

**AKENTEN APPIAH MENKA UNIVERSITY SKILLS TRAINING AND
ENTREPRENUERIAL DEVELOPMENT**

**EFFECT OF FINANCIAL STRUCTURE ON FINANCIAL PERFORMANCE
OF SELECTED LISTED CONSUMER GOODS MANUFACTURERS IN
GHANA**

JOYCE LARTEY

SEPTEMBER 2023

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**A Thesis in the Department of Accounting Studies Education, submitted to the
School of Graduate Studies in partial fulfillment of the requirements for the
award of the Degree of Master of Business Administration (Finance)
in the Akenten Appiah-Menka University of Skills Training and
Entrepreneurial Development**

SEPTEMBER 2023

DECLARATION

STUDENT'S DECLARATION

I do hereby declare that this project work was carried out independently by me. I take full responsibility for whatever has been reported here. Related work by others, which served as a source of information has been duly acknowledged by reference to the authors.

Signature

Date

JOYCE LARTEY

SUPERVISOR'S DECLARATION

I hereby certify that this long essay was supervised in accordance with guidelines on supervision laid down by Akenten Appiah-Menka University Skills Training and Entrepreneurial Development

Signature

Date

(MRS. RICHMELL BAABA AMANAMAH)

DEDICATION

I wish to dedicate this work to my mother Elizabeth Korkor in the Lord, Emmanuel Lartey, Althea Korkor Lartey, Mavrick Owusu Ansah Lartey, Ashriel Tekur Lartey, Emerald Emmaline Aseda Lartey for their prayers, invaluable guidance, support and encouragement throughout the preparation of this work.

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ABSTRACT

Financial structure plays a key role in organisational performance, of which listed consumer goods manufacturers in Ghana are not exempted. This means that financial structure needs to be given keen attention in every business. The purpose of the study was to examine the effect of financial structure on financial performance among listed consumer goods manufacturers in Ghana. The study employed descriptive survey research design and data were solicited from manufacturing listed companies on the Ghana Stock Exchange. Population used for the study comprises of all the nine (9) listed manufacturing companies on the Ghana Stock Exchange. This cover publishes the financial accounts of the companies from 2013 to 2021. Purposive sampling was employed to select the sample size. Quantitative statistics that were "extracted onto the observation sheet from the published audited financial statements" are considered raw data. Data were analysed using software such as STATA 14. The study revealed that leverage has negative impact on return on asset while equity has no relationship with return on assets. Meanwhile evidence revealed that there negative correlation between firm size and return on assets. Liquidity was found to have negative significant relationship with leverage. It was found that earnings per share have significant negative relationship with leverage. There was strong negative correlation between leverage and profit margin. The study made the following policy recommendations. The study recommends the need for the listed manufacturing companies to look at their leverage strategies and policy further in order to improve the impact of leverage on their return on assets. Suggestion was made that manufacturing companies listed on Ghana Stock Exchange to reconsider their equity policy so as to have positive effect on return on assets and the companies should continue to meet the effective evaluation of leverage strategies and its effective implementation in order to improve their earnings per share.

CHAPTER ONE

INTRODUCTION

1.0 Introduction

The chapter presents the introductory part of the thesis. This comprises the background of the study, statement of the problem, objectives of the study, research hypotheses and significance of the study. Others include THE scope of the study, limitations of the study as well as the organisation of the study.

1.1 Background of the Study

All over the world, the contributions of the firms to an economy has been a key concern of many stakeholders in every economy. Manufacturing companies play a major role in their country of operations. In Ghana, these companies contribute to the economy in diverse ways. As of the second quarter of 2020, the manufacturing sector in Ghana contributed around 4.6 billion Ghanaian cedis (GHS), around 755.6 million U.S dollars, to the country's GDP. Compared to the preceding quarter, this was a notable decrease. Within the period observed, the contribution of manufacturing to GDP fluctuated, peaking in the first quarter of 2021, at approximately 6.8 billion GHS (roughly 1.1 billion U.S. dollars) (Sasu, 2023). They also provide employment in the firms thus reducing unemployment problems. Again, these companies pay taxes to the government which is utilized to provide the necessary products and services to the citizen of the country and also contribute to the research and development thus increasing innovation. Therefore, firms' financial performance is critical if they are to fulfill their stakeholders interest. Firm's financial performance refers to a firm's ability to generate new resources from day to day operations over a given period (Bora, 2008).

It involves enhancing shareholders' wealth and profit making which are among the major objectives of a firm (Pandey, 2005). Financial ratios derived from the balance sheet and income statement and also from data on stock market prices, are used to measure how better off a shareholder has become over time (Berger & Patti, 2002). The growth in firms' sales, the improvement in their profit margin, their capital investment decisions and capital structure decisions mainly influence the shareholder's wealth (Arnott & Asness, 2003).

Firm's financial performance further plays the role of increasing the market value of a firm in addition to leading towards the growth of the whole industry and ultimately towards the overall prosperity of the economy. This explains why in the corporate finance literature, assessing the determinants of the financial performance of listed financial firms has gained great importance despite it having received little attention particularly in developing economies (Ahmed, Zeng, Sinha, Flavell, & Massoumi, 2011). These companies provide the mechanism for risk transfer and channelling the funds in an appropriate way to support the business activities in the economy.

Financing decisions result to some form of financial structure. Financing choices are major corporate decisions because an optimal capital structure, representing the corporate financing mix, can maximize the market share price and the value of the company. Modigliani and Miller (1958) demonstrated the irrelevance of capital structure in firm value, although the assumption is valuable only in perfect market conditions, where all investors have free access to market information, there are zero transaction costs and no tax difference between dividends and capital gains. However, real economies are far from perfect and thus many financing decision theories were developed over time in order to demonstrate the purpose of capital mix and its role in

company value and financial performance. After the irrelevance theory, Modigliani and Miller (1963) revised the conditions and explained that interest expenses are tax deductible, and therefore the value of the firm should increase with higher debt ratios. Over time the capital structure literature developed and researchers found many variables that influence both financing decisions and financial performance.

According to Cole, Yan and Hemley (2015), capital structure theory and its relationship to corporate performance has been a controversial issue in corporate finance over the years. Many persons argue that companies should use third-party capital as the main source of financing for the tax benefit, since the interest paid on the debt is deductible from the tax payable. They can increase net profit in the period. However, the problem of financing with third-party capital is to increase the company's debt, which increases its risk. On the other hand, although equity capital financing is not subject to this situation, it does not obtain the tax benefits provided by the financing with third-party capital, since dividends do not deduct taxes. Shubita and Alsawalhah (2012) noted that it is difficult to determine the optimal financial structure of a firm as this entails analysis of their risk and profitability among other factors. The various components of financial structure which constitute the study variables include leverage, liquidity and equity. Leverage is the ratio between total debt to the total assets of the firm and it indicates the extent at which total assets are financed by debts (Mwangi et al, 2014).

In the view of Dare and Sola (2010) and Ishaya and Abduljeleel (2014) when firms combine debt and equity in their capital structure, the firms enjoy the benefits of combined debt and equity. The cash flows generated are shared between equity and debt providers. Financial structure decisions assist in maximizing shareholders' wealth due to their impact on sustainability and ability to satisfy external objectives of a firm (Ishaya & Abduljeleel, 2014).

Firm size has become an important component in corporate finance decisions with increasing recognition to external business environment (Voulgaris, Asteriou, & Agiomirgianakis, 2004). According to Mouhammed *et al.* (2016), the dynamic environment affects the competitiveness of large and small firms and subsequently affecting their capital structure decisions. Lievenbruck and Schmid (2014) also indicates that financial policies of firms are affected by firms' size, while Chi (2004) clarified the relationship and concluded that organizational size has a significant impact on performance as well as rights of the shareholders. Larger firms have better chances to obtain credits from financial institutions. They may obtain loan at cheaper rates, as they have better credit worth and low chances of bankruptcy.

According to Lievenbruck and Schmid (2014), firm size has important economic impact in any financial policies and hence an important predictor of the financial performance as it helps in achieving economies of scale. Larger firms show better profitability while smaller firms do not have the ability to compete with larger firms in this regard. Based on the above, it is prudent that this study is carried out to examine the case of Ghanaian manufacturing listed companies.

1.2 Statement of the Problem

Due to the global financial crisis that began in 2007 and affected most countries, including Ghana, the majority of businesses in that time period had trouble financing their operations. Between August 2017 and January 2020, Ghana had a major banking crisis known as the Ghana banking crisis. After Nana Akufo-Addo was elected president in December 2016, the Bank of Ghana (BoG) enabled many local banks to be acquired by private entities between August 2017 and January 2019. Due to financial crisis of 2007, the supply of external capital was radically restricted and companies

were forced to rely on internal sources. The high cost of borrowing and shallow financial deepening are major challenges facing firms in developing countries.

Accordingly, the capacity of business entities to undertake investments is directly affected by financial resources available (Fung & Wing, 2011). Management of these companies were concerned whether the company's financing decisions affected their financial performance and especially at that time when majority of the companies were facing financial crisis. The decline in firm's financial performance over the period and the financial environment that affected the financing decisions during the period motivated this study which sought to link the measures of financial structure with financial performance in the Ghanaian context. The components of the financial structure are leverage, liquidity and owners' equity.

Several research studies have been conducted on the subject under discussion. Majority of the studies used accounting measures of profitability, ROA, ROE, ROS and others to proxy for financial performance and did not come up with a unique measure of financial performance. These studies generated mixed results. Studies done so far, for instance, focused on the effects of financial leverage on performance alone (Mwangi et al., 2014) and measured performance as either ROA or ROE. Haq, Sohail, Zaman and Alam (2011), in their studies examined the influence of liquidity on return on assets while Ishaya and Abduljeleel (2014) studied the direct effect of debt on profitability and equity and profitability.

Majority of studies investigating the effect of financial structure on financial performance have investigated individual components of financial structure at a time. The studies didn't link all the components of financial structure and their effect on financial performance in one study.

