UNIVERSITY OF CAPE COAST

EFFECT OF CORPORATE INCOME TAX ON THE PROFITABILITY OF MANUFACTURING FIRMS LISTED ON THE GHANA STOCK EXCHANGE

ANASTASIA OWUSU-ASAMOAH

2024

UNIVERSITY OF CAPE COAST

EFFECT OF CORPORATE INCOME TAX ON THE PROFITABILITY OF MANUFACTURING FIRMS LISTED ON THE GHANA STOCK EXCHANGE

BY

ANASTASIA OWUSU-ASAMOAH

A dissertation submitted to the Department of Business Programmes of the College of Distance Education, University of Cape Coast in partial fulfillment of the requirement for the award of Master of Business Administration degree in Finance

MARCH 2024

DECLARATION

Students' Declaration

I declare that this dissertation, with the exception of quotations and references contained in published works which has been identified and duly acknowledged is entirely my own original work, and it has not been submitted, either in part or whole, for another degree elsewhere.

Signature:…… Date:……

Name: Anastasia Owusu-Asamoah

Supervisor's Declaration

I hereby declare that the preparation and presentation of this dissertation was supervised in accordance with the guidelines on supervision of dissertation laid down by the University of Cape Coast.

Signature:…… Date:……

Name: Prof. Siaw Frimpong

ABSTRACT

This study delves into the intricate relationship between corporate income tax and the profitability of manufacturing firms listed on the Ghana Stock Exchange. It aims to provide insights into how corporate tax burdens impact firm performance, particularly within the context of the Ghanaian economy. Employing panel estimation techniques, including pooled OLS, fixed-effects model, and random-effects model, the research adopts a positivist approach and quantitative research design to achieve its objectives. The primary goals are twofold: first, to examine the direct influence of corporate income tax on firm profitability, and second, to explore the interactive effect of corporate tax and firm size on profitability. By analysing return on equity (ROE) as the measure of firm performance, the study seeks to uncover patterns and trends that shed light on the dynamics of taxation and its implications for business success in Ghana. The study's findings offer critical insights into the intricate relationship between corporate income tax and firm profitability among manufacturing firms listed on the Ghana Stock Exchange. A notable discovery is the significant negative association between corporate tax burdens and financial performance, highlighting the detrimental impact of higher tax rates on profitability. Additionally, the study uncovers a compelling positive marginal effect between firm size and corporate tax, suggesting that larger manufacturing firms are disproportionately affected by tax burdens. These revelations underscore the importance of tailored strategies and policy interventions to support manufacturing firms in navigating tax complexities while maintaining competitiveness. Overall, the study's insights contribute to informing policy decisions and industry practices aimed at enhancing the financial performance and sustainability of manufacturing firms in Ghana.

KEYWORDS

Corporate Income Tax

Profitability

Firm Size

Ghana Stock Exchange

ACKNOWLEDGEMENTS

My sincere gratitude goes to God Almighty for His mercies and Grace that has kept me this far throughout my studies.

I am also thankful to my supervisor, Professor Siaw Frimpong, for his guidance and insightful feedback during this dissertation.

A lot of thanks to my family and friends, especially Mr. James Nii-Akai Adoboye for the financial support, love, understanding and encouragement which made it possible for me to pursue my master's degree and complete this dissertation.

May God bless you all.

DEDICATION

To my beloved family and friends whose support and encouragement has been my source of strength and motivation throughout this journey.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURE

LIST OF ABBREVIATIONS

GSE	Ghana Stock Exchange
TRA	Theory of Reasoned Action
COGS	Cost of goods sold

CHAPTER ONE

INTRODUCTION

Background of the Study

The impact of corporate income tax on the profitability of manufacturing firms has been a significant area of research in finance and economics. In the context of Ghana, this relationship is crucial, given the country's ongoing efforts to bolster industrial growth and economic development. Manufacturing firms listed on the Ghana Stock Exchange (GSE) play a pivotal role in the nation's economy, contributing to GDP, employment, and technological advancement (Nwaorgu et al., 2020). Understanding how corporate income tax affects their profitability can inform both corporate strategy and policy decisions. Ghana's manufacturing sector has seen various phases of growth and challenges over the past few decades (Kakra et al., 2020). The Ghanaian government has implemented numerous fiscal policies aimed at stimulating industrial growth, including tax incentives and subsidies. However, corporate income tax remains a significant financial obligation for manufacturing firms. The corporate tax rate in Ghana stands at 25%, which is relatively high compared to some other African countries (Ghana Revenue Authority, 2023).

Manufacturing firms in Ghana face several challenges that affect their profitability, including high operational costs, fluctuating raw material prices, and infrastructure deficiencies. Corporate income tax adds another layer of financial burden, potentially influencing firms' investment decisions, cost structures, and ultimately, their profitability (Gartchie et al., 2013). The relationship between corporate income tax and profitability is rooted in several

economic theories and concepts. One fundamental theory is the Tax Incidence Theory, which examines how the burden of a tax is distributed between consumers and producers. In the context of corporate income tax, the incidence can fall on shareholders (through lower dividends), employees (through lower wages or job cuts), or consumers (through higher prices). Profit Maximization Theory posits that firms aim to maximize their profits by optimizing their production processes and minimizing costs (Olaleye et al., 2021). Taxes, being a significant cost component, directly impact the net profits of a firm. High corporate taxes can reduce the amount of capital available for reinvestment and expansion, thereby limiting a firm's growth potential (Olaoye & Alade, 2019). Modigliani-Miller Theorem on capital structure provides another theoretical framework. According to this theorem, in a world with no taxes, bankruptcy costs, or asymmetric information, the value of a firm is unaffected by how that firm is financed. However, when corporate income taxes are introduced, the tax shield on debt interest becomes valuable, suggesting that higher taxes might encourage firms to increase their leverage (Modigliani & Miller, 1963). This increased leverage can affect profitability through higher interest expenses and financial risk.

Agency Theory also provides insights into the relationship between corporate tax and profitability. This theory suggests that there are conflicts of interest between the owners (shareholders) and managers of a firm. Corporate taxes can influence managerial behavior, as managers might engage in tax avoidance strategies that do not necessarily align with the long-term profitability goals of the firm (Awuah-Werekoh, 2012). Empirical studies provide mixed evidence on the impact of corporate income tax on profitability

. Some studies suggest that high corporate taxes reduce profitability by decreasing after-tax income and discouraging investment (Gentry & Hubbard, 2000). For instance, Djankov et al. (2010) found that higher corporate tax rates are associated with lower profitability and slower growth of firms.

Conversely, other studies argue that the impact of corporate tax on profitability can be mitigated through effective tax planning and utilization of tax incentives. Firms may engage in various tax management strategies to minimize their tax liabilities, thereby preserving their profitability (Desai & Dharmapala, 2009). Additionally, government policies that offer tax incentives for investments in certain sectors or activities can offset the negative impact of corporate taxes on profitability.

In Ghana, the government has implemented several tax policies aimed at promoting industrial growth and enhancing the competitiveness of manufacturing firms. These policies include tax holidays, investment tax credits, and reduced tax rates for specific industries. However, the effectiveness of these measures in improving the profitability of manufacturing firms remains a subject of debate. The manufacturing sector in Ghana is diverse, encompassing industries such as food and beverages, textiles, chemicals, and construction materials. Each of these industries faces unique challenges and opportunities, and the impact of corporate income tax on their profitability can vary significantly. For example, firms in the food and beverage industry might be more sensitive to tax changes due to high competition and price sensitivity, while firms in the construction materials sector might be more influenced by infrastructure investments and government contracts.

The effect of corporate income tax on the profitability of manufacturing firms listed on the Ghana Stock Exchange is a multifaceted issue that encompasses economic theories, empirical evidence, and specific contextual factors within Ghana's economic environment. Understanding this relationship requires a comprehensive analysis of how corporate taxes influence cost structures, investment decisions, and overall financial performance of manufacturing firms. Research in this area can provide valuable insights for policymakers and business leaders, helping to design tax policies that support industrial growth while ensuring that manufacturing firms remain competitive and profitable. As Ghana continues to strive for economic development, the balance between tax revenue generation and corporate profitability will remain a critical area of focus.

Given the theoretical linkages and empirical evidence, it is clear that the impact of corporate income tax on profitability is complex and multifaceted. Tax incidence theory highlights how the burden of taxation can be distributed among different stakeholders, potentially affecting overall profitability. Profit maximization theory underscores the direct impact of taxes on net profits and reinvestment capacity. Modigliani-Miller theorem suggests that corporate taxes influence firms' capital structures, which in turn affects their profitability. Agency theory indicates that corporate tax strategies can have significant implications for managerial behavior and long-term financial performance. Empirical studies offer mixed results, with some research indicating that high corporate taxes deter investment and reduce profitability, while others suggest that effective tax planning can mitigate these effects

(Adefunke, 2022; Assidi et al., 2016; Kurawa & Saidu, 2018; Otwani et al., 2017).

In Ghana, where the manufacturing sector is crucial for economic growth, understanding these dynamics is particularly important. The sector's diversity means that different industries within manufacturing may experience varying impacts from corporate taxation. The Ghanaian government's tax policies, including incentives and reduced rates for specific sectors, aim to promote industrial growth but their effectiveness in enhancing profitability remains debated (Kwashie et al., 2022). Each industry's sensitivity to tax changes underscores the need for tailored tax policies that consider specific sectoral challenges and opportunities.

Overall, the relationship between corporate income tax and profitability in Ghana's manufacturing sector is a critical area of study that combines theoretical insights and empirical evidence. It involves understanding how taxes affect cost structures, investment decisions, and financial performance, and how government policies can support industrial growth while ensuring firms remain competitive and profitable. As Ghana continues its economic development efforts, balancing tax revenue generation with corporate profitability will be essential for sustainable growth.

Problem Statement

The relationship between corporate income tax and the profitability of manufacturing firms has been extensively studied in various global contexts, yet there remains a significant gap in literature specifically addressing this issue within the Ghanaian context (Gartchie et al., 2013). While existing studies have explored the general impact of corporate taxation on firm

performance, the unique economic, regulatory, and industrial environment of Ghana necessitates a focused investigation.

Firstly, most empirical research on corporate income tax and profitability has been conducted in developed economies, where market dynamics, tax compliance systems, and financial infrastructure differ significantly from those in developing countries like Ghana (Lavic, 2023; Obaid et al., 2020; Ponorîcă & Al-saedi, 2015). Studies such as those by Djankov et al. (2010) and Gentry and Hubbard (2000) have provided insights into how corporate taxes influence firm behavior and profitability in developed markets, but their findings may not be directly applicable to the Ghanaian context due to differences in economic conditions, regulatory frameworks, and industrial capacities.

Secondly, within the African context, research has primarily focused on broader economic impacts of taxation, such as revenue generation and economic growth, rather than on firm-level profitability (Tackie et al., 2022). The specific effects of corporate income tax on the profitability of manufacturing firms in Ghana have not been comprehensively analyzed, leaving a critical gap in the literature. This gap is significant because manufacturing firms play a pivotal role in Ghana's economic development, contributing to GDP, employment, and technological advancement.

Additionally, Ghana's manufacturing sector faces unique challenges, including high operational costs, fluctuating raw material prices, and infrastructure deficiencies, which can exacerbate the impact of corporate taxes on profitability (GIPC Report, 2019). The existing literature does not sufficiently address how these local factors interact with corporate income tax

to influence the profitability of manufacturing firms. Understanding this interaction is crucial for designing effective tax policies that support industrial growth without compromising the financial health of firms. Moreover, there is a need for research that considers the effectiveness of Ghana's tax incentives and subsidies aimed at promoting industrial growth. While the Ghanaian government has implemented various fiscal policies to support manufacturing firms, the actual impact of these policies on firm profitability remains under-explored (Gartchie et al., 2013). Studies that analyze the interplay between corporate income tax and these fiscal measures can provide valuable insights for policymakers (Gatsi, Gadzo, & Kportorgbi, 2013).

In summary, this study seeks to fill the existing gaps in the literature by examining the impact of corporate income tax on the profitability of manufacturing firms listed on the Ghana Stock Exchange. It aims to provide empirical evidence specific to Ghana, considering the unique economic, regulatory, and industrial environment of the country. By doing so, the study will contribute to a more nuanced understanding of how corporate taxation affects firm performance in developing economies, offering insights that can inform both corporate strategy and public policy.

Purpose of the study

The study seeks to examine the effect of corporate income tax on profitability of firms in Ghana using panel estimation of firms listed on the Ghana stock exchange.

Objectives of the study

1. Examine the impact of corporate income tax on the profitability of firms listed on the Ghana Stock Exchange

2. Examine the interactive effect of corporate tax and firm size on the profitability of firms listed on the Ghana stock exchange.

Research Hypothesis

1. H_0: Corporate income tax has no significant effect on the performance of manufacturing firms listed on the Ghana Stock Exchange.
2. H_0: The interaction between corporate income tax and firm size has no significant effect on the performance of manufacturing firms listed on the Ghana Stock Exchange.

Significance of the Study

Understanding the dynamics of taxation and profitability in the manufacturing sector is especially important in Ghana due to its significance to the economy. Industrial development, employment creation, and economic expansion are all significantly influenced by manufacturing companies. Understanding how corporate income tax impacts these companies' profitability can therefore be useful for policymakers, companies, and investors—especially considering recent tax developments. This study also adds to the body of existing knowledge by providing sector-specific insights that can guide tax policies, business plans, and investment choices, ultimately improving our comprehension of the complex relationship between taxation and firm profitability in the context of manufacturing in Ghana amid ongoing tax reforms.

Delimitations of the Study

This study looks at how corporate tax affects performance of manufacturing firms on the Ghana stock exchange and how firm size interact with corporate

tax to also affects the performance of these firms. Only manufacturing firms listed on the Ghana Stock Exchange are utilized for the study.

Limitations of the Study

The unavailability of data for some firms listed on the stock exchange is the study's main limitation. The lack of data also prevented the use of more robust estimating approaches. The analysis is restricted to manufacturing firms because research has demonstrated that corporation taxes have a significant impact on this industry. Despite these flaws, the study's findings and recommendations are credible and consistent.

Organisation of the Study

The remainder of the study is organized as follows: Chapter Two examines the literature on firm performance and corporate income tax from both a theoretical and empirical point of view. In Chapter Three, the research methodology used for the analysis is described in fully. The results are presented in Chapter 4 along with discussions that are pertinent to them, and the conclusion is discussed in relation to the literature. The major recommendations, findings, and suggestions for future research are discussed in Chapter 5.

CHAPTER TWO

LITERATURE REVIEW

Introduction

The theoretical and empirical literature related to corporate tax, firm size, and financial performance of firms is reviewed in this chapter. After evaluating theoretical literature on firm performance and taxation concepts, the most appropriate theories for the study were selected. The literature on corporate taxation and firm performance was analyzed for the study. The chapter also includes studies on firm characteristic factors and financial performance.

