UNIVERSITY OF GHANA

CAPITAL STRUCTURE AND THE FINANCIAL PERFORMANCE OF LISTED MANUFACTURING COMPANIES ON THE GHANA STOCK EXCHANGE

BY

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THIS LONG ESSAY IS SUBMITTED TO THE UNIVERSITIY OF GHANA, LEGON, IN PARTIAL FULFILMENT OF THE REQUIREMENT FOR THE AWARD OF DEGREE OF MASTERS OF BUSINESS ADMINISTRATION (MBA) IN FINANCE.

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DECLARATION

I, HANNAH AKPAKLI do hereby declare that, the researche is done by me and the results are of my own and has not been processed by anyone in part or whole for any academic award in this or any other academic institution. All references used in this work have been accordingly acknowledged.

I bear sole responsibility for any shortcomings of this work.

…….. ……

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CERTIFICATE

I hereby certify that this long essay was supervised in accordance with procedures laid down by the University of Ghana.

…….. ……..

DR. LORDINA AMOAH **DATE**

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DEDICATION

I dedicate this work to the Almighty God and my lovely family, especially my husband Mr. Roger Seyram Akpakli for his immense support and contribution.

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ABSTRACT

The study explored Capital Structure and The Financial Performance of Listed Manufacturing Companies on the Ghana Stock Exchange using panel data analysis. The study employed descriptive research design and quantitative approach. The study revealed that short term debt (STDA) has a positive and statistically significant relationship with ROE at 1% significance level. This means that firms with high profitability (ROE) uses more of short-term debt (STDA) as a source of financing. Therefore, the higher the STDA the higher the ROE. However, the relationship between short term debt (STDA) and ROA is not significant. This means that the STDA has no impact on the ROA of firms listed on the Ghana Stock exchange. The results from the analysis showed that the long-term debt (LTDA) has a negative and significant relationship with both ROE and ROA at 10% and 5% respectively. This means that long term debt (LTDA) reduces both the ROE and ROA of firms listed on the stock exchange in Ghana. The Total debt of the manufactured firms listed on Ghana stock exchange have a positive and statistically significant relationship with both ROE and ROA at 1% significance level. This indicates that as the overall debt of the manufacturing firms increases the profitability of the firms also increases. The firm size as a control variable has positive and statistically significant relationship with both ROE and ROA at 5% and 10% significance level respectively. This shows that as the size of the firm increases the profitability of firms also increases. Also, bigger firms listed on the stock exchange have a high profitability levels than firms that are smaller in size. The study also revealed that sales growth also has a positive and statistically significant relationship with both ROE and ROA at 1% significance level. This means that the higher the sales growth the higher the profitability of the firms listed on the stock exchange.

CHAPTER ONE

GENERAL INTRODUCTION

1.1 Background of the Study

The determination of a firm's ideal capital structure is a challenging task since it involves an analysis of numerous issues, core among them is risk and profitability (Shubita & Alsawalhah, 2012). The decision becomes even more challenging, in times when the economic, social, technological and political environments in which the firm operates exhibits high degree of unpredictability (Shubita & Alsawalhah, 2012). Therefore, a decision between ideal proportion of debt and equity can affect the value of the company, as well as financial performance.

One major goal of the firm is to maximize the owners' wealth in the firm. Shareholder wealth as the prevailing market price of a firm's outstanding shares. Management could only achieve this objective by taking appropriate financing decisions in relation to the best financing choices that seek to minimize the cost of capital.

Financing choices can be understood as the numerous financing options that a firm can adopt to acquire the needed funds for its investing activities in a way that is in line with its main targets. Financial decision-making process is primarily concerned with determining the best capital structure; such that cost of capital is minimized and firms' value is maximized.

Capital structure denotes an organization's mix of debt and equity financing as they finance their funds for investment from two sources either to take loan from the bank called debt or issue their shares to general public called the equity financing. The combination of debt and equity to finance firm's long-term assets is stated as capital structure of the firm. Debt and Equity are the basic components of the firm's capital structure.

Many theoretical and empirical work has been universally done to expand and contribute immensely to literature on capital structure. For example, in the non-financial sector, empirical literature has usually focused on specific variables that have been found to be constantly correlated with total debt such as: age, size, growth, profitability, market-to-book ratio, collateral value and dividend policy. However, literature is relatively scared on issues of financing choices in the Ghanaian context, there is no clear understanding on how Ghanaian companies decide on debt and equity structure of their firms, and the factors which influence their corporate financing behavior (Amidu, 2007).

Factors contributing to business failure can be addressed through proper strategies to drive growth and achievement of organizational objectives (Salazar, Soto & Mosqueda, 2012). It is necessary and sufficient that proper care and attention be given while making capital structure decision else that can cause financial distress (Singh & Faircloth, 2015). Options could be several but to decide the best in firm's interest in a particular scenario needs somebody to have a deep understanding in the field of finance to critically analyse the impact of the available options on the firm's performance. A way to achieve that is to reduce its cost of financing or to finance with a source having less cost and large benefits. Firms nowadays maintain a mix of debt and equity, but the problem is that which proportionate of debt and equity has greater benefits against lesser costs. This is a problem to answer because different sources of finances have different cost structures and benefits allowing the firms to make it as a competitive advantage. One solution can be to choose the mix which maximizes the Shareholder's wealth but different firms have different impacts of the sources of finance.

The firm's capital structure directly affects its financial risk, which may be described as the risk resulting from the use of financial leverage. Financial leverage is concerned with the relationship between earnings before interest and taxes (EBIT) and earnings before tax (EBT).

The more fixed-cost financing, i.e. debt (including financial leases) and preferred stock, a firm has in its capital structure, the greater its financial risk. Since the level of this risk and the associated level of returns are key inputs to the valuation process, the firm must estimate the potential impact of alternative capital structures on these factors and ultimately on value in order to select the best capital structure. The long-term solvency and financial risk of a firm is usually assessed for a given capital structure. Since increase in debt financing affects the solvency as well as the financial risk of the firm, the excessive use of debt financing is generally avoided. It may be noted that the balancing of both the financial and business risk is implied so that the total risk of the firm is kept within desirable limits. A firm having higher business risk usually keeps the financial risk to the minimum level; otherwise the firm becomes a high-risk proposition resulting to higher cost of capital.

After over half a century of studies on this pronounced topic, economists and financial experts have not reached an agreement on how and to which extent firms‟ financing choices impacts the value of firms, their performance and governance. However, the studies and empirical findings of the last decades have at least demonstrated that capital structure has more importance than was found with the pioneering Miller-Modigliani model. We might probably be far from the ideal combination between equity and debt, but the efforts of fifty years of studies have provided the evidence that capital structure does affect firms‟ value and future performance. This study is an attempt to contribute to the empirical studies on how financing choices affects firm's performance in the Ghanaian context.

1.2 Problem of the study

Financial managers of various businesses are faced with the fundamental challenge of deciding on the most suitable blend of debt and equity. Researchers have not brought to conclusion the exact effect of capital structure of firm performance in the Ghanaian business

environment. There is still no conclusive empirical evidence in the literature about how financing choices influences corporate performance of firms in Ghana. Firms can only achieve reasonable gains from its specialized assets if they are able to develop the requisite capacity to manage its financial policies in relation to the acquisition and effective utilization of capital. Capital is key to the successful operations of all the various departments of an organization, thus marketing, human resource, production, transport and information, communications and technology all need financial resources to function effectively, hence the critical decision on the most suitable debt and equity components in the capital structure.

From our preliminary observation of the financial reports of firms considered in this study, debt financing for quoted companies in Ghana corresponds mainly to short term debts. Also, external finance for Ghanaian manufacturing firms as observed from their annual reports often far exceed investments for most of the firms. However, using excessive amounts of external financing can result in the overleveraging of a company, which means the business has extensive obligations to institutional and individual investors who can disrupt the company's operations and financial returns.

Debt financing affects a company's performance because companies will usually agree to fixed repayments for a specific period. These repayments occur regardless of the firm's performance. Although equity financing typically avoids these repayments, it requires companies to give an ownership stake in the company to venture capitalist or investors. Thus, the choice of capital structure is fundamentally a financing decision problem which becomes even more difficult in times when the economic environment in which the company operates presents a high degree of instability like the case of Ghana.

In Ghana, investors and stakeholders appear not to look in detail the effect of financing choices in measuring their firm's performance as they may assume that attributions of capital

structure are not related to their firms' value. Indeed, a well distribution of capital structure will lead to the success of firms; hence the issues of capital structure which may influence the corporate performance of Ghanaian firms have to be resolved. Also, capital structure of a firm can lead to bankruptcy and have an adverse effect on the performance of the firm if not properly utilized. The research problem therefore is to find an appropriate mix of debts and stocks through which a firm can increase its financial performance more efficiently and effectively.

1.3 Objectives of the Study

1.3.1 General Objective

The major objective of this research is to empirically examine in the Ghanaian context, whether capital structure decisions taken by a firm affect its financial performance or not.

1.3.2 Specific Objectives

The specific objectives derived from the major objective are:

1. To find out the effect of short- term debt capital on financial performance of manufacturing firms in Ghana.
2. To assess the extent to which long term debt capital affects financial performance of manufacturing firms in Ghana.
3. To assess the impact of total debt on financial performance of firms listed on the Ghana Stock Exchange.

1.4 Research Questions

1. What is the effect of short-term debt capital on financial performance of manufacturing firms in Ghana?
2. What is the effect of long-term debt capital on financial performance of manufacturing firms in Ghana?

3. What is the effect of total debt on the performance of manufacturing firms in Ghana?

1.5 Significance of the Study

This study has significant role to play in filling gap in understanding the impact of financing choices decisions on financial performance of core business operations of manufacturing firms in Ghana. And hence will serve as reference for financial managers and investors to equip themselves with the knowledge of the potential impact of financing choices on profitability. Again, the study will bring to bear the impeccable need for firms to strive towards achieving an optimal capital structure which maximizes shareholders wealth. In addition, it will serve as a bases for policy makers such as Bank of Ghana to look at the appropriate level of capital requirement for banks. Besides, this study will contribute to academic discourse on the subject matter and serve as a reference material for other researchers in the area of corporate finance.

1.6 Scope of the Study

The study focused on the listed companies that have traded for at least five consecutive years on the Ghana Stock Exchange (GSE) for the period spanning 2014 to 2018. As at closure of business in December 2018, there were 16 manufacturing firms on the Ghana Stock Exchange. The study, however targeted the 10 listed companies from the 16. The choice of manufacturing firms is necessitated by the authenticity and availability of data. The thirty firms that qualified to be included in this study had to meet the following criteria.

That the firm should have been listed consecutively within the five-year period under study. The firm should have published its audited financial statement for all the five-year period under consideration. This is to ensure the all the firms been studied were fully operational and its data could be relied upon for this research.

1.7 Limitations of the Study

The major constraint encountered during the study was obtaining data from GSE and specific firms' websites due to slow response rate by the GSE staff and internet downtime. This was overcome by continuously follow up through physical attendance, emails and phone calls to the GSE secretariat and working late at night when the internet was free from many users and therefore more efficient. The time frame within which the research was to be conducted as well as inadequate financial assistance towards the successfully completion of the study was a challenge.

1.8 Organization of the Study

This long essay is organized into five chapters. The first chapter presents the background of the study, problem statement, what the study seeks to achieve, the relevance of the study to various stakeholders, scope and related challenges confronted in the process of undertaking the study.