In addition, studies on the effect of capital structure on company performance have indeed been carried out previously. Some use data in different industrial sector scales (Nasimi & Nasimi, 2018; Ullah et al., 2017; Braik & Messar, 2018; Le & Phan, 2017; Abdullah & Tursoy, 2019; H Abdullah & Tursoy, 2021; Islami & Iqbal, 2022) and some use country-scale data (Ramli et al., 2018; Riaz et al., 2022; Le & Phan, 2017).

The performance of an organization is sensitive to the type of financial structure adopted by the company. Nasimi & Nasimi (2018) and Ullah et al. (2017) conducted an experiment on Pakistani textile industry companies and found that if a company manages the right financial structure it can improve the company's financial performance. The results show that only the Malaysian sample has a significant positive correlation between firm leverage and firm financial performance. Malaysian companies use external financing rather than internal financing to improve performance. This study is different from others, where this study examines the effect of financial structure on the financial performance of selected quoted consumer goods manufacturers in Ghana.

1.3 Objectives of the Study

The study generally seeks to examine the effect of financial structure on the financial performance of selected quoted consumer goods manufacturers in Ghana. To accomplish this main objective of the study, the following specific objectives were designed.

- i. To assess the financial structure practices of the selected firms on Ghana Stock Exchange
- ii. To examine the relationship between the financial structure and the financial performance of the selected companies

- iii. To assess the level of debt to equity, its associated risk and their impact on the performance of the selected firms

1.4 Significance of the Study

The study will immensely in diverse ways. In the first place, it the business regulators can use the results in assessing the link between financial structure and financial performance and such relationship could be taken into account when examining the strength of the goods manufacturing companies, and provide informed advice to them for that reason. This could minimise the cases of failure or collapse of firms, so as to enhance their survival. In addition, the results could also benefit companies that would be seeking to make informed financial decisions.

Furthermore, it is believed that the study will benefit various stakeholders of the companies and as well add value to the world of knowledge, by establishing a model to determine the financial performance of listed companies on GSE regarding the composition of their financial structure.

Similarly, the outcome of the study will be a good basis for finance managers in their formulation of financing strategies. This is because the outcome of the study will help them in planning and controlling functions and hence meet the financial needs of the firms. It will help the shareholders to understand the importance of financial structure and how it affects financial performance.

Finally, the findings of the study will make contributions to the existing literature on financial structure and financial performance by providing a basis for future reference to academicians and those making related studies in developing their research projects/theses and hence enriching available literature.

1.5 Scope of the Study

In context, the study examines the effect of financial structure on the financial performance of selected quoted consumer goods manufacturers. Geographically, it is limited to only listed goods manufacturing companies on Ghana Stock Exchange. Data for the study was extracted from ten years published financial statements. This covers the year 2013 to 2022.

1.6 Limitation of the Study

The study of kind should have covered all listed companies on Ghana Stock Exchange, but was limited to selected quoted consumer goods manufacturers as a result of time and financial constraints. Furthermore, another limitation the study encountered is some missing or unavailable financial statements. However, such limitations did not affect the reliability and relevance of the study outcomes.

1.7 Organisation of the Study

The study is grouped into five chapters. Chapter one deals with the introductory part of the study. This comprises of the background of the study, statement of the problem, objectives of the study, research hypotheses and significance of the study. Others include scope of the study, limitation of the study as well as organisation of the study. Chapter two takes into account review of related literature. Theoretical framework, empirical literature and conceptual framework are the key areas considered under literature review. Chapter three presents research methodology. This consists of the various methods and approaches the study employed to accomplish its objective. It focuses on research design, population of the study, source of data, sampling techniques and sample size, data collection and data analysis. Chapter four deals with the analysis

and discussion of results based on the extracted data which is mainly on the specific objective. Chapter five focuses on the summary of findings, conclusions and policy recommendations.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

The study reviews related literatures. It takes into account theoretical framework, empirical review as well as conceptual framework.

2.2 Overview of The Financial Structure

Every business entity, small or large, new or old, requires finances, whether as working capital or for facilitating day-to-day operations. In this light, Saeed, Gull, and Rasheed (2013) remarked that the significance of funds in business cannot be overemphasised. In real business life, capital may either be sourced internally or externally. The internal source of funding, according to Saeed et al., is mainly generated from retained earnings and does not impose on the firm any obligation of repayment in any form.

However, for the external source of funding, as explained in Saeed et al. (2013), firms are left with an obligation to compensate the borrower (creditor) by way of interest payments. Nonetheless, it is implied that start-up businesses might source capital financing from sources other than retained earnings. Studies (Kyereboah-Coleman, 2007) recognised such sources as personal savings and support from family and friends, which may or may not necessarily bring an interest burden to the firm. Issues relating to capital structure are one of the critical decision areas among organisational financing policies. Boateng (2004) described the capital structure of a firm as the combination of debt financing (including preference shares) and equity. To maximise returns to shareholders and for sustenance within the competitive market, decision-making on a firm's capital structure is considered very fundamental. Margaritis and Psillaki (2010) justified this submission and stated that choosing a combination of debt and equity

financing for an established optimal capital structure is a crucial task confronting managers. Optimal capital structure minimises the cost of capital, thereby improving returns to the owners of the business. Chen (2004) "also explained capital structure as the composition of a firm's liabilities to providers of business financing outside the organisation and the equity financing sourced from shareholders, or a hybrid of the two. If the entire capital of the firm is financed by share issues, then the profits accrued to the firm go to shareholders. Shareholders and creditors, therefore, enjoy benefits from business profits for the capital they have provided. From a similar perspective,

Frank and Goyal (2003) described capital structure as the specific mix of debt and equity financing employed to finance the operations of an organisation and, thus, associated corporate failure with the financing behaviours of firms in" general. " Studies have disclosed that most corporate assets are financed from firms' capital structure, which often includes the use of sources such as bank debts, leasing contracts, publicly issued securities, trade debts, and other product warranties (Saeedi & Mahmoodi, 2011). In support, Abor (2008) also included pension liabilities, performance guarantees, unpaid employees' compensations, and tax liabilities as sources to beef up the capital structure." In a submission, Awunyo-Vitor and Badu (2012) further stated that firms that are lowly geared are described as financially fit and strong.

Awunyo-Vitor and Badu expatiated that acquisition or accumulation of debt component in a firm's capital structure goes with loan pay off burden within a stipulated time which is taken care of from profit earned within the period. However, dividends pay off as a

© University of Cape Coast <https://ir.ucc.edu.gh/xmlui> Digitised by Sam Jonah Library, equity finance is made upon shareholders' (beneficiaries) agreement and approval and does not put undue pressure as compared with the debt obligation.

In essence, Awunyo-Vitor and Badu admonished that the choice of capital structure is a financial decision for firms that requires managers to take care of and be circumspect in deciding on the appropriate mix of debt and equity. The foregoing discussion and overview suggest that, though firms, by their nature and capital requirements, might need to include both debt and equity in their capital structure, managers must make prudent decisions on the mix to ensure optimum benefits. A financing decision results in a particular capital structure, but more often than not, sub-optimal financing decisions often lead to corporate failure. For the purpose of the current study, the decision herein underscores that capital structure is related to a firm's performance (typically financial performance) because sourcing capital is associated with some payments off earnings. Components of the capital structure relating to financial institutions It is clear from the capital "structure literature overview above that most firms, including financial institutions, have their capital structure composed of debt and equity. However, the proportions of debt and equity depend on the firm and usually differ among firms. Studies support the idea that firms should not depend solely on one particular source of financing, arguing that incorporation of both sources of business financing is mostly ideal to raise capital" (Ramadan et al., 2011). Reiterating "that capital structure is a composition of a firm's liability from debt or equity, or both, Sritharan and Vinasithamby (2014) posited that the value of a firm is affected by the firm's capital structure and thus requires accurate calculation to maximise a firm's profit as well as market value. The dilemma still remains for management and investors regarding the existence of an optimal capital structure and its influence on financial performance. An appropriate response to the question of 'what is the right composition of the capital structure?' has for a long time been the focus of attention for academic researchers and the management of financial institutions (Sangmi & Nazir, 2010).

Abbadi and Abu-Rub (2012) complemented the efforts of Sangmi and Nazir in the discussion of debt (long-term and short-term) and equity as the key components of the capital structure of financial institutions. A "study on the relationship between capital structure and financial performance of one hundred companies in Pakistan (Umar et al., 2012) found that all three variables of capital structure—current liabilities to total assets, longterm liabilities to total assets, and total liabilities to total assets—negatively impacted the earnings before interest and tax, return on assets, earnings per share, and net profit" margin.

2.2 Theoretical Framework

The capital structure theories underpin this study and provide the basis for the choice of the study variables. Various theories are reviewed here.

2.2.1 Stakeholder Theory

The literature on stakeholder theory focuses on the interests of stakeholders, advocating that they are treated well and that managing for their interests helps a firm succeed. However, despite its importance to stakeholders, little attention has been devoted to questions regarding what it means to create value for stakeholders and how it can be measured. Stakeholder-oriented management and business success, as evaluated by financial returns (Choi & Wang, 2009; Hillman & Keim, 2001), are generally supported by the empirical research currently in existence, which was reviewed by Freeman, Harrison, Wicks, Parmar, and de Colle (2010).

The stakeholder theory also demonstrates how raising a company's financial returns raises its value and effectiveness. It is clear that the numerous financial returns that the business is able to generate through investment using the various sources of funding,

including long-term debt, owners' equity, and liquid assets, are used to gauge financial performance. The firm's financial performance is measured by different stakeholders using financial returns such as Return on assets, Return on Equity, return on Sales, or profit margin. This makes financial performance the dependent variable of the study and adds value to the different stakeholders. Harrison and Wicks (2013) assert that companies that offer greater value to their stakeholders are better able to maintain their support and engagement, and that stakeholders depend on the company and its other stakeholders to further their own interests.

To meet the expectations of the stakeholders, the management of businesses should take into account the predicted profitability of the business and earnings from investments when making financing decisions. The stakeholders' theory is important in this study because it defines the various interests of the investors and how their interests in terms of returns are measured in financial returns, which are the dependent variable of the study. This is because stakeholders are interested in returns from their investments, which are measured in financial returns. Therefore, the financial performance of their companies is of interest to their stakeholders.