Theoretical Literature Review

The Expectancy Theory of Tax

Expectancy theory, introduced by Victor Vroom in 1964, is a motivational framework that explains how individuals make decisions based on their expectations of achieving desired outcomes. This theory suggests that an individual's motivation to perform a specific behavior is driven by the belief that their effort will result in the desired performance level (expectancy), the belief that this performance will be followed by a reward (instrumentality), and the value they assign to that reward (valence) (Vroom, 1964). This framework helps in understanding the complex relationship between effort, performance, and reward, making it particularly relevant for analyzing managerial behavior within organizations.

The main components of expectancy theory are expectancy, instrumentality, and valence. Expectancy is the belief that one's effort will lead to achieving the desired performance goals, influenced by factors such as self-

confidence, goal difficulty, and control over outcomes. Instrumentality is the belief that meeting performance goals will result in receiving the desired rewards, which can be affected by trust, control, and organizational policies. Valence refers to the value an individual places on the rewards, reflecting their personal preferences and needs. According to Vroom, for motivation to be high, all three components must be high; if any component is zero, motivation will be zero (Vroom, 1964).

Applying expectancy theory to the study on the effect of corporate income tax on the profitability of manufacturing firms listed on the Ghana Stock Exchange provides a behavioral perspective on how corporate managers might respond to tax policies. Managers' decisions regarding tax planning and compliance are influenced by their expectations of how these actions will impact the firm's financial performance and their subsequent rewards. If managers believe that effective tax strategies will significantly enhance profitability (high expectancy), and they perceive a strong link between increased profitability and their own rewards (high instrumentality), and they value these rewards highly (high valence), they are more likely to engage in proactive tax management.

In the context of Ghana's manufacturing sector, expectancy theory suggests that if managers expect that implementing efficient tax management practices will lead to noticeable improvements in firm profitability, and if they believe that improved profitability will result in tangible benefits for themselves and the firm, they are motivated to optimize tax strategies. This motivation can drive managers to seek ways to minimize tax liabilities through legal means, thereby enhancing the firm's net income. Conversely, if managers

perceive that the effort required to navigate complex tax regulations does not significantly affect profitability or their rewards, their motivation to engage in such practices diminishes.

Expectancy theory also emphasizes the role of managerial perceptions and attitudes in shaping tax-related decisions. Managers who perceive the tax environment as overly burdensome or punitive may be less inclined to engage in aggressive tax planning, fearing potential penalties or reputational damage. On the other hand, managers who view the tax system as an opportunity for strategic planning may invest more effort into finding legitimate ways to reduce the tax burden, thereby enhancing profitability. This aligns with the broader premise of expectancy theory that individuals are motivated by the expected outcomes of their actions.

Moreover, the theory highlights the importance of aligning organizational incentives with desired outcomes. In manufacturing firms on the Ghana Stock Exchange, aligning managerial incentives with the goal of tax optimization can lead to better financial performance. For instance, if firms design compensation packages that reward managers for achieving tax efficiency and profitability, managers are likely to be more motivated to pursue strategies that balance tax minimization with compliance. This can help mitigate agency problems by ensuring that managers' personal goals are aligned with the firm's financial objectives.

Furthermore, expectancy theory underscores the dynamic nature of motivation, suggesting that managerial attitudes towards tax planning can evolve based on past experiences and changing economic conditions. Managers who have successfully implemented tax-saving strategies in the past

may develop higher expectancy and instrumentality, reinforcing their motivation to continue such practices. Conversely, managers who have faced challenges or setbacks in tax planning may adjust their expectations and efforts accordingly.

In the Ghanaian context, where manufacturing firms operate within a unique economic and regulatory environment, expectancy theory provides valuable insights into the decision-making processes of managers. Understanding how corporate income tax impacts managerial motivation and behavior can help policymakers design tax systems that encourage compliance while fostering profitability. For example, clear and consistent tax policies that reward compliance and offer incentives for investment can enhance the perceived instrumentality of tax planning efforts, motivating managers to engage in practices that support both firm profitability and tax revenue generation.

Expectancy theory also offers a framework for analyzing the potential unintended consequences of tax policies. For instance, if corporate tax rates are perceived as excessively high or punitive, managers may resort to aggressive tax avoidance strategies, which can undermine tax revenue and lead to legal and reputational risks. Conversely, well-designed tax incentives that align with managerial goals can foster a positive business environment, encouraging investment and growth in the manufacturing sector.

In summary, expectancy theory offers a valuable lens to understand the motivational dynamics behind managerial decisions regarding corporate tax strategies and their impact on profitability. It emphasizes the importance of aligning managerial incentives with organizational goals to ensure that efforts

in tax management contribute positively to the firm's financial performance. This theoretical framework can provide insights into how manufacturing firms in Ghana navigate tax policies and optimize their strategies to achieve higher profitability. By understanding the motivational drivers of managerial behavior, the study can offer recommendations for tax policy and corporate governance that enhance firm performance and economic development (Vroom, 1964).

The Modigliani-Miller theorem

The foundational concept known as the Modigliani-Miller theorem, devised by economists Franco Modigliani and Merton Miller in 1958, revolutionized corporate finance theory. Initially proposed in a world devoid of taxes, bankruptcy costs, and information asymmetry, the theorem asserts that a firm's value remains unchanged regardless of its capital structure, be it debt or equity financing. This seminal work challenged conventional perspectives on corporate finance and introduced a paradigm shift in the field (Modigliani & Miller, 1958).

The first central tenet of the Modigliani-Miller theorem posits that, in an ideal market, the total value of a leveraged firm equals that of an unleveraged one. This assertion stems from the premise that, absent taxes or bankruptcy expenses, the cost of capital remains constant irrespective of the firm's debt-equity ratio. The second postulate extends this notion by suggesting a linear increase in the expected return on equity with higher leverage, compensating for the augmented risk associated with increased debt. Essentially, the theorem contends that capital structure decisions are immaterial to a firm's value under ideal conditions.

However, real-world imperfections, such as corporate income taxes, prompted Modigliani and Miller to modify their theorem to incorporate the tax advantages of debt. This adaptation introduced the concept that debt financing could enhance firm value due to the tax deductibility of interest payments, which lowers the firm's taxable income. Thus, in the presence of corporate taxes, leveraging debt can augment a firm's value through tax savings on interest payments (Modigliani & Miller, 1963).

Linking the Modigliani-Miller theorem to the investigation of the impact of corporate income tax on the profitability of manufacturing firms listed on the Ghana Stock Exchange provides a robust theoretical underpinning. The Ghanaian corporate landscape, with its distinct tax structures and financial regulations, offers a practical milieu to observe the implications of Modigliani-Miller propositions. For instance, considering the tax-deductible nature of interest expenses, manufacturing firms in Ghana may be motivated to increase their leverage to curtail taxable income and bolster after-tax profitability. This aligns with the revised Modigliani-Miller theorem, which acknowledges the value contributed by the tax shield on debt.

The Modigliani-Miller theorem, particularly its extension to encompass corporate taxes, elucidates the investigation by elucidating how manufacturing firms on the Ghana Stock Exchange might optimize their capital structures to amplify profitability through tax advantages. According to the theorem, firms can heighten their value by leveraging debt owing to the tax deductibility of interest payments, thereby diminishing their overall tax burden. This implies that in the Ghanaian context, where corporate income tax constitutes a significant expense, manufacturing firms may strategically ramp

up their debt levels to optimize the tax shield and enhance after-tax profitability. This theoretical framework aids in comprehending the financial decisions of these firms and the potential ramifications of corporate tax policies on their profitability.

Furthermore, the practical implications of this theorem for policymakers are substantial. If firms leverage debt to capitalize on tax shields, alterations in tax policy could substantially affect their profitability and investment choices. Policymakers may need to contemplate how tax regulations shape corporate conduct and the broader economic repercussions of these ramifications. Thus, the Modigliani-Miller theorem furnishes a valuable perspective for analyzing the interplay between corporate tax policies and firm-level financial strategies in Ghana.

In essence, the Modigliani-Miller theorem, by spotlighting the influence of corporate income taxes on firm value through the tax shield on debt, directly pertains to the study's focus on the profitability of manufacturing firms in Ghana. It furnishes a theoretical framework for understanding how these firms might optimize their capital structures to enhance profitability in response to corporate tax obligations, thereby offering deeper insights into the financial dynamics prevalent in the Ghanaian manufacturing sector.

Agency theory

Agency theory, introduced by economists Michael Jensen and William Meckling in their seminal 1976 paper, explores the conflicts of interest that arise between principals (owners or shareholders) and agents (managers) in a corporation (Jensen & Meckling, 1976). The theory posits that managers, who are tasked with operating the firm on behalf of shareholders, may pursue

personal goals that are not aligned with the objective of maximizing shareholder value. This divergence in interests can lead to agency costs, which include monitoring expenses, bonding costs, and residual loss.

A central postulate of agency theory is that these conflicts and the resulting costs can be mitigated through appropriate incentive structures and governance mechanisms. For instance, aligning managers' compensation with firm performance, implementing robust oversight by the board of directors, and enhancing transparency and accountability can help ensure that managers act in the best interests of shareholders. However, even with these mechanisms, some degree of agency costs is inevitable due to information asymmetry and the complexity of fully aligning incentives.

In the context of examining the effect of corporate income tax on the profitability of manufacturing firms listed on the Ghana Stock Exchange, agency theory provides a critical lens for understanding how managerial behavior might influence financial outcomes. Specifically, managers might respond to corporate taxes in ways that do not necessarily align with maximizing shareholder wealth. For example, they might engage in tax avoidance strategies that are costly or risky, prioritize short-term tax savings over long-term profitability, or manipulate earnings to present a more favorable financial position.

Agency theory also suggests that the presence of corporate taxes can exacerbate agency conflicts by creating additional layers of complexity and discretion in financial reporting and decision-making. Managers might exploit tax regulations to their advantage, potentially leading to decisions that are suboptimal from a shareholder perspective. For instance, they might over-

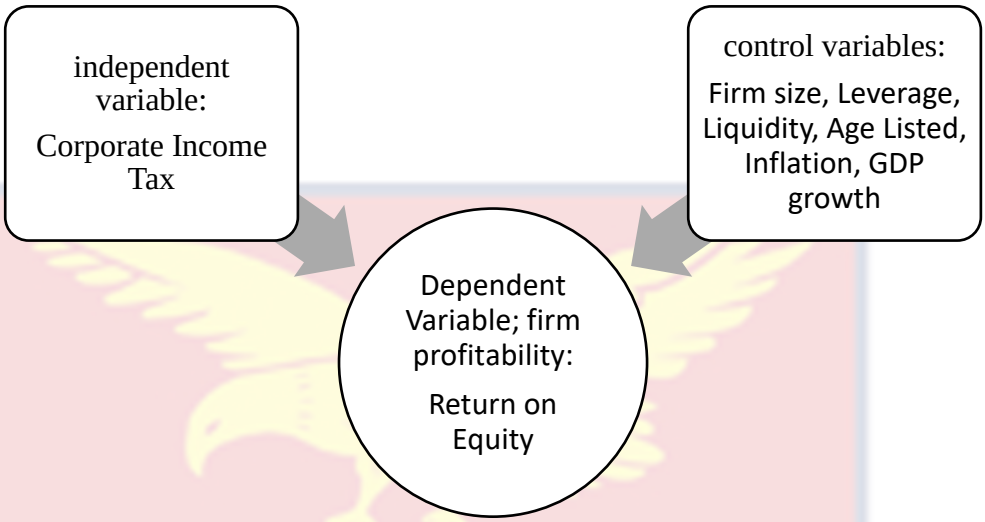
leverage the firm to maximize tax shields on debt interest, which, while reducing taxes, could increase the firm's financial risk and potential for distress.

Furthermore, the theory highlights the significance of corporate governance in addressing these agency issues. Companies with more robust governance frameworks may find themselves better equipped to synchronize managerial decisions with shareholder objectives, notwithstanding significant tax obligations. This may entail thorough monitoring of tax tactics to guarantee not just adherence to regulations but also the sustained financial well-being of the company.

By applying agency theory to this study, we can explore how corporate income tax impacts managerial behavior and, consequently, firm profitability. It provides a framework for analyzing whether the tax-induced actions of managers are aligned with or deviate from the goal of maximizing shareholder value. Understanding these dynamics can reveal the underlying causes of variations in profitability among manufacturing firms in Ghana and highlight the role of governance in navigating the challenges posed by corporate taxation.

The agency theory elucidates the potential conflicts of interest between managers and shareholders in response to corporate income tax, offering insights into how these conflicts can affect firm profitability. It emphasizes the importance of governance mechanisms in harmonising managerial decisions with shareholder interests, particularly in a tax environment that introduces additional complexities and discretionary opportunities (Jensen & Meckling, 1976).

Conceptual Framework



In this conceptual framework, corporate tax is the independent variable, representing the tax obligations imposed on manufacturing firms by governmental authorities. The profitability of manufacturing firms serves as the dependent variable, indicating the financial performance and net earnings of these firms. The framework suggests that variations in corporate tax rates, tax incentives, and tax planning strategies directly influence the profitability of manufacturing firms. Higher corporate tax rates or ineffective tax planning may lead to reduced profitability, as taxes constitute a significant expense for these firms. Conversely, lower tax burdens or efficient tax management strategies may contribute to increased profitability by reducing operating costs and preserving more earnings for reinvestment or distribution to shareholders. Thus, the conceptual framework posits a direct and significant relationship between corporate tax and the profitability of manufacturing firms, with tax-related factors exerting a substantial impact on financial performance.

Empirical Review

Corporate Income tax and financial Performance

Adefunke (2022) investigates the influence of corporate income tax on corporate profitability in Nigeria, utilizing data from twelve listed firms on the Nigerian Stock Exchange over a decade spanning from 2011 to 2020. Employing regression analysis as the primary analytical tool and SPSS 2020 for data analysis adds robustness to the research methodology. The outcomes, indicating a noteworthy positive effect of company income tax (CIT) on profit after tax (PAT) and returns on equity (ROE), furnish valuable insights into the nexus between taxation and corporate financial performance in Nigeria. Additionally, the study reveals a significant adverse effect of changes in shareholders' funds (CSHF) on ROE, alongside CIT's notable and positive impact on shareholders' earnings. These findings underscore the necessity of tailoring tax policies to suit the specific circumstances of firms operating in Nigeria, suggesting the incorporation of tax incentives and favorable tax reforms to stimulate business activities and bolster economic growth in the country.