Chapter two comprises a review of the theoretical and empirical literature on financing choices and firm performance. The third chapter discusses the methodology used in the study. Chapter four present analysis and discussion of the findings made from the study. Finally, chapter five presents a summary of findings of the study, conclusions, recommendations and suggestions for further research.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In an attempt to explain how firms, finance their assets and the factors that influence these funding decisions, a number of theories and models of capital structure have been proposed over the years by different theorists. These theories and models try to explain the percentage of debt and equity in a firm that not only maximize firms' value, but also the impact on the firms' capability to face the competition in the ever-changing market.

This chapter reviews both the theoretical and empirical literature related to the study variables, how they are related and develops a conceptual framework. In addition, it offers a positive critique of the literature, therefore identifying the research gaps with a probable take by the researcher on the various empirical findings**.**

2.2 Definition of Terms

Equity: Ownership interest in a corporation in the form of common stocks or preferred stocks. It can also be referred to as shares. It is derived by subtracting the total liability from the total assets; here also referred to as shareholder's equity or net worth or book value.

Risk: The possibility of suffering damage or loss in the face of uncertainty about the outcome of an action, future events or circumstances. It is the deviation of an actual outcome from the expected outcome in the presence of uncertainty.

Financial Risk: This is the increased risk of equity holders due to financial gearing which is the relative proportion of debt and equity that a company uses to support its operations. It is due solely to the capital structure of a firm or the level of gearing.

Business Risk: This is the variability in earnings before interest and tax (EBIT) associated with a company's normal operation. It is the probability a company will have less than anticipated profit or even experience a loss rather than making a targeted profit.

Liquidity: is the ability of a firm to meet its short-term obligations using its most liquid assets. Liquidity is the ease with which a company can pays its bills and liabilities over the next year, especially if it must convert its assets into cash in order to do so. The factors affecting the liquidity requirements of a firm are nature and size of the business, growth and expansion activities manufacturing cycle, production policy, turnover of circulating capital, credit terms, operating efficiency and price level changes.

Liquidity and profitability are two very important and vital aspects of corporate business life. No firm can survive without liquidity. A firm not making profit may be considered as sick but, one having no liquidity may soon meet its downfall and ultimately die. Liquidity management has thus, become a basic and broad aspect of judging the performance of a corporate entity (Bardia 2007). It is thus, essential to maintain as adequate degree of liquidity of smooth running of the business operations. The liquidity should be neither excessive nor inadequate. Excessive liquidity indicates accumulated idle funds, which do not earn any profit for the firm, and inadequate liquidity not only adversely affect the credit worthiness of the firm, but also interrupts the production process and hampers its earning capacity to a great extent. Thus, the need for efficient liquidity management in corporate businesses has always been significant for smooth running of the business, (Valrshney, 2008).

Financial performance: According to Business Dictionary (2011), financial performance refers to how effective a firm can use resources thus total assets or capital from its main mode of business to generate maximum revenues. Financial performance indicates firm's overall financial strength over a period. Stakeholders of businesses are individuals and institutions

who are interested in the affairs or operations of the firm. They may have direct or indirect interest thus stakeholders may affect or be affected by the activities of a business. They include creditors, customers, shareholders, communities, employees, management etc. who have diverse interest hence different measure of firm performance is applied. Measures of firm performance may include the use of account ratios, operating income, and increase in size of assets, sales growth and total unit sales.

Return on equity: This is a profitability ratio that measures the extent to which capital contributed by shareholders has been effectively and efficiently used to generate profit.

Return on Equity = Profit before interest and tax/ shareholders' funds. It measures the ability of a firm to generate profit from its shareholders investment in the company. Return on Equity may be affected positively or negatively by debt. If the Earnings before interest and tax is greater than the cost of debt then leverage will have a positive impact on return on equity and vice versa. Firms with higher ROE is an indication that the company is financially sound, however this should not be interpreted in isolation, but a deeper consideration to the debt component of a firm's capital structure.

Return on Asset: This is another measure of financial performance which reveals the level of profit that is been generated by the total asset of a firm. It is preferable to generate profit with a lower level of assets because of the capital that is needed to build up assets such as plant, equipment and stock. The overall profitability relative to all the assets utilized by the firm is known as the return on assets. A low return of asset may mean an overinvestment in assets or underutilization of assets.

2.3 Components of financing choices

All of the items on the right-hand side of the firm's balance sheet, excluding current liabilities, are sources of capital. Total capital breakdown into two components, equity capital and debt capital.

2.3.1 Equity Financing

In components of capital structure, equity share capital represents the ownership capital of the company. It is the permanent capital and cannot be withdrawn during the lifetime of the company. Owners are the real risk bearers, but they also enjoy rewards. Their liability is restricted to their capital contributed.

Equity shares are popular among the investing class. With equity financing via common stock, you can reduce or increase your ownership percentage in your company through the sale or purchase of common stock to or from one or more individuals or entities in exchange for a specified amount of money. The common equity represents the amount that all common shareholders have invested in a company. Most importantly, this includes the value of the common shares themselves. However, it also includes retained earnings and additional paid-in capital. According to Nawaz, et al., (2011), capital consists of two types: (1) Contributed capital, which is the money that was originally invested in the business in exchange for shares of stock or ownership and (2) Retain earnings, which represent profits from past years that have been kept by the company and used to strengthen the balance sheet or fund growth, acquisitions, or expansion. If a firm doesn't use debt financing, it's referred to as an unlevered firm. If a firm doesn't use debt then its return on invested capital shall be measured by return on equity. This simply means that the business risk of a leverage free firm will be measured by the standard deviation of its ROE. Equity owners are the ultimate owners of the company

and participate in the profits of the company via dividends. Equity capital can be created by issuing new shares or by retaining profits (Coyle 2002).

2.3.2 Debt Financing

The debt capital in a company's capital structure refers to borrowed money that is at work in the business. The safest type is generally considered long-term debt because the company has years, if not decades, to come up with the principal, while paying interest only in the meantime according to Nawaz, et al. (2011). In components of capital structure, debenture capital is a part of borrowed capital; the creditors of the company are the debenture holders. Different types of debentures are issued for the convenience of investors. Also, organizations can obtain long-term and medium term loans from banks and financial institutions. Public Deposits can be used as debt finance; public deposit means any money received by a non-banking company by way of deposit or loan from the public, including employees, customers and shareholders of the company other than in the form of shares and debentures When a firm decides to use debt financing for its operations it's faced with a financial risk and it's referred to as a levered firm. Ehrhardt & Brigham (2011) defined financial risk as the additional risk placed on the common stockholders as a result of the decision to finance with debt. Financial risk is the probability that the earnings of the firm will not be as projected because of the method of financing. Also, the financial risk arises because debt has a fixed financing obligation usually in the form of interest which must be met when the obligation falls due before the shareholders can share in the retained earnings. The level of debt (financial leverage) that is acceptable for one industry or line of business can be highly risky in another, because different industries and lines of business have different operating characteristics (Gitman & Zutter, 2012).

2.4 Overview of Ghana Stock Exchange

The Ghana Stock Exchange was incorporated in July 1989 as a private company under the Ghana companies' code, 1963(Act179). However, the status of the company was changed to a public company under the company's Code in April 1994.The exchange was given recognition as an authorized stock exchange under the stock Exchange Act of 1971.Trading on the floor of the exchange commenced on November 12, 1990. The GSE is a private sector initiative and is not funded by government. The exchange has no shareholders but it has two categories of members, Licensed Dealing Members and Associate Members. A Licensed Dealing Member is a corporate body licensed by the exchange to deal in listed securities. An Associate Member is an individual or corporate body, which has satisfied the Exchange's membership requirements, but is not licensed to act as a stockbroker on the exchange. Members of the exchange rose from three initially to 53 by December 1998.It commenced operations with three brokerage firms and 11 listed companies. The number of listed companies increased from eleven (11) in 1990 to third-teen (13) in 1991, to nineteen (19) in 1995,to twenty-two (22) in 1996 and then to twenty-five (25) as at February 2003. Currently, the number of listed Companies has increased further to thirty-seven (37) as at 31st December 2015. The increasing number of listed Companies shows the height at which the Ghana Stock Exchange has reached in terms of raising equity capital for these financial dependent firms.

A Council governs the exchange with representation from Licensed Dealing Members, listed companies, the banks, insurance companies, money markets and the general public. The Council sets the policies of the exchange, and its functions include preventing frauds and malpractice, maintaining good order among members, regarding stock market and granting listing.

2.5 Theoretical Literature Review

This study is underpinned by capital structure theories that provide the basis of study variables choice. In particular, capital structure irrelevance, relevance, agency, signaling theory, trade off and pecking order theories are reviewed since all of them support both the dependent and predictor variables as shown in the conceptual framework.

2.5.1 Modigliani and Miller (MM) theory

In corporate finance theories, the seminal work by Modigliani and Miller (1958) in capital structure provided a basis for the development of the theoretical framework within which various theories were about to emerge in the future. Modigliani and Miller (1958) concluded to the broadly known theory of "capital structure irrelevance" where financial leverage does not affect the firm's value. However, their theory was based on very restrictive assumptions that do not hold in the real world. These assumptions include no taxes, no transaction costs, homogenous expectations, and perfect capital markets. The existence of bankruptcy costs and tax advantageous of interest payments lead to the concept of an "optimal" capital structure which maximizes the value of the firm, and hence minimizes its total cost of capital.

Modigliani and Miller (1958) reviewed their earlier position by incorporating tax benefits as determinants of the capital structure of firms. The key feature of taxation is that interest is a tax-deductible expense. A firm that pays taxes receives a partially offsetting interest "tax-shield" in the form of lower taxes paid. Hence, Modigliani and Miller (1963) proposed to use as much debt capital as possible in order to increase profitability and hence maximize the value of firms.

M&M II might make it sound as if it is always a good thing when a company increases its proportion of debt relative to equity, but that's not the case. Additional debt is good only up to a certain point because of bankruptcy cost.

Bankruptcy costs can significantly affect a company's cost of capital. When a company invests in debt, the company is required to service that debt by making required interest payments. Interest payments alter a company's earnings as well as cash flow.

For each company there is an optimal capital structure, including a percentage of debt and equity, and a balance between the tax benefits of the debt and the equity. As a company continues to increase its debt over the amount stated by the optimal capital structure, the cost to finance the debt becomes higher as the debt is now riskier to the lender. The risk of bankruptcy increases with the increased debt load. Since the cost of debt becomes higher, the WACC is thus affected. With the addition of debt, the WACC will at first fall as the benefits are realized, but once the optimal capital structure is reached and then surpassed, the increased debt load will then cause the WACC to increase significantly.

2.5.2 The Trade-off Theory

According to Keynes (1936), firms need liquidity to face their current expenses. Thus they have to raise funds in capital markets or liquidate existing assets. However, capital markets are imperfect and there are transaction costs which can be avoided by holding a sufficient cash level. Thus, the firm can avoid the situations where it is forced to forgo its profitable investments, to cut its dividend payments or to liquidate its assets. And this is one of the principal benefits of holding a sufficient cash level.