2.2.2 Trade-Off Theory

According to this notion, the management of businesses should prioritise a desirable liquidity level in order to balance the advantages and disadvantages of retaining cash. Due to the liquidity premium and tax disadvantages, these liquid assets have a poor yield, which is the cost of cash holdings (Ajao & Small, 2012). When using outside resources to retain liquid assets, businesses must take the premium associated with liquidity risk into account in order to maintain a competitive position in the market. All

trade-off theories, according to Frank and Goyal (2005), evaluate the advantages and disadvantages of different capital structure designs.

According to the trade-off principle, profitability and liquidity should have an inverse connection, with each decision's cost and benefit at its core. Pecking order, on the other hand, supports a strong link between performance and liquid assets. The trade-off theory examines the various financial structure components and suggests that it is necessary to examine their cost-benefit analyses and choose the best combination of financial structure decisions. This indicates that it is necessary to examine the study's many variables and ascertain how they contributed to the firm's financial performance in order to influence future capital structure decisions. This would help them make decisions on the ideal financial structure of their company, one that maximises financial performance while minimising the cost of capital. Consequently, the Trade-off theory is crucial to this study since it emphasises the anticipated relationship between a firm's liquidity position and its financial performance, which is a crucial factor for firm managers to take into account when making financing decisions.

2.2.3 Pecking Order Theory

According to Myers (1984)'s study, while establishing their capital structure, businesses should use internally generated cash first, followed by external debt, and finally external equity. They felt that internal finances were inexpensive and unaffected by external factors, and that issuing equity was more expensive than issuing external debt since the latter was subject to more restrictions. The concept therefore assumes that business executives are more aware of their organisation's standing and will make every effort to assist the current company's shareholders. They are also worried about keeping the firm's secrets private (Liesz, 2002), as using internal funds allows

management to keep details about the company's investment opportunities and potential returns on investments from becoming known to the general public.

Managers may decide against positive-NPV initiatives that ask for the issue of new shares, according to Myers and Majluf (1984), because doing so would substantially shift the project's value to new owners. To safeguard the interests of their current stockholders, this is done. Fama and French (2005) support the preference for equity over debt in opposition to this claim. They argue that corporations can avoid information costs or adverse selection by issuing assets that are less sensitive to asymmetric information, such as equity issues to employees in their pay plan or to current stockholders through rights issues.

As a result, it's important to think about both debt and equity financing when picking a financing option and to recommend the optimum structure. Since pecking order supports a favourable relationship between liquid assets and financial performance, the relationship between liquidity and liquidity was also examined in the study.

The pecking order theory proposes that companies should finance their activities through stock, debt, and liquidity in the order that costs them the least. Research into the three components of financial structure's effects on financial performance was necessary because they serve as the study variables. The theory contends that because leverage is more accessible, it benefits a person's ability to succeed financially. Since stock is also used to finance businesses, the theory opposes its application because it is costly and risky due to a potential loss of control. As a result, a study of the correlation between equity and financial performance was conducted.

2.3 Empirical Review

The section reviews related literature from previous studies. It covers studies conducted on financial structures and their related impact on financial performance.

2.3.1 Effect of Leverage on Financial Performance

Numerous scholars have presented empirical results on the impact of leverage on financial performance. In order to better understand the connection between capital structure and the performance of non-financial companies listed on Kenya's Nairobi Securities Exchange, Mwangi et al. (2014) conducted a study. An explanatory, non-experimental research approach was used in the study. There was a count of all non-financial companies listed on Kenya's Nairobi Securities Exchange. The annual reports and financial statements of publicly traded non-financial enterprises for the years 2006 to 2012 were the primary sources of secondary panel data for the study. The study came to the conclusion that performance suffers when financial leverage is increased. Other aspects of financial structure, such as business size, liquidity, and owners' equity, that affect financial performance were considered in the current study. (2013), Gabrijelcic et al. investigated the relationship between leverage and firm performance. The findings of this study demonstrate that increased leverage results in decreased performance. According to the report, companies should employ foreign financing to boost performance, but only in moderation to avoid having a detrimental impact.

In a 2014 study, Khalid, Ali, Baloch, and Ali looked at non-financial companies listed on the Karachi Stock Exchange. The panel data used ranges from 1988 to 2008. Leverage has a favourable and considerable impact on company performance, according to the study. The financial performance of Jordanian insurance companies

listed at the Amman Stock Exchange during the years 2002 and 2007 was examined by Almajali et al. (2012). The findings demonstrated that the financial performance of Jordanian insurance companies is positively statistically impacted by leverage, size, and liquidity.

Hassan, Ahsan, Rahman, and Nurul (2014) looked into Bangladeshi businesses that were listed on the Dhaka Stock Exchange between 2007 and 2012. Tobin's Q, ROA, and EPS were used to gauge performance. They discovered a strong inverse relationship between ROA and capital leverage. They linked the negative relationship to increased costs of debt and strict covenants tied to the usage of debt, even if there is no substantial correlation between leverage and the performance of the firm as assessed by ROE and Tobin's Q.

Using panel data from cement companies listed at the Tehran Stock Exchange between 2008 and 2011, Mahmoudi (2014) conducted a study. He looked into how debt affected a company's profitability, as indicated by ROA and ROE. He discovered a strong inverse link between corporate profitability and leverage. 2014 saw the completion of a study by Siahaan, Ragil, and Solimon on listed companies at the Indonesia Stock Exchange. The businesses were divided into two groups: one group of 30 large listed businesses and another group of 30 minor businesses. He discovered that while there was a negligible positive correlation between leverage and company value for large enterprises, there was a considerable negative correlation for small firms.

Using panel data for the years 1981 to 2011, Tsuji (2013) investigated the link between firm capital structure and profitability in the Japanese equipment companies listed on the Tokyo Stock Exchange. The findings indicated that profitability and leverage are mutually exclusive. Dogan (2013) used data from the years 2008 to 2011 to study the

company profitability of 200 companies registered at the Istanbul Stock Exchange. He discovered that whereas leverage was inversely correlated with profitability as determined by ROA, liquidity was positively correlated.

Abbasali and Esfandiari (2012) evaluated a sample of 400 companies to determine the effect of capital structure on the financial performance of companies listed on the Tehran Stock Exchange. They came to the conclusion that there was a substantial inverse correlation between debt ratio and companies' financial performance and a significant inverse correlation between asset turnover, company size, asset tangibility ratio, and growth opportunities with financial performance indicators. The study examined all industries and did not single out the financial sector, which uses derivatives for both risk hedging and profit-seeking speculation.

The financial performance of Jordanian insurance businesses listed at the Amman Stock Exchange during the years 2002 and 2007 was examined by Almajali et al. (2012). The findings demonstrated that the financial performance of Jordanian insurance companies is positively statistically influenced by leverage, size, and liquidity. Abdul (2012) investigated the connection between Pakistani firm performance and capital structure choices. He came to the conclusion that financial leverage had a significant negative relationship with firm performance when measured using ROA, GM, and Tobin's Q. However, when measured using return on equity (ROE), there was a negative but not statistically significant relationship between financial leverage and firm performance.

The majority of this research focused on the impact of leverage on particular profitability and performance indicators, such as ROA, ROI, ROE, Tobin Q, EPS, and Profit Margin, but it was unable to produce an average measure of financial performance that would account for the interests of all stakeholders. Furthermore, the

bulk of these studies only considered leverage as one element of the financial structure and neglected to include other elements in their analyses. This is the gap that this study seeks to fill by including various financial structure components and taking into account the interests of all stakeholders by including multiple profitability indicators in gauging financial performance.

2.3.2 Effect of Liquidity on Financial Performance

The findings of a study conducted by Velnampy and Anojan (2014) on the effects of liquidity and capital structure on profitability for all listed companies in the telecommunications sector of the Colombo Stock Exchange, Sri Lanka, from 2008 to 2012 revealed that neither leverage nor liquidity had a significant impact on profitability. Working capital management's implications on a company's return on assets (ROA) were researched by Garca-Teruel and Martinez-Solano in 2007. The results showed that shortening the cash conversion period significantly impacted the profitability of businesses.

The findings of Smith and Begemann's (1997) study on whether maximising a firm's profits would put its liquidity at risk and whether pursuing liquidity would tend to erode returns showed a negative link between liquidity and financial performance. Measures of working capital and return on investment (ROI) were compared using a sample of industrial enterprises listed on the Johannesburg Stock Exchange (JSE).

Raheman and Nasr (2007) found a substantial inverse association between company liquidity and profitability in their study on the connection between working capital management and profitability for Pakistani companies listed on the Karachi Stock Exchange. Therefore, it is necessary to ascertain whether the amount of firm liquidity,

which serves as a proxy for investment prospects, has any bearing on the firm's financial performance. This is because a company is more likely to experience an underinvestment problem when its cash holdings are low.

Eljelly (2004) used correlation and regression analysis to study, on a sample of Saudi Arabian joint-stock businesses, the relationship between profitability and liquidity as defined by the current ratio and cash gap (cash conversion cycle). Profitability and liquidity metrics were discovered to be negatively correlated. Additionally, it was noted that there was a considerable difference amongst industries in terms of the major measure of liquidity.

According to research conducted by Ajanthan (2013), Egbide, Uwuigbe, and Uwalomwa (2013), Nimer, Warrad, and Omari (2013), and Haq et al. (2011), there is a substantial positive association between quick ratio and return on assets. This implies that businesses with high liquidity ratios typically experience less risk and perform better. This goes against the idea that profitability and liquidity should be traded off because they are two competing objectives.

During their analysis of the top four steel companies in India, Bhunia, Khan, and Mukhuti (2011) found a conflicting relationship between liquidity and profitability. According to the findings, profitability is positively correlated with Tata Steel Ltd.'s current ratio, negatively correlated with Lloyd Steel Ltd.'s current ratio, negatively correlated with Kalyani Steels Ltd.'s current ratio, and positively correlated with JSW Steel Ltd.'s current ratio. To examine the effect of working capital management in terms of liquidity management on profitability, Kaur and Silky (2013) investigated all the companies registered on the National Stock Exchange of India.