Nwaorgu, Oyekezie, and Abiahu (2020) scrutinize the impact of corporate taxes on the financial performance of listed manufacturing firms in Nigeria, offering fresh insights into the intricate relationship between taxes and financial indicators. The research discovers that corporation tax payments do not significantly influence the return on equity but do exhibit a positive and significant impact on the debt-to-equity ratio using a basic linear regression analysis over a five-year period. These results imply that investors in the manufacturing sector should consider their tax payment policies as tools for

financial decisions, thereby influencing the firm's debt-to-equity ratio. Moreover, the findings suggest that timely tax payments can elevate the market value of these firms.

Vrina and Dimitrijeviae (2020) delve into the financial performance of agricultural corporations and the influence of corporate income tax, particularly in Vojvodina's agricultural enterprises. Employing r for a simple descriptive statistics test reveals that the statutory corporate income tax rate surpasses the effective corporate income tax rates (ETRs) in agricultural enterprises. Their findings also unveil that a staggering 69% of observations register current effective tax rates and cash effective tax rates of zero, indicating that the agricultural sector bears one of the lowest corporate income tax burdens in the country. Utilizing Panel Regression, the analysis demonstrates that agricultural businesses tend to be more lucrative when their effective tax rates are lower than those of other enterprises. Notably, the study's findings remain unaffected by variations in the corporate income tax burden or profitability proxies.

Olaoye and Alade (2019) delve into the impact of corporate taxation on the profitability of selected firms in Nigeria from 2007 to 2016, relying on secondary data from the financial reports of these firms. Leveraging pooled ordinary least squares (OLS) as the estimation technique lends credibility to the research methodology. The analytical outcomes unveil several significant associations: corporate tax, value-added tax, withholding tax, and education tax all demonstrate positive coefficients with highly significant p-values, signifying their influence on profit after tax. The study concludes that corporate tax rate and education tax, as the primary taxes paid by companies,

have significant and positive effects on profit after tax, also noting the significant impacts of value-added tax and withholding tax. The paper's recommendation underscores the significance of enhancing the administration of corporate taxes to ensure compliance, aligning with the study's findings regarding the positive impact of various tax types on profitability in the Nigerian context.

Chen, Ge, Louis, and Zolotoy (2019) contribute research on corporate tax avoidance and stock liquidity, revealing that businesses with higher stock liquidity engage in less aggressive tax avoidance. Their 2019 study underscores that the effect of stock liquidity on tax avoidance holds economic significance and remains robust across alternative measures of tax avoidance and stock liquidity, even after accounting for any endogenous influences. Additionally, they furnish evidence that the impact of stock liquidity on tax avoidance is amplified for companies with high activist shareholder concentrations and mitigated for those with high stock price informativeness levels.

Mohammad and Ahmed (2019) delve into the influence of corporate income tax rates on the investment decisions of listed deposit money banks in Nigeria, utilizing a descriptive research design and panel data analysis from 2014 to 2018. The research methodology of the study, ordinary least square method, aligns well with the objective of evaluating the relationship between taxation and investment decisions in the banking sector. The findings suggest that after-tax cash flow significantly influences investment decisions, highlighting the importance of profitability and cash flow for banks when contemplating investments in long-term assets. However, the study also

emphasizes that factors like depreciation tax shield and interest tax shield exhibit insignificant effects on investment decisions, while the corporate tax rate itself, at a constant 30%, does not appear to impact these decisions significantly. The recommendation for banks to focus on augmenting turnover and profitability to enhance after-tax cash flow resonates practically with the research findings, underscoring the significance of financial performance in shaping investment strategies for Nigerian deposit money banks.

Ohrn (2018) analyzes how variations in a firm's effective corporate income tax rate in the United States might influence investment, financing, and payout decisions. Leveraging the quasi-experimental variation of the Domestic Production Activities Deduction and a corporate tax expenditure established in 2005, Ohrn's research demonstrates that a percentage point decrease in tax rates leads to a 4.7% increase in investment of installed capital, a 0.3% rise in payouts of sales, and a 5.3% decrease in debt of total assets. These estimations underscore that quicker accelerated depreciation and lower corporation tax rates each encourage an equivalent rise in investment per dollar of revenue lost.

Assidi, Aliani, and Omri (2016) conduct a study in Tunisia on the impact of corporate income tax on firm profitability, unveiling that corporate income tax emerges as a statistically significant predictor of firm profitability using simple regression. The research discerns that the company's profitability escalates significantly when the effective tax rate is diminished.

The examination of the impact of corporate income tax on the financial performance of companies listed on the Nairobi Securities Exchange in Kenya by Otwani, Namusonge, and Nambuswa in 2017 employs a mixed research

design. They establish a direct correlation between corporate income tax and the financial performance of Kenyan companies registered on the Nairobi Stock Exchange.

Abiahu and Amahalu (2017) employed the Pearson coefficient of correlation and Ordinary Least Square (OLS) regression analysis to investigate the impact of taxation on the dividend policy of banks in Nigeria from 2006 to 2015. Their study reveals a significant negative correlation between tax and dividend policies, with a statistically significant impact of taxation on dividend policy.

Kurawa and Saidu (2018) examined the financial performance of listed consumer products businesses in Nigeria over a decade, focusing on the effect of corporation income tax. Their study, which utilized regression analysis on data extracted from annual reports and accounts, enhances the credibility of the research process. Despite conventional wisdom, their surprising discovery that there is no statistically significant association between company taxes and financial performance as gauged by return on assets (ROA) challenges prevailing beliefs. While emphasizing the influence of company size in positively affecting performance, the study suggests further investigation into the positive yet minimal correlation between age and risk among consumer products firms in Nigeria. Moreover, the recommendation to enlist tax experts for lawful tax planning to minimize net tax payments and bolster net income after tax resonates with the study's findings, offering actionable strategies for enhancing the financial performance of Nigerian consumer goods companies.

Firm size and financial performance

Jannah and Sartika (2022) delve into the relationships among good corporate governance, firm size, financial performance, and firm value in Indonesia, offering insightful perspectives. Their study reveals a positive association between good corporate governance and firm value, indicating its constructive influence on firm development within the Indonesian landscape. Conversely, the study suggests a negative correlation between firm size and financial performance with firm value, implying that larger assets and higher profits may not necessarily translate into increased firm value. Additionally, the research introduces the concept that financial performance could act as a mediator, enhancing the relationship between firm size and good corporate governance, thereby bolstering firm value. These findings enrich our understanding of the complex interconnections among corporate governance, firm attributes, financial performance, and firm value, opening avenues for further exploration in this area.

Abdi, Li, and Càmara-Turull (2022) present an extensive analysis of the impact of sustainability (ESG) disclosure on firm value and financial performance within the airline industry, with a specific focus on examining how firm size and age might moderate these associations. Drawing on data spanning a decade (2009-2019) from 38 airlines worldwide, the study unveils several noteworthy insights. Notably, engagement in governance initiatives is found to positively influence a firm's market-to-book ratio, underscoring the crucial role of effective corporate governance in enhancing firm value. Furthermore, the research underscores the significance of firm size as a substantial moderator, shaping the relationship between sustainability

disclosure and both firm value and financial performance in the air transport sector. This underscores the importance of tailoring managerial strategies related to sustainability initiatives based on a firm's total assets, serving as a proxy for firm size. The study contributes significantly by illuminating the intricate dynamics between sustainability practices, firm attributes, and financial outcomes within the airline industry.

Digdowiseiso and Cindy (2022) delve into the impact of Corporate Social Responsibility (CSR), Firm Size, and Profitability on the firm value of mining sector companies in Indonesia during the period 2016-2020. Their study draws from a sample of 14 companies out of 46 listed on the Indonesia Stock Exchange, utilizing secondary data sourced from annual reports, financial reports, and sustainability reports. Methodologically, the analysis employs STATA 16. The results reveal that CSR and Firm Size exhibit a negative and statistically insignificant influence on firm value, whereas Profitability demonstrates a positive and significant association with Firm Value. This investigation offers valuable insights into the determinants of mining sector companies' value, highlighting the pivotal role of profitability in shaping firm value, while indicating that CSR and firm size may not be significant determinants within this specific context.

Delmar, Davidsson, and Gartner (2016) explored the impact of size on corporate profitability over the period 2005-2011. They gathered data from publicly available financial reports of Jordanian public corporations listed on the Amman Security Exchange, utilizing return on assets as a performance metric and the natural logarithm of assets and revenue as indicators of size.

Through unbalanced panel regression analysis, they found a slight but positive correlation between firm size and profitability.

Similarly, Sritharan (2015) investigated the relationship between company size and profitability. Analyzing data from 2008 to 2012, they focused on 30 listed Sri Lankan enterprises in the hotels and travel sector, employing panel econometric techniques. Size was measured using the log of sales, while return on assets served as a proxy for profitability. The study revealed a favorable impact of firm size on return on assets, indicating a positive correlation with profitability. Additionally, it uncovered a negative relationship between profitability and the total debt ratio.

In a study involving 782 Slovenian fast-growing companies, Močnik and Širec (2015) examined the influence of variables such as firm size, leverage ratio, and labor expenses on profitability. Conducted over two years (2008–2009), the analysis utilized a combination of multiple least square dummy variable regression and ordinary least square regression. Performance and size were assessed using the net income to asset ratio and the logarithm of total assets, respectively. The findings indicated a negative correlation between firm size and profitability.

Micro and Macro level Factors and Firm Performance

Islam and Sahajalal (2021) explored the impact of macroeconomic factors on the profitability of pharmaceutical firms in Bangladesh over the period from 2000 to 2018. Their findings indicated that GDP, inflation, and the real exchange rate had an insignificant but positive effect on profitability, as measured by ROA. However, the interest rate was found to have a significant negative impact on ROA. In contrast, Rezina et al. (2020) discovered that

GDP growth and the real interest rate positively affected profitability (ROA), while inflation negatively impacted profitability.

In a study focusing on the banking sector in Pakistan, Rahman et al. (2020) applied the GMM estimation technique to determine the factors influencing profitability from 2003 to 2017. Their results revealed that interest rates and industrial production had a negative effect on profitability. Similarly, using the GMM approach, Doan (2020) analyzed the profitability determinants of the real estate industry in Vietnam from 2010 to 2018, identifying inflation and economic growth as significant external factors influencing firm profitability growth.

Putra et al. (2021) examined the macroeconomic determinants of profitability for regional development banks in Indonesia from 2012 to 2020. They found that economic growth, inflation, and bank certification had a significant positive effect on profitability. Panda et al. (2021) also noted that changes in economic growth and banks' lending to small-scale industries significantly positively influenced the profitability of small and medium enterprises in India. This study used the feasible generalized least squares estimation technique over the period from 2010 to 2017.

On the other hand, Al-Homaidi et al. (2020) studied the listed commercial banks on the Bombay Stock Exchange in India and found that GDP and inflation significantly negatively affected profitability (ROA). Lastly, Killins (2020) investigated the insurance industry in Canada and found that real GDP growth and equity market returns had a significant impact on profitability.

Benneth and Obinna, (2023) conducts a comprehensive examination of the influence of macro-environmental factors on business performance in Nigeria. Employing a narrative appraisal approach, the study underscores the substantial impact of macro factors on shaping the growth and development of businesses in developing economies like Nigeria. Emphasizing the relevance of the macro-environment to strategic management, the research highlights how businesses adapt to external influences. A noteworthy finding is the evolving role of the government, shifting towards a regulatory function in certain sectors of the economy. The study identifies key macro factors, including high interest and inflation rates, terrorism, cultural and religious considerations, volatile exchange rates, and susceptibility to external shocks, as contributors to escalated business costs and threats to firm performance.

Abaidoo and Agyapong, (2021) investigates the influence of specific micro-level macroeconomic indicators on corporate performance volatility among US corporations in the short run. Using an error correction autoregressive distributed lagged (ARDL) model, the research analyzes how micro-level variables affect volatility associated with corporate performance. The findings reveal that certain disaggregated variables exhibit features not readily apparent in their aggregate counterparts. For instance, growth in expenditures on services and nondurable goods is associated with lower volatility, while government expenditures and expenditures on durable goods worsen volatility. The study also highlights the moderating influence of macroeconomic uncertainty and inflation uncertainty on the relationship between disaggregated variables and corporate performance volatility. Unlike related studies, this research focuses on volatility rather than the corporate

performance indicator itself, considers disaggregated variables, and explores the moderating role of key macroeconomic conditions.

Research Gap

The comprehensive review of existing literature on taxation and firm performance has unveiled several crucial research gaps. Firstly, there exists a lack of consensus in findings, with some studies showing a positive correlation between corporate taxes and profitability while others report insignificant or negative effects (Abiahu & Amahalu, 2017; Adefunke, 2022; Kurawa & Saidu, 2018; Nwaorgu et al., 2020; Ohrn, 2018; Olaoye & Alade, 2019). This inconsistency highlights the need for a broader analysis considering contextual factors and industry specifics to gain a more comprehensive understanding of the taxation-firm performance relationship. Secondly, the majority of studies have focused on cross-sectoral and global perspectives (Assidi et al., 2016; Kakra et al., 2020; Kılıç et al., 2022; Nwaorgu et al., 2020), limiting the scope of research in terms of specific industries and emerging economies.

Chapter Summary

The goal of the chapter was to present a thorough analysis of the theoretical and empirical literature on corporate income tax and firm performance. A clear knowledge of how the resources available to firms affect their performance is provided by the resource-based view of firm performance, which was chosen among the theoretical models of firm performance (Davis & DeWitt, 2021). To further clarify how corporate tax also affects the performance of firms, the expectation theory of taxation was examined (Nwaorgu et al., 2020).

CHAPTER THREE

RESEARCH METHODOLOGY

Introduction

This chapter presents the various procedures to accomplish the research objectives. It begins the research design and approach. This chapter also consists of the discussion of the empirical model specification, types, and source of data with their prescription. The estimation technique that was used is also presented in this chapter.

Research Philosophy

In adopting a positivist research philosophy, this study embraces the belief that objective reality exists independently of human perception and can be discovered through empirical observation and measurement (Bryman, 2015). Positivism emphasizes the use of systematic methods, such as experiments and surveys, to generate quantifiable data that can be analyzed using statistical techniques. By adhering to this philosophy, the research aims to uncover causal relationships between variables, including corporate tax and firm profitability, with the goal of producing generalizable knowledge applicable beyond the specific context of the study. Positivism provides a structured and rigorous framework for investigating complex phenomena, aligning with the study's objective of examining the impact of corporate tax on manufacturing firm profitability through quantitative analysis.

Research Approach

The quantitative research approach employed in this study involves the systematic collection and analysis of numerical data to test hypotheses and answer research questions (Bryman, 2016). Quantitative methods, such as

surveys, experiments, and statistical analysis, are utilized to quantify variables, measure relationships, and identify patterns or trends. This approach emphasizes objectivity, replicability, and generalizability, enabling researchers to draw reliable conclusions based on empirical evidence. By employing quantitative techniques, the study seeks to quantify the effects of corporate tax on manufacturing firm profitability, providing precise estimates of the magnitude and significance of these effects. The quantitative approach facilitates the examination of large datasets, allowing for comprehensive analysis and statistical inference to uncover meaningful insights into the research problem.