Like debt, cash holding generates costs and benefits; and is very important in financing the growth opportunities of the firm. The principal benefit of holding cash is that it constitutes a safety buffer which allows firms to avoid the costs of raising external funds or liquidating

existing assets and which allows firms to finance their growth opportunities. In fact, since companies operate in an imperfect market, they either have difficulty accessing the capital markets or bear a very important external financing cost. Moreover, the principal characteristic of their environment is uncertainty. Thus, insufficient amount of cash forces firms to forgo profitable investment projects or to support abnormally high costs of financing. Two principal costs are associated to cash holdings. These costs depend on whether managers maximize shareholders wealth or not. If managers' decisions are in line with shareholders' interests, the only cost of cash holdings is its lower return relative to other investments of the same risk. If managers don't maximize shareholders' wealth, they increase their cash holdings to increase assets under their control and so to be able to increase their managerial discretion. In this case, the cost of cash holdings will increase and include the agency cost of managerial discretion. Thus, we can apply the idea of Trade-off Theory to determine the optimal level of cash.

Myers (1984) argues that the trade-off theory also fails to predict the wide degree of cross-sectional and time variation of observed debt ratios Barnea, Haugen, and Talmor (1987) developed a multi period capital structure model that includes differential costs of debt and equity financing as well as the possibility of real firm growth. In an important insight, they recognize that a firm's optimal multi period debt policy sets interest relative to taxable income on a period-by-period basis. In their model, a growing, riskless firm can shield all of its income from corporate taxation and achieve an interior optimal capital structure. A firm's debt ratio may optimally vary over time, suggesting an optimal range rather than level for the debt ratio.

Lewis (1990) argues that, due to debt maturity considerations, there may be more than one current debt ratio corresponding to a set of future interest payments. For a given set of interest

payments over time, a firm's current debt ratio can vary with its debt maturity structure, reflecting the term structure of interest rates as well as different default risks. In this context, there may be multiple optimal debt ratios even if the set of interest payments is unique. The trade-off theory of capital structure argues that firms balance the corporate tax benefit of debt against these various costs. The theory yields an intuitively pleasing interior optimum for firms, and gives a rationale for cross-sectional variation incorporate debt ratios: firms with different types of assets will have different bankruptcy and agency costs and different optimal debt ratios. Additionally, firms with different amounts of alternative tax shields will have different marginal tax benefits of debt, thus implying different levels of optimal debt ratios. While there is less than total agreement on the exact costs and benefits of leverage, and what role they explicitly play in firms' capital structure decisions, most financial economists accept some version of the trade-off theory.

Previous research on Static Trade-off Theory concludes mixed results. On one side, study shows that target leverage is not important. Many studies for instance, (Titman and Wessels 1988), Rajan & Zingales ,1995) and (Fama & French, 2002) affirm that higher profitability firms tend to borrow less, which is inconsistent with the actual trade-off prediction that higher profitability firms should borrow more to reduce tax liabilities. (Graham, 2000) estimating the cost and benefit of debt, finds that the large and more profitable firms with low financial distress expectation use the debt conservatively. Microsoft is the classic example of those studies that it being a very profitable organization has maintained a zero-debt policy. Further survey of corporate executives shows the softness of target leverage (Graham & Harvey, 2001). Speed of adjustment towards target leverage is slow (Jalilvand & Harris, 1984); (Fama & French (2002).

Firms on their capital structures do not compensate the impacts of stock returns actively and prior stock returns are the main determinant of market leverage Welch, 2004). On the other side, many studies support trade-off theory and confirm the role of target leverage (See e.g. Marsh, 1982; Hovakimian, Hovakimian, 2004; Hovakimian & Tehranian, 2004). (Frank & Goyal, 2004) favor the trade-off theory in leverage decisions by examining relative importance of 39 factors. (Flannery & Rangan, 2006) contradicted Welch (2004) by finding the effects of firms' prior stock price movements. Most of the time firms are not so active with respect to their financial policy but to move towards target leverage firms do buy back their securities (Leary & Roberts, 2005); (Hovakimian, 2001). (Strebulaev, 2004) and (Hennessy & Whited, 2005) have tried to conciliate inconsistent empirical findings with respect to Trade-off Theory in a dynamic framework.

Trade-off theory hence predicts the cost and benefit analysis of debt financing to achieve optimal capital structure. There is evidence in favor of the static tradeoff and optimal financing structure. Several authors, such as (Schwartz & Aronson, 1967), have documented evidence of strong industry effects in debt ratios, which they interpret as evidence of optimal ratios. (Long & Malitz, 1985) show that leverage ratios are negatively related to research and development expenditures, which they use as a proxy for intangible assets. (Smith and Watts, 1992) also document a negative relation between growth opportunities and debt ratios. (Mackie-Mason, 1990) reports evidence that firms with tax loss carry forwards are less likely to issue debt. This conclusion is consistent with (Miller and Modigliani, 1966), who detected the positive effects of interest tax shields in the market values of electric utilities.

2.5.3 Pecking Order Theory

The Pecking Order Theory originated by (Myers and Majluf, 1984) is the nearest pertinent theory explaining the company's optimal capital structure. (Myers', 1984) Pecking Order

Theory is based on the assertion that managers have information about their firms than investors. It deals with the role of asymmetric information in determining the amount of debt and equity a firm will issue. Firms should finance investments first with internal funds, then with safe debt, followed by risky debt and finally with equity to reduce the adverse signals that may be emitted. The implication of the Pecking Order Theory is that firms do not have a target debt-equity ratio as they choose their leverage ratio based on their financing needs. This theory also implies that firms do not have target cash balances but cash is actually used as a buffer between retained earnings and investment needs (Ferreira & Vilela, 2004). This also means that when a firm increases its internal funds, its leverage falls. As a firm continues to maintain a surplus of internal funds for the purpose of reducing adverse selection costs, it will accumulate excess cash which it will use to pay off its debt when due. As for a firm which does not have a constrained investment policy, it simply uses cash flow to increase cash (Opler et al. 1999). Working capital is a readily available internal source of financing which can thus act as an alternate source of financing to external capital, especially for the purpose of fixed-investment smoothing in order to maintain a stable fixed investment path.

External funds can be very costly due to floatation costs and the problem of asymmetric information, especially for financially constrained firms (Fazzarri & Petersen, 1993). A higher stock in working capital, which will have lower marginal valuation to the firm (Fazzari & Petersen 1993), allows managers to pursue their positive net present value projects without having to worry about having to issue undervalued securities. The argument of the Pecking Order Theory implies that there is a very strong relationship between investment in working capital and information asymmetry. Due to this, firms with different characteristics, such as growth opportunities, size, asset tangibility etc., would result in different investment policies in working capital depending on the roles played by these characteristics in aggravating and/or reducing the problem of asymmetric information and the costs associated with the level of

asymmetric information. When it comes to pecking order theory it has been supported by many academic such as Asquith and Mullins (1986) and Eckbo (1986) had shown evidence of adverse selection relating to equity issues. While research by Cadsby, Frank and Maksimovic (1990) provided similar evidence on experimental bases regarding firm's financing requirements. One of the aspects of pecking order theory implies that when it comes to profitable firms, they would always prefer internal financing rather than taking up new debts or equity. Even though, debt is considered cheaper than equity within certain proportions. Further assertion by (Myers 1984) suggests that it is because the value of firm and wealth of shareholders associated with firm is disturbed by asymmetry of information.

This argument is supported by (Fama and French, 2000) who found that profitable firms were less leveraged as compared to non-profitable firms. (Murray and Goyal, 2003) held that large firms tend to accumulate debts in order to support and keep up with the payments of dividends while small firms tend to behave in opposite behavior. (Jong, Verbeek & Verwijmeren, 2011) examined 6000 US firms in the period of 1985 to 2005 and found evidence to support pecking order theory. (Bessler et al, 2008) concluded that non US firms support Pecking Order Theory. Many research conducted on developing countries support Pecking Order Theory. (Brealey, Myers & Allen, 2008) suggested that the Pecking Order Theory explains the reason why more profitable companies usually ask less for borrowing money – not because they don't have lower levels of debt targets but because they don't need external source of funds. On the other hand, less profitable companies issue bonds because they don't have enough internal funds to finance investments decisions. In this matter, those companies also prefer issuing debt before issuing new stocks.

Following this theory, not only managers of less profitable companies but also managers of more profitable companies would choose a more aggressive working capital policy,

pressuring for lower level of current assets and higher level of financing via suppliers, in a way to source internally the needed funds to finance their companies and to avoid issuing debt and equity. Pecking Order Theory, however, does not explain the influence of taxes, financial distress, security issuance costs, agency costs, or the set of investment opportunities available to a firm upon that firm's actual capital structure (Liesz, 2001) It also ignores the problems that can arise when a firm's managers accumulate so much financial slack that they become immune to market discipline. In such a case it would be possible for a firm's management to preclude ever being penalized via a low security price and, if augmented with non-financial takeover defenses, immune to being removed in a hostile acquisition. For these reasons Pecking Order Theory is offered as a complement to, rather than a substitution for, the traditional trade-off model (Liesz, 2001).

2.5.4 Agency Cost Theory

Agency theory focused on the costs which are created due to conflicts of interest between shareholders, managers and debt holders. Harris & Raviv (1991) explained the three types of agency costs which can help explain the relevance of capital structure as follows;

Asset substitution effect: As D/E increases, management has an increased incentive to undertake risky (even negative NPV) projects. This is because if the project is successful, shareholders get all the upside, whereas if it is unsuccessful, debt holders get all the downside. If the projects are undertaken, there is a chance of firm value decreasing and a wealth transfer from debt holders to shareholders. Underinvestment problem: If debt is risky (e.g. in a growth company), the gain from the project will accrue to debt holders rather than shareholders. Thus, management has an incentive to reject positive NPV projects, even though they have the potential to increase firm value.

Free cash flow: unless free cash flow is given back to investors, management has an incentive to destroy firm value through empire building and perks etc. Increasing leverage imposes financial discipline. The free cash flow theory says that dangerously high debt levels will increase value, despite the threat of financial distress, when a firm's operating cash flow significantly exceeds its profitable investment opportunities. The free cash flow theory is designed for mature firms that are prone to overinvest. Due to the free cash flow theory of Jensen (1986) agency cost theory supports a positive relationship between capital structure and profitability.

2.5.5 The Market timing theory

The market timing theory of capital structure argues that firms time their equity issues in the sense that they issue new stock when the stock price is perceived to be overvalued, and buy back own shares when there is undervaluation. Consequently, fluctuations in stock prices affect firm's capital structures. There are two versions of equity market timing that lead to similar capital structure dynamics. The first assumes economic agents to be rational. Companies are assumed to issue equity directly after a positive information release which reduces the asymmetry problem between the firm's management and stockholders. The decrease in information asymmetry coincides with an increase in the stock price. In response, firms create their own timing opportunities.

The second theory assumes the economic agents to be irrational (Baker and Wurgler, 2002). Due to irrational behaviour there is a time-varying mispricing of the stock of the company. Managers issue equity when they believe its cost is irrationally low and repurchase equity when they believe its cost is irrationally high. It is important to know that the second version of market timing does not require that the market actually be inefficient. It does not ask managers to successfully predict stock returns. The assumption is simply that managers

believe that they can time the market. In a study by Graham and Harvey (2001), managers admitted trying to time the equity market, and most of those that have considered issuing common stock report that "the amount by which our stock is undervalued or over- valued" was an important consideration.

This study supports the assumption in the market timing theory mentioned above which is managers believe they can time the market, but does not immediately distinguish between the mispricing and the dynamic asymmetric information version of market timing.