The findings supported the trade-off theory, which holds that current ratio and return on assets have a negative connection. According to Agha (2014) and Afeef (2011), there is no substantial correlation between the current ratio and profitability (ROA). According to Kaur and Silky (2013) and Malik and Ahmed (2013), the quick ratio and return on assets have a bad relationship. The analysis backs up the profitability and liquidity trade-off theory. Any rise in liquidity will result in a declining trend in the firm's ability to utilise its assets. The majority of this research focused on the impact of liquidity on certain profitability metrics, primarily ROA and ROI, and neglected to examine other profitability measures like ROE and gross profit margin, neglecting to take other stakeholders' interests into account. Furthermore, these studies excluded other elements from their analyses and focused primarily on liquidity as a part of the financial structure. This presented a skewed picture of how financial structure affects performance since not all aspects of financial structure and financial performance were considered in those studies. This is the hole that this study seeks to fill by including various financial structure components in the analysis and by taking into account the interests of all stakeholders by using numerous profitability metrics in the evaluation of financial performance.

2.3.3 Effect of Equity on Financial Performance

According to Meyer et al. (1999), equity capital is the portion of capital that is free of debt and represents an ownership stake in a company. As a result, it is the sum that the owners have contributed and typically consists of regular share capital, preferential capital, retained earnings, and reserves. Equity investors receive returns in the form of dividends from the company's profits, just like debt investors do (Titman et al., 2011). Prior to common shareholders, preference shareholders receive their dividends at an

agreed-upon rate, and any leftover profits are put towards the company's expansion plans (Titman et al., 2011).

Ishaya and Abduljeleel (2014) found that whereas equity has a direct correlation with profitability, debt has a negative correlation with it. They conducted a study to investigate the capital structure and profitability of the listed Nigerian companies from the standpoint of agency cost theory. Using fixed-effects, random-effects, and Hausman Chi Square estimations, panel data from 70 of the 245 firms listed at the Nigerian Securities Exchange for the years 2000 to 2009 were employed. Their findings supported the study by Shubita and Alsawalhah (2012) and offered proof that the agency cost argument is false. When evaluating the impact of leverage and the financial performance of listed enterprises in Kenya from 2002 to 2011, Maina and Kondongo (2013) discovered that debt had a significant negative impact on profitability but had no impact on firm value. Data were analysed in the study using descriptive, regression, and correlation methods. Tobin's Q was utilised in the study as a stand-in for firm value, and ROE and ROA were employed as stand-ins for financial performance. Debt to equity, debt to assets, and long-term debt to equity are additional measures of leverage. The results were intriguing and contradictory. Tobin Q was used by MM (1958) to support the irrelevance argument.

Zurigat (2009) examined how firms pick their capital structure under pecking order and trade-off theories, particularly when they have leverage targets, using data from non-financial firms in Jordan during the years 1997 to 2005. The investigation came to the conclusion that, according to the pecking order idea, equity is not the last alternative for financing. They present evidence that suggests equity difficulties follow the finance

gap somewhat more closely. The data from the 114 firms was analysed using panel data. The study did not support the pecking order theory, and a similar study should have been conducted in a different market. To address such weaknesses, the current study aims to penetrate the Kenyan market.

Ebaid (2009) examined the effect of capital structure selection on the performance of Egyptian listed companies using data. The study discovered that the capital structure had little to no effect on the firms' performance. Indicators of financial performance included return on equity, return on assets, and return on sales (gross profit margin), which were all profitability ratios. The study's indices of capital structure were the ratios of short-term debt to assets, long-term debt to assets, and total debt to total assets. The data were analysed using multiple regression. The outcomes matched Berger and Patti's (2006) findings.

Abor (2007) investigated how the capital structure affected the financial performance of SMEs in Ghana and South Africa. The study found a strong and negative correlation between short-term debt and gross profit margin in both South Africa and Ghana, but a positive correlation between long-term debt, gross profit margin, and financial success. Additionally, a strong and adverse relationship between total debt and gross profit margin was found. In Ghana, ROA has a strong and unfavourable connection with each capital structure metric. The study used secondary data obtained through random sampling, and it used regression analysis to analyse the data.

Few studies have examined the impact of equity on particular profitability metrics, primarily return on assets (ROA), return on equity (ROE), return on investment (ROI), and return on sales (profit margin). By including all profitability metrics in the calculation of the financial performance metric, the interests of all stakeholders would

have been taken into consideration. Furthermore, the majority of this research focused solely on equity as a part of the financial structure, not taking into account any other elements. By including different metrics of profitability (ROA, ROE, and ROS) in measuring financial performance, the current study includes many elements of the financial structure and takes into account the interests of all stakeholders.

2.3.4 Controlling the Effect of Firm Size

It is argued that larger firms generate high and less volatile profits, while small firms do the opposite. Additionally, small firms also document low liquidity as compared to large firms, which indicates that small firms can be riskier due to low liquidity and volatility. Researchers have investigated the association between firm size and performance and discovered a significant relationship (Vijayakumar and Tamizhselvan, 2010) as well as an inverse relationship (Hall, 1987).

According to Dess et al. (1997) and Zahra (1996), the size of the organisation and the generosity of the environment served as controlling variables between entrepreneurial approach and performance. The relationship between investment opportunities, free cash flow, and debt borrowing was examined by Jaggi and Gul (1999) for the moderating effects of size. According to their findings, debt and free cash flows are positively correlated in low-investment-opportunity enterprises when company size is high. The relationship between investment opportunities, free cash flow, and performance was shown to be significantly moderated by size, the researchers observed.

According to Ezeoha (2008), these conventional theories of capital structure are unable to explain the capital structure of small, medium, or large enterprises. Because small and large organisations have diverse characteristics that may influence different

financial decisions, the implications of these theories can vary within these categories of firm size (Voulgaris et al., 2004).

Researchers Velnampy and Nimalathasan (2010) examined the correlation between firm size and profitability for all Bank of Ceylon and Commercial Bank branches in Sri Lanka from 1997 to 2006. They concluded from their research that, while there was no association between business size and profitability in the Bank of Ceylon, there was a positive relationship between firm size and profitability in the Commercial Bank.

When Lee (2009) examined the effects of size on the profitability of US publicly-held enterprises between the years of 1987 and 2006, he found that firm size has a favourable impact on profitability. The impact of firm size on the performance of the companies trading on the Istanbul Stock Exchange between 2000 and 2005 was examined by Ozgulbas, Koyuncugil, and Yilmaz in 2006. According to their research, large-scale businesses performed better than small-scale businesses. In a similar vein, Jonsson (2007) investigated the relationship between Icelandic firm size and profitability. The analysis's findings indicated that larger enterprises are more profitable than smaller ones. Using data from the years 1987 to 2002, Becker-Blease, Kaen, and Etebari (2010) examined how company size affected profitability in businesses engaged in the manufacturing sector in the USA. The study's findings indicated that there are unfavourable and statistically significant relationships between a company's total assets, total revenues, and number of employees and its profitability.

Chi (2004) clarified the connection and came to the conclusion that organisational size has a considerable impact on both performance and shareholder rights. Greater odds of credit approval from financial institutions exist for larger businesses. Due to their improved credit standing and decreased risk of bankruptcy, they could be able to get

loans at lower interest rates. The firm size was calculated using the book value of all assets. The size could measure the firm's financial distress costs (Berkman & Bradbury, 1996), the degree of information asymmetry (Graham & Rogers, 2002), as well as the scale economies argument. Others use the Natural Logarithm of market value, whereas Lel (2004), Lin and Smith (2003), and others use the Natural Logarithm of total assets to measure this effect. This study will use the Natural Logarithm of Total Net assets (TA) as a metric. Reviewing empirical research on the relationship between business size and profitability reveals that the findings are not always clear-cut, with some studies finding a positive impact while others find a negative or no connection. A study showing the effect of firm size on the relationship between financial structure and financial performance is missing. This will be covered in this study.

2.4 Summary of Literature and Research Gaps

Leverage, liquidity, and equity make up the components of the financial structure. Making judgements about how much of each of these components a company will utilise to finance its operations and investments is the basis of all financial decisions made by businesses. The empirical research on financial structure variables and how they impact financial performance has only looked at the effects of one specific financial structure component at a time. The same research excluded other measures of returns and only used an individual measure of return as a proxy for financial performance. Other studies that included various financial structure components looked at various time periods and also analysed other industries. The only remaining areas are those that are currently unstudied and the time when there was a global financial catastrophe. Different profitability metrics, such as return on assets, return on equity,

profit margin, and return on investment, among others, can be used to assess a company's performance.

This indicates that the bulk of research either lacks sufficient variables or has inadequate study scope. Some studies, such as those by Mwangi et al. (2014), measured performance as either ROA or ROE and concentrated on the impact of financial leverage on performance alone. In their investigations, Haq et al. (2011) looked at the impact of liquidity on the return on assets. In order to investigate the impact of capital structure on profitability from the standpoint of agency cost theory, Ishaya and Abduljeleel (2014) looked at the direct impact of debt on profitability as well as equity and profitability for listed enterprises in Nigeria. In an investigation of Egyptian listed companies to ascertain the effect of capital structure on performance, Ebaid (2009) utilised ROA and gross profit margin as proxies for performance. By including the elements of financial structure in the analysis of the correlation between financial structure and financial performance, the current study filled a knowledge vacuum. This involves examining how certain financial structure elements—such as leverage, liquidity, and equity—affected the financial performance (measured by the profitability measures index) of certain companies listed on the Kenya Stock Exchange. Additionally, the empirical studies under evaluation only attempted to determine the direct relationship between a few elements of the financial structure and financial success; they did not take into account the moderating effects of those same elements. The analysis included both the pre- and post-financial crisis eras. By identifying the controlling effects of company size on the link between financial structure and performance and examining the time period before and after the financial crisis of 2007, this study aimed to close these gaps in the literature. Some of the studies that were

examined are shown in the table below, along with the gaps that these studies had that this study filled.

2.5 Conceptual Framework

The conceptual framework examines the effect of financial structure on the financial performance of selected listed consumer goods manufacturers in Ghana. It adopted financial structure as an independent variable and financial performance as a dependent variable. The independent variables comprise leverage, liquidity, and equity. On the part of financial performance, the study considered ROA, ROE, Profit margin, and EPS.

