method research approaches. According to Berrios and Lucca (2006), the quantitative method, which has its origin based in the scientific method, relies on statistical procedures for data analysis. It employs numeric data and expresses results in numerical quantities. In contrast, qualitative methods rely on case study, interviews, observation, among others, and use the descriptive narrative for data analysis (Berrios & Lucca, 2006). The mixed method is a combination of the two main approaches. Creswell and Clark (2017) defined mixed methods research as a research design with philosophical assumptions as well as methods of inquiry. As a method, it focuses on collecting, analyzing, and mixing both quantitative and qualitative data in a single study or series of studies.

Since the quantitative methods rely on experiments and surveys to collect measurable data such that statistical processes can be applied (Creswell, 2003), the study which aims at examining the impact of tax planning on the performance of insurance firms, by employing quantitative

data and model in testing the relationship adopted the quantitative research approach. The choice of quantitative approach over the other research approaches such as qualitative and mixed research approach was informed by Zikmund (1997) who from the positivist point of view sees quantitative approach as being able to provide a succinct description of phenomenon and test relationships that constitute economic reality. Besides, the method allows the result of the study to be generalised from the sample perspective (Bondan & Biklen, 1998). However, one drawback of quantitative approach is that it does not allow for an in-depth study of the variables (Mulligan, 2008).

Research Design

According to Harwell (2005), identifying a study's research design is important because it informs us about the key features of the study and the mode of data collection. Quantitative research approach may adopt any of these research designs: descriptive design, correlational design, experimental design and causal design. Descriptive design seeks to describe the current status of a variable or phenomenon by employing research questions instead of hypothesis (Creswell, 2013). A correlational design explores the relationship between variables using statistical analyses. However, it does not look for cause and effect and therefore (Centre for Innovation in Research and Teaching (CIRT), n.d.). Experimental research uses the scientific method to establish cause-effect relationship among a group of variables in a research study. Researchers make an effort to control for all variables except the one being manipulated (CIRT, n.d.). According to Zikmund, Babin, Carr and Griffin (2013), Causal research, also known as explanatory research is conducted in order to identify the extent and nature of cause-and-effect

relationships. Causal research can be conducted in order to assess impacts of specific changes on existing norms, various processes etc. Since the study tests and establishes cause and effect relationship between the independent and the dependent variables, the study employs the causal research design. One advantage of causal design is that there is greater level of internal validity due to systematic selection of subjects and it also allows studies to be replicated; however, the findings of causal design can be inferred but not proven with high level of certainty due to coincidence in events (Zikmund, Babin, Carr & Griffin).

Study Area

The study encompassed both life and non-life insurance companies that are licensed under the Insurance Act (2006) by the National Insurance Commission. The National insurance Commission (NIC) exercises oversight responsibility over all the Insurance firms in the country. In an effort to ensuring systematic development of the insurance industry, the NIC is charged with the responsibility of ensuring that insurance companies conduct themselves within the regulatory framework that govern their activities. For instance, the insurance companies are expected to, within four months after the end of their financial year, lodge with the NIC copies of their financial statements and other prescribed documents that may be deemed necessary (Insurance Act, 2006). The information provided by the insurance companies to the NIC is particularly aimed at serving the interest of the investors and customers, yet they constitute a good source of data availability for research works. Thus, apart from creating and sustaining a stable macroeconomic environment, building a vibrant, safe and sound insurance system, the

National Insurance Commission also provides, on all insurance companies, a composite information or data, which enables this study to be carried out since every research is powered by data availability.

Currently, according to NIC 2017 annual report, the insurance industry consists of 28 non-life insurance firms, 24 life insurance firms, 3 reinsurance firms, 81 insurance broking companies, 3 loss adjusting firm and 2 reinsurance contact office NIC (2019).

Population

The population of the study consisted of all life and non-life insurance firms licensed under the National Insurance Commission (NIC) as at 2017. The NIC is the regulatory body of all insurance firms, which primarily comprise both life and non-life insurance firms. Life insurance firms provide compensation or pay certain amount of money to named beneficiaries or to the assured in an event such as the death of the assured, while non-life insurance policy protects an individual against losses and damages other than those covered by life insurance. According to the 2017 annual report, NIC (2019), there were 52 licensed insurance firms of which 28 were non-life and 24 were life insurance firms.

Available Companies

Premised on data availability, the study employed some companies from the target population for the study. The industry is primarily categorized into two sectors – life and non-life companies – and the sample was made from each category based on data availability. The study employed 22 non-life companies and 18 life insurance companies, giving a total of 40 companies as the sample size based on insurance firms whose financial statements for the

period of 2012 to 2017 were available. Since most of the companies failed to submit their financial statements for some of the periods under consideration, there resulted an unbalanced panel data. The table below, Table 1, lists the population and sample distribution of the life and non-life insurance companies.

Table 1: Distribution of Population and Sample by Firm Category for the Study

Sector	Population	Sample
Life Insurance	24	18
Non-life Insurance	28	22
Total	52	40

Source: Field Survey (2019).

Panel Estimation Strategy

This section traces the nature, source and limitations of the data employed in the study. The available data which was sourced from the NIC was panel data set of all licensed insurance firms (both life and non-life companies). Panel data combines features of both time series and cross-section data, as it pools observations on cross-section of units over several time periods. One advantage of panel data is that it facilitates the identification of effects that are simply not detectable in pure cross-sections or pure time-series studies (Ahmed & Khaoula, 2013). Achmed and Khaola further note that panel data helps to identify a common group of characteristics while at the same time takes into account the heterogeneity that is present among individual units. Baltagi (2001) also accentuates that panel data helps to control for individual heterogeneity due to hidden factors, which, if neglected in time-series or cross-sectional estimations leads to biased result. The

challenge of panel data that Torres-Reyna (2007) submits is the issue of data collection. Also Amankwa (2014) notifies that another challenge with panel data is the need to analyse the data with two techniques: fixed effects and random effects. The general form of panel data can be stated as:

$$Y_{it} = \alpha + \beta X_{it} + U_{it} \quad (1)$$

Where the error term is explained as:

$$U_{it} = \mu_i + \lambda_t + \varepsilon_{it} \quad (2)$$

The subscript i represents the cross-sectional dimension and t stands for the time-dimension. This means that the same information on a cross-section of insurance companies is surveyed over time and across space. Y_{it} is the dependent variable in the model and X_{it} is the set of explanatory variables. α is the constant and β represents the coefficients. U_{it} is the error term, μ_i is the unobserved individual specific effect, λ_t is the unobserved time specific effect and ε_{it} is the zero mean random disturbance.

Hausman Specification Test

This is a formal test that is used to assess whether the unique errors (u_i) are correlated with the regressors or not. The null hypothesis underlying the Hausman test is that the fixed effects and random effects models estimators do not differ substantially. Thus the null hypothesis states that the random effect is the preferred model to use over the fixed effect. The test statistic developed by Hausman has an asymptotic χ^2 distribution. If the null hypothesis is rejected, the conclusion is that random effects model is not appropriate and that we may be better off using the fixed effects model, in which case statistical inferences will be conditional on the ε_i in the sample.

According to Hausman (1978) fixed effect model is used when there is interest in analysing the impact of variables that vary over time. The term “fixed effects” is due to the fact that, although the intercept may differ across individuals, each individual’s intercept does not vary over time; that is, it is *time invariant*. Notice that in the panel data regression model above the intercept as β_0i , is *time invariant*. Thus if panel is preferred, the study assumes that the intercept does not vary over time. The random effect model is used when the variation across entities is assumed to be random and uncorrelated with the predictors or independent variables included in the model. Besides, the random effects assume that the entity’s error term is not correlated with the predictors which allows for time-invariant variables to play a role as explanatory variables. Thus in random-effects the researcher needed to specify individual variables that may or may not influence the predictor variables.

The problem with this is that some variables may not be available therefore leading to omitted variables bias in the model (Amankwaa, 2014). Torres-Reyna (2007) stated that the basic difference between the fixed effect and random effect estimation technique is the assumption one makes about the likely correlation between the individual, or cross-section specific error component and the ‘x’ regressors.

Model Specification

To examine the relationship between tax planning and performance of insurance firms, the study followed a regression model that is widely used in tax planning. For instance, Kawor and Kportogbi (2014), Ogundajo and Onakoya (2016) and Nwaobia, Kwarbai and Ogundajo (2016) employed it in their empirical study of the effects of tax planning on firm specific characters.

With modifications, the study estimated the generalised least square (GLS) regression using panel data from sampled insurance companies. In adapting the model used by Nwaobia, Kwarbai and Ogundajo (2016), the regression model of the study is thus specified below:

$$PFM = \beta_0 + \beta_1 ETR_{it} + \beta_2 ETRsq_{it} + \beta_3 LEV_{it} + \beta_4 SIZE_{it} + \beta_5 AGE_{it} + \beta_6 CAPINT_{it} + \beta_7 RDP_{it} + \beta_8 PRG_{it} + \mu_i + \lambda_i + \varepsilon_{it}$$

The GLS regression model above is correctly specified given the variables that need to be analysed to answer the research questions and can be used in the analysis. In the GLS regression model above the performance (PFM) is expressed as a function of many exogenous or independent variables including effective tax rate, square of effective tax rate, leverage, size, age, capital intensity, ratio of dividend to profit and premium growth.

Table 2: List of Variables and Expected Signs

Variable	Measurement	Expected Sign
PFM	Returns on Asset	N/A
	Returns on Equity	N/A
ETR	Effective Tax Rate	+
ETRsqr	Square of ETR	-
LEV	Leverage	+/-
SIZE	Firm's Size	+/-
AGE	Firm's Age	+/-
CAPINT	Capital Intensity	+/-
RDP	Dividend Payout	+/-
PRG	Premium Growth	+/-

Source: Field Survey (2019)

Measurement of Variables

A quantitative study ascribes numerical values to variables under study based on specified computations. Thus it is necessary to specify how both the dependent variables and the independent variables are measured.