Baker and Wurgler (2002) provide evidence that equity market timing has a persistent effect on the capital structure of the firm. They define a market timing measure, which is a weighted average of external capital needs over the past few years, where the weights used are market to book values of the firm. They find that leverage changes are strongly and positively related to their market timing measure, so they conclude that the capital structure of a firm is the cumulative outcome of past attempts to time the equity market.

2.6 Empirical Studies on the effect of financing choices on Financial Performance

Since the pioneering work of Modigliani and Miller (1958), the financing decision of capital structure and their impact on financial performance has been a major field in the corporate finance literature. Since then, numerous studies have attempted to investigate the relationship between capital structure and financial performance of the firms. Even though, the area of capital structure and its impacts on financial performance have been analyzed and investigated in the other countries, not much work has been done in Ghana but some attempt has been made to investigate the impact of capital structure on financial performance not on shareholders wealth.

Salim & Yadav (2012) examined the relationship between capital structure and firm performance. The investigation was performed using panel data procedure for a sample of 237 Malaysian listed companies on the Bursa Malaysia Stock exchange during 1995-2011. The study used four performance measures (including return on equity (ROE), return on asset (ROA), Tobin's Q and earning per share (EPS)) as dependent variable. The five capital structure measure (including long term debt (LTD), short term debt (STD), total debt (TD) ratios and growth) as independent variable. Size is a control variable. The data are divided into six sectors which are construction, consumer product, industrial product, plantation, property, trading and service. The empirical tests indicate that capital structure (especially TD and STD) negatively impacts performance measured by ROE. On the other hand capital structure (LTD and TD) has negative significant impact on firm's performance measured by ROA. Furthermore, findings of this study suggest that there is a significantly positive relationship between Tobin's Q (firm performance) and capital structure measured by LTD and STD. Finally, the results show that Tobin Q has a positive and significant relationship with size (as control variable) for all sectors under study except for property sector a negative effect on the Tobin's Q observed.

Farhad & Aliasghar (2013) also studied the relationship between capital structure and Profitability using data from 252 non-financial companies in the period from 1999 to 2008 in Tehran Stock Exchange. Consistent with earlier theories, found a positive association between the return on equity (ROE) and short-term debt. This suggests increasing short-term debts with low interest rate will lead to increase in profitability. Furthermore, the results revealed a negative association between ROE and long-term debt. So, when firms increase long-term debts, this results to decrease in profitability. Finally, the results also indicate a positive relationship between ROE and total debt.

Abor (2005) investigated the relationship between capital structure and profitability of manufactiring firms on the Ghana Stock Exchange (GSE) during a five-year period (1998-2002). Panel data methodology and regression analysis were used in the estimation of functions relating the return on equity (ROE) with measures of capital structure. And, the finding revealed a significantly positive relation between the ratio of short-term debt to total assets and ROE. However, a negative relationship between the ratio of long-term debt to total assets and ROE was found. This implies that an increase in the long-term debt position is associated with a decrease in profitability. With regard to the relationship between total debt and return rates, the results show a significantly positive association between the ratio of total debt to total assets and return on equity.

Shubita & alsawalhah (2012) extend Abor's (2005), and Gill (2011) findings regarding the effect of capital structure on profitability by examining the effect of capital structure on profitability of the industrial companies listed on Amman Stock Exchange during a six-year period (2004-2009). The study sample consists of 39 companies and applied correlations and multiple regression analysis. The results revealed significantly negative relation between debt and profitability. These findings imply that an increase in debt position is associated with a decrease in profitability; thus, the higher the debt, the lower the profitability of the firm. The results also show that profitability increases with control variables; size and sales growth. The findings of this paper contradict with prior empirical studies like Abor (2005). Yet recommendations based on findings are offered to improve certain factors like the firm must consider using an optimal capital structure and future research should investigate generalizations of the findings beyond the manufacturing sectors.

Consistent with the Shubita & Alsawalhah (2012) findings, Chechet & Olayiwola (2014) examined capital structure and profitability of the Nigerian manufactiring firms from the

Agency Cost Theory perspective with a sample of seventy (70) out of population of two hundred and forty-five firms listed on the Nigerian stock exchange (NSE) for a period of ten (10) years: 2000 - 2009 with the aid of the NSE Fact Book covering the period under review. Panel data for the firms are generated and analyzed using fixed-effects, random-effects and Hausman Chi Square estimations. Two independent variables which served as measure of capital structure were used in the study: debt ratio (DR) and equity over the period (EQT) while profitability (PROF) as the only dependent variable. The result showed that DR is negatively related with PROF, but EQT is directly related with PROF.

Nirajini & Priya (2013) studied the Capital structure and financial performance during 2006 to 2010 (05 years) financial year of listed trading companies in Sri Lanka. For the purpose of this study, the data was extracted from the annual reports of sample companies. Correlation and multiple regression analysis were used for analysis. The results revealed a positive relationship between capital structure and financial performance. And also capital structure is significantly impact on financial performance of the firm showed that debt asset ratio, debt equity ratio and long term debt correlated with gross profit margin (GPM), net profit margin (NPM), Return on Capital Employed (ROCE), Return on Asset (ROA) & Return on Equity (ROE) at significant level of 0.05 and 0.1.

Mohammadzadeha et al. (2013) in their study scrutinized the relationship between the capital structure and the profitability of pharmaceutical companies in Iran. To meet the purpose of the study, top 30 Iranian pharmaceutical companies defined as study samples and their financial data were gathered for the period of 2001-2010. In this study, the net margin profit and debts to asset ratio were used as indicators of profitability and capital structure, respectively and sales growth was used as a control variable. Results showed that there was significant negative relationship between the profitability and the capital structure which

means that the pharmaceutical companies established a Pecking Order Theory and the internal financing has led to more profitability.

Apart from non-financial institutions, there are some empirical studies in the financial sectors. Taani (2013) examined the impact of capital structure on performance of Jordanian banks. The annual financial statements of 12 commercial banks listed on Amman Stock Exchange were used for the study which covers a period of five (5) years from 2007-2011. Multiple regressions was applied on performance indicators such as Net Profit (NP), Return on Capital Employed (ROCE), Return on Equity (ROE) and Net Interest Margin (NIM) as well as Total Debt to Total Funds (TDTF) and Total Debt to Total Equity (TDTE) as capital structure variables. The results showed that bank performance, which is measured by net profit, return on capital employed and net interest margin is to be significantly and positively associated with total debt; while total debt is found to be insignificant in determining return on equity in the banking industry of Jordan.

Opoku, Adu, & Anarfi (2013) also studied the impact of capital structure and profitability of listed banks on the Ghana Stock Exchange using a panel data methodology. Capital structure theories were utilized to provide the theoretical basis for the work. The study considered all the 9 banks listed on the Ghana Stock Exchange over the period 2005-2012. The distribution patterns of data and applied statistical techniques used in the study include descriptive statistics, correlation analysis and regression analysis. The study variables also include Return on Asset, Return on Equity, Tobin's q ratio, Economic Value Added (EVA) being the dependent variables and independent variables are: Total Leverage, Debt to Equity ratio, Total Liability of the banks, Size and the Age of the banks. The finding reviled that, profitability measured by returns on equity is inversely and significantly influenced by the total leverage ratio which is also dependent of the capital structure of the banks. The debt equity ratio of the

bank has a positively significant relationship with returns on equity. The capital structure variable, total liabilities of the listed banks also recorded statistics clearly indicating that, the total liabilities of the listed banks does not make a significant contribution on their return on equity. As far as the size of the banks is concerned, the study reveals that the size of the banks does not have a significant impact on their returns on equity. However there was a sort of positive relation between the two variables during the study period. Meanwhile, the results for returns on equity and their years of operation had a significantly negative relationship between them, meaning as the banks grow in age, their profitability levels reduces significantly. The relationship between Capital Structure and Profitability, as well as the impact of Capital Structure on Profitability across the banks by returns on equity, reveals that the profitability of the listed banks on the Ghana Stock Exchange decreases significantly with increase in their total leverage. Therefore there is a clear indication that, Capital Structure has a significant impact on the profitability of the listed banks on the Ghana Stock Exchange. Also at an average total leverage ratio of about 76%, there exist a negative relationship between profitability and capital structure therefore indicating that, the optimal capital structure for the sector is definitely not 76% or more.

In addition to the above studies in banking industries, Goyal (2013) also investigated the impact of capital structure on profitability of public sector banks in India listed on national stock exchange during 2008 to 2012. Panel data and multiple regression models were used to find out the association between capital structure characteristics and banks performance in the context of India. The findings of study validated a strong positive dependence of short term debt to capital (STDTC) on all profitability measures (ROA, ROE and EPS). Whereas, Long term debt to capital (LTDTC) & TDC having a negative relationship with return on assets (ROA), return on equity (ROE) and earnings per share (EPS). Firm size (SIZE) experienced an optimistic connection with variables (ROA, and EPS) and negative with ROE. Assets

growth (AG) proposed a positive relationship with return on asset and return on equity and earning per share.

Besides, Yegon, Cheruiyot, & Sang (2014) empirically investigates the relationship between capital structure and the firm's profitability of banking industry in Kenya, by using panel data extracted from the financial statements of the companies listed on the Nairobi Stock Exchange from year 2004-2012. Linear regression model were used to investigate the nature of relationship between Capital Structure and profitability. The author's rationale behind the industry specific analysis is the fact that exogenous variables appear to force institutions in the same industry in similar fashion, thus leading to the existence of an industry specific capital structure. On the basis of findings, it is documented that short term debt has significant positive relationship with the profitability. This suggests that short-term debt tends to be less expensive, and therefore incremental short-term debt in capital structure will lead to an increase in profit levels. Therefore short term debt is the preferable source of financing for the profitable institutions. Whereas long term debt has significant negative relationship with the profitability that envisage long-term debts are relatively more expensive due to certain direct and indirect costs, therefore employing high proportions of long term debt in financial structure results in low profitability. Empirical results indicate no significant association between total debt and profitability the inclination of individual results provide the logical justification for surprising result. On the basis of these findings it is concluded that the relationship between short term debt and the profitability is consistent with the static trade-off theory not because of the tax shield rather some other unexplored factor. The underlying rationality is, interest on long term debt is also tax deductible expense like short term debt but the results are quite opposite in direction. Pecking order theory is true but with the addition of short term debt on top of the hierarchy of preference. Implicit in such testing is that both

theories have certain elements that are mutually exclusive. Both the theories as a whole can hold true but with the suggested accompaniments.

In their study of the Effect of Capital Structure on the Performance of Palestinian Financial Institutions, Abbadi & Abu-Rub (2012) used Return on Equity (ROE) as accounting performance measure while Tobin's Q was used to measure the market performance of the firms. The independent variables used in both measures were the bank deposits to total assets, total bank loans and other investment and net profit. The deposit to total asset was used as a measure of bank leverage. Using Multiple Linear Regression they found strong correlation between return on assets and efficiency; and total deposit to total assets and efficiency. The same variables have the same effect on market value while loans have a weak effect.