According to the conceptual framework shown in Figure 1, financial performance is the dependent or response variable, with company size acting as a moderating variable and leverage, liquidity, and equity acting as independent factors. By including the various financial structure elements as research variables and providing a special measure of financial performance that takes into account the interests of many stakeholders, it aims to close the gaps exhibited by diverse studies. By using a composite index for ROA, ROE, Profit margin and EPS as a stand-in for financial performance, this was accomplished. The association between financial structure and financial performance was assumed to be controlled by the firm's size.

Leverage, liquidity, and equity were employed as independent variables in the study. Their indicators for leverage, liquidity, and equity were the debt ratio, the current ratio, and the owners' equity ratio. Financial performance was the study's dependent variable, which was calculated as a composite index of different performance indicators, including return on assets, return on equity, and return on sales (profit margin). As in

other studies, the independent variables were predicted to have a direct impact on the financial success of the companies.

The size of the different corporations' firms served as a controlling factor. The researcher hypothesised that company size may have a moderating effect on the link between financial structure and financial performance in light of the various sizes of the companies listed at the Ghana Stock Exchange.

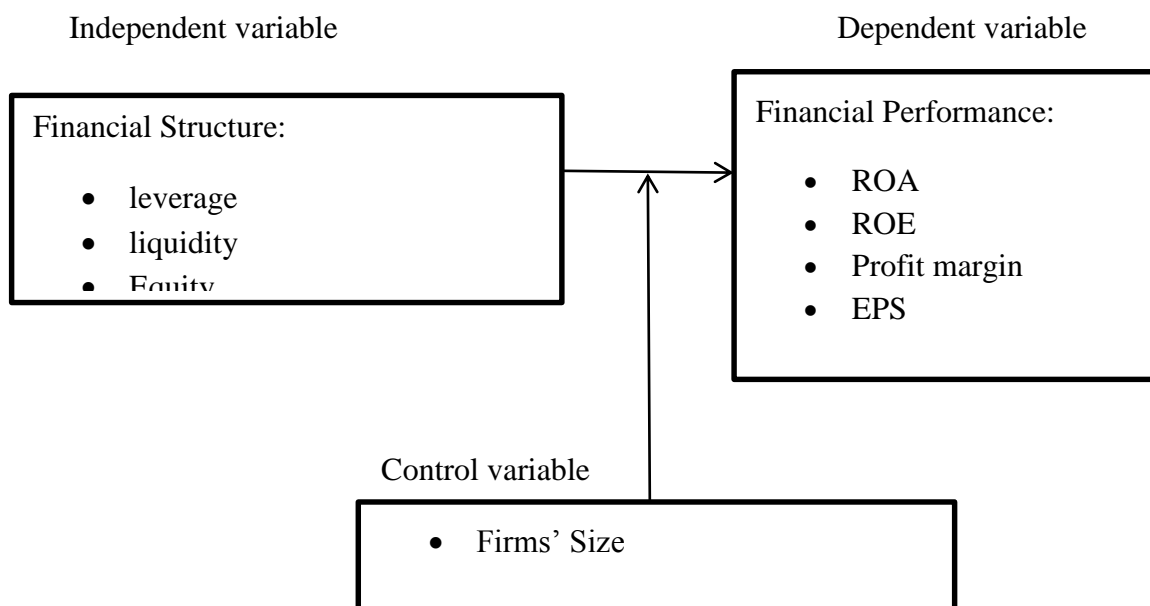


Figure 2.1: Conceptual Framework

Source: Researcher's construct 2023

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

The chapter outlines the underlying methods and approaches the study employs for data collection and analysis to accomplish its aim. It specifically comprises the research design, population of the study, sampling procedure, and sample size. Others are data collection and analysis, as well as reliability and validity.

3.2 Research Design

A research design offered a roadmap that enabled the researcher to collect and analyse data in the most cost-effective and efficient ways. Given that the study is quantitative in nature and data were solicited from manufacturing listed companies on the Ghana Stock Exchange, a survey approach was utilised in light of the time and resources allocated for the study (Kothari, 2017). A descriptive survey research design is applied in this proposed study. According to Creswell and Creswell (2017), survey research designs are applied to establish trends and patterns in the attitudes of the respondents. It is instructive to note that in survey research design, variables under investigation or analysis should not be manipulated or influenced. For the purpose of this study, the researcher employed a descriptive research design. The study is quantitative.

3.3 Study Population

Population parameters are essential in the description of the population size and other characteristics or parameters that are relevant to any study. According to Cooper and Schindler (2006), population refers to the group that the researchers were interested in

studying, which loosely translated into the unit of study that contained individual participants from which measurements were undertaken. The target population consists of all nine (9) listed manufacturing companies on the Ghana Stock Exchange.

3.4 Sample and Sampling Procedure

Sampling design offers a roadmap or blueprint that would define the rules and procedures for the population to be selected for subsequent data collection. According to Etikan, Musa, and Alkassim (2016), sampling design provided the inclusion criteria by which a small population was derived from the population from which data was collected. Kalton (2020) underlines the need for sampling since it is one of the ways that it enhances statistical inference and offers knowledge on the characteristics of the population. On the other hand, the sampling plan detailed the appropriate sample size, procedures for sampling, sampling frame, and unit of sampling. The sample selection was done through the Krejcie and Morgan table, which yielded a sample size of ten years. This cover publishes the financial accounts of the companies from 2013 to 2021. Purposive sampling was employed to select the sample size.

3.5 Validity and Reliability

A pilot test was conducted to establish the suitability of the data collection instruments. This suggests that pre-testing enabled the researcher to discover things in advance that could lead to their research failing or giving inappropriate results. It will also provide a platform for the researcher to learn if their data collection instruments will be suitable or too complex for the study.

Through a pilot test, one could understand any potential practical problems they may encounter during the data collection process (Rahi, 2017). A pre-test study will be done by administering a questionnaire to 20 respondents.

Reliability was conducted to measure the stability of instruments over time and to ensure that the collected data could be dependable and consistent. Reliability analysis was conducted using the Alpha coefficient for questionnaires (Cronbach, 1951). Researchers applied Cronbach's alpha to establish the dependability of the data collection instrument, that is, the internal consistency of the instrumentation, such as questionnaires. The coefficients were applied to calculate the internal consistency range from 0 to 1, where they are applied to offer a description of the factors from scaled and dichotomous questions.

It has been said that the higher the alpha coefficients, the more reliable the data collection (Sekaran, 2013). Scholars have provided various thresholds that are considered reliable. Nunnally (1978) stated that coefficients of 0.7 and above are considered acceptable. Table 2 presents the results of the reliability analysis. From the analysis in Table 2, it is evident that all the coefficients were above 0.7, suggesting that all the variables in the study were above the acceptable width. Thus, the questionnaire was reliable in collecting the data.

Validity refers to the extent to which the results acquired from data analysis are an actual depiction of the phenomena being examined (Mendenhall et al., 2017). It is related to how well the variables of the study are represented by the data collected. The study applied both construct validity and content validity to establish the credibility of the instrument. Content validity extracts a conclusion from test scores for a large area of items identical to those on the test. The validity of a research's content is interrelated

to the representation by the population of the sample. To ensure that the content is valid, the questionnaire was handed out to specialists in the procurement area to provide their opinions and suggestions that could contribute to improving it. Construct validity will be enhanced by the analysis of empirical and theoretical literature to help one understand the relevant concepts through the construction of items based on previous studies.

3.6 Data Collection Procedure

The audited statements of financial condition and comprehensive revenue that were issued by the various institutions on their individual corporate websites served as the electronic source for the information of "interest used to compute the various variables. The researcher's data observation sheet (Appendix A), which covered a period spanning five recent years, was used to capture the data. High levels of reliability and validity were anticipated because the study was based on audited financial accounts that were created in line with international accounting standards. While validity also explains the accuracy of measurements, reliability analysis looks at how consistent a certain test's measurements are (Titman, 1984). Quantitative statistics that were "extracted onto the observation sheet from the published audited financial statements" are considered raw data. In order to simplify calculations, extracted raw numbers were rounded to the nearest thousand, and ratio calculations were also approximated to two decimal places. The data computation sheet contains the results of the computations for the pertinent ratios, such as the total debt-to-equity ratio (TDE), return on assets (ROA), return on equity (ROE), and earnings per share (EPS).

3.7 Data Processing and Analysis

The study adopted a quantitative approach to data analysis, where descriptive inferential statistics were computed. Descriptive statistics encompass the calculation of frequencies, percentages, means, and standard deviations. Descriptive statistics were computed to draw patterns and trends from the data for easy visualisation and presentation. On the other hand, inferential statistics included correlation analysis and linear regression analysis. Inferential statistics established whether significant relationships existed among the variables. This was done with the help of data analysis software such as STATA 14.

3.8 Specification of Models

The study collected secondary data from the published financial statements of the companies. The financial performance indicators include ROA, ROE, Profit Margin (PM) and EPS were obtained directly from the financial statements. The following regression models were used to evaluate the relationship between financial structure and financial performance of the companies as:

Model 1:

$$\text{ROA} = \beta_0 + \beta_1\text{LEV} + \beta_2\text{LIQ} + \beta_3\text{EQU} + \beta_4\text{EPS} + \beta_5\text{FIRSIZE} + \varepsilon_t$$

..... (1)

Model 2:

$$\text{ROE} = \beta_0 + \beta_1\text{LEV} + \beta_2\text{LIQ} + \beta_3\text{EQU} + \beta_4\text{EPS} + \beta_5\text{FIRSIZE} + \varepsilon_t$$

..... (2)

Model 3:

$$\text{PM} = \beta_0 + \beta_1\text{LEV} + \beta_2\text{LIQ} + \beta_3\text{EQU} + \beta_4\text{EPS} + \beta_5\text{FIRSIZE} + \varepsilon_t$$

..... (3)

$$\text{EPS} = \beta_0 + \beta_1\text{LEV} + \beta_2\text{LIQ} + \beta_3\text{EQU} + \beta_4\text{EPS} + \beta_5\text{FIRSIZE} + \varepsilon_t$$

..... (4)

Where;

ROA = Return on Assets

ROE = Return on Equity

PM = Profit Margin

EPS = Earnings per Share

LEV = Leverage

LIQ = Liquidity

EQU = Equity

FIRSIZE = Firm Size

ε_t = the error term is normally distributed and independent, with a mean of zero and a constant variance.