Dependent Variables (ROE and ROA)

The study used the accounting measures of performance which are return on assets (ROA) and return on equity (ROE) as the dependent variables. ROA is measured as the profit after tax scaled by the total assets, and the ROE is computed as the profit after tax scaled by total equity. Many studies have used ROA and ROE as the measure of firm performance (Saidu, 2018; Ogundajo & Onakoya, 2016; Ahmed & Khaoula, 2013, Kportogbi 2013). While ROA measures how a firm is able to deploy its assets to generate income, ROE is concerned about how a firm is able to deploy shareholders' fund in generating income.

Independent Variable (Effective Tax Rate – ETR)

Several proxies of tax planning have evolved throughout the studies on taxation which include mainly: the book tax gap approach, the effective tax rate approach and the cash effective tax rate approach (Inger, 2012; Wahab, 2010; Rohaya, Nor'Azam & Bardai, 2008; Gupta & Newberry, 1997). There is no universally accepted approach as each approach has its own strength and shortcomings (Dyrenge et al., 2008). The book tax gap approach arises out of the difference between income reported to the capital markets (using the International Financial Reporting Standards (IFRS) and the Companies Act) and taxable income. Any differences, unexplained, in excess of the reported income and the taxable income is said to be the result of tax planning effort.

Using the book gap approach is only possible in cases where tax returns are made available to the public. The financial statements of the insurance companies from which data is to be extracted do not disclose income reported to tax authorities, neither are their taxable income displayed anywhere for public notice. Thus no information will be available for computation of book-tax gap, rendering it inappropriate for use in the study as a measure of tax planning.

The other widely used measure is the effective tax rate (ETR) approach. According to Ilaboya, Izevbekhai and Ohiokha (2016), ETR provides a basic summary statistic of tax performance that explains the amount of tax paid by a company from its gross profit. The effective tax rate compares applicable statutory tax rate (STR) of the firms with the effective tax rate (ETR). Any unexplained excess of STR over ETR is considered as tax planning outcome (Amankwa, 2014). All things being equal, the wider the gap between the ETR and the STR, the higher the tax planning intensity and vice-versa. While ETR is simply the amount of tax paid from the gross profit, the comparable STR is arrived at after adjusting income for all tax reliefs and rebates and applying 25% to the remaining amount, known as the taxable income (Internal Revenue Act, 2016 (Act 896)).

The ETR was used in this study to measure tax planning consistent with prior studies (Gupta & Newberry, 1997; Hanlon & Slemrod, 2009; Amankwaa, 2014, Ogundajo & Onakoya, 2016, Yimbila, 2017, Saidu, 2018). The advantage of ETR is its readily availability in the financial statements without the need of seeking from tax authorities or the firms. Besides, ETR summarizes conveniently in one statistic, the cumulative effect of various tax

preferences (Richardson & Lanis, 2013). It was premised on this advantage that this study used ETR as a measure of tax planning. The average ETR not the marginal ETR was preferred for the study because the complexities in the Ghana tax system would not foster an effective computation of the marginal ETR whereas the average ETR could be easily computed from the sourced data. ETR has been calculated as the total corporate tax expense scaled by the pre-tax profit but the current study will deduct deferred tax from the numerator since as opined by Chludek (2011), tax planning seeks not only to lessen tax burden but to also postpone payment. Thus, according to literature, ETR is computed as follows:

$$ETR = \frac{\text{corporate tax expense} - \text{deferred tax}}{\text{Net profit before tax}} \times 100\%$$

In using effective tax rate (ETR) as proxy of effective tax planning, the study restricted the ETRs to [0, 1] consistent with prior studies (Zimmerman, 1983); Nurshamimi & Rohaya, 2012). To obtain a meaningful measure of ETR, the researcher eliminated Insurance firms with negative profit before interest and tax. This is because Insurance firms with a negative pre-tax income create tax saving which will bring down the company's ETR in different years due to the carry-forward provision provided in the Ghana's tax laws. Thus Insurance firms with ETR greater than one or less than zero were recoded as in previous studies (Rohaya, Nor'Azam, & Bardai, 2008). The recoding of the ETR was done as follows. Insurance firms with negative tax expenses which produced a negative ETR were recoded as '0'. Insurance firms with an ETR above 100% (greater than one) that is the insurance firms with tax expense exceeding the pre-tax incomes were recoded as '100'. The recoding of data was necessary since to ensure a negative ETR, which does

not have any economic meaning but the findings, was not part of the results. The study also reviews the measurement of the following control variables.

Control Variables

Leverage (LEV)

Financial leverage is the existence of debt in the capital structure of a firm (Pandey, 2004). Leverage as used in this study refers to the fixed charge source of funds in the Insurance firms' capital structure. It is measured as the long term debt divided by the total assets. There are inconclusive results regarding the impact of leverage and the profitability or performance of firms. For instance Saeed, Gull and Rasheed (2013) as well as Akhtar, Javed, Maryam and Sadia (2012) found positive relationship between financial leverage and firms' performance. On the contrary, Chinaemerem and Anthony (2012) found a negative relationship while Nduati (2010) discovered no relationship at between financial leverage and financial performance of firms listed in the Nairobi Stock Exchange.

Size (SIZE)

The size used in this study explains the size of insurance firms which is measured as the natural log of total assets. Studies that have looked at the relationship between firm size and performance had mixed results. Ozgulbas et al. (2006), Josson (2007) found a positive relationship between firm size and firm performance, arguing that large firms can have easy access to funds, enjoy economies of scale, and have more competitive advantage among others which help boost performance. On the contrary Banchuenvijit (2012) found a negative relationship attributing it to the high cost of running business. Nevertheless, Velnampy and Nireesh (2014) found a neutral relationship

between firm size and profitability, using total asset and total sales as a proxy for firm size.

Age (AGE)

The age refers to the age of insurance firms which is measured as the natural log of the difference between firm's year of establishment and current year. The age of insurance firms, as a control variable, could also affect the performance of the insurance firms as older firms have the advantage of experiential knowledge in handling the affairs of the firm. That notwithstanding, empirical studies have mixed results. For instance, Dogan (2013) found a negative relationship between firm age and performance. On the contrary, Kipesha (2013) and Coad et al. (2013) discovered a positive relationship between firm age and firm performance.

Capital Intensity (CAPINT)

Capital intensity of insurance firms explains the efficiency of the firm in using its available resources to generate premium. It is often measured by the ratio of fixed or total assets to sales. Empirical works have discovered mixed results. Shahean and Malik (2012) in their work lend evidence to the positive relationship that according to Barton (1988) and Hurdle (1974) exists between capital intensity and firm value. On the other hand, Leung, Meh and Terajima, (2008) who confirmed the negative relationship between capital intensity and firm value for smaller firms lend credence to the fact that smaller firms are faced with capital constraint, which in effect affects their production levels and firm performance.

Premium Growth (PGROWTH)

In this study, Growth of insurance firms was measured in terms of the growth in premium, which was estimated as current premium less previous premium divided by previous premium. Dyreng, Hanlon, and Maydew (2008) provide evidence that firm size and growth may play a role in tax management. The authors found that small firms with higher growth have higher tax rates. Firm's growth has been found by prior studies to have impact on firm's performance. For instance, Kawor and Kportogbi (2014) discover positive relationship between sales growth and firm value and similarly, Wang (2010) found positive relationship between firms' growth and performance.

Ratio of Dividend to Profit

Dividend was measure as the ratio of dividend to profit after tax. Dividend pay-out policy has been found both empirically and theoretically to have impact on firm performance. According to Miller and Modigliani (1961), dividend policy is irrelevant in determining firm and the work done by Osegbu, Ifurueze, and Ifurueze (2014) supported this theory. The Bird-in-Hand theory on the other hand asserts that dividend payment goes a long way to affect firm value as shareholders will prefer to be paid dividend now than future payment of dividend. This theory have been verified by several works in literature (Agyei & Marfo-Yiadom, 2011; Gul, Sajid, Razzaq, Iqbai, & Khan, 2012; Murekefu & Ouma, 2013).

Data Collection

The study used secondary data, which were the financial statements of all sampled insurance firms for the period of 2012 to 2017, taken from the National Insurance Commission (NIC). The ease, relative low-cost, and

timeliness of accessing secondary data lend its usefulness in research (Yimbila, 2017). However, a disadvantage to be pointed out about secondary data is that it may not contain all relevant information required and may render it inappropriate to the present situation (Denscombe, 2007).

Three main reasons account for the choice of secondary data over primary data. Firstly, the variables to be used in the study could not be primarily sourced for. Secondly, the financial performance of insurance firms can only be sourced from their financial statements. More so, all the variables could be computed for from the financial statements that were sought, the secondary data on the insurance firms were all compositely obtained from the supervisory department of the National Insurance Commission in Ghana.

Data Processing

The data filtering procedure used by Rohaya et al (2008) and Rohaya, et al (2010) was also employed in this study. The data was analysed in two stages. Firstly, data collected was input into Microsoft Excel for preliminary processing. This processing was to transform the data in a way that ensured all relevant variables were appropriately measured and made meaningful for the second stage. In the second stage, the relevant data from the first stage processing was entered into a regression software package, STATA, which generated descriptive and inferential statistics for further analysis.

Data Analysis

Panel data was employed to examine the relationship between tax planning and the performance of insurance firms. Descriptive statistics were generated to explain the level of tax planning in insurance firms. In addressing the impact of tax planning on performance of insurance companies,

the study relied on regression analysis, before which the study performed the pre-estimation tests: the study ran the correlation matrix and conducted the variance inflation factor (VIF) test to check for the existence of correlation among the explanatory variables, and the Hausman (1978) specification test was conducted in the estimation phase in deciding the appropriate estimator between fixed effects and random effects,

The regression model was finally estimated using general least square regression (GLS) since it was easy to check the model assumption such as linearity, constant variance and the effect of outliers using simple statistical methods (Hutcheson & Sofroniou, 1999). The significant effects of the explanatory variables on the dependent variables were assessed at ($p < 0.05$) significant level using T- statistics. Statistical differentiation was carried on the models with estimated coefficients in order to ascertain the optimal threshold of ETR at which performance is maximized. The study lastly used descriptive statistics to address the last objective.