Definition and justification of variables

Firm profitability

Return on Assets (ROA) and Return on Equity (ROE) are commonly utilized metrics for assessing firm performance or profitability. ROA evaluates a company's efficiency in generating income from its assets (Kurawa & Saidu, 2018). High ROA values indicate effective use of assets to produce returns. It is calculated by dividing net operating profit by total assets. ROE, on the other hand, measures a firm's ability to generate returns on shareholders' equity (Otwani, Namusonge & Nambuswa, 2017). According to Oyelade (2019), a higher ROE ratio signifies better returns on shareholders' investments and business growth. Additionally, ROE is a critical performance indicator that reflects a company's capability to provide adequate returns to justify the risks undertaken (Gartchie et al., 2013). It is determined by dividing net operating income by shareholders' equity.

The study will make use of ROE as the measure of firms performance as against ROA. The choice of Return on Equity (ROE) as the primary metric for assessing firm performance in the context of corporate tax impact is justified by its direct relevance to shareholder value. Corporate tax is levied on profits that are ultimately distributed to shareholders, aligning with the net income component of ROE. Unlike Return on Assets (ROA), which considers profits in relation to the entire asset base, ROE specifically captures the efficiency of utilizing shareholders' equity to generate returns. This focus on the portion of profits available for distribution to shareholders makes ROE a more suitable measure for evaluating the impact of corporate tax on the financial well-being of the firm from the perspective of investor interests and long-term sustainability (Nwaorgu et al., 2020).

Corporate tax rates

A corporate tax is levied on a corporation's profits, calculated on the taxable income which includes revenues minus the costs of goods sold (COGS), general and administrative expenses, marketing, research and development, depreciation, and other operational expenses. The corporate tax rates differ significantly across countries, with some nations labeled as tax havens due to their minimal tax rates. Corporations can reduce their taxes through various deductions, subsidies, and loopholes, resulting in an effective corporate tax rate that is typically lower than the statutory rate, which is the official rate before deductions (Zhu et al., 2019). Schwellnus and Arnold (2008) investigated the impact of corporate income taxes on profitability and investment—two key growth drivers—in firms across European OECD countries from 1996 to 2004. They found that corporate taxes generally reduce

investment by increasing the user cost of capital, with this trend being consistent across firms of various sizes and ages, except for young and small firms. The study suggests that higher corporate tax rates negatively affect profitability and, consequently, investment levels.

Financial leverage

Hassan and Muniyat (2019) define financial leverage as the ratio of a firm's total debt to its total assets, including long-term liabilities due within the accounting year. Firms with high financial leverage rely more on debt to fund their projects and operations, whereas those with low leverage primarily use retained earnings or equity financing. According to Isik, Unal, and Unal (2017), financial leverage is calculated by dividing total debt by total assets.

Firm Size

Firms have historically aimed to grow in size to gain an edge over their competitors. Theoretical literature has explored the link between firm size and performance using several firm models, including institutional, organizational, and technology models (Hashmi et al., 2020; Isik et al., 2017; Oyelade, 2019; Theory, 2020). But then again, these theories have varying implications for the relationship between firm size and performance. Theoretically, economies of scale are responsible for the association between performance and size (Yang, 2019). Large companies have greater competitive power than small companies in markets where competition is necessary. Due to their larger market share, large businesses have the potential to generate more revenue. Substantial resources also give major firms the opportunity to operate in highly capital-intensive sectors, giving them the chance to do so in less-competitive and perhaps more viable sectors (Balashova & Gromova, 2016). However, even as

their size grows, many corporations continue to operate poorly year after year. Several proxies in different studies have been used in measuring firm size which includes total sales, total assets, number of employees, and market capitalization (Dang, Li & Yang, 2018; Santos, 2019; Auci *et al.*, 2021; Hasanuddin *et al.*, 2021). The natural log of Total asset is adopted as a proxy for firm size in this study.

Liquidity

The firm's ability to continue operations in the very long run is ascertained by how liquid the firm is (Farooq & Bouaich, 2012). In other words, liquidity is described as a company's potential to strategically manage and focus on maintaining an efficient level of current-asset to liability ratio in order for the firm to have a continual flow of cash to satisfy its short-term obligations and hence continue to exist in the foreseeable future. The firms must therefore be sufficiently liquid to fulfill such obligations effectively and efficiently (Mohamad et al., 2019). Various liquidity ratios, such as the cash ratio, current ratio, quick ratio, and defensive interval ratio, are used by firms to manage their short-term obligations (Afyonkarahisar, 2013; Oyelade, 2019; Hassan & Muniyat, 2019; Pervan, Pervan & Ćurak, 2019). The ratio between current assets and current liability is being utilized as liquidity in this work.

Economic Growth

Stability in the macroeconomic environment stimulates growth in the economy at large and hence affects firms performance. The study assesses performance of the economy using the GDP's annual percentage growth rate at market rates based on stable local currency. The values are computed using 2015 constant prices stated in US dollars.

Inflation

Defined as the persistent rise in the price of goods and services, inflation as a macroeconomic economic variable affects the performance of firms through several channels which may be both direct and indirect. Directly, firms do purchase inputs needed for production and an indirect means includes the firm's interaction with financial institutions. Inflation may slow down the performance of firms through financial intermediaries as it will lead to a high cost of borrowing. Inflation distorts the costs of goods and services in an economy because businesses are unsure of the future prices of their products, high inflation deters investment. Inflation, in the opinion of Fischer (1978), increases the unpredictability of the general price level's future direction. In this study, inflation is measured using the consumer price index.

Age

Age within the framework of this study is defined as the number of years from the firm’s existence. Even though some people think that the age of the company should be determined by its listing, according to Shumway, 2001, a firm's age is the duration since its incorporation. That is, a firm is created by incorporation and becomes a legal entity (Dang, Li & Yang, 2018). The age of the firm from the year of its being founded is used by the work to determine the age.

The table below gives a summary of the variables used in the study, their description in terms of the study and the expected outcome of the variable.

Table 1: Variables used and their Expected signs

Variable	Descriptive	Expected sign
Return on Equity		
Inflation	Consumer price index	Positive
GDP	Economic growth rate	Positive
Firm Size	Ln total asset	Positive
Liquidity	t	Positive/Negative
AGE	Age of the firm	Positive
Leverage	total debt/total asset	Negative
Monetary policy	monetary policy rate	Positive/negative
Corporate tax	Income tax / operating income x 100	Negative

Source: Author's compilation (2024)

Model specification

Panel estimation techniques, including pooled OLS, fixed-effects, and random-effects models, were utilized to examine the impact of corporate tax on the profitability of firms in Ghana and its relationship with various control variables. Additionally, dominance analysis was employed to determine the relative importance of the regressors. Based on an empirical review of relevant literature (Berger & Bouwman, 2013; Setiyono & Tarazi, 2018; Kosmidou & Zopounidis, 2008; Ben Slama Zouari & Boulila Taktak, 2014), as well as theoretical literature pertinent to risk disclosure, variables such as monetary policy, leverage, liquidity, GDP growth, firm size, and inflation were included in this study. The panel data approach will allow us to control time-invariant factors that may affect firm profitability, such as industry-specific characteristics, while also capturing the time varying effects of corporate income tax on firm profitability. The choice of the model will be determined based on Hausman tests and diagnostic checks for panel data analysis.

Robustness tests will be conducted, including alternative specifications and instrumental variable regressions, to ensure the reliability of the results. The sample will consist of firms listed on the Ghana Stock Exchange, representing various industries and sectors. A purposive sampling approach will be employed to ensure an adequate representation of different firm sizes, sectors, and levels of profitability. The sample was determined based on the availability of data and the need to ensure statistical robustness.

Based on the empirical review (Berger & Bouwman, 2013; Setiyono & Tarazi, 2018; Kosmidou and Zopounidis, 2008; Ben Slama Zouari & Boulila Taktak, 2014) and also theoretical literature, the baseline model can specify as;

$$Y_{it} = \beta_0 + \beta_1 G_{it} + \beta_2 C_{it} + \varepsilon \quad (1)$$

Where stands for profitability of firms, represent the variable of interest that corporate tax, represents other control variable that are employed in this study, is the constant, represents parameter to be determined and is the error term.

Empirical model specification

From the empirical review, the specification of our empirical model follows (Berger & Bouwman, 2013; Setiyono & Tarazi, 2018; Kosmidou & Zopounidis, 2008; Ben Slama Zouari & Boulila Taktak, 2014). The empirical model is given as:

$$ROE_{i,t} = \alpha_0 + \alpha_1 CRPT_{i,t} + \alpha_2 C_{it} + \varphi_i + \mu_t + \varepsilon_{i,t} \quad i=1,2,3\ldots I, \quad t=1,2,3\ldots\ldots T \quad (2)$$

Where $ROE_{i,t}$ stands for profitability of firms, $CRPT_{i,t}$ represent the variable of interest that corporate tax, C_{it} represents other control variable that are employed in this study, α_0 is the constant, α_1 and α_2 represents parameter to

be determined, φ_i is a country specific unobserved effect, μ_t is a dummy for time-specific effects and $\varepsilon_{i,t}$ is the idiosyncratic error term.

To accomplish objective one, which is to determine the effect of corporate tax on firms' profitability in Ghana. The equations are specified as follows;

$$ROE_{i,t} = \alpha_{10} + \alpha_{11}LiQ_{i,t} + \alpha_{12}CRPT_{i,t} + \alpha_{13}FS_{i,t} + \alpha_{14}lnLEVG_{i,t} + \alpha_{14}AGE_{i,t} + \alpha_{15}GDP_{i,t} + \alpha_{16}MOPL_{i,t} + \alpha_{17}INF_{i,t} + E_t \quad (3)$$

Where, ROE is firm return on assets ROE is return on equity as a proxy for firm performance, is α constant, $LiQ_{i,t}$ stands for Liquidity of a firm at time t, $CRPT_{i,t}$ represents corporate tax for a firm at time t, $LEVG_{i,t}$ stand for Financial Leverage of a firm at time t, $FS_{i,t}$ represent the of firm size at a time t, $AGE_{i,t}$ stands for firm age at time t, $GDP_{i,t}$ stands for firm sale growth at time t, $MOPL_{i,t}$ represent monetary policy of a firm at time t, $INF_{i,t}$ stands for inflation of the firm at time t, E_t is the error term and α_{10}……α_{17} are parameters to be determined.

The achieve the second objective, that is to example the interactive effect corporate tax and firms' size on profitability of firms in Ghana. The equation is specified as follows;

$$ROE_{i,t} = \alpha_{10} + \alpha_{11}LiQ_{i,t} + \alpha_{12}CRPT_{i,t} * \alpha_{13}FS_{i,t} + \alpha_{14}lnLEVG_{i,t} + \alpha_{14}AGE_{i,t} + \alpha_{15}GDP_{i,t} + \alpha_{16}MOPL_{i,t} + \alpha_{17}INF_{i,t} + E_t \quad (4)$$

Data source

The research population is the listed manufacturing firms on the (Ghana Stock Exchange (GSE). Data on corporate income tax payments, financial performance indicators, and other relevant variables will be collected from the financial statements and annual reports of the selected firms.

Additionally, supplementary data on macroeconomic factors are obtained from reputable sources such as the WDI. The data span is from 2006 to 2021.

Table 2: Summary of selected listed firms

Country	Firm	Brief history
Ghana Stock Exchange (GSE)	Camelot Ghana Limited	Camelot Ghana Limited is a Ghanaian company that specializes in security printing, including the design, processing, printing, and finishing of security print orders, business forms, and identity products. The company caters to governmental departments, financial institutions, and multinational organizations in several countries, including Togo, Burkina Faso, Liberia, Benin, Côte d'Ivoire, Ethiopia, Sierra Leone, and Nigeria. Additionally, Camelot Ghana Limited operates a subsidiary that provides services across various countries.
	Alu Works Limited	Aluworks Limited, an aluminium continuous casting and cold rolling mill based in Ghana, provides high-quality aluminium coils, discs, flat sheets, and sheet-in-coil raw materials to small and medium-scale factories throughout the West African sub-region. Since its establishment in 1996, the company has offered technical advice, support, and raw materials for comprehensive production.
	Sam Woode Limited	Sam Wood Limited is a publishing company in Ghana, specializing in educational textbooks, story books, and non-book materials for pre-school and primary schools. The company offers products in various categories, including agency books, agricultural science, and more. Sam Wood Limited also holds exclusive distribution rights for West Africa sub-regions.
	Unilever Ghana PLC	Based in Tema, Ghana, Unilever Ghana Limited is a division of Unilever PLC. The business produces and sells consumer goods like food, housewares, and personal care items. It offers a variety of margarine, spreads, drinks, soups, and snacks in addition to tea, weight-loss goods, and basic foods with improved nutrition. In Ghana, Unilever is also involved in real estate development and investment management.
	Dannex Ayrton	Listed on the Ghana Exchange, Dannex

Starwin PLC	Ayrton Starwin Limited is a pharmaceutical firm in Ghana that sells anti-hypertensives, hematinics, dermatological, antibiotics, dewormers, pain relievers, and anti-inflammatory medications. The Boards of Dannex Ltd, Ayrton Drug Manufacturing Ltd, and Starwin Products Ltd announced on December 19 that they had approved the terms of a proposed merger of the three businesses to be carried out through a Ghanaian Scheme of Amalgamation in accordance with Section 231 of the Companies Act.
Intravenous Infusions PLC	The first pharmaceutical firm in Ghana to produce intravenous fluids was Intravenous Infusions Limited (IIL), which was founded in 1969 and started operating in 1974. The primary commercial endeavour of IIL is the manufacture of therapeutic intravenous infusions. The delivery of fluids, medications, or blood directly into the circulatory system through a vein is known as intravenous infusion therapy, or IV. On the Ghana Stock Exchange, Intravenous Infusions Limited is listed.

Source: GSE, (2024)

Post-estimation test

In deciding between the fixed and random effect models, we specify the hypothesis for the Hausman test as bellow:

: The preferred model is the random effect.

: The preferred model is the fixed effect.

Chapter Summary

In this chapter, the research method approach used to conduct this study was explained. It displays the data source and sample selection process. The quantitative method of analysis was used in the study. Profitability of firms and corporate tax served as the main variable of interest, firm size, liquidity, monetary policy, financial leverage, age of firms' economic

growth, inflation, were employed as control variables to explain the effect of corporate tax on firms' performance in Ghana, deploying the static model such fixed and random effect as well as the pooled OLS as a technique.