β 's = are the coefficients of the explanatory variables.

CHAPTER FOUR

DATA ANALYSIS AND PRESENTATION

4.1 Introduction

The study sought to examine the effect of financial structure on the financial performance of selected listed consumer goods manufacturers in Ghana. To accomplish this main objective of the study, specific objectives such as financial structure practices, relationship between the financial structure and financial performance and level of debt to equity; its associated risk and their impact on the performance of the selected firms.

4.2 Descriptive Statistics

This section discusses the various statistics of the variables used in the study. It covers variables such as observations, means, and standard deviation, minimum and maximum. These descriptive statistics gave the characteristics of each variable, how they are distributed in all companies and the observed trend for the period of between the period 2011 and 2022. The mean indicates an average of variable over the period the study covered and extent of variations in the same period is illustrated by standard deviation. The minimum and maximum for the period also indicated in the data for analysis. Table 4.1 illustrates that Return on Assets (ROA) measures the profitability of an organization in relation to its total assets. On average, the ROA for the 48 observations is approximately 0.1706. This suggests that, on average, these entities generate a profit equal to about 17.06% of their total assets. The range of ROA values varies from -44.29% to 215.53%. Return on Equity (ROE) assesses how efficiently an organization utilizes its equity to generate profits. The mean ROE is approximately 0.2238, indicating that, on average, these entities earn a profit equal to about 22.38%

of their total equity. The range of ROE values spans from -255.02% to 338.20%. Profit Margin (PM) reflects the proportion of revenue that translates into profit before taxes. The average PM among the 48 observations is roughly 0.1158, indicating that, on average, about 11.58% of revenue becomes profit before taxes. PM values range from -65.00% to 57.05%.

Earnings per Share (EPS) represent the portion of earnings allocated to each outstanding share of stock. Unfortunately, specific statistics, such as mean and standard deviation, are not provided for this variable.

Leverage (LEV) signifies the extent to which an organization uses debt in its capital structure. The average LEV among the 48 observations is approximately 1.8322, suggesting that, on average, organizations have a leverage ratio of 1.8322, meaning they have some level of debt in relation to their equity. LEV values range from 0.0519 to 9.8211.

Liquidity (LIQ) gauges an organization's ability to meet short-term financial obligations. The average LIQ for the dataset is about 2.0941, indicating that, on average, entities have a liquidity ratio of approximately 2.0941, meaning they have more current assets than current liabilities. LIQ values range from 0.3253 to 7.6849.

Total Assets (TA) represents the total assets of the organizations in Ghana Cedis. The average total assets among the 48 observations amount to approximately 320,876.6 Ghana Cedis. However, there is considerable variability in total assets, ranging from a minimum of 5,763 Ghana Cedis to a maximum of 1,075,326 Ghana Cedis.

Earnings per share (EPS) represent the portion of earnings allocated to each outstanding share of stock. On average, the EPS for the 48 observations is approximately 0.3301.

This suggests that, on average, each outstanding share of stock earns about 0.3301 units of profit. The range of EPS values spans from a minimum of -2.5651 to a maximum of 4.6079, showcasing a wide range of earnings per share outcomes within the dataset.

Total Equity (TE) represents the total equity of the organizations in Ghana Cedis. The average total equity among the 48 observations is approximately 138,355.2 Ghana Cedis. Just like total assets, there is variation in total equity, with values ranging from a minimum of 4,055 Ghana Cedis to a maximum of 371,834 Ghana Cedis.

Table 4.1: Descriptive Statistics

VARIABLE	OBS	MEAN	STD.DEV	MIN	MAX
ROA	48	.1705615	.3400698	-.442878	2.155301
ROE	48	.2238394	.7121716	-2.550228	2.381998
PM	48	.1158295	.1929012	-.6500255	.570513
EPS	48	.3301458	.9648491	-2.5651	4.6079
LEV	48	1.832157	2.314634	.0518552	9.821069
LIQ	48	2.094141	1.875871	.3253143	7.684886
TA	48	320876.6	24087.2	5763	1075326
TE	48	138355.2	104012	4055	371834

Source: Field Data, 2023

4.3 Variance Inflation Factor

An indicator of the degree of multicollinearity in regression analysis is the variance inflation factor (VIF). In a multivariate regression model, multicollinearity occurs when there is a correlation between several independent variables. The regression results may suffer as a result. The variance inflation factor was used to calculate the degree to which multicollinearity has inflated the variance of a regression coefficient. Table 4.2 shows

that VIF of each of the variables tested was less than 10, and therefore the values are moderate.

Table 4.2: Variance Inflation Factor

VARIABLE	VIF	1/VIF
FS	4.68	0.213664
EQU	4.30	0.2322722
LEV	3.00	0.332953
LIQ	2.94	0.340632
EPS	1.29	0.777471
Mean VIF	3.24	

Source: Field Data, 2023

4.4 Model 1: $ROA = B_0 + B_1LEV + B_2LIQ + B_3EQU + B_4EPS + B_5FS + E_T$

The model sought to assess how leverage, liquidity, equity, earnings per share and firm size affect return on assets.

4.4.1 Correlations

The correlation coefficient matrix is one of the descriptive measures that illustrate the degree of the link between every two variables in the designed model. The matrix as showed in table 4.3 revealed that leverage (LEV), equity (EQU) and firm size (FS) have negative but statistically weak relationship with return on assets while EQU has no relationship with return on assets. Table 4.3 shows a significant negative correlation between leverage and return on assets with value -0.3574 (p-value > 0.0126), which points that as leverage decreases, the dependent variable return on assets increase. Similarly, another significance correlation is negative one, is found between firm size

and return on assets, which is equals to -0.6484 (p-value > 0.0000). The results supported the outcomes obtained by Ajibola et al. (2018) and Arikepar (2020).

On the other hand, was established that there is positive relationship between liquidity and return on assets with a value of 0.5503 (p-value > 0.0001) in addition, it revealed that there was positive significant association between earnings per share and return on assets (0.3823; p-value > 0.0073). On the other hand, the study revealed that there was insignificant relationship between equity and return on assets (-0.1203; p-value > 0.4155). Likewise, the findings confirmed Rahman et al. (2020).

According to the correlation matrix outcome, there was negative significant relationship between liquidity and leverage (-0.4820; p- value > 0.0005). Evidence gathered further shows that there negative significant relationship between equity and leverage (-0.3296; p- value > 0.0221). The study revealed that earnings per share shows a significant negative relationship with leverage (-0.3049; p- value > 0.0351). It was ascertained that firm size has positive relationship with leverage with 0.3343 and p-value of 0.0245.

Additionally, the study revealed equity shows a significant negative relationship with liquidity with leverage with -0.3754 and p- value of 0.0086. The findings are in variance with Ishaya and Abduljeleel (2014). It was further revealed that firm size shows a significant negative relationship with liquidity with leverage with -0.7295 and p- value of 0.0000. On the other hand, it was found earnings per share shows a significant positive relationship with liquidity with leverage with 0.3133 and p- value of 0.0301.

Moreover, the study discovered firm size shows a significant positive relationship with equity with 0.6537 and p- value of 0.0000. Evidence gathered revealed that earnings per share do not reveal any relationship with equity with 0.1989 and p- value of 0.1752.

This contradicted Mwangi et al. (2014). It was observed that earnings per share show a significant negative relationship with firm size with value of -0.0405 and p- value of 0.7846.

The outcomes established that the all the variables such as equity, firm size and earnings per share have statically weak with one another as their values were lower than 0.8. This shows the absence of multi-collinearity among the variables.

Table 4.3: Correlations

ROA	LEV	LIQ	EQU	FS	EPS
ROA	1.0000				
LEV	-0.3574*	1.0000			
	0.0126				
LIQ	0.5503*	-0.4820*	1.0000		
	0.0001	0.0005			
EQU	-0.1203	-0.3296*	-0.3754*	1.0000	
	0.4155	0.0221	0.0086		
FS	-0.6484*	0.3243*	-0.7295*	0.6537*	1.0000
	0.0000	0.0245	0.0000	0.0000	
EPS	0.3823*	-0.3049*	0.3133*	-0.0405	1.0000
	0.0073	0.0351	0.0301	0.7846	

Source: Field Data, 2023

4.4.2 Panel Regression

From the test, coefficients of leverage were 0.0597218 and 0.0648867 for fixed effect and random effect respectively. The results indicated that liquidity revealed a coefficient of 0.0998343 and 0.0079485 for fixed effect and random effect in that order. The study further showed that both fixed effect and random effect revealed 0.3402359 and 0.3075317 respectively under equity. With earnings per share, the fixed effect and

random effect revealed value of 0.1276699 and .1009737 in that order illustrated in table 4.4. However, the result of control variable (firm size) indicated negative as -0.5043393 and -0.4277466 for fixed effect and random effect. The empirical result of the standard Hausman test as depicted in table 4.4 reveals that the rejected since $\text{prob} > \chi^2$ is 0.0000. The findings agreed with earlier results of Lee (2009) on the effect of firm size on profitability of public firms in United States from 1987 to 2006.

The results of the study as displayed in the table below indicate that the p-value of 0.0000 cannot reject the hypothesis. This means that the coefficient of both fixed and random effects are consistent as well as efficient.