Chapter Summary

This chapter delineated the methods employed in the study. Sub topics like the study area, the study design, model estimation, variables definitions, the population and the appropriate sample were all described in the chapter. The chapter concluded on the data processing and data analysis, after which the chapter summary ensued eventually.

CHAPTER FOUR

RESULTS AND DISCUSSION

Introduction

This chapter presents and discusses the results of the analysis. Beginning with the descriptive statistical results, the chapter presents and discusses further, the results of the correlation analysis and the variance inflation test (VIF), with emphasis on explaining the degree to which variables are associated with one another. The GLS regression estimation is carried out to explain the relationship between tax planning and the performance of Insurance firms in Ghana. The chapter rounds up with the estimation of the optimal level of tax planning with inference from the effective tax rate.

Descriptive Statistics

The descriptive statistics presents the number of observations, the mean, standard deviation, minimum and maximum values of the observations of the dependent, independent and control variables employed in the study. In the given table below, Table 3, the descriptive statistics have been displayed.

Table 3: Descriptive Statistics of Dependent and Controlled Variables

Variable	Obs	Mean	Std. Dev.	Min	Max
ROE	140	.2510673	0.90902	0.00097	10.78733
ROA	140	.0671035	0.05099	0.00073	0.34193
RDP	140	.1714145	0.36623	0.00000	3.05057
LEV	140	.8483728	1.66560	0.00000	11.48179
SIZE	140	16.90009	2.12629	10.79121	20.24041
AGE	140	2.87915	1.13552	0.69315	7.60837
CAP	142	2.11334	1.28723	0.00000	7.99060
PRG	138	118.35220	749.0246	-76.30374	8094.829

Source: Field Survey (2019)

From Table 3, it can be inferred that the average ROE is 0.25107 with a standard deviation of 0.90902, which implies that on the average, insurance companies in Ghana are able to generate 25.107 per cent of returns on shareholders equity. The comparatively higher standard deviation implies that very few of the observed performance are clustered around the computed average performance. This can also be attested to by the wide difference between the minimum and maximum values of 0.00097 and 10.78733 respectively.

The other measure of performance, ROA, also recorded a mean value of 0.0671 with a standard deviation of 0.05099. This denotes that insurance firms are able to generate 6.71 percent returns on the invested assets. Compared to ROE, the mean value of ROA is smaller, which indicates that insurance companies are able to generate more returns on the invested shareholders' equity than they do with the invested assets. The standard deviation of ROA compared to its mean is a bit high, suggesting that a few of the observations are mimic the mean value of ROA, even though this was better than that of ROE. The high standard deviation can be viewed from the wide variation between the minimum and the maximum values of 0.00073 and 0.34193 respectively.

From Table 3, the average dividend payout ratio represented by RDP was 0.17141 with a higher standard deviation of 0.36623, denoting that the mean dividend payout was 17.14 per cent but the given standard deviation shows a very high dispersion of the observations from the mean value as can be observed from the minimum and maximum values of 0.0000 and 3.05057 respectively.

The mean Leverage (LEV) value of 0.84837 (84.84 per cent) implies that insurance firms in Ghana have high use of external debt within the industry. The relatively higher standard deviation of 1.6656 with the minimum and maximum values of 0.0000 and 11.48179 respectively means that most of the observed values of LEV are far apart from the average value.

Size of insurance firms in Ghana was between the range of 10.79121 and 20.24041, with an average size of 16.90009 and the comparatively lesser standard deviation of 2.12629. The little standard deviation connotes that the observed values were closely clustered round the average size of the insurance firms, thus the mean value was a true reflection of the observation. Similarly, AGE of the insurance firms with observed values ranging from 0.69315 to 7.60837, and having a mean value of 2.87915 also recorded a relatively smaller standard deviation value of 1.13552, indicating the little dispersion of observed values from the mean value.

CAP (Capital intensity) also recorded a mean value of 2.1133 and a standard deviation of 1.28723, with observed values ranging from 0.000 to 7.9906. The relatively smaller standard deviation indicates that the observations are quite closely huddled around the mean value thus making the mean a good representation of the recorded observations. PRG (premium growth) had a mean value of 118.3522 and a very higher standard deviation of 749.0246, indicative of the fact that most of the observed values are very much detached from the mean value. This is confirmed by the very wide range between the minimum value of -76.30374 and the maximum value of 8094.829.

Level of Tax Planning in Ghana's Insurance Industry

This study had as its first objective, the ascertainment of the level of tax planning activities within the insurance industry. Tax planning was measured in this study by the effective tax rate (ETR) and thus, it is by inference to the value of the ETR that the level of tax planning can be ascertained. High levels of ETR, usually indicated by comparison with the statutory tax rate (Amankwaa, 2014), denotes that tax planning activities within the industry is less intensive, whereas low levels of ETR connotes that tax planning activities are very intensive within the insurance industry. In order to also be able to evaluate the optimal level of tax planning within the insurance industry as specified in objective 4, the study introduced the square of the effective tax rate (ETRs²) as another variable. By introducing this variable, the maximum level of tax planning was ascertained after estimating the regression coefficients. Table 4 presents the summary statistics of the effective tax rates (ETR) and the square of the effective tax rate (ETRs²) for all life and non-life insurance companies in Ghana included in the study.

Table 4: Summary statistics of the level of tax planning (ETR)

Variable	Obs	Mean	Std. Dev.	Min	Max
ETR	140	21.04892	15.44332	-43.327	92.63942
ETRs ²	140	679.8496	973.9536	1877.229	8582.062

Source: Field Survey (2019)

From Table 4, it can be observed that the mean ETR within the insurance industry is 21.04892 percent with the corresponding standard deviation of 15.44332 percent and values ranging from -43.327 percent minimum to 92.63942 maximum percent. The mean value of the ETR denotes

that the average level of tax planning within the industry is 21% which is a little below the statutory tax rate of 25%. The payment of tax below the statutory requirement implies that the insurance firms in Ghana are able to take advantage of the loopholes in the tax laws to mitigate their tax liability, thus an indication of effective tax management on the part of the insurance industry. But in order to sustain the industry's efficiency in the management of tax, the study further investigates the level of tax planning at which firm performance is maximized and within the threshold of which ETR must be maintained. This leads to the inclusion of the ETRsq. Table 4 reveals that the mean ETRsq is 679.8496 percent and a higher standard deviation of 973.9536 with values ranging from a minimum of 0 to a maximum of 8582.062. The extremely high standard deviation means that there is a very high dispersion of the observed values from the mean ETRsq. With the inclusion of ETRsq, the presumption is that ETR has a non-linear relationship with firm performance, as from literature, it is expected that at low levels of ETR, firm performance is high and at high levels of ETR, firm performance is low (Chashiandani & Martani, 2012; Ogundajo & Onakoya, 2016; Yimbila, 2017).

Tax Planning on the Performance of Insurance Companies in Ghana

The third objective of the study was to assess how tax planning affected the performance of insurance companies in Ghana. In achieving this objective, the study employed the generalized least square (GLS) regression analysis to examine the cause and effect relationship between tax planning and performance of insurance companies in Ghana. Before the regression analysis was undertaken, there was the need to carry out some preliminary tests to justify the appropriateness of conducting the regression analysis and the right

model to employ for the regression analysis. Among these tests included the test for multicollinearity using correlation matrix and the variance inflation factor (VIF) and the test for the more appropriate model between fixed and random effects model.

Test for Multicollinearity

Before the panel regression analysis can be executed, there is the need to test for the presence of collinearity among the regressors (multicollinearity). The first step in the test for multicollinearity is to conduct a pairwise correlation matrix, which will indicate the correlation coefficients and the associated direction. In this study, a correlation coefficient beyond the threshold of 0.5 will be indicative of the existence of high collinearity and if this is identified among the regressors, VIF will be conducted to validate the existence of multicollinearity. The table below, Table 6, presents the results of the correlation matrix.