In Ghana, there is no empirical study directly related with the subject matter of this study, "The impact of financing choices on profitability of manufacturing firms in Ghana with an emphasis on core business operations profitability of companies. However, there are a few studies in some areas of corporate finance. Usman (2013) examined the determinants of capital structure of large taxpayer share companies in Ghana. Econometric analysis were performed for a panel of 27 listed companies in Ghanaian Revenue and Customs Authority (ERCA) large taxpayers' branch office in Accra for the study period of 2006–2010. Nine conventional explanatory variables were adopted in the study, including profitability, size, age, tangibility, liquidity, and non-debt tax shield, growth, and dividend payout ratio and earnings volatility. As a result of the improvement in the existing estimation methods that enables to employ cross-sectional and time-series data concurrently, random-effect panel data regression was applied to study the effect of selected independent variables on capital structure. The result showed that size, age, tangibility, liquidity position and non-debt tax shield of a company are positively correlated with leverage, whereas profitability, earnings

volatility and dividend payout ratio are negatively associated with leverage. Growth variable was found to be statistically insignificant in affecting leverage of large taxpayer share companies in Ghana. Based on the sign of these relations the Author also indicated that, Agency cost theory provide more convincing evidence than other capital structure theories in elucidating the capital structure of large taxpayer share companies in Ghana.

Furthermore, from empirical studies on the listed companies in Ghana, Adi, et al. (2013). Examined the relationship between leverage and firm specific (profitability, tangibility, growth, risk, size and liquidity) determinants of capital structure decision, and the theories of capital structure that can explain the capital structure of listed companies in Ghana using a mixed method research approach by combining documentary analysis and in-depth interviews. More specifically, the study used twelve years (2000 - 2011) data for eight listed companies in Ghana. The findings reviled that profitability, size, tangibility and liquidity of the study companies are important determinants of capital structure in Ghana.

Abiti, & Adzraku, (2012) also assessed the factors that affect bank profitability in Ghana covering the period of 2000-2011. Mixed research approach (data obtained through the structured document reviews and in-depth interviews) were applied. The analysis also managed through the multiple linear regressions model, OLS. The dependent variable was ROA as a single measure of profitability and it was measured as net profit before tax divided by total assets. The independent variables includes; equity-to-total asset ratio (the inverse of the leverage ratio), Operational efficiency, Income diversification, Liquidity risk, Asset Quality, Real GDP growth and Inflation. The result indicated that capital strength is one of the main determinants of profitability of banks in Ghana.

2.7 Liquidity Management

Liquidity management is important for every firm as it virtually affects its overall liquidity and profitability (Appuhami, 2008). Firms involved in the processing of goods (manufacturing companies), usually keep working capital in the form of the cash, marketable securities, cash equivalents and the inventories. The working capital comprises almost half of the sum of the asset side of the balance sheet, whereas this proportion may be higher in the case of firms involved in the business of trading these products (merchandising companies). The excessive amount of investment in these assets may result in the barrier of the company's precious cash resources and eventually profit of firms may decline.

There is always tradeoff between liquidity and profitability (Eljelly, 2004). Liquidity and profitability are important goals for any firm and to sacrifice one goal at the cost of other can create severe problems for the firm (Kargar and Bluementhal, 1994). Profitability is important for long term survival of firms which helps to maximize the wealth of shareholders. On the other hand liquidity is important to cover its short term obligations like payment to supplier and to protect itself from bankruptcy (Howorth and Westhead, 2003, Deloof, 2003, Afza and Nazir, 2007, Afza and Nazir, 2008) Liquidity Management requires a careful attention since it plays a major role in firms effectiveness, value and risk (Smith, 1980).

Large inventory and a substantial trade credit policy may lead to high sales. Firms kept larger inventory to reduce the risk of a stock out. Trade credit may arouse sales because it allows customers to assess product quality before paying (Long, Maltiz & Ravid 1993). Liquidity is concerned with making sure that firms have exactly the right amount of money and lines of credit available to the business at all times. A popular measure of liquidity is cash gap or cash conversion cycle, the time lag between the expenditure for the purchases of raw materials and the collection of sales of finished goods (Deloof, 2003). The longer this time lag, the larger

the investment in working capital. A longer cash gap might increase profitability because it leads to increase in sales of companies. However, corporate profitability might also decrease with the cash gap.

A firm is required to maintain a balance between liquidity and profitability for the sake of its short-term obligations. Liquidity is a prerequisite to ensure that firms are able to pay its short-term debt and its continued flow can be guaranteed from a profitable business enterprise. Liquidity for the ongoing firm is not dependent on the liquidation value of its assets, but also depends on the operating cash flows generated by those assets of firms (Soenen, 1993).

Efficient management of liquidity is a fundamental part of the overall corporate strategy to maximize the wealth of shareholders. Firms try to keep an optimal level of liquidity that maximizes their value (Howorth and Westhead, 2003; Deloof, 2003; Afza and Nazir, 2007). According to Chief Financial Officer (CFO), liquidity management a simple and straightforward concept of ensuring the ability of the organization to fund the difference between the current assets and current liabilities (Harris, 2005).

2.8 Research Gap

From the empirical review, it is obvious that there are contradicting results of earlier studies on the relationship between capital structure and profitability, the limited and inconsistent measures of variables used in the past researches in Ghana as well as the unique nature of the operation and capital structure of companies in Ghana, there is therefore an objective ground to study the impact of financing choices/ capital structure on profitability and shareholders wealth in the Ghanaian context. Furthermore, to the best of the researchers' knowledge there is no evidence documented on the impact of capital structure on profitability and shareholders wealth of core business operations of listed companies in Ghana.

Therefore, this study was designed to scrutinize the impact of capital structure on profitability and shareholders wealth of core business operations of listed companies in Ghana by using net return on equity and earnings per share as measure of profitability and shareholders wealth of the core business operations of companies, and capital structure/ leverage measured as Total Debt to Asset, short term debt ratio, long term debt ratio and, firm size.

2.9 Conceptual Framework

The conceptual model below was developed based on previous research undertaken in order to show the effects of financing choices on financial performance and shareholders wealth of listed companies in Ghana.

In this study, the dependent variable is the financial performance and shareholders worth, which was proxied by Return on Equity and Earning per shares. The independent variable is the capital structure represented by short term debt ratio, long term debt ratio, firm size and liquidity.

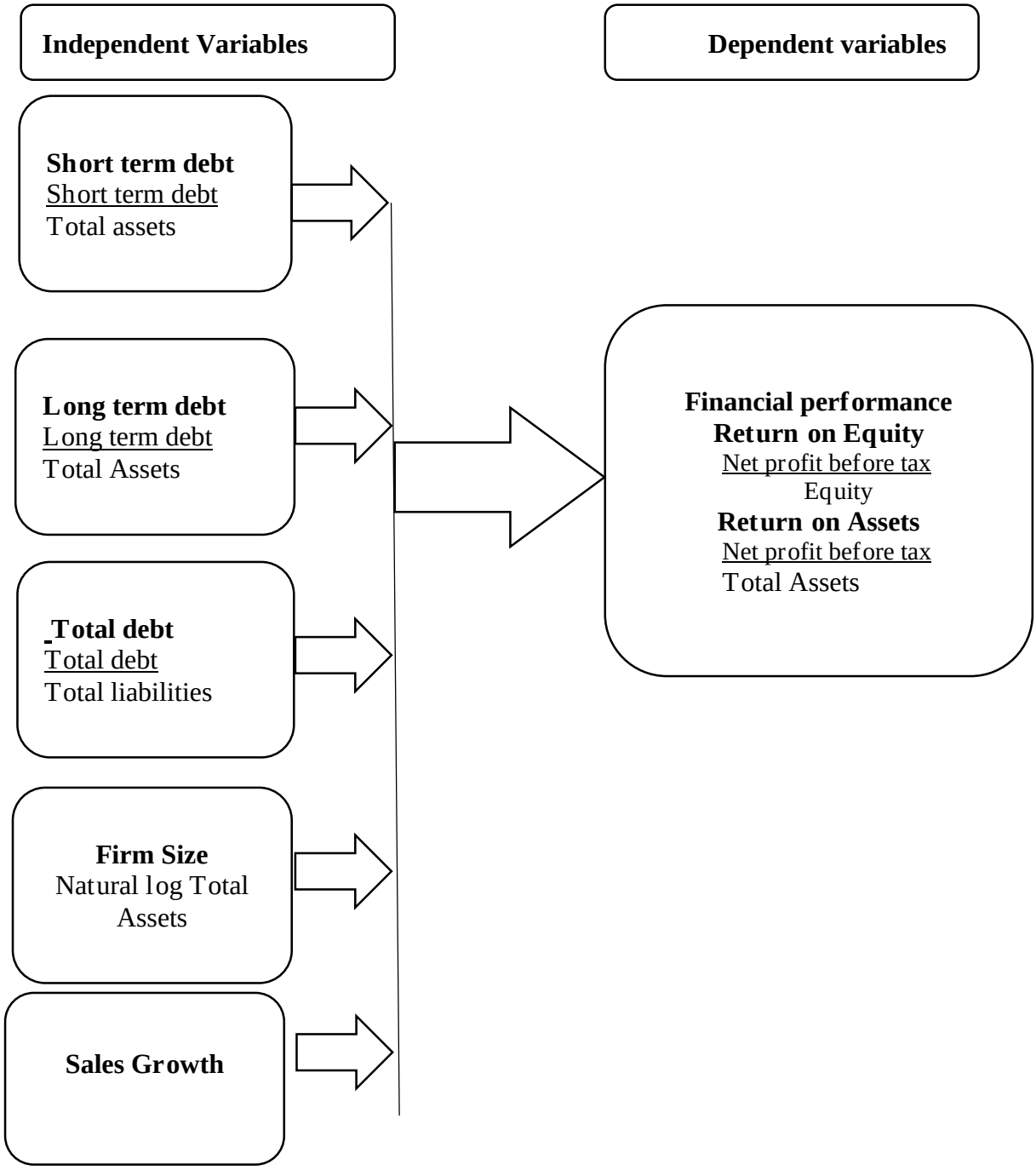

Figure 2.1 Conceptual Framework

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This part of the study covers the description of the methods and approaches used. It focuses on the research design, the study population, and sampling size procedures. The chapter also concentrate on the sources of data and data collection tools. Data processing and analysis as well as empirical model of the study are considered in this chapter. The chapter concludes by presenting variables operationalization and specification of econometric model used to achieve the study objectives.

3.2 Research Technique

This study seeks to use quantitative research technique to study the effects of the capital structure on the profitability of listed manufacturing companies in Ghana. The use of econometric and statistical techniques including models is key tools in the conduct of quantitative research. A study of the above subject therefore, lends itself to the main tenets of quantitative research methodology to help find out objectively the empirical relationship between financing choices specifically the debt components effect on the financial performance herein defined as return on equity and return on assets of listed manufacturing Ghanaian companies that may be generalized for industry and policy analysis.

3.3 Population and Sampling Size

From the population of 16 manufacturing firms listed on the Ghana Stock Exchange (GSE) market, a sample of 10 companies were purposively selected for the analysis. Six companies did not satisfy the set criteria for selection as they did not have data required for the study period. The firm have been listed consecutively within the five-year period under study.

3.4 Data Collection

Given the research design, secondary data was used to meet the objectives of the study. As a result, the data for the firm's financing choices and profitability indicator variables was obtained from audited financial statements of the respective firms. Thus, the data were collected from annual report Ghana and from the respective companies' websites. In order to avoid the risk of distortion in the quality of data, the data was the audited financial statements particularly balance sheet and income statement.