Table 4.4: Hausman Test: Model 1

	Coefficients			sqrt(diag(V_b_v_B)) S. E
	(b) Fixed	(B) Random	(b – B) Difference	
LEV	.0597218	.0648867	-.0051649	
LIQ	.0998343	.0079485	.0918858	.0111406
EQU	.3402359	.3075317	-.0327	
EPS	.1276699	.1009737	.0266962	
FS	-.5043393	-.4277466	-.0765927	

Source: Field Data, 2023

b. Consistent under H_0 and H_a ; obtained from xtreg

B. Inconsistent under H_a . Efficient under H_0 ; obtained form xtreg

Test: H_0 ; difference in coefficients not systematic

$$\begin{aligned} \chi^2(5) &= (b-B)' \{(v_b.v_B)^{-1}\} (b-B) \\ &= 29.35 \end{aligned}$$

$$\text{Prob} > \chi^2 = 0.0000$$

(v_b.v_B is not positive indefinite)

4.4.3 Fixed Effect Results

As described in table 4.5, the F-statistics computed (28.01) pointing to the fitness of the regression model used in the study. Furthermore, the p-value of 0.000 was less than the required considerable level of 0.05. The results revealed that financial structure was significant in explaining financial performance of the selected goods manufacturing companies listed on Ghana Stock Exchange in Ghana. In addition, the model was used reliable and best fit that can be relied upon in determining the effect of financial structure on financial performance goods manufacturing companies listed on Ghana Stock Exchange in Ghana, as explained by F-statistics in table 4.4.

From the fixed effect result, the study revealed that the regression output provides a coefficient of 0.0597218. It also revealed p-value 0.006, which is less than significant level of 0.05. This indicates that leverage has a positive effect on return on assets since the coefficient is positive. The results supported the earlier findings of study conducted Mwangi et al. (2014) on non-financial companies' listed Kenyan securities Exchange.

The study further revealed that liquidity obtained a coefficient value of 0.0998343 and its corresponding p-value of 0.001 indicates a positive significant relationship between liquidity and return on assets as depicted in table 4.5. The results of this current study contradict the outcomes of Velnampy and Anojan (2014)'s investigation on the effect of liquidity on profitability. Additionally, equity revealed a 0.3402359 and p-value of 0.000 indicates a positive and significant as portrayed in table 4.5. It was found that earnings per share revealed a coefficient value of 0.1276699 and its corresponding p-value of 0.000 indicates positive and significant relationship as display by table 4.5. The findings of the study settled with the results obtained by Hassan, Ahsan, Rahman,

and Nurul (2014) in their study carried out on listed businesses on the Dhaka Stock Exchange from 2007 to 2012.

However, firm size revealed a negative coefficient value of -0.504339 and 0.000 as its related variable. This outcome indicates positive and significant association between firm size and return on assets. This means that with the exception of control variable firm size, all other variables had positive values. The results contradict the findings of Agha (2014) and Afeef (2011) as reviewed in the literature of this study. The results are illustrated in table 4.5.

Table 4.5: Fixed Effect Results

Fixed-effects (within) regression	Number of obs	=	48
Group variable: Company	Number of Group	=	4
R-sq:	Obs per group:		
Within	= 0.7822	min	= 12
Between	= 0.9929	avg	= 12.0
Overall	= 0.6470	max	= 12
	F (15, 39)	=	28.01
Prob > F	=	0.0000	
Corr(u_i, xb)	=	-0.08388	

ROA	Coef.	Std. Err.	t	p> t	95% conf.	Interval
LEV	.0597218	.0203836	2.93	0.006	.0184922	.1009515
LIQ	.0998343	.0280363	3.56	0.001	.0431255	.15654
EQU	.3402359	.05267182	6.46	0.000	.2336843	.4467876
EPS	.1276699	0.290928	4.39	0.000	.0688242	.1865156
FS	-.504393	.0509518	-9.90	0.000	-.6073989	-.4012796
cons	2.102522	.5225378	4.02	0.000	1.045589	3.159454

Source: Field Data, 2023

4.5 Model 2: $ROE = \beta_0 + \beta_1LEV + \beta_2LIQ + \beta_3EQU + \beta_4EPS + \beta_5FS + \varepsilon_t$

4.5.1 Correlations

The correlation coefficient matrix is one of the descriptive measures that illustrate the degree of the link between every two variables in the designed model. The matrix as showed in table 4.6 revealed that leverage (LEV), equity (EQU) and firm size (FS) have negative but statistically weak relationship with return on equity.

Table 4.6 displays a significant negative correlation between leverage and return on equity with value -0.3681 (p-value > 0.0100), which points that as leverage decreases, the dependent variable return on equity increase. Table 4.6 displays a significant negative correlation between leverage and return on assets with value -0.3030 (p-value > 0.0363), which points that as leverage decreases, the dependent variable return on assets increase.

From the obtained results, the regression output revealed coefficient 0.4273; p-value is 0.0025. This indicates that liquidity has positive effect return on equity since the coefficient positive. The outcome confirmed the outcomes of study carried out by Kaur and Silky (2013) and Malik and Ahmed (2013) as depicted in table 4.6.

Similarly, another significance correlation is negative one, is found between firm size and return on equity, which is equals to -0.3077 (p-value > 0.0334). The results supported the outcomes obtained by Ajibola et al. (2018) and Arikepar (2020). On the other hand, the study found that there is positive relationship between earnings per share liquidity and return on equity with a value of 0.4622 (p-value > 0.0009). This outcome confirmed that there was weak association between earnings per share and return on equity.

According to the correlation matrix outcome, there was negative significant relationship between liquidity and leverage (-0.4820; p- value > 0.0005). Evidence gathered further shows that there negative significant relationship between equity and leverage (-0.3296; p- value > 0.0221). The study revealed that earnings per share shows a significant negative relationship with leverage (-0.3049; p- value > 0.0351). It was ascertained that firm size has positive relationship with leverage with 0.3343 and p-value of 0.0245.

Moreover, the study revealed equity shows a significant negative relationship with liquidity with leverage with -0.3754 and p- value of 0.0086. The findings are in variance with Ishaya and Abduljeleel (2014). It was further revealed that firm size shows a significant negative relationship with liquidity with leverage with -0.7295 and p- value of 0.0000. On the other hand, it was found earnings per share shows a significant positive relationship with liquidity with leverage with 0.3133 and p- value of 0.0301.

Table 4.6: Correlation

ROE	LEV	LIQ	EQU	FS	EPS
ROE	1.0000	1.0000			
	-0.3681*				
LEV	0.0100	-0.4820*	1.0000		
	0.4273*				
LIQ	0.0025	0.0005-	-0.3754*	1.0000	
	-0.3030*	0.3296*			
EQU	0.0363	0.0221	0.0086	0.6537 *	1.0000
	-0.3077*	0.3243 *	-0.7295*		
FS	0.0334	0.0245	0.0000	0.0000	1.0000
	0.4622 *	-0.3049*	0.3133 *	0.1989	-0.0405
EPS	0.0009	0.0351	0.0301	0.1752	0.7846

Source: Field Data, 2023

Moreover, the study discovered firm size shows a significant positive relationship with equity with 0.6537 and p- value of 0.0000. Evidence gathered revealed that earnings per share do not reveal any relationship with equity with 0.1989 and p- value of 0.1752. This contradicted Mwangi et al. (2014). It was observed that earnings per share show a significant negative relationship with firm size with value of -0.0405 and p- value of 0.7846.

The outcomes established that the all the variables such as equity, firm size and earnings per share have statically weak with one another as their values were lower than 0.8. This shows the absence of multi-colinearity among the variables.

4.5.2 Panel Regression

From the test, coefficients of leverage were -0.2675319 and -0.2701821 for fixed effect and random effect respectively. The results indicated that liquidity revealed a coefficient of 0.1378234 and -0.0228845 for fixed effect and random effect in that order. The study further showed that both fixed effect and random effect revealed -0.8767601 and -0.9234516 respectively under equity. With earnings per share, the fixed effect and random effect revealed value of 0.4051649 and 0.3534358 in that order illustrated in table 4.7. Furthermore, the result of control variable (firm size) indicated negative as 0.3901014 and 0.505861 for fixed effect and random effect. The empirical result of the standard Hausman test as depicted in table 4.7 reveals that the rejected since $\text{prob} > \chi^2$ is 0.0000. The findings agreed with earlier results of Lee (2009) on the effect of firm size on profitability of public firms in United States from 1987 to 2006.

The results of the study as displayed in the table below indicate that the p-value of 0.0568 can accept the hypothesis. This means that the coefficient of both fixed and random effects are consistent as well as efficient.

Table 4.7: Hausman Test: Model 2

	Coefficients			
	(b) Fixed	(B) Random	(b – B) Difference	sqrt(diag(V_b_v_B)) S. E
LEV	-.2675319	-.2701821	.0026502	.0223695
LIQ	.1378234	-.0228845	.1607079	.0434931
EQU	-.8769601	-.9234516	.0464914	
EPS	.4051649	.3534358	.0517292	.0042992
FS	.3901014	.505861	.1157596	

b. Consistent under Ho and Ha; obtained from xtreg

B. Inconsistent under Ha. Efficient under Ho; obtained form xtreg

Test: Ho; difference in coefficients not systematic

$$\text{chi2}(5) = (b-B)' \{(v_b.v_B)^{-1}\} (b-B)$$

$$= 10.74$$

$$\text{prob}>\text{chi2} = 0.0568$$

4.5.3 Random Effect Results

The outcomes of the study shown that indicate that the overall coefficient of determination R Square was 0.6542 which means that the independent variables explained 65.42% of the variations in the dependent variable. This is an indication that there is a strongly relationship between the dependent variable, performance of goods manufacturers listed on Ghana Stock Exchange as measured by return on equity. The results further show that F value was 79.45 and p-value of 0.000 which is less than 5%. This indicates that the overall model is statistically significant. The outcome further

implies that leverage, liquidity, equity, earnings per share and firm size had a significant impact on performance of goods manufacturers listed on Ghana Stock Exchange.

It was found that leverage turned out with a beta coefficient of -0.2701821 indicating that leverage negatively related to return on equity. The results also show that leverage is significant at 1% level. The result is in line with Mwangi et al. (2014) who found out that capital structure has link with performance of non-financial companies listed on Kenya's Nairobi Securities Exchange. It is statistically significant with a negative effect on return on equity of listed goods manufacturing companies on Ghana Stock Exchange in Ghana.

The study further revealed that liquidity scored beta coefficient of -0.0228845 implying a negative relationship with return on equity. This variable is not statistically significant at both 1% and 5% levels and infers that liquidity is not a significant driver of performance of goods manufacturing companies in Ghana. The study agreed with the results of Velnampy and Anojan (2014) who ascertained that profitability of all listed businesses in the telecoms industry of the Colombo Stock Exchange, Sri Lanka, from 2008 to 2012, was impacted by liquidity and capital structure.