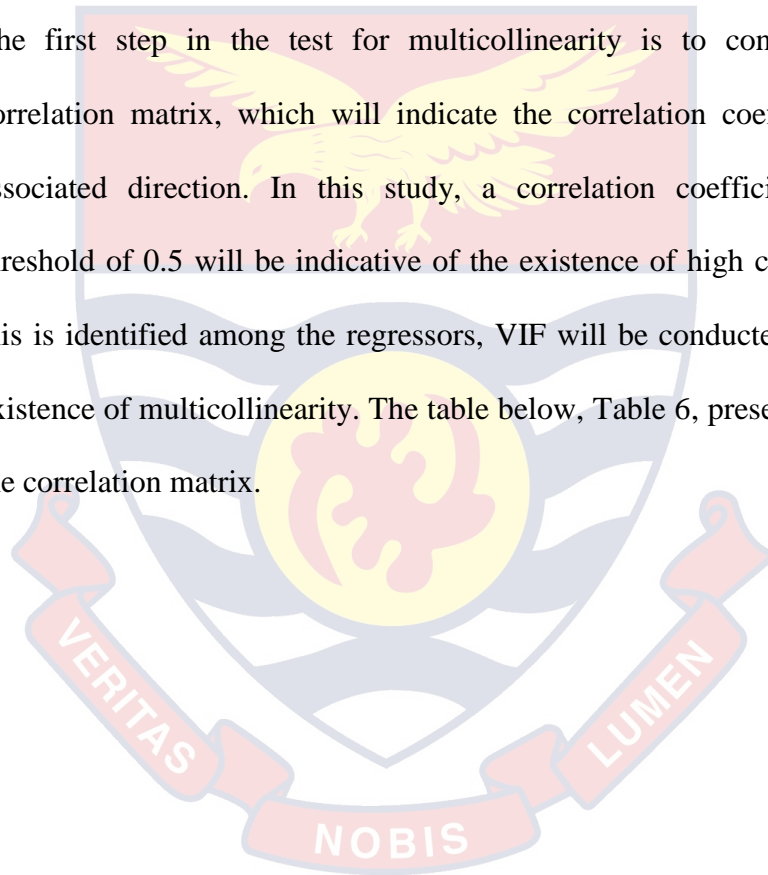


Table 5: Pearson Pairwise Correlation Matrix

Variables	LnROA	LnROE	ETR	ETRsqr	RDP	LEV	SIZE	AGE	CAP	LnPRG
LnROA	1									
LnROE	0.861***	1								
ETR	-0.204*	-0.222*	1							
ETRsqr	-0.360***	-0.320***	0.890***	1						
RDP	0.139	0.103	-0.162	-0.129	1					
LEV	-0.0637	0.228*	-0.212*	-0.0798	0.0317	1				
SIZE	-0.0299	-0.00682	-0.0517	-0.0288	-0.211*	-0.0218	1			
AGE	0.136	0.121	-0.15	0.0224	0.270**	-0.0218	0.0514	1		
CAP	-0.0148	0.0201	-0.177*	-0.1	-0.0801	0.207*	0.00576	-0.11	1	
LnPRG	-0.057	-0.13	-0.00087	-0.0367	0.00284	-0.0124	0.0124	-0.16	0.0513	1

Source: Field Survey (2019)

The probability value, p-values are two-tailed tests.

* Significance at the .10 level.

** Significance at the .05 level.

*** Significance at the .01 level.

The results in Table 5 illustrate that there is a very high correlation (0.861) between the dependent variables (ROA and ROE) and this is significant at 1%. This means that insurance firms that have higher ROA will also have higher ROE and the vice-versa. The results also shows that ROA is significantly negatively associated with ETR (-0.204) and ETRsq (-0.360). This means that insurance firms that indulge in tax planning perform poorly in generating profit on invested assets. Besides, ROA is negatively associated with LEV (-0.0637), SIZE (-0.0299), CAP (-0.0148), PRG (-0.057) but the relationship is insignificant. It was found that ROA was positively related to RDP (0.139) and AGE (0.136), but this relationship was also insignificant.

ROE is similarly significantly negatively related with ETR (-0.222) and ETRsq (-0.320), implying that insurance firms that engaged in tax planning also performed poorly in generating value for shareholders' investment (equity). ROE is significantly positively related with LEV (0.228). This indicates that good performance of insurance firms, in terms of shareholders' value maximization, is linked to the existence of external debt in their capital structure. ROE also was positively but insignificantly related with RDP (0.103), AGE (0.121) and CAP (0.0201). ROE reported a negative association with SIZE (-0.00682) and PRG (-0.13) but the association was also insignificant.

Noteworthy is the high extent of positive association between ETR and ETRsq (0.890), which is significant at 1%. This is no surprising as ETRsq is the square of ETR and thus any upward or downward adjustment in ETR will cause same trends in the ETRsq. There may be the problem of multicollinearity due to the strong association.

The study further relied on variance inflation factor to test for the level of multicollinearity among the variables, since the correlation results only revealed the linear association between variables but not the existence of multicollinearity. Thus, the existence of strong association among some of the explanatory variables (ETR and ETRsq) means that further analysis should be carried out to examine how that association or correlation will inflate the variance of the regression coefficients in the regression analysis. Thus, multicollinearity explains the occurrence of high intercorrelations among independent variables in a multiple regression model, and the variance inflation factor (VIF) is used to assess how the multicollinearity inflates the variance of the regression coefficients, and makes them unstable. It is argued that if the pair-wise or zero-order correlation coefficient between two regressors is high, as in the case of ETR and ETRsq (0.890), then multicollinearity may be a serious problem (Amankwa, 2014). However, Gujarati (2004) argued that high level of correlation between regressors is necessary but not sufficient condition for the existence of multicollinearity. In testing for multicollinearity, the rule of thumb is that any value of VIF in excess of 10.00 shows the existence of high multicollinearity (Hair, Anderson, Tatham & William, 1995) and thus such variable should be omitted. Table 6 displays the results of the variance inflation factor (VIF).

Table 6: Results of the Variance Inflation Factor (VIF) Test

Variable	VIF	1/VIF
ETR	6.65	0.150484
ETRsqr	6.12	0.163464
AGE	1.35	0.743135
RDP	1.18	0.848519
LEV	1.16	0.860859
CAP	1.12	0.893955
SIZE	1.07	0.934935
LnPRG	1.03	0.968353
Mean VIF	2.46	

Source: Field Survey (2019)

Table 6 confirms that none of the explanatory variables including the Mean VIF had a VIF value in excess of the maximum threshold of 10.00. From Table 6, the highest VIF stood at 6.65 and 6.12 for ETR and ETRsq respectively due to the strong association that was noted in the correlation table, nevertheless, they do not exceed the threshold of 10.00 and thus it can be concluded that multicollinearity is not a challenge for the regression analysis, and thus, all the explanatory variables can be used in the multiple linear regression model at the same time.

Testing for the more Appropriate Panel Regression Model to Adopt between Fixed and Random Effect model

The data employed in the study was panel and for that matter the generalized least square (GLS) panel regression was used in estimating the regression analysis. Before conducting the panel regression analysis, there was the need to assess the more appropriate analytical model to adopt between fixed effect model and random effect model. Thus, the study resorted to Hausman (1978) specification test to achieve this purpose. The Hausman

specification test assesses the more appropriate model against the null hypothesis that the random effect is more preferable to the fixed effect model. In testing this hypothesis, the rule of thumb is that when the probability value is less than the alpha (i.e. $p < 0.05$), reject the null hypothesis in favour of the alternative hypothesis, which states that the fixed effect is more appropriate. The tables below, Table 7 and Table 9, present the results of the Hausman specification test for the two regression models with different dependent variables (ROE and ROA) respectively.

Table 7: Hausman Test between Fixed and Random Effect Model for ROE

Variables	Coefficients			
	(b) Fixed	(B) Random	(b-B) Difference	$\sqrt{\text{diag}(V_b - V_B)}$ S.E.
ETR	.0508963	.0399189	.0109774	.0138153
ETRsqr	-.0012468	-.0010035	-.0002433	.0002721
RDP	-.2022265	-.1555716	-.0466549	.0511464
LEV	-.0519605	.1716717	-.2236322	.171826
SIZE	.1045366	-.004082	.1086186	.1900061
AGE	-.4285821	.2484269	-.677009	.5522695
CAP	-.3293026	-.0646358	-.2646668	.0967067
LnPRG	-.0786926	-.0778871	-.0008055	.0345644

Note: $\chi^2(8) = (b-B)'[(V_b - V_B)^{-1}](b-B) = 78.33$

Prob> $\chi^2 = 0.0000$

Source: Field Survey (2019)

From Table 7, it could be inferred that the probability value was 0.000 which is less than the significant level ($p < 0.05$). Based on this result the study rejects the null hypothesis in favour of the alternative hypothesis which states that the fixed effect analytical model is suitable for the carrying out the regression analysis with the model in which ROE is the dependent variable.

Table 8: Hausman Test between Fixed and Random Effect Model for ROA

Variable	Coefficients			
	(b) Fixed	(B) Random	(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
ETR	.0430484	.0393877	.0036607	.0127092
ETRsqr	-.0011881	-.0010047	-.0001834	.0002476
RDP	-.1173132	-.084055	-.0332582	.0637938
LEV	-.1050557	-.014379	-.0906767	.1540009
SIZE	.2003578	.0112832	.1890746	.1701335
AGE	-.0951782	.2618914	-.3570696	.4930359
CAP	.0138094	.0487126	-.0349032	.0883778
LnPRG	.0019857	-.0196443	.0216299	.0333369

Note: $\chi^2(8) = (b-B)'[(V_b-V_B)^{-1}](b-B) = 11.29$
 Prob> $\chi^2 = 0.1859$

Source: Field Survey (2019)

The results presented in Table 8 have a probability value of 0.1859 which is greater than the significant level ($p > 0.05$). This result therefore suggests that the study fails to reject the null hypothesis which states that the random effect is the more appropriate analytical model for this study. Thus, in regressing the set of independent variables on the dependent variable ROA, the study employs the random effect model.

Estimation of the Regression Results

Having established which GLS model to carry out under the panel regression, the study reports, in the subsequent pages, the results of the panel regressions that were estimated. In the table below, Table 9, the results of the

fixed effect panel regression analysis on ROE and the accompanying explanatory variables have been presented.

Table 9: GLS Regression Results: ROE as the Dependent Variable

Fixed Effects	
VARIABLES	LnROE
ETR	0.0509** (0.0206)
ETRsq	-0.00125*** (0.000361)
RDP	-0.202 (0.229)
LEV	-0.0520 (0.188)
SIZE	0.105 (0.204)
AGE	-0.429 (0.568)
CAP	-0.329** (0.134)
LnPRG	-0.0787 (0.0716)
Constant	-1.866 (2.830)
Observations	125
Number of Firms	40
R-squared	0.250
Prob > F	0.0033

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Source: Field Survey (2019)

Table 9 displays the results of the fixed effect panel regression model that examines the causal relationship between tax planning and performance proxied by ROE of insurance companies in Ghana. The R-square for the model is 0.250, consistent with the finding of Agyei, Marfo-Yiadom, Ansong and Asare (2018). This implies that the predictive variables explain 25% of the variance in the dependent variable, ROE of insurance firms. The p-value of 0.0033 for the F-statistics is also indicative of the fitness of the model since it is less than the significance level of 0.05 ($p < 0.05$). Therefore, the model is fit for the study.