CHAPTER FOUR

RESULTS AND DISCUSSIONS

Introduction

The primary goal of this research is to investigate the relationship between corporate taxation and firm performance. The study's specific goal is to investigate the impact of corporate tax on firm performance, as well as how firm size interacts with corporate tax to influence firm performance. The chapter is divided into two sections: the first presents summary statistics and correlation analyses, while the second discusses the estimation results.

Descriptive statistics

Table 4 provides a comprehensive set of summary statistics for the variables under consideration, making it easier to assess the dataset's statistical distribution. The descriptive statistics provide relevant information about the study's variables, such as total observations, mean, standard deviation, and the range represented by minimum and maximum values. Table 4 clearly presents the numerical details required for understanding the variables' characteristics.

Table 3:Summary Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Return on equity	107	1.109	34.556	-144.8	64.656
Corporate tax	111	4.822	23.403	-89.236	81.312
Firm size	111	0.804	0.535	0.000	1.258
Leverage	110	4.442	20.534	-15.670	199.131
Liquidity	100	1.407	2.521	-0.923	13.258
Age Listed	111	12.635	7.492	1.562	28.000
Inflation	111	30.445	27.704	4.865	122.875
GDP growth	110	3.799	4.500	-12.432	14.047

Source: Author’s Computation (2024)

Return on Equity (ROE) is an essential indicator used to evaluate a company's financial performance, denoting the profitability generated by shareholders' equity. In the study of Ghanaian manufacturing firms from 2006 to 2021, the ROE fluctuates between -144.8 to 64.656 Ghana cedis. The negative values represent instances in which the firm incurred more losses than gains, indicating fiscal challenges. On the plus side, the ROE values indicate that, on average, for every one Ghana cedi of shareholder equity, the firms earned 1.109 Ghana cedis in profit after tax. This denotes a positive return, implying that the firms generated profits relative to their equity. The wide range of ROE values suggests that the studied manufacturing firms had varying financial performance, with some making significant gains and others losing substantial funds during the study period.

Corporate tax data for the studied manufacturing firms in Ghana show a range of -89.236 to 81.312, with an average taxation rate of 4.822 and a deviation from the mean of 23.403. The negative values in the tax range indicate that some firms may have received tax credits or exemptions, resulting in a lower tax liability or possibly no tax payments. On average, the positive mean value of 4.822 indicates that the sample has a net positive corporate tax rate. However, the large standard deviation of 23.403 indicates significant variation in corporate tax rates among firms. This suggests that some companies may be receiving tax breaks or facing lower tax burdens, while others may be subject to higher tax rates, contributing to the overall disparity in corporate tax data. The wide range and standard deviation highlight the diversity of tax implications for the manufacturing firms in the study.

The liquidity analysis for the selected manufacturing firms in the country reveals a mean liquidity value of 1.407, with a standard deviation of 2.521. The range of liquidity spans from a minimum of -0.923 to a maximum of 13.258. A positive mean value suggests that, on average, the manufacturing firms maintain a reasonable level of liquidity. However, the relatively high standard deviation of 2.521 indicates considerable variability in liquidity levels among these firms. The liquidity range, extending from negative values to a maximum of 13.258, signifies diverse financial positions within the sample. Some firms may experience periods of tighter liquidity, potentially facing challenges in meeting short-term obligations, while others exhibit higher liquidity, indicating a more comfortable financial position. Overall, the liquidity data underscores the heterogeneity in the financial liquidity positions of the manufacturing firms in the study.

The analysis of firm size for manufacturing firms in the country yields an overall mean value of 0.804, with a variance of 0.535. Within the country, firm sizes range from the smallest recorded value of 0.000 to the largest value of 1.528. The average value of 0.804 indicates that the manufacturing firms in the study are moderately sized. The variance of 0.535 indicates some degree of variability or dispersion in firm sizes across the sample. The range of 0.000 to 1.528 demonstrates the diversity of manufacturing firm sizes, with some being smaller (closer to 0.000) and others being larger (closer to 1.528).

The analysis of the annual percentage increase in Gross Domestic Product (GDP) reveals an average value of 3.799. This measure falls within a range spanning from -12.432 to 14.047, indicating the variability in the annual growth rates of GDP. The observed variability is quantified by a standard

deviation of 4.500, emphasizing the fluctuation or dispersion in the GDP growth rates across the studied period. The positive mean value of 3.799 implies an overall average positive growth rate in GDP, suggesting economic expansion during the assessed time frame. However, the range from negative values to positive values underlines the diverse economic conditions experienced, with some periods witnessing economic contractions (negative growth) and others experiencing expansion (positive growth). This variability provides insights into the dynamic nature of economic activity, capturing both favorable and challenging periods within the studied context.

The computed mean inflation for the region is 30.445 percent, which represents the average inflation rate as a percentage of GDP. The large standard deviation of 27.704 indicates a high degree of variability in inflation rates across the region during the observed period. The maximum value of 122.875 indicates instances of extremely high inflation, whereas the minimum value of 4.865 indicates periods of relatively low inflation rates. This wide range reflects the diverse inflationary pressures felt throughout the region. The findings highlight economic variations, with some periods experiencing elevated inflationary trends, potentially affecting purchasing power and economic stability, while others show more moderate inflationary conditions. The CPI is a useful metric for measuring price fluctuations and providing insights into the economic landscape's inflation dynamics.

The study reveals that among the manufacturing firms in Ghana, the recorded age spans from a minimum of 2 years to a maximum of 28 years. The average age of these firms across the country is 13 years, with a standard deviation of 7.492. This implies that, on average, the manufacturing firms in

the study have been in operation for a significant period, contributing to an established industry presence. Intuitively, the age of a firm can be associated with certain advantages. Older firms often benefit from accumulated experience, industry knowledge, and established relationships. They may have developed specialized expertise, fine-tuned operational processes, and fostered brand recognition over time. Additionally, as firms age, they may achieve economies of scale, allowing them to optimize production and reduce costs. Holding other factors constant, the study's findings suggest that older manufacturing firms may leverage their experience and industry standing to potentially enhance their financial performance. The variation in age, as indicated by the standard deviation, reflects the diversity in the age distribution of manufacturing firms in Ghana, capturing both relatively young and well-established entities in the sector.

Correlation Analysis

Table 5 displays the relationship between the study's variables. The correlation matrix helps to determine whether or not there is multicollinearity among the variables. The correlation between ROE and firm size, leverage, GDP, and inflation is positive. This demonstrates that an increase in each of the variables improves firm performance. Foreign direct investment, firm age, liquidity, and corporate tax are negative and significantly correlates with Return on equity (ROE). This means that as each of these variables rises, the performance of the country's firms declines. The correlation table results show that there is no multicollinearity between ROE and the study's variables.

Table 4: Pairwise Correlation Coefficient Matrix

Variables	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
(1) ROE	1.000								
(2) Corporate tax	-0.010	1.000							
	(0.924)								
(3) firm size	0.035	0.116	1.000						
	(0.732)	(0.262)							
(4) LEVERAGE	0.002	0.277	0.137	1.000					
	(0.987)	(0.006)	(0.182)						
(5) LIQUIDITY	-0.281	-0.296	0.353	-0.041	1.000				
	(0.006)	(0.003)	(0.000)	(0.691)					
(6) age Listed	-0.113	-0.036	0.406	-0.001	0.428	1.000			
	(0.271)	(0.724)	(0.000)	(0.989)	(0.000)				
(7) Inflation	0.070	0.076	0.096	0.041	-0.036	0.140	1.000		
	(0.498)	(0.463)	(0.354)	(0.693)	(0.726)	(0.174)			
(8) GDP growth	0.004	-0.109	-0.154	-0.007	0.037	-0.108	-0.401	1.000	
	(0.969)	(0.291)	(0.133)	(0.946)	(0.720)	(0.295)	(0.000)		
(9) FDI	-0.158	-0.238	-0.131	-0.061	0.073	0.160	-0.411	0.396	1.000
	(0.124)	(0.020)	(0.202)	(0.557)	(0.482)	(0.120)	(0.000)	(0.000)	

Source: Author`s Computation (2024)

Test for Multicollinearity

Table 6 depicts the test for multicollinearity between the variables. A mean Variance Inflation Factor (VIF) of 1.360 in a regression analysis indicates that the predictor variables have low levels of multicollinearity. This average VIF indicates that the variance of the estimated regression coefficients is only about 1.36 times greater than if the variables were completely uncorrelated. The low mean VIF value is favorable, indicating that the estimated coefficients are stable and have lower standard errors, improving the regression model's interpretability. Overall, a mean VIF of 1.360 is considered favorable, indicating that multicollinearity is not a major concern across the predictor variables in your regression model.

Table 5: Variance inflation factor test of multicollinearity

	VIF	1/VIF
Liquidity	1.896	0.527
Leverage	1.601	0.624
logagefounded	1.484	0.674
logfirmsize	1.451	0.689
Corporate Tax	1.043	0.959
Inflation	1.027	0.974
gdpgrowth	1.020	0.981
Mean VIF	1.360	.

Source: Author's Computation (2024)

The Hausman Test

The fixed effect, random effect and the pooled OLS were used to estimate the first and second objectives. This was done to ensure that the unobserved cross-sectional and temporal effects were not related to the error term. The Hausman cross-sectional dependence test was used to accomplish this. The Hausman test is a popular method in empirical panel data analysis for

distinguishing between fixed and random effects models. The hausman test is performed under the null hypothesis that the estimation residuals correlate with the unobserved cross-sections. If the probability value is significant in both models, fixed effect estimates are preferred over random effect estimates.

Table 6: Regression of Corporate Tax on Firm Performance

Variables	Pooled	Fixed effect	Random effect
Corporate Tax	-0.0001*	-0.0001*	-0.0001**
	(0.0000)	(0.0000)	(0.0000)
Inflation	-0.0060**	-0.0054*	-0.0060**
	(0.0028)	(0.0022)	(0.0028)
GDP	0.4393**	0.3943	0.4393**
	(0.1985)	(0.1616)	(0.1985)
Leverage	-0.0106**	-0.0057	-0.0106**
	(0.0054)	(0.0055)	(0.0054)
Liquidity	0.1107*	0.2437**	0.1107*
	(0.0632)	(0.1025)	(0.0632)
Firm Size	0.1687	0.3810	0.1687
	(0.2485)	(0.2812)	(0.2485)
Age of the firm	0.0200	0.0147	0.0200
	(0.0406)	(0.0511)	(0.0406)
Constant	-0.4608	-0.7974**	-0.4608
	(0.4285)	(0.4617)	(0.4285)
N	**95**	**95**	**95**
Hausman		**0.013**	

Source Author`s Computation (2024) *** p<.01, ** p<.05, * p<.1*

The Table 6 presents the regression analysis of the effect of corporate tax on Return on Equity (ROE) using three different estimation techniques: Pooled OLS, Random Effect, and Fixed Effect. Random Effect assumes that the individual effects (example, effects of different firms in this case) are uncorrelated with the regressors. It generally yields efficient estimates if the individual effects are indeed random. However, it might be less efficient if the

individual effects are correlated with the independent variables. Fixed Effect accounts for individual-specific effects, assuming that these effects are constant over time. It's robust to unobserved individual heterogeneity but can be less efficient if the individual effects are not truly fixed. Based on the Huasman test, the fixed effect is considered over the random effect and hence all discussions are done in reference to the fixed effect result.

The regression analysis reveals a significant finding concerning the relationship between corporate tax and the financial performance of firms. The coefficient of corporate tax, estimated at -0.0001, indicates a negative association between corporate tax rates and financial performance. This negative coefficient suggests that, on average, a one-unit increase in corporate tax is associated with a decrease of 0.0001 units in financial performance. The statistical significance at the 10% level underscores the reliability of this result, implying that this relationship is unlikely to be a chance occurrence. The standard deviation of 0.0000 suggests minimal variability in the estimated coefficient, reinforcing the precision of the result. Interpreting this result intuitively, the negative coefficient implies that higher corporate tax rates are linked to lower financial performance among the sampled firms. This aligns with classical incidence theory, which posits that higher tax burdens can adversely impact a company's net income, potentially hindering its overall financial performance. According to classical tax incidence theory, the economic burden of taxes, regardless of whether they are levied on individuals or corporations, is primarily borne by the factors of production, ultimately affecting economic outcomes. In the context of corporate taxation, the theory implies that when corporations face higher tax rates, the economic burden is

likely to be shifted to various stakeholders, such as shareholders, employees, and consumers. Higher corporate taxes can lead to a reduction in net income, limiting the resources available for investment, expansion, and overall business operations. This, in turn, may impact a firm's financial performance negatively.

The significance at the 5% level enhances the credibility of this insight, indicating that this negative association is not a random outcome. This result suggests that, within the given context, firms facing higher corporate tax rates may experience a more pronounced decline in financial performance. In the context of existing literature, this finding resonates with studies that have highlighted the potential negative impact of high corporate tax rates on firm profitability. Scholars such as Adefunke, (2022) and Abiahu and Amahalu, (2017) have emphasized the adverse effects of corporate taxation on net income and, consequently, on overall financial performance. However, it is crucial to acknowledge that individual firm characteristics, industry dynamics, and broader economic conditions can influence the relationship between corporate tax and financial performance.

The regression analysis results indicate that the coefficient of firm size in relation to financial performance is 0.3810. However, it is noteworthy that this coefficient is not statistically significant at conventional levels, given the standard deviation of 0.2812. In practical terms, a coefficient of 0.3810 suggests a positive relationship between firm size and financial performance. This means that, on average, an increase in the size of the firm is associated with a corresponding increase in financial performance, holding other factors constant. However, the lack of statistical significance implies that we cannot

confidently conclude that this relationship is not due to random chance. The non-significant result could be attributed to several factors. It might be that firm size, as measured in the model, does not have a substantial impact on financial performance within the studied sample. Alternatively, other unaccounted-for variables or complexities in the data may be influencing the relationship. While the empirical results do not provide statistically significant evidence supporting this relationship, the theoretical underpinning of economies of scale offers a plausible explanation for the positive coefficient. It suggests that, in practice, larger firms might still benefit from scale-related advantages even if these benefits are not robustly captured in the specific model used for the analysis. Demirgüç-Kunt, S., and Maksimovic, V. (1983) provides evidence that larger firms have greater economies of scale, lower costs, and greater market power, which can lead to higher profits and overall performance. The study contradicts the work of Digdowiseiso and Cindy, (2022) but in line with that of Sritharan, (2015).