3.5 Data Processing and Analysis

To achieve the objectives of the study, panel data of ten listed companies for five years (2014-2018) was used. This is because panel data has the advantage of giving more informative data as it consists of both the cross-sectional information, which captures individual variability, and the time-series information, that captures dynamic natures of the data. And hence it ensures more variability, more degrees of freedom, more efficiency, and less collinearity among variables. Using statistical package EViews version 8 software, the collected panel data was analyzed using the descriptive statistics and multiple regressions.

In the analysis of the descriptive statistics, the mean, standard deviation, maximum and minimum values were used to analyze the trends of the data.

Furthermore, diagnostic tests were measured in order to check the validity of the model based on the assumption of the Classical Linear Regression Model. Specifically, the assumption tests that were carried out in this study include Heteroskedasticity Test, Autocorrelation Test, and test for Multicollinearity.

Finally, the Hausman specification test was performed to choose the appropriate model for this study between the random effect (RE) and fixed effect (FE) model. Thus, based on the result of this test, the p-values for the Hausman test was significant hence the fixed effects model was found to be appropriate and applied for the study.

The Breusch and Pagan Largrangian multiplier test was also performed to find out the presence of heteroscedasticity. The p-values for the Breusch and Pagan Largrangian multiplier test was not significant indicating the absence of heteroskedasticity.

Therefore, the multiple regression result of the fixed effect model was used to analyze the impact of capital structure on firm performance of listed manufacturing companies of Ghana, and to examine the relationship between the variables used in this study.

3.6 Operationalization of variables

As noted in the conceptual framework, the dependent variables used in this study are Return on Equity (ROE) and Earnings per share (ROA) denoting financial performance. The independent variable, which in this case is the capital structure is represented by short term debt, long term debt, total debt, sales growth and firm size. The table below summarized the variables used and how they were calculated.

Table 3.1 The summary of variables used and their expected signs

Variable	Legend	Measurement	Sign
Dependent variables:			
Return on equity	ROE	Net profit before interest and taxes) over Equity	
Return on Assets	ROA	Net profit before interest and Tax over total asset	
Independent variables:			
Short-term debt obligations to total asset	STD	Short-term debt/Total asset	−
Long-term debt obligations to total asset	LTD	Long-term debt/Total asset	−
Total debt to total Asset	TDA	Total debt over total Asset	-
Firm size	FIRMSIZE	Natural logarithm of total assets	+
Sales Growth	SG	Sales growth of firm *i* in time *t*	+

3.6.1 Dependent Variables

For the purpose of this study, the capital structure variable and shareholders wealth are the independent variables. The financial performance variable or ratio to be used is return on equity (ROE) and (ROA)

Return on Equity

The return on equity is an important measure of profitability in that it indicates how much of the profit is distributed to shareholders. At the same time, it indicates or signals the efficiency of management in generating returns for shareholders who are overly concerned with value maximization. The return on equity is computed as the ratio of the Profit before Interest and tax divided by the total equity capital.

Return of Asset (ROA)

Return on assets (ROA) is an indicator of how profitable a company is relative to its total assets. ROA gives an idea as to how efficient management is at using its total assets to generate earnings. The assets of the company are comprised of both debt and equity. Both of

these types of financing are used to fund the operations of the company. The ROA figure gives investors an idea of how effectively the company is converting the money it has to invest into net income. A higher ROA figure gives a good indication that the company is earning more with less investment. ROA measurements include all of a business's assets which arises out of liabilities to creditors as well equity. In calculating the ROA, net profit is divided by total assets.

3.6.2 Independent Variables

For the purpose of this study, the independent variables are representative of leverage ratios and the control variables. The leverage ratios are as follows:

3.6.2.1 The Ratio of Short-Term Debt to Total Assets

This is expressed as short –term debt as a ratio of total assets to determine how much short-term debt is used to finance the activities of the manufacturing firms in Ghana and how this affect profitability over the years. This ratio also gives us an idea about what percentage unit of assets of a firm is been financed by short term debt. A negative relationship is expected when the dependent variables are regressed against this variable in line with the fact that most of the listed companies are heavily leveraged but mostly with respect short term debt.

3.6.2.2 The Ratio of Long-Term Debt to Total Assets

This ratio determines the degree to which listed Ghanaian companies use long term debt to finance their activities and how this reflects in profitability measures over time. This ratio also presents a picture of the percentage unit of assets of manufacturing firms that are financed by long term debt.

3.6.2.3 Total debt to total Asset

Financial leverage seeks to measure the debt burden of a firm. Total debt to asset ratio seeks to identify the percentage of a firm’s asset financed by interest paying debt.

3.6.2.4 Firm Size

According to Abor (2005), firm size contributes to firm profitability and large firms have greater opportunity to take on more debts to finance their operations. In using the size of the firm as control variable for the study, the natural logarithm is taken of the asset over the period covered by the study. Asset size of firms was considered in this study as a control variable. In addition to its role as a control variable, size was introduced to determine whether economies or diseconomies of scale exist in the companies listed in Ghana.

3.6.2.5 Sales growth:

The study also used sales growth as a control variable and is defined as the rate of growth in sales taking into consideration the previous year's sales and the current year sales. Larger sales volumes with smaller margins is preferred to smaller sales volumes with larger margins because a firm's regular cash flows helps to helps to meet liquidity demand especially when a firm rely on short term debts in financing its operations. Abor (2005) also used sales growth as a control variable in assessing the impact of capital structure on firm performance.

3.7 Model Specification

As indicated in the previous sections, panel data regression model was adopted for this study. Panel data was generated using both time series and cross-sectional data from the audited financial statements of the companies. It was also ideally used because it helps in the identification of effects that cannot be easily pointed out using purely cross- section or time series data, and other important features.

This study used explanatory variables such as short-term debt to asset, long term debt to total asset, total debt to total asset, firm size and sales growth while the dependent variable was return on equity and return on Assets.

To meet the objective of the study and to find out the impact of financing choices on financial performance of manufacturing firms on the Ghana Stock Exchange, the model used by Opoku et al. (2013) and Abor (2005) with some modification to include relevant variable was applied.

The general model;

$Y_{it} = \beta_1 + \beta_2 X_{it} + \varepsilon_{it}$

Where,

Y is the dependent variable.

B is the intercept.

X is the independent variable.

μ is the error term.

i is the number of firms and

t is the number of time periods.

The subscript i representing the cross-sectional dimension and t denote the time-series dimension.

In order to measure the effects of capital structure on the financial performance and of manufacturing firms i in Ghana, equation 3.1 was extended to generate subsequent equations, which were employed for the estimation.

$ROE_{it} = \beta_1 + \beta_2 STDA_{it} + \beta_3 FIRMSIZE_{it} + \beta_4 SG_{it} + \varepsilon_{it}$ …...3.2a

$ROE_{it} = \beta_1 + \beta_2 LTDA_{it} + \beta_3 FIRMSIZE_{it} + \beta_4 SG_{it} + \varepsilon_{it}$ …...3.2b

$ROE_{it} = \beta_1 + \beta_2 TDA_{it} + \beta_3 FIRMSIZE_{it} + \beta_4 SG_{it} + \varepsilon_{it}$ …...3.2c

$ROA_{it} = \beta_1 + \beta_2 STDA_{it} + \beta_3 FIRMSIZE_{it} + \beta_4 SG_{it} + \varepsilon_{it}$ …...3.3a

$ROA_{it} = \beta_1 + \beta_2 LTDA_{it} + \beta_3 FIRMSIZE_{it} + \beta_4 SG_{it} + \varepsilon_{it}$ …...3.3b

$ROA_{it} = \beta_1 + \beta_2 TDA_{it} + \beta_3 FIRMSIZE_{it} + \beta_4 SG_{it} + \varepsilon_{it}$ …...3.3c

Where:

ROE_{it} is the Return on Equity of $company_i$ at time t.

ROA_{it} is the Return on Asset of $company_i$ at time t.

β_1 is the constant for each company.

β_2, β_3, β_4 β_5 is the regression coefficients values

$STDA_{it}$ is the short term debt of $company_i$ at time t

$LTDA_{it}$ is the Long Term Debt of $company_i$ at time t

TDA_{it} is the liquidity of $company_i$ at time t

$FIRMSIZE_{it}$ is the firm size of $company_i$ at time t

SG_{it} is the sales growth of the company at time t

ε_{it} is the error term

This study follows the work of Abor (2005) .

3.8 Organizational Profile

In February 1989, a 10-member National Committee under the Governor of the Bank of Ghana, the Ghanaian central bank, began exploring the idea of implementing a national stock exchange. The committee established the GSE in July, 1989 as a private company under the Ghana's Company Code, 1963 (Act 179), which was officially chartered in October 1990. The first day of trading was November 12, 1990 during which shares of three listed firms traded hands (Otis, 2010). The Ghana Stock Exchange (G E S) is the principal stock exchange of Ghana. The exchange was given the recognition as an authorized stock exchange under the Stock Exchange Act of 1991, and in April, 1994, the exchange was converted into a public limited company.

Since its inceptions, the GSE listings have been included in the main index, the GSE All-share Index. GSE performance has varied considerably. In 1993 the GSE was the sixth best index

performing emerging stock market with a capital appreciation of 116%. In 1994, it was adjudged the best index performing stock market among all the emerging markets gaining 124.3% in the index level with a disappointing index growth of 6.3% in 1995. This trend was partly due to high inflation and interest rates. Growth of the index for 1997 and 1998 was 42% and 868.3% respectively. As of October 2006, the market capitalization of the GSE was about GH¢111,500b ($ 11.5b) and that of 2007 was GH¢ 131,633.22b with the index appreciated by 31.84%. The number of listed companies increased to 13 in 1991; 19 in 1995; 32 in 2007 and currently, it has around 35listed companies on it. All types of securities can be listed, and the criteria for listing include capital adequacy, profitability, spread of shares, years of existence and management efficiency. The manufacturing and brewing sectors currently dominate the exchange. A distant third is the banking sector while other listed companies fall into the insurance, mining and petroleum sectors.

Most of the listed companies on the GSE are Ghanaian but there are some multinationals. Although non-resident investors can deal in securities listed on the exchange without obtaining prior exchange control permission, there are some restrictions on portfolio investors not resident in Ghana. The current limits on all types of non-resident investor holdings (be they institutional or individual) are as follows: a single investor (i.e. one who is not a Ghanaian and who lives outside the country) is allowed to hold up to 10% of every equity. Secondly, for every equity, foreign investors may hold up to a cumulative total of 74% (in special circumstances, this limit may be waived). The limits also exclude trade in Ashanti Goldfields shares. These restrictions were abolished by the Foreign Exchange Act, 2006 (Act 723). There is an 8% withholding tax on dividend income for all investors. Capital gains on securities listed on the exchange will remain exempt from tax until 2015. The exemption of capital gains applies to all investors on the exchange. There are no exchange control regulations on the remittance of original investment capital, capital gains, dividends,

interest payments, returns and other related earnings. The exchange holds trading every working day.

Pre-market sessions between the hours of 9.30am and 10.00am and normal trading sessions from 10.00am to 15.00noon on all days of the week except Saturdays, Sundays and holidays declared by the exchange in advance.

All trading is agreed on the floor of the exchange except Anglo Gold shares which can be traded both through the GSE and over the counter after GSE trading hours. All out of hour's trade are subsequently reported to the GSE at the next trading session.