From the results presented in Table 9, ETR is positively related to ROE which is significant at 5% level of significance. The positive relationship has been found by prior studies such as Desai and Hines (2002), Chen, Chen, Chen and Shevlin (2010), Armstrong, Blouin and Larcker (2012), Heitzman and Ogneva (2015), Desai and Dharmapala (2009). The positive significant relationship between ETR and ROE means that tax planning leads to improved performance of insurance firms. The coefficient of the ETR (0.0509) suggests that a unit or a percentage increase in the value of ETR will lead to 0.0509% increase in performance of insurance firms (ROE). The positive relationship implies also that every cedi in tax savings reflects in the performance or profitability of the insurance firms. Thus, for the insurance firms in Ghana, the benefits of tax planning exceed the cost of tax planning, and besides, management of insurance firms engage in tax planning for the purpose of improving upon shareholders' value. This contradicts the agency theory which asserts that managerial opportunism in firms leads to a diversion of tax savings from investors to managers' pocket. The positive relationship however

contradicts the findings of Swenson (1999), Lev and Thiagarajan (1993), Dyreng et al. (2008), Abdul-Wahab (2010), Ahmed and Khaoula (2013) who found a negative relationship between tax planning and firm performance.

Noteworthy also is the significant negative relationship between ETRsq and ROE. The relationship is significant at 1%. The significant relationship between ETRsq and ROE lends credence in the first place to the fact that there is a non-linear relationship between ETR and firm performance. Secondly, the negative relationship between ETRsq and ROE also implies that the positive relationship earlier explained between ETR and ROE is attainable only within a given minimum ranges of ETR up to a turning point, beyond which tax planning will be negatively related to firm performance, that is, firm performance will decrease with increasing levels of ETR. This confirms the discoveries by Ogundajo and Onakoya (2016), and Chashiandani and Martani (2012), who found that manufacturing firms with lower ETR performed better and had higher firm value, whereas firms with higher ETR recorded poor performances. Thirdly, the negative relationship between ETRsq and ROE with the coefficient of -0.00125 means that when ETR increases beyond the optimal level or the turning point of its curve to assume higher values, a percentage increase in ETR will result in 0.00125% decrease in performance. Thus, just as Yimbila (2017) notes for commercial banks in Ghana and Ogundajo and Onakoya (2016) also discover same for manufacturing firms in Nigeria, this study on insurance companies corroborates their assertions that firms which record higher effective tax rates (ETR) suffer poor performance, whereas those with lower ETR performed financially better.

The results in Table 9 also indicate that Capital Intensity (CAP) has a significant negative relationship with firm performance (ROE). The relationship is significant at 5% level of significance. Thus, the coefficient of -0.329 implies that a percentage increase in CAP will lead to 0.329 decrease in ROE. This implies that investing more in assets reduces the performance of insurance firms in Ghana. This result is in sync with the findings of Brealey and Myers (1984), who provided the reason that firms that are highly capital intensive usually are unable to match the high level of fixed cost to sales level, ultimately affecting operating income. In the insurance industry, especially the life firms, most of their assets, particularly their fixed assets, do not have any direct utilization in their service delivery. Thus, it is no surprising that more asset concentration in the insurance industry could not correspond to profitability, measured by ROE. The negative results between capital intensity and performance identified in this study is in congruence with the works by Shapiro and Titman (1986) and Leung, Meh and Terajima (2008) but contradicts the findings of Barton (1988), Hurdle (1974) and Shahean and Malik (2012).

The result in Table 9 also indicates that dividend payout ratio (RDP), leverage (LEV), Age (AGE) and premium growth (PRG) were all negatively, but not significantly, related to firm performance measured by ROE. This indicates that dividend payment of insurance firms, gearing, age, whether old or young, and insurance firms' premium growth have no significant impact on the performance of insurance firms. The insignificant result between age and performance of insurance firms has been reiterated by Utkir (2012) and Yimbila (2017), who as well found no significant relationship between firm

performance and growth of banks. Similarly the insignificant relationship between dividend payout ratios and firm performance confirms the work by Osegbu, Ifurueze, and Ifurueze (2014), and Miller and Modigliani's irrelevant hypothesis (Miller & Modigliani, 1961) who found that dividend payment do not have any corresponding impact on firm performance and value, because firm performance is determined by its investment decisions, among other things. More so, the study by Nduati (2010) corroborates the insignificant relationship that this study discovers between leverage and performance of insurance firms.

Size even though had a positive (0.105) relationship with the performance of insurance firms but it was also not statistically significant. This denotes that the size of insurance firms, whether big or small, has no impact on the performance of the insurance firms. This neutral or insignificant relationship between size and performance has been discovered by studies like Yimbila (2017), Velnampy and Nireesh (2014) and Utkir (2012).

In order to better appreciate the results presented in Table 9 and attest to some discoveries therein, Table 10 presents the result of the returns on asset (ROA) model, the other component of returns on investment (ROI).

Table 10: GLS Regression Results: ROA as the Dependent Variable

Random Effects	
VARIABLES	LnROA
ETR	0.0394*** (0.0132)
ETRsq	-0.00100*** (0.000205)
RDP	-0.0841 (0.194)
LEV	-0.0144 (0.0651)
SIZE	0.0113 (0.0644)
AGE	0.262** (0.114)
CAP	0.0487 (0.0809)
LnPRG	-0.0196 (0.0544)
Constant	-4.232*** (1.178)
Observations	125
Number of A	40
R-squared	0.244
Prob > F	0.0000

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Source: Field Survey (2019)

Table 10 displays the result of the regression between tax planning and performance of insurance firms in Ghana. The difference between Table 9 and 10 is the use of ROA in Table 10 instead of ROE in Table 9 as a measure of

firm performance, and the adoption of random effect model based on the Hausman Test for Table 10 instead of the fixed effect model employed for Table 9.

The R-squared for the returns on asset (ROA) model as presented in Table 10 is 0.244, which implies that the model explains 24.4% of the variance in insurance firms' ROA. The R-squared value is in near range to that of the study by Nwaobia Appolos, Kwarbai Jerry and Ogundajo (2016). The fitness of the model is also significant at a p-value of 0.000, which is less than the significance level of 0.05 ($p < 0.05$). In consistence with the results in Table 9, Table 10 reports significant relationship between ROA and ETR, ETRsq, but for all the control variables, with the exception of AGE, none had any significant relationship with firm performance (ROA).

From Table 10, the results indicate that tax planning measured by effective tax rate (ETR) is positively related to insurance firms' performance measured by (ROA). The positive relationship is significant at 1% significance level. The coefficient of 0.0394 implies that a percentage increase in ETR will lead to 0.0394% increase in ROA. Though this seems insignificant but in aggregate and in monetary value it is very weighty to be concerned about. This significant positive relationship is a further attestation to the results in Table 10. Thus, it is proven from the two models that tax planning in the insurance firms contributes significantly to the improvement in the financial performance of insurance firms. The results is in congruence with studies like Frank, Lynch and Rego (2003), Wilson (2009), Chen et al. (2010), Wang (2010), Lisowsky et al. (2013) who found positive relationship between tax planning and performance measured by ROA.

Similarly, as noted in Table 10, the square of effective tax rate (ETRs²) also had a significant negative relationship with the performance of insurance firms (ROA), and this significant relationship is at 1% significance level. As indicated in the discussion of Table 10, the negative significant relationship between ETRs² and ROA signifies that there is a non-linear relationship between effective tax rate (ETR) and performance of insurance firms (ROA). It also signifies that the positive relationship between ETR and ROA that has been discovered will be sustained up to an optimal threshold (the turning point on the ETR curve) and any increase in ETR beyond this threshold will have, by virtue of the negative coefficient, a decreasing effects on ROA. Thus, the performance of insurance firms will be decreasing with increasing levels of ETR beyond the turning point of the ETR curvilinear relationship with ROA. The coefficient of -0.001 denotes that after the turning point, a percentage increase in the ETR will result in 0.001% decrease in ROA. This implies that tax planning within the ranges of ETR values in excess of the turning point, an indication of high values of ETR, has a negative or decreasing impact on firm performance (ROA). As noted in the discussion of Table 10, this further validates the findings by Yimbila (2017), Ogundajo and Onakoya (2016), and Chashiandani and Martani (2012) who underscored that firms with high ETRs recorded poor performance and had low firm value, whereas firms with lower ETRs performed better and postulated a very high firm value.

Table 10 also indicates that there is a positive significant relationship between returns on assets (ROA) and age (AGE) of insurance firms. The positive relationship is significant at 5% level of significance. The AGE's

coefficient of 0.262 connotes that a unit increase in age will lead to 0.262 unit increase in ROA. The results follow that as insurance firms advance in age, they learn through experience to combine asset more judiciously in their operation and service delivery, resulting in high operating income, an indication of good performance. This result of positive significant relationship between age and firm performance has been similarly discovered in studies like Kipesha (2013) and Osunsan, Nowak, Mabonga, Pule, Kibirige and Baliruno (2015), who confirmed this finding for microfinance institutions in Tanzania and for SMEs in Uganda respectively. However, it contradicts the results by Dogan (2013), who found a negative relationship between age and returns on asset and by Yimbila (2017), who discovered no relationship between age and returns on assets of banks in Ghana.

As found for most control variables in Table 9, Table 10 equally reports an insignificant relationship between returns on assets and all the control variables except, AGE. Ratio of dividend to profit (RDP), leverage (LEV), size (SIZE), capital intensity (CAP) and premium growth (PRG) all had an insignificant or neutral relationship with ROA. This implies that whether firms paid dividend or not, did not matter to the performance of firms measured by ROA, thus validating the irrelevant hypothesis of dividend payment (Miller & Modigliani, 1961). Similarly, the debt structure of the firm, whether firms borrowed or not (LEV), had no causal nexus with ROA (Nduati, 2010). ROA was also not a consequence of the expansion or reduction in size of the insurance firms (Velnampy & Niresh, 2014), in as much as the extent of capital intensity (CAP) and growth of insurance firms (PRG) played no role in defining ROA (Yimbila, 2017). These findings attest to the results in Table 10.