Leverage, as measured by the ratio of total debt to total assets, has a negative impact on firm performance, as indicated by the coefficient of -0.0106. This result is statistically significant at the 5% level, with a p-value of 0.000. This signifies that an increase in leverage will reduce firm performance by approximately 0.0106. This finding aligns with the pecking order theory, which posits that firms prefer internal financing over external financing. When firms resort to external financing, especially through debt (leverage), it may indicate that internal resources are insufficient or perceived as more expensive (Frank et al., 2020). This reliance on external debt can lead to financial distress costs, such as interest payments and potential bankruptcy risks,

ultimately affecting financial performance negatively. This finding is consistent with Ullah and Bagh, (2019) who investigated the effect of firm size, leverage, and liquidity on firm performance in Ghana and concluded that larger firms, lower leverage, and higher liquidity are significant determinants of firm performance in Ghana. that provides evidence that higher leverage leads to higher financing costs, which can reduce profits and negatively affect firm performance.

Liquidity, as measured by the current ratio, has a positive effect on firm performance, as indicated by the coefficient of 0.1107. This result shows that an increase in firm liquidity will increase firm performance by 0.1107. This result is statistically significant at the 5% level. This finding is against the theoretical prediction that lower liquidity can lead to higher financing costs, which can reduce profits and negatively affect firm performance but instead higher liquidity allows a firm to meet its short-term obligations, seize investment opportunities, and navigate financial distress without resorting to costly external financing. This can contribute to improved financial performance by reducing financial constraints and enhancing flexibility. The study is contrary to the findings of , Li et al., (2020) who investigate the Liquidity and Firms' Financial Performance Nexus and provided evidence that lower liquidity can lead to higher financing costs, which can reduce profits and negatively affect firm performance.

The coefficient of 0.0147 for the age of the firm, while statistically insignificant, suggests a marginal positive association between the age of the firm and financial performance. The lack of statistical significance may indicate that age alone does not have a substantial impact on financial

performance. Intuitively, this result may be explained by considering that the age of a firm might not be a standalone predictor of financial success. While older firms may benefit from accumulated experience, established reputations, and customer loyalty, these factors alone may not guarantee superior financial performance. Other dynamic variables and strategic management decisions could play a more influential role in determining a firm's financial outcomes. From a theoretical perspective, this finding aligns with the Institutional Theory. According to this theory, organizations, including firms, conform to established norms, routines, and structures as they age. However, the theory also acknowledges that adherence to institutionalized practices may not always result in improved performance. In other words, age alone does not guarantee success; firms must adapt and innovate to stay competitive and achieve financial excellence.

Inflation, as measured by the consumer price index, has a negative impact on firm performance, as indicated by the coefficient of -0.0060. This result is statistically significant at the 5% level indicating that a percentage increase in inflation is associated with a reduction in firm performance by approximately 0.0060. This finding is consistent with Aggrey et al., (2022) who provide evidence that higher inflation can lead to higher costs, lower profits and overall performance for firms in Ghana, which can negatively affect economic growth and development. GDP growth, has a positive impact on firm performance, as indicated by the coefficient of 0.4393. This result is not statistically significant. This finding is consistent with the theoretical prediction that higher GDP growth can lead to greater demand, lower costs, and higher profits for firms.

Overall, these results suggest that corporate tax, firm size, leverage, liquidity, age of firms, inflation, and GDP growth are important determinants of firm performance in Ghana. Policymakers in Ghana can use these findings to design tax policies, financial policies, and economic policies that promote firm performance and economic growth.

Table 7: The interactive effect of corporate tax and firm size on firm performance

Variables	Pooled	Fixed effect	Random effect
Corporate Tax	0.0001*	0.0015	0.0001
	(0.0034)	(0.0029)	(0.0035)
Tax*Size	-0.0000*	-0.0001*	-0.0000*
	(0.0001)	(0.0001)	(0.0001)
Inflation	-0.0060**	-0.0051**	-0.0060**
	(0.0028)	(0.0023)	(0.0028)
GDP	0.4361**	0.3744**	0.4361**
	(0.2035)	(0.1661)	(0.2035)
Leverage	-0.0107**	-0.0050	-0.0106**
	(0.0055)	(0.0055)	(0.0055)
Liquidity	0.1109*	0.2491**	0.1109*
	(0.0636)	(0.1035)	(0.0636)
Firm Size	0.1681	0.3632	0.1681
	(0.2500)	(0.2842)	(0.2500)
Age of the firm	0.0231	0.0266	0.0232
	(0.0557)	(0.0556)	(0.0557)
Constant	-0.4621	-0.7777	-0.4621
	(0.4312)	(0.4650)	(0.4312)
N	**95**	**95**	**95**

Source Author`s Computation (2024)

The regression results presented above provide insights into the relationship between corporate tax, firm size, and firm performance in Ghana. The study's dependent variable is return on assets (ROE), and the independent

variables include the interactive term (corporate tax # firm size), corporate tax, firm size leverage, liquidity, age of the firm, inflation, foreign direct investment (FDI), and GDP growth.

The study identifies a noteworthy negative interactive relationship between corporate tax and firm size concerning ROE (p-value = 0.039). The interaction term's coefficient is negative and statistically significant in elucidating the connection between corporate tax and firm performance. To delve deeper into this outcome, an examination of the partial effect is necessary to understand how firm size moderates the impact of corporate tax on firm performance.

With an average firm size of 0.804, an increase in corporate tax is projected to boost firm performance by approximately 0.3631196. This suggests that a percentage rise in corporate tax would correspond to roughly a 0.3631196 percent increase in firm performance within the specified region, considering the average firm size of 0.804. This underscores the substantial influence of firm size on firm performance, both as an independent variable and as a positive influencer of corporate tax, which can impede firm performance. This observation aligns with prior research indicating that smaller firms might exhibit greater sensitivity to changes in tax policy due to resource constraints and heavier reliance on internal funding (Olaoye & Alade, 2019). The findings also advocate for policymakers to consider the interplay between corporate tax and firm size when formulating tax policies aimed at fostering economic growth and societal well-being. Conceptually, this discovery resonates with the Resource-Based View (RBV) theory, which posits that firms equipped with valuable, rare, and difficult-to-replicate

resources can attain sustained competitive advantages. In the context of this investigation, the interaction between corporate tax (a contextual factor) and firm size (a resource-related factor) suggests that larger firms may possess the resources and capabilities to effectively navigate the impact of corporate tax on financial performance.

Beyond these factors, the study incorporates controls for inflation, GDP growth, firm age, liquidity, leverage, and a constant term. The findings reveal a significant negative impact of inflation on ROE (p-value = 0.007), consistent with existing literature on the relationship between inflationary uncertainty and financial distress (Bhattacharya & Davidson, 1978; Easterbrook & Healy, 1988). GDP demonstrates a significant positive effect on ROE (coefficient = 0.3744), in line with prior research indicating that economic expansion may necessitate higher returns owing to growing demand (Buckley et al., 2017; Kostecki et al., 2014). Notably, the age of the firm does not exhibit a significant effect on ROE in this study.

The findings suggest that there is no substantial correlation between corporate tax and ROE. This outcome is in line with prior research conducted in developing nations, which has yielded varied findings regarding the impact of corporate tax on firm performance (Adewumi et al., 2019; Adeleke et al., 2019). While some studies propose that elevated corporate tax rates might deter investment and diminish profitability, others argue that tax revenues can be channeled towards financing infrastructure and other public goods that ultimately benefit firms (Bird & Winkler, 2015).

Conversely, the study reveals a notable positive association between firm size and ROE (0.3632). This aligns with the literature on economies of

scale and scope, which posits that larger firms can effectively leverage economies of scale in their production and marketing endeavors (Baumol & Baumol, 1990). Additionally, larger firms may wield greater negotiating power with suppliers and customers, potentially leading to enhanced profitability (Teece, 1986).

Furthermore, the research uncovers a significant negative relationship between leverage and ROE. A unit increase in leverage corresponds to a decrease in firm performance by 0.0050. This finding resonates with the literature on financial distress and bankruptcy, which suggests that excessive debt levels heighten the risk of default and diminish profitability (Easterbrook & Healy, 1988). Firms burdened with high debt may also contend with elevated interest payments and reduced flexibility in reacting to unforeseen circumstances (Bhattacharya & Davidson, 1978).

Moreover, the study identifies a significant positive correlation between liquidity and ROE. An uptick in firm liquidity is associated with a rise in firm performance by 0.2491. This result mirrors the insights from the literature on liquidity management and working capital efficiency, indicating that firms endowed with ample liquidity may harness higher returns by deploying surplus cash into lucrative ventures or trimming financing expenses (Kim & Kim, 2016). Conversely, firms grappling with low liquidity levels may face elevated financing costs or be compelled to offload assets at discounted rates to meet short-term obligations (Khanna & Palia, 1992).

Chapter Summary

The chapter provides an overview of the summary statistics of the variables employed. It also outlines the results of the Pearson correlation

analysis, VIF test, Heteroscedasticity test, post-diagnostic tests, and findings derived from the regression model utilized to examine how corporate tax impacts the financial performance of manufacturing firms listed on the Ghana Stock Exchange. The first objective underscores a significant adverse impact of corporate tax on firm financial performance, while the second objective highlights that, on average firm size, an increase in corporate tax tends to positively influence firm financial performance.

CHAPTER FIVE

SUMMARY, CONCLUSIONS, AND RECOMMENDATION

Introduction

This section of the research is organised into three sections. The first part gives a synopsis of the research findings so far. The second part of this section draws conclusions based on the summary of findings. The last part provides perspectives on both the policy and practice implications by providing some suggestions to aid policy directions as well as practice. Equally provided sub-section are the future areas for research.

Summary of findings

In essence, the study aimed to address two primary objectives. Firstly, it uncovered a notable inverse association between corporate tax and firm performance, as evidenced by a coefficient of -0.0001, indicating that an uprise in corporate tax correlates with a decline in firm performance. This observation resonates with the notion that heightened tax obligations may lead to diminished financial performance among firms. Importantly, this coefficient achieved statistical significance at the 5% level, bolstering the credibility of this correlation.

Transitioning to the second objective, the research delved into the interactive interplay between firm size and corporate tax concerning firm performance. The noteworthy positive marginal effect of 0.3631196 observed in this interaction suggests that as firms expand in size, the influence of corporate tax on firm performance becomes more prominent. This outcome aligns with the Resource-Based View (RBV) theory, which suggests that larger

firms may possess the necessary resources and capabilities to effectively navigate the impact of corporate tax on financial performance.

In conclusion, the study offers valuable insights into the complex relationship between corporate tax, firm size, and firm performance. The findings underscore the significance of not only examining individual factors but also understanding their interactive effects to obtain a comprehensive understanding of the dynamics influencing financial performance in the corporate realm.

Conclusion

The research delved into the interplay of corporate tax, firm size, and their collective influence on firm performance. The findings unveiled a significant adverse correlation between corporate tax and firm performance, indicating that heightened tax burdens correlate with reduced financial performance. This finding resonates with established theories underscoring the detrimental impact of increased taxation on corporate profitability.

Furthermore, the examination of the interactive relationship between firm size and corporate tax revealed a notable positive marginal effect. This suggests that as firms increase in size, the impact of corporate tax on performance becomes more pronounced. The Resource-Based View theory lends theoretical backing to this observation, proposing that larger firms possess the necessary resources and capabilities to navigate the challenges posed by corporate tax burdens.

These results contribute to the existing knowledge base, underscoring the importance of understanding the interplay between tax policies, firm attributes, and financial outcomes. As policymakers and business leaders

navigate the intricate terrain of corporate taxation, these insights underscore the necessity for tailored strategies that consider the size and inherent capabilities of firms. Ultimately, this study offers valuable insights for academics, practitioners, and policymakers seeking to deepen their understanding of the multifaceted factors shaping firm performance in corporate finance.

The outcomes of this study suggest that policymakers in Ghana should take into account the adverse impact of corporate tax on firm performance when formulating tax policies. Elevated corporate taxes may lead to diminished profits and overall performance for firms, potentially impeding economic growth and development. Policymakers should also factor in the significance of firm size, leverage, liquidity, firm age, inflation, foreign direct investment (FDI), and GDP growth in fostering firm performance and economic advancement.

Recommendations

Based on the results of this study, policymakers in Ghana can consider the following policy recommendations:

Reduce corporate taxes: In order to bolster firm performance and ignite economic growth, a timely reduction in corporate taxes emerges as a compelling policy recommendation as indicated by the findings of the study. Lower corporate taxes have the potential to amplify profits for businesses, attracting increased investment, fostering job creation, and propelling overall economic development. This strategic move not only enhances the financial health of corporations but also positions the economy as a more attractive destination for both domestic and international investors. The resulting

infusion of capital not only stimulates business expansion but also addresses unemployment concerns, contributing to broader socio-economic stability. Beyond immediate business benefits, a reduction in corporate taxes aligns with national interests, fortifying global competitiveness and laying the groundwork for a resilient and inclusive economic landscape. This policy proposal advocates for a precise approach that not only supports businesses but also strategically positions the economy for sustained prosperity amidst the complexities of the evolving global economic landscape.

Promote firm size: To stimulate economic vitality and fortify overall business performance, policymakers should earnestly contemplate the enactment of initiatives geared towards promoting firm size as it is seen from the result that increasing firm size increases the performance of firms. This entails facilitating improved access to finance, mitigating regulatory barriers, and fostering an environment conducive to entrepreneurship. The intrinsic benefit of cultivating larger firms lies in their potential to harness economies of scale, resulting in lowered costs, heightened efficiency, and augmented market power. By creating an ecosystem that nurtures the growth of businesses, policymakers can unleash a domino effect, wherein larger firms contribute not only to their individual success but also to the broader economic landscape. The proposed strategies aim to pave the way for a thriving business environment, unleashing the full potential of economies of scale, driving down costs, and ultimately culminating in elevated profits and enhanced overall economic performance.

Manage leverage and liquidity: Effectively managing leverage and liquidity emerges as a critical policy recommendation, requiring policymakers

to implement strategic measures that include increased access to finance, the promotion of financial literacy, and the reduction of regulatory barriers. A prudent approach to leverage and liquidity is critical, as increased leverage and decreased liquidity can result in higher financing costs and undermine overall firm performance. Policymakers can reduce the risks associated with excessive leverage and insufficient liquidity by creating an environment that promotes financial literacy, streamlines regulatory processes, and makes access to finance easier. This refined strategy not only protects individual firms' financial health, but also strengthens the overall economic landscape, ensuring long-term performance and vitality in the face of volatile market conditions.

In Ghana, a strategic approach to policymaking is imperative, emphasizing the need to implement measures that foster both firm performance and economic growth. While recognizing the positive impact of policies conducive to business development, it is crucial for policymakers to acknowledge the potential adverse effects of corporate taxes on firm performance. By enacting policies that specifically target the identified determinants of firm performance, policymakers can create an environment that nurtures economic development and enhances the overall performance of firms in Ghana. This holistic approach aligns with the broader goal of fortifying the economic landscape, ensuring sustained growth, and fostering a conducive ecosystem for firms to thrive and contribute significantly to the country's economic prosperity.