Potential changes at the exchange include the introduction of automated trading and the listing of some state banks. The Bank of Ghana plans the development of mutual funds, unit trusts and municipal bonds at a subsequent date. These changes are aimed at making the exchange more relevant, efficient and effective. The exchange was also involved in preparing the draft law on collective investment vehicles. The exchange is located in Accra.The general information of the firms listed on the GSE, sampled for the study is illustrated in the table 3.2 below.

Table 3.2 General information of the sampled listed firms for the study

Listed Company	Share Code	Classification	Issued Share (million)	Market Cap. (2010) (million)
African Champion Industries	ACI	Manufacturing	32.44	2.60
Aluworks Ltd	ALW	Manufacturing	92.05	11.05
Ayrton Drugs Ltd	AYRTN	Pharmaceutical	215.00	34.40
Benso- Oil Palm Plantation	BOPP	Processing	34.80	26.10
Pioneer Kitchenware	PKW	Printing	6.54	1.05
Cocoa Processing Co. Ltd	CPC	Manufacturing	1,100.83	22.02
Fan Milk Ltd	FML	Food and Beverages	118.71	290.83
Pz Cussons Ghana	PZ	Distribution	168.00	21.60
Unilever Ghana	UNIL	Distribution	62.50	NA
Guinness Ghana Breweries	GGBL	Food and Beverages	307.59	26.252

Source: Ghana Stock Exchange website: 2019

CHAPTER FOUR

DISCUSSION AND ANALYSIS

4.1 Introduction

This chapter examines the data analysis and interpretation of results. The descriptive analysis results for the dependent variables and explanatory variables reveal various issues that are fully examined. The correlation matrix for the variables is reported in order to examine the correlation that exists among variables. The regression results for the panel data for each of the performance measures and for the full sample of observations for the period 2014 to 2018 are displayed and fully discussed so that meaningful conclusions are drawn. The analyses are used to test the earlier formulated hypotheses to establish the relationship which exists among the variables expressed.

4.2 Descriptive statistics

The table 4.1 below indicates the descriptive statistics of both dependent and independent variables for this study. The ROE reveals the profitability of firms based on accounting figures extracted from the annual audited financial reports. This research defines profitability as ROE which is the ratio of Earnings before interest and tax divided by shareholders fund of the firm and ROA which is a ratio of Earnings before interest and tax divided by total Assets. Averagely, from 2014 to 2018, the value of ROE was 2 percent and ROA was 2.9 percent. The maximum values was 61.5 percent and 37 percent and the minimum values was negative 370 percentile units and negative 91percental units for ROE and ROA respectively. This suggest a weak performance for listed companies during the period under study. The result also shows there was a wide difference between the profitability of firms such that whiles some firms made significant levels of profit others suffered abnormal losses. Differences in industry performance may also account for the high variations in profitability.

A quick review of the measures of capital shows that Short term debt to total asset has a mean value of 108 percentile units, a minimum of 0.6 percentile units and a maximum of 272 percentile units which suggest that most firms in Ghana depend heavily on short term debt financing this may be due to the undeveloped bond market in Ghana making it challenging for firms to secure long term funding. This is supported by an average of 14 percentile units, of long-term debt to total which also has a minimum of 0.0 percent and a maximum of 161percentile units.

The total debt to total asset ratio has an average of 124 percentile units which is also a confirmation of the suggestion that manufacturing firms in Ghana depend more on debt in financing their assets. The mean value of firm size of the companies examined is 18.80. The companies experienced high sales growth up to a maximum of 14.8 and in some instances a very low sale as 0.85 (minimum). During the period of study, manufacturing firms in Ghana experienced an average sales growth of 43 percentile units.

Table 4.1: Descriptive Statistics

Variable	N	Mean	SD	Median	Min	Max	Shapiro-Wilk-Test
ROE	150	0.020541	0.638301	0.154966	-3.720450	0.615937	
ROA	150	0.029270	0.145290	0.041648	-0.916410	0.369216	
STDA	150	1.087196	3.280584	0.646156	0.006283	27.17299	
LTDA	150	0.149536	0.290517	0.035214	0.000000	1.609323	
TDA	150	1.236506	3.266680	0.755027	0.006283	27.17299	
FIRMSIZE	150	18.80446	2.650772	19.02809	11.51020	23.26447	
SG	150	0.432887	1.394004	0.230000	-0.850000	14.80000	

4.3 Multicollinearity Test

This section presents the probable degree of multicollinearity among the explanatory variables. The correlation among the variables may affect the efficacy of the estimated coefficients. Table 4.2 shows the results of correlation among variables using Pearson's correlation matrix.

Table 4.2 shows the ROE and ROA is negatively correlated with STDA but the correlation is weak. ROE is positively correlated with the ROA though the correlation is not strong. The STDA, ROA and ROE are all negatively related to the LTDA but the correlation is weak. The LTDA, ROA and ROE have a negative but weak correlation with the TDA. The results from the tables also shows strong and positive correlation between the STDA and TDA. Also, ROA and ROE have a positive correlation with FIRMSIZE though the correlation is not strong. The TDA, LTDA and STDA is negatively related with the FIRMSIZE but the correlation is not strong. The results from the table also shows that the FIRMSIZE has a weak but positive relation with ROE AND ROA. SG has a positive but weak correlation with TDA, STDA, ROA, and ROE. The FIRMSIZE and LTDA has a positive relationship with SG however the correlation is weak.

The relationship among the other variables in Table 2 shows that all the independent variables are less than 0.5 which indicates that there is no problem of multicollinearity. However, two independent variables (i.e. STDA and TDA) are highly correlated this hence the researcher's decision to examine the individual effects of the explanatory variables rather than put them in the same regression model.

Table 4.2: Pearson Correlation Matrix

	ROE	ROA	STDA	LTDA	TDA	FIRMSIZE	SG
ROE	1.0000						
ROA	0.3195	1.0000					
STDA	-0.0112	-0.2802	1.0000				
LTDA	-0.1980	-0.3672	-0.0922	1.0000			
TDA	-0.0287	-0.3142	0.9960	-0.0034	1.0000		
FIRMSIZE	0.2528	0.1377	-0.3955	-0.0740	-0.4036	1.0000	
SG	0.0552	0.0179	0.4625	-0.0892	0.4566	-0.2228	1.0000

Variables: ROA (Return on assets), ROE (Return of equity), STDA (Short term debt), LTDA (Long term debt), TDA (leverage), FIRMSIZE, SG (Sales Growth).

4.4 Heteroskedasticity Test.

The established assumption required for the OLS estimator to be efficient states that the variance of the error term has to be constant and the same for all observations or the error terms are uncorrelated with mean zero and constant variance σ2. This is referred to as a homoscedastic error term. When that assumption is violated and the variance is different for different observations, we refer to this as heteroskedasticity (Gujarati, 2014).

From table 4.3 and 4.4 below the Breusch-Pagan-Godfrey test for heteroskedasticity for both ROA and ROE shows that the Prob. Chi-Square is not significant (that is >0.05) therefore, there is no problem of heteroskedasticity.

Table 4.3: Heteroskedasticity Test: Breusch-Pagan-Godfrey for ROE

F-statistic	**1.077377**	**Prob. F(5,139)**	**0.3756**
Obs*R-squared	5.409761	Prob. Chi-Square(5)	0.3679

Table 4.4: Heteroskedasticity Test: Breusch-Pagan-Godfrey for ROA

F-statistic	**1.168281**	**Prob. F(5,139)**	**0.3279**
Obs*R-squared	5.847802	Prob. Chi-Square(5)	0.3213

4.5 Hausman Test

As mentioned previously in Chapter three there are three approaches to Panel data; Pooled, Fixed and Random affects model. This study employed the Hausman test to determine the most suitable model. The null hypothesis is that Random effect estimation method is suitable and should yield similar coefficients while the alternative hypothesis is that fixed effect estimation methods is suitable. A significant Hausman statistic would indicate a difference in the coefficients of both the estimation methods so the null hypothesis is rejected that random effect model is suitable and the fixed effect model is considered suitable in this case. Consequently, an insignificant Hausman statistic would also imply acceptance of the null hypothesis that the Random effects estimation method is suitable.

The results from the Hausman test conducted for each of the models indicates that the results is significant at 1% percent significance level therefore the null hypothesis of random effect model is rejected. This shows that the fixed effect Model is the appropriate model to use for the regression analysis.

Table 4.5. Hausman Test Result For Individual Models ROE and ROA

Variable	ROA	ROE
(STDA)	Fixed Effect	Fixed Effect
LTDA	Fixed Effect	Fixed Effect
TDA	Fixed Effect	Fixed Effect

* Check Appendix for full Hausman Test Result.

4.6 Empirical Results

Following Abor (2005), the various capital structure variables (STDA, LTDA and TDA) were analysed singularly with respect to firm performance which is the dependent variables measured by ROE and ROA respectively.

4.6.1 The impact of Capital Structure on ROE

From Table 4.6 below, three (3) regression models are presented, where regression (1) contains the ROE as the dependent variable and STDA as the independent variable. Regression (2) also has the same dependent and control variables but with LTDA as the independent variable. Finally, the regression (3) contains the same variables as in regression (1) and (2) except with different independent variable which TDA (total debt/total asset). The control variables in each of the regression models are firm size and Sales growth .

Table 4.7 also shows the same regression as in table 4.6 except that the ROA is used as the dependent variable.

4.6.2 The effect of short-term debt on ROE

Model one shows the relationship between STD and ROE with sales growth and firm size serving as control variables. The R square (0.48…) which measures the coefficient of determination indicates that approximately 48% of the ROE is explained by the independent variables STL, sales growth and firm size and this joint relationship is significant at 1%.In this

model, the sales growth *(0.104, p= 0.0075)* and firm size *(0.2456 p=0.0384)* positively influences ROE and are significant.

The results from table 4.6 below also shows that there is positive and statistically significant relationship between the short-term debt and ROE (Return on equity). The relationship is significant at 1% significance level. This direct relationship shows that as STDA increase by a unit the ROE will also increase by 0.0785 units. This results is consistent is with Abor 2005 and Yegon,Cheruiyot,& Sang(2014) who suggests that short-term debt tends to be less expensive, hence an increase in short-term debt with relatively low interest rate will lead to an increase in profit levels. However, this finding is in contrast with of Hasan et al. (2014) and Salim and Yadav (2012), who observed significant negative impacts of STDA variable on ROE.

4.6.3 The impact of Long-term debt on ROE

Model 2 which represents the relationship between LTDA and ROE with firm size and sales growth as control variables has an R-Square of 0.447 which is significant at 1%. The R-square (Coefficient of Determination) shows that 44.7% of ROE is explained jointly by LTDA and the various control variables. In this model, the sales growth *(0.110, p= 0.007)* positively influences ROE and is significant whiles firm size *(-0.041 p=0.669)* is not significant although negatively related to ROE.

The second model again suggests that the LTDA has a negative relationship with ROE at a 10% significance level. This shows that as the LTDA increase by one unit the ROE will also decrease by 0.876 units and vice versa. This result is consistent with Yegon,Cheruiyot,& Sang(2014) and Abor (2005) whose results shows a significantly negative relationship between LDA and profitability which means that an increase in the long term debt levels is connected with a decrease in profitability of firms. This inverse relationship suggests that cost

of long-term debt is more expensive and hence using more could decrease profitability. The results support earlier findings by Miller (1977), Fama and French (1998), Graham (2000) and Booth et al (2001).