The results displayed in Table 9 and 10 do not approve of Hypothesis 1, which postulated that tax planning does not significantly impact the performance of insurance firms in Ghana.

1. Ho: Tax planning does not significantly impact on the performance of insurance firms in Ghana.

The hypothesis was tested at 5% significance level, with 95% confidence interval. In testing the hypothesis, the rule of thumb states that when the p-value or significant value is less than the 5% significance level ($p < 0.05$), the null hypothesis is rejected. It was observed from Table 9 and 10 that the p-value for tax planning (ETR) and performance (ROI = ROE & ROA) were below 5% and 1% significance level. Since the p-values were below the significance level of 5%, the study rejects the null hypothesis which states, "Tax planning does not significantly impact on the performance of insurance firms in Ghana." Thus the study concludes that tax planning significantly impact on the performance of insurance firms measured by returns on investment (ROI = ROE & ROA).

Similarly, the results in Table 9 and 10 do not lend credence to the second hypothesis, which claims that ETR has no non-linear relationship with firm performance.

2. Ho: ETR has no non-linear relationship with the performance of insurance firms in Ghana.

This hypothesis was in similar vein tested at 95% confidence level with 5% error margin. The null hypothesis is rejected if the significant value or p-value is less than the significant level of 5% ($p < 0.05$). In testing for this hypothesis, the study included the squared term of the ETR (ETRsq), which

was expected to fulfill two conditions in order to prove the existence of non-linear relationship with performance of insurance firms. First ETRsq must be significant based on the level of significance, and secondly, must have a direction being the reverse of the direction shown between ETR and ROE/ROA). From Table 9 and Table 10, ETRsq had a negative relationship with both ROE and ROA (performance of insurance firms). This negative relationship was in contrast to the positive direction reported between ETR and ROE/ROA. Besides, this negative relationship was found in both Table 9 and 10 to be significant at 1%, far below the level of significance of 5%. Thus these two conditions existing prove that ETR is non-linearly related to performance of insurance firms. Based on this, the study rejects the null hypothesis which states, “ETR has no non-linear relationship with the performance of insurance firms.” The study thus favours the alternative hypothesis which affirms the existence of non-linear or curvilinear relationship between tax planning measured by ETR and performance measured by ROE/ROA.

Optimal Level of ETR for Performance (ROE and ROA) maximization

As part of the study’s objectives, the study sought to uncover the optimal level or the turning point on the ETR curve, at which performance (ROE & ROA) is maximized. Our rejection of the third hypothesis, which led us to acknowledge the fact that there is a non-linear relationship between ETR and performance of firms, must lead to the further interrogation of the exact level of ETR at which firm performance is optimized. In our opinion, researchers who include ETR as a proxy for tax planning in their study should compute and present ETR’s exact value of threshold effect as such a figure

may be of direct practical interest for useful policy purposes and academic interest alike. Premised on this, the study estimated the exact value of the turning point of ETR at which ROE and ROA are maximized for insurance companies.

Estimation of the ETR's Optimal Level (Turning Point) for ROE model

In ascertaining the optimal level of ETR at which ROE is maximized, that is when the insurance firms are interested in generating maximum returns on shareholders' investment (equity), the study estimated the understated equation based on the fixed effect regression result displayed in Table 9. And a further analysis of differentiation of ROE with respect to ETR was undertaken, the result equated to zero and evaluated to finally arrive at the turning point of ETR (ETR's value of threshold effect).

$$\begin{aligned} \ln ROE = & -1.866 + 0.0509ETR - 0.00125ETR^2 - 0.202RDP - 0.0520 \\ & + 0.105SIZE - 0.429AGE - 0.329CAP - 0.0787\ln PRG \end{aligned}$$

$$\frac{\partial \ln ROE}{\partial ETR} = 0.0509 - 0.0025ETR$$

At the turning point, gradient = 0

$$\text{Thus, } \frac{\partial \ln ROE}{\partial ETR} = 0$$

$$0.0509 - 0.0025ETR = 0$$

$$0.0025ETR = 0.0509$$

$$\frac{0.0025ETR}{0.0025} = \frac{0.0509}{0.0025}$$

$$ETR = 20.36\%$$

Therefore from the above computation, the turning point or the optimal level of ETR at which performance, measured by ROE, is maximized is 20.36%, approximately 20.4%. Beyond this point on the curve, any further

increase in ETR must result in a dwindling effect on the returns on equity or shareholders' wealth. Thus, if insurance firms in Ghana are seeking to maximize returns on shareholders' equity, they must endeavor to manage their ETR and sustain it up to the level of 20.36%. Any value of ETR in excess of this figure will rather create negative value for shareholders.

An important thing to note here is the fact that the computed optimal level of ETR (20.36%) is less than the statutory tax rate (STR) (25%). The difference of 4.64% between the STR and the ETR represents tax savings, but this tax saving, because it falls on ETRs above the computed ETR optimal point, does not reflect in the creation of value for shareholders, instead it dwindles shareholders' value. Thus, the positive significant relationship that was discovered between ETR and performance of insurance firms was true only for values of ETR less than or equal to 20.36%. Any ETR beyond this value may even though yield tax savings, the tax savings will not add to shareholders' wealth maximization, instead it will reduce it. Thus, like the agency theory has opined and other studies have discovered not every tax savings generated through tax planning efforts are reflected in the pockets of shareholders (Viava, 2007; Desai & Dharmapala, 2009; Abdul-Wahab, 2010; Ahmed & Khaoula, 2013).

Apart from the management opportunistic behavior which the agency problem advances in support of this negative relationship between tax savings and performance, these studies argue that tax planning can reduce after-tax profit because it represents a significant cost to firms and shareholders. Ahmed and Khaoula (2013) apprise that these costs include costs directly related to tax planning activities, additional compliance costs and non-tax cost

which prevent banks from maximizing after-tax profits from tax planning activities. Viava (2007) clearly pointed out that the costs associated with tax planning activities may outweigh benefits that firms are expected to derive from the activities. This implies that insurance firms must exercise due diligence before conducting tax planning in order to ensure that they stay within but not above the limits of the optimal ETR to ensure that tax planning maximizes shareholders' wealth.

Estimation of ETR turning point for ROA model

Where ROA is used as a proxy for firm performance within the insurance industry, that is when the industry is concerned about the value or returns it generates on invested assets, then the turning point or the optimal level of ETR will have to be recalculated based on the random effect regression output in Table 10, which shows a list of variables regressed on ROA.

$$\begin{aligned} \ln ROA = & -4.232 + 0.0394ETR - 0.001ETR^2 - 0.0841RDP \\ & - 0.0144LEV + 0.0113SIZE + 0.262AGE + 0.0487CAP \\ & - 0.0196\ln PRG \\ \frac{\partial \ln ROA}{\partial ETR} = & 0.0394 - 0.002ETR \end{aligned}$$

At the turning point, gradient = 0

$$\text{Thus, } \frac{\partial \ln ROA}{\partial ETR} = 0$$

$$0.0394 - 0.002ETR = 0$$

$$0.002ETR = 0.0394$$

$$\frac{0.002ETR}{0.002} = \frac{0.0394}{0.002}$$

$$ETR = 19.7\%$$

From the above calculation, the optimal level of ETR at which returns on asset (ROA) is maximized is shown to be 19.7%. This implies that if the insurance industry is seeking to maximize returns on invested assets, then the insurance firms must endeavor to sustain their ETR up to 19.7%. Any value of ETR below 19.7% is commendable and can be managed up to 19.7% as within ETR values below 19.7%, tax planning positively contributes to returns on asset and at 19.7% ETR, the contribution of tax planning to returns on invested assets is at its peak or maximum. However, any value of ETR in excess of 19.7% will result in diminishing returns on invested assets. That is, tax planning will begin to have a negative impact on returns on invested assets.

But equally remarkable is the fact that even with a tax savings of 5.30% (25% - 19.70%) being the difference between the STR and the ETR, tax planning still resulted in asset underperformance. This corroborates the agency theory which asserts that tax planning can decrease firm performance due to management opportunistic behavior. Similarly, Ahmed and Khaoula (2013) and Viava (2007) explain that the cost of tax planning which include costs directly related to tax planning activities, additional compliance costs and non-tax costs may be so huge that they may derail the company of the expected benefit of maximum after-tax returns. This also implies, just as discovered by Yimbila (2017), Chashiandani and Martani (2012) and Ogundajo and Onakoya (2016), that the positive relationship between tax planning measured by ETR and asset performance of insurance firms discovered holds only for small values of ETR up to 19.7% and not beyond. Thus insurance firms must endeavor to contain their ETR within the

boundaries of the optimal ETR level, otherwise tax planning beyond the optimal ETR point will yield a negative return on assets.

Tax planning effectiveness based on the computed optimal levels of ETR

The study also sought to assess how effectively the insurance firms were able to manage their ETR to match up to the optimal level of ETR. The study achieves this by estimating, on both sectorial and industry-wide basis, the number of firm year ETR observations that fell above and below the optimal levels of ETR for both measures of performance ROE and ROA. Though this could have been simply achieved by inference to the average ETR for life firms and the non-life firms and ETR for the industry as a whole, the high standard deviation recorded for the estimated averages do not make these averages reliable enough for generalized analysis. Thus inference to the individual observations was appropriate to analyze the effectiveness the tax planning of the insurance firms based on the computed optimal ETRs for performance maximization.

For ROE model with optimal ETR level of 20.36%

The table below, Table 11, delineates the number of firm year ETR observations each of life and non-life insurance companies that were above and below the optimal ETR level of 20.36% (ETR turning point) for the ROE model, in order to examine how well or poorly the insurance industry, by sectorial comparison, managed their ETR within the limits of the computed optimal level of ETR.