Suggestions for Future Studies

Future research holds promising avenues for exploration in multiple domains. Firstly, an extensive global comparative study could be undertaken

to examine and compare findings across countries characterized by diverse tax regimes and economic conditions. This comparative analysis seeks to unravel how variations in global tax policies interact with distinctive firm characteristics, thereby influencing the overall performance of businesses. Such cross-country investigations would provide valuable insights into the complex interplay between tax policies and firm dynamics on a global scale.

Another critical dimension for future research involves complementing quantitative findings with qualitative research methodologies. This qualitative approach aims to delve into the intricate perspectives of businesses, offering a more profound understanding of how firms perceive and respond to corporate tax policies. By capturing the nuanced viewpoints and adaptive strategies employed by businesses, qualitative research can enrich our comprehension of the multifaceted dynamics inherent in the relationship between corporate taxation and firm performance.

Lastly, a vital area for future exploration is policy impact assessment. Researchers could engage in systematic evaluations to assess the actual impact of specific tax policies on firms, encompassing a thorough examination of both intended and unintended consequences. Collaborating closely with policymakers and industry stakeholders will be essential to ensure a comprehensive and realistic appraisal of the tangible repercussions of tax-related decisions. This meticulous assessment of policy impacts is crucial for informing evidence-based decision-making, enhancing the effectiveness of tax policies, and fostering a more resilient and adaptive business environment.

REFERENCES

Abaidoo, R., & Agyapong, E. K. (2021). *Corporate Performance Volatility : A Micro-Level Perspective*. *1*(1), 42–63.

Abdi, Y., Li, X., & Càmara-Turull, X. (2022). Exploring The Impact Of Sustainability (Esg) Disclosure On Firm Value And Financial Performance (Fp) In Airline Industry: The Moderating Role Of Size And Age. *Environment, Development And Sustainability*, *24*(4), 5052–5079. Abiahu, M.-F. C., & Amahalu, N. N. (2017). Effect Of Taxation On Dividend Policy Of Quoted Deposit Money Banks In Nigeria (2006-2015). *International Journal On Management Science*, *2*(3), 1–30.

Adefunke, A. B. (2022). Impact Of Company Income Tax On Corporate Profitability In Nigeria. *Indian Journal Of Finance And Banking*, *9*(1), 104–114. Afyonkarahisar, B. (2013). *Does Firm Size Affect The Firm Profitability ? Evidence From*. *4*(4), 53–60.

Aggrey, G. A. B., Kusi, L. Y., Afum, E., Osei-Ahenkan, V. Y., Norman, C., Boateng, K. B., & Amponsah Owusu, J. (2022). Firm Performance Implications Of Supply Chain Integration, Agility And Innovation In Agri-Businesses: Evidence From An Emergent Economy. *Journal Of Agribusiness In Developing And Emerging Economies*, *12*(2), 320–341. H

Assidi, S., Aliani, K., & Omri, M. A. (2016). Tax Optimization And The Firm's Value: Evidence From The Tunisian Context. *Borsa Istanbul Review*, *16*(3), 177–184.

Auci, S., Barbieri, N., Coromaldi, M., & Michetti, M. (2021). *Climate Variability , Innovation And Firm Performance : Evidence From The European*. *48*(September), 1074–1108.

Augustine Nwaorgu, I., Oyekezie, K. S., & Chidoziem Abiahu, M.-F. (2020). Effect Of Corporate Tax On Sustainable Financial Performance Of Listed Firms In Nigeria. *Journal Of Taxation And Economic Development Issn 1118-6017*, *19*(1), 50–63.

Awuah-Werekoh, K. (2012). Theory And Methods In Social Research. In *Educational Research And Evaluation* (Vol. 18, Issue 4).

Balashova, E. S., & Gromova, E. A. (2016). Resource-Based View As A Perspective Management Model In Russian Reality. *Problems And Perspectives In Management*, *14*(2).

Ben Slama Zouari, S., & Boulila Taktak, N. (2014). Ownership Structure And Financial Performance In Islamic Banks: Does Bank Ownership Matter? *International Journal Of Islamic And Middle Eastern Finance And Management*, *7*(2), 146–160. Benneth, K., & Obinna, H. (2023). *The Impact Of Macro-Environmental Factors On Business Performance*. *December*.

Berger, A. N., & Bouwman, C. H. S. (2013). How Does Capital Affect Bank Performance During Financial Crisesα. *Journal Of Financial Economics*, *109*(1), 146–176.

Bhattacharya, A. (2010). Expectancy Theory. *Nature*, *464*(7287), 456.

Chen, Y., Ge, R., Louis, H., & Zolotoy, L. (2019). Stock Liquidity And Corporate Tax Avoidance. *Review Of Accounting Studies*, *24*(1), 309–340.

Daneshfar, A. (2000). Expectancy Theory, Profit Sharing Plans And Accounting Information. *Angewandte Chemie International Edition, 6(11), 951–952.*, *7*(2), 5–24.

Dang, C., (Frank) Li, Z., & Yang, C. (2018). Measuring Firm Size In Empirical Corporate Finance. *Journal Of Banking And Finance*, *86*, 159–176.

Delmar, F., Davidsson, P., & Gartner, W. B. (2016). Arriving At The High-Growth Firm. *Journal Of Business Venturing*, *18*(2), 189–216.

Determinants Of Firm Performance : (2016). *9*(1), 53–69.

Digdowiseiso, K., & Cindy, S. R. (2022). The Influence Of Corporate Social Responsibility, Company Size, And Profitability On The Value Of Mining Sector Companies For The 2016-2020 Period. *Budapest International Research And Critics Institute-Journal (Birci-Journal)*, *5*(2), 11129–11141.

Farooq, O., & Bouaich, F. Z. (2012). Liquidity And Firm Performance: Evidence From The Mena Region. *International Journal Of Business Governance And Ethics*, *7*(2), 139–152.

Frank, M. Z., Goyal, V. K., & Shen, T. (2020). The Pecking Order Theory Of Capital Structure: Where Do We Stand? *Ssrn Electronic Journal*, 1–42. Https://Doi.Org/10.2139/Ssrn.3540610

Gartchie, J., Gameli, S., & Kwabla, H. (2013). The Effect Of Corporate Income Tax On Financial Performance Of Listed Manufacturing Firms In Ghana. *Research Journal Of Finance And Accounting*, *4*(15), 118–125.

Gipc Report. (2019). *Highlight On Ghana's Manufacturing Sector*.

Hasanuddin, R., Darman, D., Taufan, M. Y., Salim, A., Muslim, M., Halim, A., & Kusuma, P. (2021). The Effect Of Firm Size, Debt, Current Ratio, And Investment Opportunity Set On Earnings Quality: An Empirical Study In Indonesia. *Journal Of Asian Finance, Economics And Business*, *8*(March 2021), 2021.

Hashmi, S. D., Gulzar, S., Ghafoor, Z., & Naz, I. (2020). Sensitivity Of Firm Size Measures To Practices Of Corporate Finance : Evidence From Brics. *Future Business Journal*, *6*(1), 1–19.

Hassan, S. M. R., & Muniyat, S. (2019). *Factors Influencing The Profitability Of Pharmaceutical Companies In Bangladesh*. *Icbm*, 770–773.

Isik, O., Unal, E. A., & Unal, Y. (2017). *The Effect Of Firm Size On Profitability : Evidence From Turkish Manufacturing Sector*. 301–308.

Jannah, S. M., & Sartika, F. (2022). The Effect Of Good Corporate Governance And Company Size On Firm Value. *International Journal Of Research In Business And Social Science (2147- 4478)*, *11*(2), 241–251.

Kakra, T. M. K., Amaniampong, E. N., Assabil, M. A., Adombire, D. E. C., & Akuetteh, K. (2020). Tax Knowledge And Tax Compliance Of Small And Medium Enterprises In Ghana. *South East Asia Journal Of Contemporary Business, Economics And Law*, *21*(5), 222–231.

Kiatkawsin, K., & Han, H. (2017). Young Travelers' Intention To Behave Pro-Environmentally: Merging The Value-Belief-Norm Theory And The Expectancy Theory. *Tourism Management*, *59*, 76–88.

Kiliç, M., Gurler, H. E., Kaya, A., & Lee, C. W. (2022). The Impact Of Sustainability Performance On Financial Performance: Does Firm Size Matter? Evidence From Turkey And South Korea. *Sustainability (Switzerland)*, *14*(24).

Kosmidou, K., & Zopounidis, C. (2008). Measurement Of Bank Performance In Greece. *South-Eastern Europe Journal Of Economics*, *1(3)*, 79–95.

Kurawa, J. M., & Saidu, H. (2018). *Corporate Tax And Financial Performance Of Listed Nigerian Consumer Goods*. *4*(4), 30–43.

Kwashie, A. A., Baidoo, S. T., & Ayesu, E. K. (2022). Investigating The Impact Of Credit Risk On Financial Performance Of Commercial Banks In Ghana Investigating The Impact Of Credit Risk On Financial Performance Of Commercial Banks In. *Cogent Economics & Finance*, *10*(1).

Lavic, V. (2023). Factors Affecting Corporate Income Tax Compliance Costs Of Smes In Bosnia And Herzegovina. *Journal Of Entrepreneurship And Public Policy*, *12*(1), 92–114.

Li, K., Musah, M., Kong, Y., Adjei Mensah, I., Antwi, S. K., Bawuah, J., Donkor, M., Coffie, C. P. K., & Andrew Osei, A. (2020). Liquidity And Firms' Financial Performance Nexus: Panel Evidence From Non-Financial Firms Listed On The Ghana Stock Exchange. *Sage Open*, *10*(3),30-41.

Močnik, D., & Širec, K. (2015). Determinants Of A Fast-Growing Firm's Profits: Empirical Evidence For Slovenia. *Analele Stiintifice Ale Universitatii Al I Cuza Din Iasi - Sectiunea Stiinte Economice*, *62*(1), 37–54.

Mohamad, M. T., Sulaiman@Mohamad, A. A., Khairul Hamimah, & Muslim, N. (2019). The Determinants Of Bank Profitability: How Malaysian Islamic Banks Response To The Financing Risk. *Advances In Social Sciences Research Journal*, *6*(12), 1–15.

Muhammad, Y. S., & Ahmad, H. S. (N.D.). Effect Of Corporate Income Tax Rate On Investment Decisions Of Listed Deposit Money Banks In Nigeria. *Proceedings At The 9th Account And Finance Research Association (Afra) Conference Keffi, 2019*.

Naa Amua Dodoo, R., Appiah, M., & Tetteh Donkoh, D. (2020). Examining The Factors That Influence Firm Performance In Ghana: A Gmm And Ols Approach. *National Accounting Review*, *2*(3), 309–323.

Nwaorgu, I. A., Oyekezie, K. S., & Abiahu, M.-F. C. (2020). *Effect Of Corporate Tax On Sustainable Financial Performance Of Listed Firms In Nigeria*. *19*(1), 50–63.

Obaid, M. M., Ibrahim, I., & Udin, N. M. (2020). Determinants Of Smes Tax Compliance In Yemen: A Pilot Investigation. *Iosr Journal Of Humanities And Social Science (Iosr-Jhss*, *25*(1), 64–75.

Ohrn, E. (2018). The Effect Of Corporate Taxation On Investment And Financial Policy: Evidence From The Dpad. *American Economic Journal: Economic Policy*, *10*(2), 272–301.

Olaleye, O., Adesina, M., & Yusuf, S. (2021). Effect Of Liquidity Management On Profitability Of Commercial Banks In Nigeria. *American Journal Of Finance*, *6*(2), 25–34.

Olaoye, C. O., & Alade, E. O. (2019). *Effect Of Corporate Taxation On The Profitability Of Firms In Nigeria*. *11*(1), 191–201.

Otwani, M. N., Namusonge, G. S., & Nambuswa, El. M. (2017). Effect Of Corporate Income Tax On Financial Performance Of Companies Listed On The Nairobi Securities Exchange In Kenya. *International Journal Of Social Sciences And Information Technology*, *Iii*(Viii), 2467–2477.

Oyelade, A. (2019). *The Impact Of Firm Size On Firms Performance In Nigeria : A Comparative Study Of Selected Firms In The Building Industry In*. *January*.

Oyelade, A. O. (2019). The Impact Of Firm Size On Firms Performance In Nigeria: A Comparative Study Of Selected Firms In The Building Industry In Nigeria. *Asian Development Policy Review*, *7*(1), 1–11.

Pervan, M., Pervan, I., & Ćurak, M. (2019). Determinants Of Firm Profitability In The Croatian Manufacturing Industry : Evidence From Dynamic Panel Analysis. *Economic Research-Ekonomska Istraå¾ Ivanja*, *32*(1), 968–981.

Ponorîcă, A. G., & Al-Saedi, A. H. J. (2015). The Importance Of Taxation Systems For Sme Tax Compliance. *Proceeding Of The 9th International Management Conference "Management And Innovation For Competitive Advantage", November 5th-6th, 2015, Bucharest, Romania*, 129–136.

Powers, K. J., & Thompson, F. (1994). Managing Coprovision: Using Expectancy Theory To Overcome The Free-Rider Problem. *Journal Of Public Administration Research And Theory*, *4*(2), 179–196.

Renko, M., Kroeck, K. G., & Bullough, A. (2012). Expectancy Theory And Nascent Entrepreneurship. *Small Business Economics*, *39*(3), 667–684.

Santos, L. G. (2019). *Institutional Quality, Firm Performance And Business Groups: Evidence From Emerging Economies*. *March*.

Schwellnus, C., & Arnold, J. (2008). Do Corporate Taxes Reduce Productivity And Investment At The Firm Level ? Cross-Country Evidence From The Amadeus Dataset. *Structure*, *641*, 1–26.

Setiyono, B., & Tarazi, A. (2018). Disclosure, Ownership Structure And Bank Risk: Evidence From Asia. *Ssrn Electronic Journal*, *4(3),243-154*.

Sritharan, V. (2015). Does Firm Size Influence On Firm's Profitability? Evidence From Listed Firms Of Sri Lankan Hotels And Travels Sector. *Research Journal Of Finance And Accounting, 12(8),120-134.*

Tackie, G., Agyei, S. K., Bawuah, I., Adela, V., & Bossman, A. (2022). Tax Planning And Financial Performance Of Insurance Companies In Ghana: The Moderating Role Of Corporate Governance. *Cogent Business And Management*, *9*(1).

Tbk, P. T. M. I. (2020). *Financial Performance , Macroeconomic Factors And Company Characteristics In Consumer Goods Company*. *2020*(3), 296–304.

Theory, A. S. (2020). *The Effect Of Firm ' S Size On Corporate Performance*. *11*(5), 272–277.