4.6.4 The impact of Total debt on ROE

Model three shows the relationship between TDA and ROE with sales growth and firm size serving as control variables. The R square (0.48…) which measures the coefficient of determination indicates that approximately 48% of the ROE is jointly explained by the independent variables TDA, sales growth and firm size and this is significant at 1%. .In this model, the sales growth *(0.105, p= 0.007)* and firm size *(0.2456 p=0.0405)* positively influences ROE and are significant.

The effect of Total debt on ROE is presented in the table 4.6 below. The results shows that there is positive relationship between the ROE and TDA. The relationship is significant at 1% significance level which shows that as the TDA increases by a unit the ROE of the company will also increase by 0.078 units. This suggest that companies that acquire more debt are more profitable or more profitable firms depend on debt financing as their major source of funding their operations. This result confirms the findings of Abor 2005 and Hadlock and James (2002).

Table 4.5: Panel data analysis of Capital structure on ROE using Fixed effect Model

ROE	Model 1	Model 2	Model 3
STDA	0.0785***		
	(0.000)		
LTDA		-0.876*	
		(0.053)	
TDA			0.078***
			(0.001)
FIRMSIZE	0.246**	-0.041	0.246**
	(0.038)	(0.669)	(0.0405)

SG	0.104***	0.110***	0.105***
	(0.008)	(0.007)	(0.007)
Con.	-4.709**	0.866	-4.722***
	(0.035)	(0.632)	(0.037)
R-square	0.4824	0.4470	0.4801
Adj. R-square	0.3404	0.2953	0.3375
Prob>F	0.0000	0.0000	0.0000
Obs	145	145	145

***, **,* Denotes significance at 1%, 5% and 10% levels, respectively. ROE (Return of equity), STDA (Short term debt/Total asset), LTDA (Long term debt/Total asset), TDA (Total debt/Total asset), FIRMSIZE, SG (Sales Growth).

4.7 The impact of Capital Structure on ROA

4.7.1 The effect of short-term debt on ROA

The results from table 4.7 above shows that there is positive but statistically insignificant relationship between the short-term debt and ROA (Return on Asset). This shows that STDA has no impact on ROA. This result is in contrast with findings of Goyal (2013) which showed that there is a positive and statistically significant relationship between STDA on ROA. This notwithstanding, the control variables firm size *(0.0697, p=0.0059)* and sales growth *(0.0313 p=0.0000)* were significant determinants of ROA. This shows that as the sales growth and firm size increases, the ROA increases. This indicates that the more the firms increase their sales and size in terms of their assets the higher their ROA.

Also, the model has a significant R-Square of 0.55 at 1%. Significant level, this indicates that approximately 55% of the ROA is jointly explained by the independent variables STDA, firm size and sales growth.

4.7.2 The impact of Long-term debt on ROA

Model 2 which represents the relationship between LTDA and ROA with firm size and sales growth as control variables has an R-Square of 0.57 which is significant at 1%. The R-square (Co efficient of Determination) shows that 57% of ROA is explained jointly by LTDA and the various control variables. In this model, the sales growth *(0.029, p= 0.0004)* and firm size *(0.019, p=0.0575)* positively influences ROA and are significant. This shows that as the size of the firm increases the ROA will increase. This shows that bigger firms listed on the Ghana Stock Exchange have higher Return on Asset than smaller firms listed on the Stock Exchange.

Also, from the fixed effect model in table 4.7, the results indicate that the LTDA has a negative relationship with ROA at a 5% significance level. This shows that as the LTDA increase by one unit the ROA will also decrease by 0.20 units and vice versa. This result is consistent Khalaf (2013) whose results showed a negative relationship between LTDA and ROA.

4.7.3 The impact of Total debt on ROA

Model three shows the relationship between TDA and ROA with sales growth and firm size serving as control variables. The R square *(0.55, p=0.000)* which measures the coefficient of determination indicates that approximately 55% of the ROA is jointly explained by the independent variables TDA, sales growth and firm size and this is significant at 1%. In this model, the firm size *(0.068 p=0.007)* positively influences ROA and are significant while sales growth *(0.00088, p= 0.86)* is not significant in explaining ROA.

Table 4.7 again shows that there is positive relationship between the ROA and TDA. The relationship is significant at 1% significance level, which shows that as the TDA increases by a unit the ROA of the company will also increase by 0.032 units. This result is consistent with Hasan et al (2014) who submit that total debt to total asset has a significant positive

relationship with return on assets. This also suggests that debt is effectively utilized to generate relatively high returns.

Table 4.8: Panel data analysis of Capital structure on ROA using Fixed effect Model

ROA	Model 1	Model 2	Model 3
STDA	0.00143		
	(0.77)		
LTDA		-0.204**	
		(0.025)	
TDA			0.0315***
			(0.000)
FIRMSIZE	0.0698***	0.0575***	0.068***
	(0.006)	(0.019)	(0.007)
SG	0.0313***	0.0291***	0.00088
	(0.000)	(0.000)	(0.86)
Con.	-1.292***	-1.029360***	-1.2588***
	(0.007)	(0.005)	(0.009)
R-square	0.5503	0.568689	0.5501
Adj. R-square	0.4270	0.450365	0.4267
Prob>F	0.0000	0.0000	0.0000

***, **,* Denotes significance at 1%, 5% and 10% levels, respectively. ROA (Return on assets),STDA (Short term debt/Total asset), LTDA (Long term debt/Total asset), TDA (Total debt/Total asset), FIRMSIZE, SG (Sales Growth).

CHAPTER FIVE

SUMMARY OF FINDINGS, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the major findings, conclusions, recommendations and areas for further research. The study assessed the impact of capital structure on firm performance in the Ghanaian environment. The explanatory variables that were studied were, STDA, LTDA, and TDA. Financial performance indicators used as the dependent variables were, return on equity (ROE) and Return on Assets (ROA). The study also used firm size and sales growth as control variables.

The study pursued the following objective:

1. To find out the impact of short-term debt to total asset on financial performance of manufacturing firms in Ghana
2. To assess the impact of long-term debt to total asset on financial performance of manufacturing firms in Ghana
3. To explore the effect of total debt to total asset on financial performance of manufacturing firms in Ghana
4. The main findings of the study are summarized in line with these specific objectives of the study.

5.2 Summary of main findings

The study revealed that short term debt (STDA) has a positive and statistically significant relationship with ROE at 1% significance level. This means that firms with high profitability (ROE) uses more of short-term debt (STDA) as a source of financing. Therefore, the higher the STDA the higher the ROE. However, the relationship between short term debt (STDA)

and ROA is not significant. This means that the STDA has no impact on the ROA of firms listed on the Ghana Stock exchange.

The results from the analysis showed that the long-term debt (LTDA) has a negative and significant relationship with both ROE and ROA at 10% and 5% respectively. This means that long term debt (LTDA) reduces both the ROE and ROA of firms listed on the stock exchange in Ghana.

The Total debt of the manufactured firms listed on Ghana stock exchange have a positive and statistically significant relationship with both ROE and ROA at 1% significance level. This indicates that as the overall debt of the manufacturing firms increases the profitability of the firms also increases.

The firm size as a control variable has positive and statistically significant relationship with both ROE and ROA at 5% and 10% significance level respectively. This shows that as the size of the firm increases the profitability of firms also increases. Also, bigger firms listed on the stock exchange have a high profitability levels than firms that are smaller in size. The study also revealed that sales growth also has a positive and statistically significant relationship with both ROE and ROA at 1% significance level. This means that the higher the sales growth the higher the profitability of the firms listed on the stock exchange.

5.3 Conclusion of the study

This study attempts to find out the impact of capital structure on the performance of manufacturing firms listed on the Ghana stock exchange. From the empirical results it can be concluded that short term debt has a significant positive impact on profitability (ROE) of manufacturing firms in Ghana. This means that firms with higher ROE employ short term debt. This study also reveals that the majority of manufacturing firms in Ghana rely on debt sources to fund their operations and that short-term debt constitutes about 87 percent of total

debt. This confirms earlier studies by Abor 2005 and Yegon, Cheruiyot, & Sang (2014) who suggests that short-term debt tends to be less expensive, hence an increase in short-term debt with a relatively low interest rate will lead to an increase in profit levels.

The negative relationship between LTDA on ROE and ROA is an indication that the use of long-term debt financing in Ghana tends to significantly decrease the profitability of manufacturing firms. This phenomenon can be attributed to the high cost of long-term debt as well as the difficulty in meeting the various collateral demands of fund providers. Only 14% of Assets can be attributed to long term source of funding. This also means that firms are unable to assess long term debt in Ghana confirming the weak nature of long-term debt market.

Total debt to total Asset ratio in this study indicates that most manufacturing firm's finance their assets with debt, meaning that majority of manufacturing firms in Ghana have high financial leverage which may pose investment risk leading to high cost of capital for businesses. TDA suggest that 75 percent of firm's asset is financed by debt. There is a significantly positive relationship between TDA on ROA and ROE which goes to suggest that profitable firms depend on debt sources of funding their operations, this is consistent with Champion (1999) whose assertion is that the use of leverage was a way to improve the performance of an organization. This position is also confirmed by Abor (2015) that firms which perform better in terms of ROE, depend more on debt financing.

5.4 Recommendations

Based on the findings of this study the following recommendations are proposed:

Short term debt has been shown to have a positive relationship on ROE but insignificant positive relationship with ROA .This must bring caution to financial managers because a firm is only advised to take on debt when the ROA which measures the extent to which

management of a firm effectively utilizes invested capital (assets) to generate a given amount of earnings, will be higher than the interest on the debt. The use of more short-term debt also means higher and regular repayment of financial liability associated with the short repayment period. Monthly cash flow is highly affected than it would be on a long-term debt with relatively smaller payments. The use of higher short-term debt will also require managers to target achieving larger sales volumes even if it comes with smaller margins, this is preferred to smaller sales volumes with larger margins because a firm's regular cash flows helps to meet liquidity demand especially when a firm rely on short term debts in financing its operations.

LTDA has a significantly negative impact on both ROA and ROE, this implies that the cost of long term debt is still high in the Ghanaian economic environment and this situation has the potential to offset the benefits of using long term debt to undertake major business activities such as adding to its product line, expanding internationally and improving technology in operations.

Total debt to Asset ratio showed a significant positive relationship with both ROE and ROA, this confirms the assertion that most Ghanaian firms rely on Debt financing and this research has shown that short term debt constitutes about 87 percent of debt of firms. It is imperative for management to understand the adverse effect and risk associated with high financial leverage common amongst is the risk and direct and indirect cost of Bankruptcy.

A most optimal capital structure is the debt-equity mix that best maximize firms' value; therefore, firms should strive to optimize their capital structure by an appropriate mix of debt-equity capital. The firms should therefore strike a balance between their choice of capital structure and the effect on its performance as it affects the shareholders risks, returns and the cost of capital.

5.5 Areas for Further Study

Suggestions for further research related to the impact of capital structure on the performance of manufacturing firms should consider gathering data on a relatively longer period of time to allow for a stronger trend to be ascertained on the impact of the dependent and explanatory variables. In addition, future research should consider adding more dependent variables in relation to firm performance such as Earnings per Share, Tobin's Q, Gross Profit Margin, Net Profit Margin as well as Return on Capital Employed. Additionally other control variables, such as tax, the cost of capital, Liquidity, Age of Firm, risk etc. may be considered in further research so that model can predict the dependent variable even better. This study can be made more comprehensive by taking the debt sources into consideration thus whether these debt sources are domestic or foreign sources.

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