Table 11: Firm Year ETR observations that are above and below ETR's Optimal Level of 20.36%

	Life Insurance: Firm year ETR observations	Non-Life Insurance: Firm year ETR observations	Whole Industry: Total Firm Year ETR observations
Below the ETR turning point (<20.36%)	34 = 74%	34 = 36%	68 = 49%
Above the ETR turning point (> 20.36%)	12 = 26%	60 = 64%	72 = 51%
Total observations	46 = 100%	94 = 100%	140 = 100%

Source: Field Survey (2019)

From Table 11, it can be observed that out of the total 140 firm year ETR observations recorded for the whole insurance industry, 62 firm year ETR observations, representing 49% of the total firm year ETR observations, were below the computed ETR's turning point (20.36%) or optimal level, while 72 firm year ETR observations, representing 51% were above the computed ETR's optimal level or turning point. This denotes that, within the whole insurance industry, majority of the firm year ETR observations were in excess of the ETR optimal point (turning point), implying that tax planning for most of the firms within the insurance industry on the whole contributed to dwindling shareholders' wealth rather than improving shareholders' wealth. This is corroborated by the mean overall industry's ETR of 21.4% which was recorded in Table 5. The higher of the mean overall industry's ETR (21.4%) than the optimal ETR level (20.36%) implies that for the majority of firms

within the overall insurance industry, tax planning was less intensive and hence, not rewarding to shareholders' wealth measured by returns on equity (ROE).

However, a careful evaluation of Table 11 reveals that out of the industry's total firm year ETR observation of 140, 46 firm year ETR observation belonged to the life insurance firms while the remaining 96 belonged to the non-life insurance companies. Of the 46 firm year ETR observations belonging to life insurance firms, 34 observations, representing 74% of ETR observations for life insurance firms, were below the optimal ETR point of 20.36%, while the remaining 12 ETR observations, representing 26% of the total ETR observations for life insurance firms, were above the optimal ETR point of 20.36%. Since more of the ETR observations within the life insurance firms fell below the optimal ETR point, it denotes that for the majority of firms within the life insurance industry, tax planning was more intensive, and more contributive than deteriorating to shareholders' wealth. Furthermore, it can be deduced that the dwindling effect of tax planning on shareholders' value as indicated within the overall insurance industry was to the very least extent driven by tax planning activities among the life insurance companies.

From Table 11, it was also identified that out of the 94 ETR observations for the non-life industry, only a meager portion of 34 ETR observations, representing 36% of the total ETR observations for non-life insurance firms, were below the optimal ETR point of 20.36%, whereas the higher portion of 60 ETR observations, representing 64% of total ETR observations for non-life firms were above the optimal ETR point of 20.36%.

This denotes that for the majority of non-life insurance firms, tax planning was less intensive, and contributed to the reduction of shareholders' wealth, measured by ROE. It moreover indicates that the dwindling value of tax planning on shareholders' wealth as observed in the overall insurance industry was to the greatest extent driven by the tax planning by the non-life insurance firms.

Thus it can be concluded that tax planning by most of the firms within the life insurance industry contributed more to their performance measured by returns on shareholders' equity, while for non-life insurance industry, tax planning was less rewarding to their performance in terms of generating wealth for shareholders (ROE). Besides, within the overall insurance industry, tax planning was less intensive and less recompensing to shareholders' wealth maximization. Furthermore, it must be noted that the negative effect of the tax planning on shareholders' value within the industry was to the greater extent driven by the non-life insurance firms than the life insurance firms.

For the ROA model with optimal ETR level of 19.7%

Table 12, demarcates the number of firm year ETR observations each of life and non-life insurance companies that were above and below the optimal ETR level (ETR turning point) of 19.7% for ROA model in order to compare the sectorial efficiency and effectiveness in managing their tax within and not beyond the optimal ETR boundary.

Table 12: Firm Year ETR observations that are above and below ETR's Optimal Level of 19.7%% for ROA model

	Life Insurance: Firm year observations	Non-Life Insurance: Firm year observations	Whole Industry: Total Firm Year ETR observations
Below the ETR turning point (<19.7%)	32 = 70%	32 = 34%	64 = 46%
Above the ETR turning point (>19.7%)	14 = 30%	62 = 66%	76 = 54%
Total observations	46 = 100%	94 = 100%	140 = 100%

Source: Field Survey (2019)

From Table 12, the results, which are in semblance to Table 11, reveal that there were 140 recorded firm year ETR observations for the whole insurance industry. Out of the 140 ETR observations, only 64 ETR observations, representing 46% of the 140 ETR observations, were below the optimal ETR point of 19.7%. The remaining 76 ETR observations, representing 54% of the 140 ETR observations, were above the ETR optimal point of 19.7%. This suggests that, for most of the firms within the insurance industry, tax planning measured by ETR translated more in diminishing than improving firm performance measured by ROA, since majority of the firm year ETR observations fell beyond the ETR turning point (19.7%). This also implies that, on the average, tax planning for the majority of firms within the whole insurance industry leads to a decreasing asset performance, though there were some few firms, which by virtue of having ETR below the optimal

ETR point of 19.7%, recorded a positive impact of tax planning on firm performance.

Nevertheless, the ETR observations recorded for the life insurance companies portray the contrary of the above picture of the whole industry with respect to tax planning and performance of insurance firms. It was observed that out of the total 46 firm year ETR observations recorded for the life insurance industry, 32 ETR observations, representing 70% of the 46 ETR observations were below the ETR optimal point of 19.7%, while only 14 ETR observations, representing 30% of the 46 ETR observations were above the ETR turning or optimal point. This denotes that, for most of the firms within the life insurance industry, tax planning measured by ETR is more rewarding than deteriorating to firm performance, measured by returns on assets (ROA), as majority of the ETR observations were found below the ETR optimal level of 19.7%. This further connotes that, on the average, tax planning for most of the life insurance companies leads to increasing firm performance, measured by returns on asset (ROA). Another implication of the finding is that the diminishing impact of tax planning on returns on assets (firm performance), was to the lesser extent driven by tax planning among the life insurance companies.

It was also observed that for the non-life insurance companies, out of the total 94 firm year ETR observations, 32 ETR observations, representing 34% of the 94 observations, were below the optimal point of ETR of 19.7%, whilst the remaining 62 ETR observations, representing 66% of the 94 observations were in excess of the optimal ETR point of 19.7%. This indicates that, for most of the firms among the non-life insurance companies, tax

planning measured by ETR lead more to shrinking than improving the performance of the companies measured in terms of returns on asset (ROA), as most of the ETR observations were beneath the ETR optimal point of 19.7%. It moreover suggests that for the non-life insurance companies, tax planning on the average resulted in deteriorating firm performance. Thus, on the average, tax planning lead to diminishing returns on invested assets among the non-life insurance companies. This value far exceeds the optimal ETR point of 19.7%, implying that tax planning was less intensive and had a more negative effect on performance (ROA) of most of the non-life companies. The findings further connote that the deteriorating impact of tax planning on firm performance, as observed within the overall insurance industry, was to the higher extent driven by the tax planning of the non-life insurance firms.

Therefore it can be concluded that tax planning within the insurance industry as a whole lead to a diminishing returns on assets (assets performance). It was also observed, contrary to the above finding that, on the average, tax planning among most of the life insurance firms was rather rewarding and contributing to firm performance in terms of returns on asset (ROA), as a result of their engagement in a more intensive tax planning. For the non-life insurance companies, tax planning, for most of the firms, was associated with dwindling returns on asset (assets performance), being the consequence of little engagement in tax planning. Besides, tax planning activities among the non-life insurance firms were found to be the major characteristics of the industry-wide tax planning practices.

Chapter Summary

This chapter presented the discussion of the results. It began with the descriptive statistics, and followed through by discussing the t-test of difference in the level of tax planning, conducting the Hausman specification test to choose between the random and fixed effect model and discussing the results by the regression analysis. The chapter concludes on estimating the optimal level of ETR (tax planning) and discussing its implications for the insurance industry.



CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Introduction

In this final chapter, the summary and conclusions of the study have been provided. Besides, the chapter proffers to policy makers and managements of insurance firms, some recommendations based on the findings. The chapter finally makes suggestion for further studies.

Summary

The study assessed the relationship between tax planning and the performance of insurance firms in Ghana. Specifically, the study examined, in the first place, the level of tax planning within the insurance industry. Secondly, the study analysed the difference in the level of tax planning between life insurance and non-life insurance companies. Thirdly, the study sought to ascertain the impact of tax planning on the performance of insurance firms. Moreover, the study evaluated, as its major contribution to tax planning literature, the optimal level of ETR for performance maximization, and finally the study assessed the efficiency of the insurance firms in the management of tax based on the computed optimal level of ETR for performance maximization.

In addressing the above-mentioned objectives, the study reviewed relevant empirical and theoretical literature related to the topic. The concept of tax planning was exhausted. Theories reviewed were agency theory and Scholes-Wolfson framework of tax. The objective, constraints, opportunities and approaches of tax planning were also discussed, and similarly, the study

designed the appropriate conceptual framework, which pictured, for further understanding, the relationship between tax planning and firm performance.

The study adopted the quantitative research approach, and using causal or explanatory design, the study explained how tax planning related to firm performance of insurance companies. The study's population encompassed all life and non-life insurance companies registered with the National Insurance Commission (NIC). Based on data availability, 22 out of the 28 non-life insurance firms and 18 out of the 24 life insurance firms were used for the study. The panel data (financial statements) was collected from the NIC's Supervisory Department for the period of 2012 to 2017. After reviewing literature, effective tax rate (ETR) was chosen as a proxy for tax planning, whereas returns on equity (ROE) and returns on asset (ROA), the two representing returns on investment (ROI), were chosen to measure performance of insurance firms. Based on literature, the study included other controlled variables, which were discovered to equally impact performance of insurance firms.