Ullah, K., & Bagh, T. (2019). *The Effect Of Liquidity And Financial Leverage On Firm Performance: Evidence From Listed Manufacturing Firms On The Ghana Stock Exchange Jiang*. 91–100.

Yang, H. (2019). *Regional Economic Growth And Firm Performance*. 8(4),*1–49.*

Zhu, N., Mbroh, N., Monney, A., & Bonsu, M. O.-A. (2019). Corporate Tax Avoidance And Firm Profitability. *European Scientific Journal Esj*, *15*(7), 61–70.

Abaidoo, R., & Agyapong, E. K. (2021). *Corporate Performance Volatility : A Micro-Level Perspective*. *1*(1), 42–63.

Abdi, Y., Li, X., & Càmara-Turull, X. (2022). Exploring The Impact Of Sustainability (Esg) Disclosure On Firm Value And Financial Performance (Fp) In Airline Industry: The Moderating Role Of Size And Age. *Environment, Development And Sustainability*, *24*(4), 5052–5079.

Abiahu, M.-F. C., & Amahalu, N. N. (2017). Effect Of Taxation On Dividend Policy Of Quoted Deposit Money Banks In Nigeria (2006-2015). *International Journal On Management Science*, *2*(3), 1–30.

Adefunke, A. B. (2022). Impact Of Company Income Tax On Corporate Profitability In Nigeria. *Indian Journal Of Finance And Banking*, *9*(1), 104–114.

Afyonkarahisar, B. (2013). *Does Firm Size Affect The Firm Profitability ? Evidence From*. *4*(4), 53–60.

Aggrey, G. A. B., Kusi, L. Y., Afum, E., Osei-Ahenkan, V. Y., Norman, C., Boateng, K. B., & Amponsah Owusu, J. (2022). Firm Performance Implications Of Supply Chain Integration, Agility And Innovation In Agri-Businesses: Evidence From An Emergent Economy. *Journal Of Agribusiness In Developing And Emerging Economies*, *12*(2), 320–341.

Assidi, S., Aliani, K., & Omri, M. A. (2016). Tax Optimization And The Firm's Value: Evidence From The Tunisian Context. *Borsa Istanbul Review*, *16*(3), 177–184.

Auci, S., Barbieri, N., Coromaldi, M., & Michetti, M. (2021). *Climate Variability , Innovation And Firm Performance : Evidence From The European*. *48*(September), 1074–1108.

Augustine Nwaorgu, I., Oyekezie, K. S., & Chidoziem Abiahu, M.-F. (2020). Effect Of Corporate Tax On Sustainable Financial Performance Of Listed Firms In Nigeria. *Journal Of Taxation And Economic Development Issn 1118-6017*, *19*(1), 50–63.

Awuah-Werekoh, K. (2012). Theory And Methods In Social Research. In *Educational Research And Evaluation*, 8(4),129-142.

Balashova, E. S., & Gromova, E. A. (2016). Resource-Based View As A Perspective Management Model In Russian Reality. *Problems And Perspectives In Management*, *14*(2), 15-35.

Ben Slama Zouari, S., & Boulila Taktak, N. (2014). Ownership Structure And Financial Performance In Islamic Banks: Does Bank Ownership Matter? *International Journal Of Islamic And Middle Eastern Finance And Management*, *7*(2), 146–160.

Benneth, K., & Obinna, H. (2023). *The Impact Of Macro-Environmental Factors On Business Performance*. *December*.

Berger, A. N., & Bouwman, C. H. S. (2013). How Does Capital Affect Bank Performance During Financial Crisesα. *Journal Of Financial Economics*, *109*(1), 146–176.

Bhattacharya, A. (2010). Expectancy Theory. *Nature*, *464*(7287), 456.

Chen, Y., Ge, R., Louis, H., & Zolotoy, L. (2019). Stock Liquidity And Corporate Tax Avoidance. *Review Of Accounting Studies*, *24*(1), 309–340.

Daneshfar, A. (2000). Expectancy Theory, Profit Sharing Plans And Accounting Information. *Angewandte Chemie International Edition, 6(11), 951–952.*, *7*(2), 5–24.

Dang, C., (Frank) Li, Z., & Yang, C. (2018). Measuring Firm Size In Empirical Corporate Finance. *Journal Of Banking And Finance*, *86*, 159–176.

Delmar, F., Davidsson, P., & Gartner, W. B. (2016). Arriving At The High-Growth Firm. *Journal Of Business Venturing*, *18*(2), 189–216.

Determinants Of Firm Performance : (2016). *9*(1), 53–69. Https://Doi.Org /10.1515/Rebs-2016-0025

Digdowiseiso, K., & Cindy, S. R. (2022). The Influence Of Corporate Social Responsibility, Company Size, And Profitability On The Value Of Mining Sector Companies For The 2016-2020 Period. *Budapest International Research And Critics Institute-Journal (Birci-Journal)*, *5*(2), 11129–11141.

Farooq, O., & Bouaich, F. Z. (2012). Liquidity And Firm Performance: Evidence From The Mena Region. *International Journal Of Business Governance And Ethics*, *7*(2), 139–152.

Frank, M. Z., Goyal, V. K., & Shen, T. (2020). The Pecking Order Theory Of Capital Structure: Where Do We Stand? *Ssrn Electronic Journal*, 1–42.

Gartchie, J., Gameli, S., & Kwabla, H. (2013). The Effect Of Corporate Income Tax On Financial Performance Of Listed Manufacturing Firms In Ghana. *Research Journal Of Finance And Accounting*, *4*(15), 118–125.

Gipc Report. (2019). *Highlight On Ghana's Manufacturing S Ect Or*.

Hasanuddin, R., Darman, D., Taufan, M. Y., Salim, A., Muslim, M., Halim, A., & Kusuma, P. (2021). The Effect Of Firm Size, Debt, Current Ratio, And Investment Opportunity Set On Earnings Quality: An Empirical Study In Indonesia. *Journal Of Asian Finance, Economics And Business*, *8*(March 2021), 2021.

Hashmi, S. D., Gulzar, S., Ghafoor, Z., & Naz, I. (2020). Sensitivity Of Firm Size Measures To Practices Of Corporate Finance : Evidence From Brics. *Future Business Journal*, *6*(1), 1–19.

Hassan, S. M. R., & Muniyat, S. (2019). *Factors Influencing The Profitability Of Pharmaceutical Companies In Bangladesh*. *Icbm*, 770–773.

Info, A., On, R., On, R., On, A., Print, I., & Online, I. (2021). *The Impact Of Firm Size On The Performance Of Vietnamese Private Enterprises : A Case Study*.

Isik, O., Unal, E. A., & Unal, Y. (2017). *The Effect Of Firm Size On Profitability : Evidence From Turkish Manufacturing Sector*. 301–308.

Jannah, S. M., & Sartika, F. (2022). The Effect Of Good Corporate Governance And Company Size On Firm Value. *International Journal Of Research In Business And Social Science (2147- 4478)*, *11*(2), 241–251.

Kakra, T. M. K., Amaniampong, E. N., Assabil, M. A., Adombire, D. E. C., & Akuetteh, K. (2020). Tax Knowledge And Tax Compliance Of Small And Medium Enterprises In Ghana. *South East Asia Journal Of Contemporary Business, Economics And Law*, *21*(5), 222–231.

Kiatkawsin, K., & Han, H. (2017). Young Travelers' Intention To Behave Pro-Environmentally: Merging The Value-Belief-Norm Theory And The Expectancy Theory. *Tourism Management*, *59*, 76–88.

Kiliç, M., Gurler, H. E., Kaya, A., & Lee, C. W. (2022). The Impact Of Sustainability Performance On Financial Performance: Does Firm Size Matter? Evidence From Turkey And South Korea. *Sustainability (Switzerland)*, *14*(24),170-191.

Kosmidou, K., & Zopounidis, C. (2008). Measurement Of Bank Performance In Greece. *South-Eastern Europe Journal Of Economics*, *1*, 79–95.

Kurawa, J. M., & Saidu, H. (2018). *Corporate Tax And Financial Performance Of Listed Nigerian Consumer Goods*. *4*(4), 30–43.

Kwashie, A. A., Baidoo, S. T., & Ayesu, E. K. (2022). Investigating The Impact Of Credit Risk On Financial Performance Of Commercial Banks In Ghana Investigating The Impact Of Credit Risk On Financial Performance Of Commercial Banks In. *Cogent Economics & Finance*, *10*(1),101-113.

Lavic, V. (2023). Factors Affecting Corporate Income Tax Compliance Costs Of Smes In Bosnia And Herzegovina. *Journal Of Entrepreneurship And Public Policy*, *12*(1), 92–114.

Li, K., Musah, M., Kong, Y., Adjei Mensah, I., Antwi, S. K., Bawuah, J., Donkor, M., Coffie, C. P. K., & Andrew Osei, A. (2020). Liquidity And Firms' Financial Performance Nexus: Panel Evidence From Non-Financial Firms Listed On The Ghana Stock Exchange. *Sage Open*, *10*(3),92-118.

Močnik, D., & Širec, K. (2015). Determinants Of A Fast-Growing Firm's Profits: Empirical Evidence For Slovenia. *Analele Stiintifice Ale Universitatii Al I Cuza Din Iasi - Sectiunea Stiinte Economice*, *62*(1), 37–54.

Mohamad, M. T., Sulaiman@Mohamad, A. A., Khairul Hamimah, & Muslim, N. (2019). The Determinants Of Bank Profitability: How Malaysian Islamic Banks Response To The Financing Risk. *Advances In Social Sciences Research Journal*, *6*(12), 1–15.

Muhammad, Y. S., & Ahmad, H. S. (N.D.). Effect Of Corporate Income Tax Rate On Investment Decisions Of Listed Deposit Money Banks In Nigeria. *Proceedings At The 9th Account And Finance Research Association (Afra) Conference Keffi, 2019*.

Naa Amua Dodoo, R., Appiah, M., & Tetteh Donkoh, D. (2020). Examining The Factors That Influence Firm Performance In Ghana: A Gmm And Ols Approach. *National Accounting Review*, *2*(3), 309–323.

Nwaorgu, I. A., Oyekezie, K. S., & Abiahu, M.-F. C. (2020). *Effect Of Corporate Tax On Sustainable Financial Performance Of Listed Firms In Nigeria*. *19*(1), 50–63.

Obaid, M. M., Ibrahim, I., & Udin, N. M. (2020). Determinants Of Smes Tax Compliance In Yemen: A Pilot Investigation. *Iosr Journal Of Humanities And Social Science (Iosr-Jhss*, *25*(1), 64–75.

Ohrn, E. (2018). The Effect Of Corporate Taxation On Investment And Financial Policy: Evidence From The Dpad. *American Economic Journal: Economic Policy*, *10*(2), 272–301.

Olaleye, O., Adesina, M., & Yusuf, S. (2021). Effect Of Liquidity Management On Profitability Of Commercial Banks In Nigeria. *American Journal Of Finance*, *6*(2), 25–34.

Olaoye, C. O., & Alade, E. O. (2019). *Effect Of Corporate Taxation On The Profitability Of Firms In Nigeria*. *11*(1), 191–201.

Otwani, M. N., Namusonge, G. S., & Nambuswa, El. M. (2017). Effect Of Corporate Income Tax On Financial Performance Of Companies Listed On The Nairobi Securities Exchange In Kenya. *International Journal Of Social Sciences And Information Technology*, *Iii*(Viii), 2467–2477.

Oyelade, A. (2019). *The Impact Of Firm Size On Firms Performance In Nigeria : A Comparative Study Of Selected Firms In The Building Industry In*. *January*. *American Economic Journal: Economic Policy*, *10*(2), 272–301.

Oyelade, A. O. (2019). The Impact Of Firm Size On Firms Performance In Nigeria: A Comparative Study Of Selected Firms In The Building Industry In Nigeria. *Asian Development Policy Review*, *7*(1), 1–11.

Pervan, M., Pervan, I., & Ćurak, M. (2019). Determinants Of Firm Profitability In The Croatian Manufacturing Industry : Evidence From Dynamic Panel Analysis. *Economic Research-Ekonomska*

Istraå¾Ivanja, *32*(1), 968–981.

Ponorîcă, A. G., & Al-Saedi, A. H. J. (2015). The Importance Of Taxation Systems For Sme Tax Compliance. *Proceeding Of The 9th International Management Conference "Management And Innovation For Competitive Advantage", November 5th-6th, 2015, Bucharest, Romania*, 129–136.

Powers, K. J., & Thompson, F. (1994). Managing Coprovision: Using Expectancy Theory To Overcome The Free-Rider Problem. *Journal Of Public Administration Research And Theory*, *4*(2), 179–196.

Renko, M., Kroeck, K. G., & Bullough, A. (2012). Expectancy Theory And Nascent Entrepreneurship. *Small Business Economics*, *39*(3), 667–684.

Santos, L. G. (2019). *Institutional Quality, Firm Performance And Business Groups: Evidence From Emerging Economies*. *American Economic Journal: Economic Policy*, *14*(9), 192–201.

Schwellnus, C., & Arnold, J. (2008). Do Corporate Taxes Reduce Productivity And Investment At The Firm Level ? Cross-Country Evidence From The Amadeus Dataset. *Structure*, *641*, 1–26.

Setiyono, B., & Tarazi, A. (2018). Disclosure, Ownership Structure And Bank Risk: Evidence From Asia. *Ssrn Electronic Journal*, *August*. Https://Doi.Org/10.2139/Ssrn.2395315

Sritharan, V. (2015). Does Firm Size Influence On Firm's Profitability? Evidence From Listed Firms Of Sri Lankan Hotels And Travels Sector. *Research Journal Of Finance And Accounting*.

Tackie, G., Agyei, S. K., Bawuah, I., Adela, V., & Bossman, A. (2022). Tax Planning And Financial Performance Of Insurance Companies In Ghana: The Moderating Role Of Corporate Governance. *Cogent Business And Management*, *9*(1).

Tbk, P. T. M. I. (2020). *Financial Performance , Macroeconomic Factors And Company Characteristics In Consumer Goods Company*. *2020*(3), 296–304.

Theory, A. S. (2020). *The Effect Of Firm ' S Size On Corporate Performance*. *11*(5), 272–277.

Ullah, K., & Bagh, T. (2019). *The Effect Of Liquidity And Financial Leverage On Firm Performance: Evidence From Listed Manufacturing Firms On The Ghana Stock Exchange Jiang*. 91–100.

Yang, H. (2019). *Regional Economic Growth And Firm Performance*. *9(5), 1–49*.

Zhu, N., Mbroh, N., Monney, A., & Bonsu, M. O.-A. (2019). Corporate Tax Avoidance And Firm Profitability. *European Scientific Journal Esj*, *15*(7), 61–70.