In ascertaining the level of tax planning within the insurance industry, the study uncovers, by comparing average ETR (21.04%) of the insurance firms with STR (25%), that tax planning within the insurance industry is a quite intensive, given that the average ETR of the insurance firms was lower than the STR. Thus, insurance firms were able to mitigate their tax expenditure and make some tax savings.

In assessing the impact of tax planning activities on the performance of insurance companies in Ghana, it was discovered in both the ROA and ROE models that tax planning (ETR) was positively related to performance of

insurance firms (ROA & ROE), but by the inclusion of the squared term of the ETR variable (ETRs²) whose co-efficient was negative, the study further hints that the positive relationship between tax planning and performance of insurance firms was attainable for minimum ranges of ETR up to an optimal ETR level, beyond which the relationship turns to be negative. The positive relationship between tax planning and firm performance has been discovered by studies like Desai and Hines (2002), Chen, Chen, Chen and Shevlin (2010), Armstrong, Blouin and Larcker (2012) and Heitzman and Ogneva (2015), who lend credence to the fact that tax savings translated into performance of firms thus, tax costs like the agency cost could not hamper the objective of tax planning. The study also revealed a significant negative relationship between the ETRs² and performance, which apart from indicating the existence of a non-linear relationship between tax planning and firm value, it also supports the findings of Yimbila (2017), Ogundajo and Onakoya (2016) and Chashiandani and Martani (2012) who proffer that tax planning at lower levels of ETR is positively related to firm performance, whereas tax planning at high levels of ETR is negatively related to firm performance.

For all the controlled variables employed, except for capital intensity and age, the study discovered, no significant relationship between them and the performance of insurance firms (ROE and ROA). Capital intensity was found to have a significant negative relationship with performance measured by ROE (Meh & Terajima, 2008), and besides, age of insurance firms was also discovered to have a significant positive relationship with firm performance measured by ROA (Osunsan, Nowak, Mabonga, Pule, Kibirige and Baliruno, 2015).

The study also evaluated the optimal level of ETR, at which performance is maximized. The study found the optimal level of ETR to be 20.36% and 19.7% for both ROE and ROA models respectively. The implication of this finding was that if the insurance firms seek to maximize value for shareholders investment, that is, if the insurance firms are interested in generating more returns on equity (ROE), then they are to ensure that their effective tax rate (ETR) does not go beyond 20.36%. In similar vein, if the insurance firms seek to maximized returns on invested assets (ROA), then they are to ensure that their effective tax rate did not exceed 19.7%.

Comparing the statutory tax rate (STR) of 25% to the estimated optimal levels of ETR of 20.36% and 19.7%, the study discovered that tax planning efforts even though at some point of ETRs (between 20.36% / 19.7% and 25%) yielded tax savings of 4.64% (25% - 20.36%) and 5.30% (25% - 19.7%), these tax savings contributed negatively rather than positively to performance of insurance firms in Ghana, since they were at values of ETR beyond the optimal ETR points. Thus not every cedi in tax savings was reflected in performance. This supports the theory of agency which offers that management opportunistic behaviour leads managers to syphon the benefits of tax planning for their personal interest at the expense of the shareholders' interest. Besides, other studies like Ahmed and Khaoula (2013) and Viava (2007) have also posited that the cost of tax planning, both explicit and implicit costs may be so huge that they eventually outweigh the benefits of tax planning (tax savings).

Assessing the performance of the insurance firms against the optimal levels of ETR, the study disclosed that more of the firm year ETR

observations of the whole insurance industry fell above the optimal ETR level, indicating that tax planning for most of the insurance companies was more weakening than rewarding to their performance. For the life insurance firms more of the ETR observations fell below the optimal ETR levels, which indicated that most of the life insurance firms found tax planning more lucrative. Nevertheless, for the non-life firms, the study discovered that majority of the ETR observations fell beyond the ETR optimal levels, implying that most of the non-life insurance companies were not more successful or effective in planning their tax and thus found it less lucrative.

Conclusions

Premised on the findings of the work, the study makes these reflections as the conclusions for the study. Firstly, it can be deduced from the study that on the average, the insurance industry are quite efficient at managing their tax liabilities, considering the fact that the average ETR within the industry was less than the STR. Also based on the fact that the average ETR for life insurance firms was by far lower than that of the non-life insurance companies, the study concludes that the life insurance are better at mitigating tax liabilities than the non-life insurance companies. Thus, life insurance firms are able to exploit the loopholes in the tax laws better than the non-life insurance companies.

Secondly, the study concludes based on the significant positive relationship between ETR and ROE/ROA that tax planning contributes to the performance of the insurance industry. However, the inclusion of the ETRsq with the concomitant negative significant relationship with both measures of firm performance implied that the positive relationship between tax planning

and firm performance was attainable only for some minimum ranges of ETR up to an optimal ETR level or ETR turning points, which were found to be 20.36% and 19.7% for both ROE and ROA models respectively. Thus, if ETR went beyond these values for both models, tax planning would be inversely related to the performance of insurance firms. By comparing the optimal ETR levels to the STR of 25%, the study discovered that at some levels of ETR (between 20.36% /19.7% to 25%), there was some tax savings which did not reflect in improving performance of insurance firms, rather the tax savings dwindled performance of insurance firms, as the level of ETR that culminated into these tax savings were found beyond the optimal ETR points. The study attributed this finding to the agency problem and the significant cost of tax planning at these levels of ETR, which had the potential of derailing insurance firms of the tax saving benefits of tax planning.

Furthermore, in investigating the effectiveness of tax planning efforts of the insurance firms based on the computed optimal level of ETR, the study concludes that for the life insurance firms, tax planning was more rewarding than deteriorating to firm performance, since most of the ETR observations were below the optimal ETR levels, whilst for the non-life insurance companies tax planning was more deteriorating than contributive to the performance of insurance firms, as majority of their ETR observations were in excess of the computed optimal ETR levels.

Recommendations

The study proffers the following recommendations on the basis of the findings:

Based on the disclosed optimal level of ETR at which ROE and ROA are maximized, managers of the insurance firms must review the various means of tax planning in order to identify the one(s) which help(s) best to bring their effective tax rate within the computed optimal threshold.

Since the tax laws are too complex for the average manager to adequately exploit the inherent opportunities for tax planning purposes, managers of insurance firms should seek the service of qualified tax experts or consultants. The tax experts will better exploit the loopholes in the tax laws in order to achieve an effective tax rate lower or equal to the computed optimal ETR.

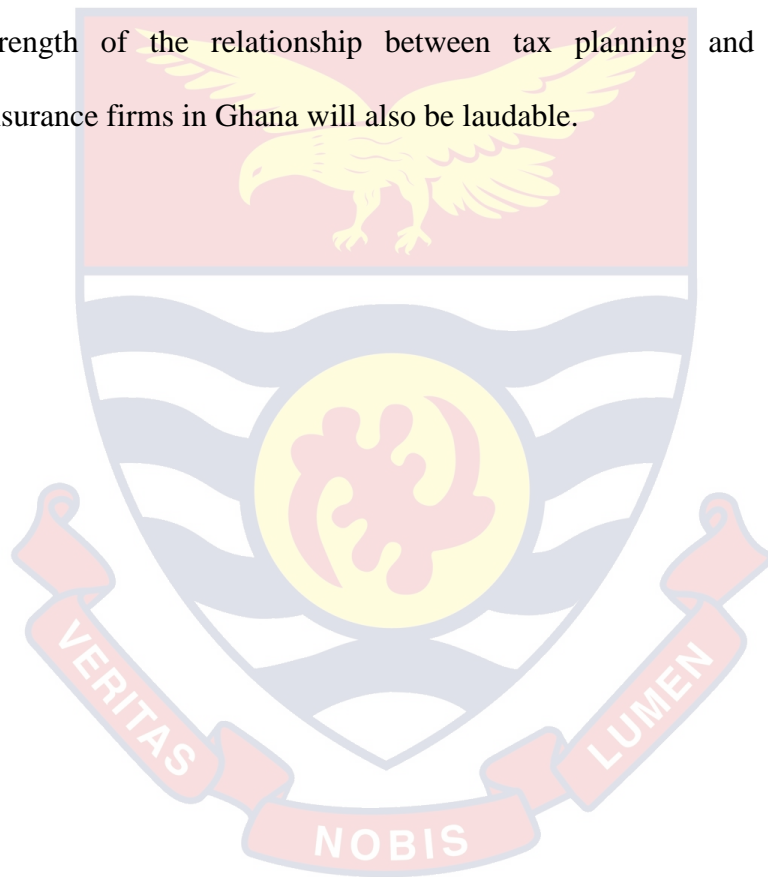
For the non-life insurance companies whose tax planning efforts were more weakening than rewarding to the companies' performance, shareholders must give more monetary incentives to managers in order to induce managers to intensify their tax planning efforts, aimed at reducing their effective tax rate to be below or equal to the computed optimal levels of ETR.

Since some tax savings were found to not reflect in performance, shareholders must institute measures to promote corporate transparency in order to reduce the risk associated with potential expropriation by management of tax savings meant to improve shareholders wealth.

Based on the discovery of a negative relationship between capital intensity and performance of insurance firms, the study recommends that managers of insurance firms must invest in assets that are sufficiently utilized in their service delivery and cut down expenditure on assets that do not really have any direct usage in their business operations.

Suggestions for Future Research

Further studies can use a more complete data set and increase the number of years to further shed light on the tax planning activities of insurance companies in Ghana. Other studies can also employ other measures of tax planning such as book tax gap (BTG) to clarify the relationship between tax planning and performance of insurance firms in Ghana. Besides, a study that employs the moderating influence of corporate governance to explain the strength of the relationship between tax planning and performance of insurance firms in Ghana will also be laudable.



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