The outcome of the study revealed equity turned out with a beta coefficient of -0.29234516 indicating that leverage negatively related to return on equity. The results also show that equity is significant at 1% level. The result is in line with Ishaya and Abduljeleel (2014) who discovered that whereas debt and profitability have a negative association, equity and profitability have a direct correlation. It is statistically significant with a negative effect on return on equity of listed goods manufacturing companies on Ghana Stock Exchange in Ghana.

The result of the study discovered earnings per share turned out with a beta coefficient of 0.3534358 indicating that earnings per share positively related to return on equity. The results also show that equity is significant at 1% level. The result is in line with Mwangi et al. (2014) who exposed that whereas earning per share and profitability has a positive association, equity and profitability have a direct correlation. It is statistically significant with a positive effect on return on equity of listed goods manufacturing companies on Ghana Stock Exchange in Ghana.

The study ideated that firm size turned out with a beta coefficient of 0.505861 indicating that firm size positively related to return on equity. The results also show that firm size is significant at 1% level. The result contradicts with Vijayakumar and Tamizhselvan (2010) who found that whereas firm size and profitability has positive association, firm size and profitability have a direct correlation. It is statistically significant with a positive effect on return on equity of listed goods manufacturing companies on Ghana Stock Exchange in Ghana.

Table 4.8: Random Effect Results

Fixed-effects (within) regression	Number of obs	=	48
Group variable: Company	Number of Group	=	4
R-sq:	Obs per group:		
Within	= 0.6460	min	= 12
Between	= 0.9657	avg	= 12.0
Overall	= 0.6542	max	= 12
	Wald (5)	=	79.45
Prob > Chi2	=	0.0000	
Corr(u_i, xb)	=	-.08388	

ROA	Coef.	Std. Err.	t	p> t	95% conf.	Interval
LEV	-.2701821	.0483856	-5.58	0.000	-.3650161	-.175348
LIQ	-.0228845	.0590262	-0.39	0.698	-.1385737	.0928047
EQU	-.9234516	.1464596	-6.31	0.000	-1.210507	-.636396
EPS	.3534358	.0759607	4.65	0.000	.2045555	.502316
FS	.505861	.1364593	3.71	0.000	.2384058	.7733163
cons	5.046107	1.399353	6.61	0.000	2.303426	7.7887

Source: Field Data, 2023

4.6 Model 3: $PM = \beta_0 + \beta_1LEV + \beta_2LIQ + \beta_3EQU + \beta_4EPS + \beta_5FS + \varepsilon_t$

This model examines the how leverage, liquidity, equity, earnings per share and firm size influence profit margin of goods manufacturing companies listed on Ghana Stock Exchange .

4.6.1 Correlations

One of the descriptive metrics that shows the strength of the relationship between each pair of variables in the created model is the correlation coefficient matrix. Leverage (LEV), equity (EQU), and firm size (FS) have a negative but statistically insignificant connection with return on equity, according to the matrix shown in table 4.9. With a

value of -0.4848 (p-value 0.0005), Table 4.9 shows a strong negative correlation between leverage and profit margin, indicating that as leverage rises, profit margin declines. This infers that strong negative correlation between leverage and profit margin, indicating that as leverage rises, profit margin falls.

Regression analysis of the results showed a coefficient of 0.5278 with a p-value of 0.0001. Since the coefficient is positive, this suggests that liquidity has a favourable impact on return on equity. The results, which are shown in Table 4.9, supported those of studies conducted by Kaur and Silky (2013) and Malik and Ahmed (2013).

Similar to the previous significant association, has no correlation of 0.0029 (p-value 0.9843) was discovered between equity and profit margin. The findings corroborated those of Ajibola et al. (2018) and Arikepar (2020).

With a value of -0.3346 (p-value 0.0201), Table 4.9 shows a strong negative correlation between firm size and profit margin, indicating that as firm size rises, profit margin declines. This infers that strong negative correlation between firm size and profit margin, indicating that as firm size rises, profit margin falls. Regression analysis of the results showed a coefficient of 0.7271 with a p-value of 0.0000. Since the coefficient is positive, this suggests that earning per share has a favourable impact on return on equity. The results, which are shown in Table 4.9, supported those of studies conducted by Kaur and Silky (2013).

Liquidity and leverage had a substantial negative association, per the results of the correlation matrix (-0.4820; p-value 0.0005). Further research reveals a substantial negative association between equity and leverage (-0.3296; p-value 0.0221). The study found a strong inverse association between leverage and earnings per share (-0.3049;

p-value 0.0351). It was determined that business size and leverage have a positive relationship, with a p-value of 0.0245 and a correlation coefficient of 0.3343.

Additionally, the study found a substantial negative association between equity and liquidity with leverage, with a correlation coefficient of -0.3754 and a p-value of 0.0086. The results disagree with those of Ishaya and Abduljeleel (2014). This outcome confirmed that there was a weak association between earnings per share and return on equity.

Liquidity and leverage had a substantial negative association, per the results of the correlation matrix (-0.4820; p-value 0.0005). Further research reveals a substantial negative association between equity and leverage (-0.3296; p-value 0.0221). The study found a strong inverse association between leverage and earnings per share (-0.3049; p-value 0.0351). It was determined that business size and leverage have a positive relationship, with a p-value of 0.0245 and a correlation coefficient of 0.3343.

Additionally, the study found a substantial negative association between equity and liquidity with leverage, with a correlation coefficient of -0.3754 and a p-value of 0.0086. The results disagree with those of Ishaya and Abduljeleel (2014).

Further research found a substantial negative association between business size and liquidity, with leverage having a correlation coefficient of -0.7295 and a p-value of 0.0000. On the other hand, it was discovered that the association between liquidity and earnings per share is significantly positive, with leverage showing a 0.3133 and 0.0301 p-values, respectively.

Table 4.9: Correlation

PM	LEV	LIQ	EQU	FS	EPS
ROE	10000				
LEV	-0.4848*	1.0000			
	0.0005				
LIQ	0.5278*	-0.4820*	1.0000		
	0.0001	0.0005			
EQU	0.0029	-0.3296*	-0.3754*	1.0000	
	0.9843	0.0221	0.0086		
FS	-0.3346*	0.3243 *	-0.7295*	0.6537 *	1.0000
	0.0201	0.0245	0.0000	0.0000	0.7271 *
EPS	-0.3049*	0.3133 *	0.1989	-0.0405	1.0000
	0.0000	0.0351	0.0301	0.1752	0.7846

Source: Field Data, 2023

Additionally, the study found that, with a p-value of 0.0000 and a significant positive connection of 0.6537, business size and equity. The evidence gathered showed that profits per share, with a p-value of 0.1752 and a value of 0.1989, do not indicate any link with equity. This was in opposition to Mwangi et al. (2014). The association between earnings per share and business size was found to be significantly negative, with a value of -0.0405 and a p-value of 0.7846.

The outcomes established that all the variables, such as equity, firm size, and earnings per share, were statistically weak with one another as their values were lower than 0.8. This shows the absence of multi-collinearity among the variables.

4.6.2 Panel Regression

According to the test, the fixed effect and random effect coefficients of leverage were -0.0164127 and -0.217922, respectively. The results showed that, for fixed effect and random effect, respectively, liquidity exhibited coefficients of 0.0425126 and

0.0115608. The study also demonstrated that equity was shown by both the fixed effect and the random effect to be -0.22502 and -0.0275188, respectively. The fixed effect and random effect with respect to earnings per share revealed values of 0.14213 and 0.1271569, respectively, as shown in table 4.10. Additionally, the results of the control variable (firm size) were negative for the fixed effect and random effect, respectively, with values of -0.366816 and -0.107468. The typical Hausman test empirical result shown in Table 4.10 demonstrates that the rejected prob>chi2 is 0.3307. The findings contradict with earlier results by Lee (2009) on the effect of firm size on the profitability of public firms in the United States from 1987 to 2006.

The results of the study, as displayed in the table below, indicate that the p-value of 0.3307 can accept the hypothesis. This means that the coefficients of both fixed and random effects are consistent as well as efficient.

Table 4.10: Hausman Test: Model 2

	Coefficients			
	(b) Fixed	(B) Random	(b – B) Difference	sqrt(diag(V_b_v_B)) S. E
LEV	-.0164127	-.0217922	.0053795	.0075711
LIQ	.0425126	.011508	.0310046	.0132362
EQU	-.022502	-.0275188	.0050167	
EPS	.14213	.1271569	.0149731	.0067873
FS	-.0366816	-.0107468	-.0259348	.0087232

b. Consistent under Ho and Ha; obtained from xtreg

B. Inconsistent under Ha. Efficient under Ho; obtained form xtreg

Test; Ho; difference in coefficients not systematic

$$\text{chi2}(5) = (b-B)' \{(v_b.v_B)^{-1}\} (b-B) = 5.76$$

$$\text{prob}>\text{chi2} = 0.3307$$

4.6.3 Random Effect Results

According to the results obtained from the study, the model revealed that overall coefficient determination R Square was 0.6670 which means that the independent variables explained 66.70% of the variation in the dependent variable. The findings indicate that there is strong connection between financial performance (profit margin) and dependent variable (leverage, liquidity, equity, earnings per share and firm size) in the listed goods manufacturing companies in Ghana. It was further revealed that F value was 84.13 while p-value showed a value of 0.0000. This indicates that the overall model is statistically significant.

Leverage was discovered to have a beta coefficient of -0.217922, demonstrating a negative correlation between leverage and profit margin. This variable is not statistically significant at both 1% and 5% levels and implies that leverage is not a significant driver of profit margin in Ghanaian goods manufacturing companies listed on Ghana Stock Exchange. Leverage is significant at the 1% level, according to the results as well. The outcome is consistent with Abdul (2012) investigated the connection between Pakistani firm performance and capital structure choices. It has a statistically significant negative impact on listed goods manufacturing companies' return on equity on the Ghana Stock Exchange.

According to the study, liquidity had a beta coefficient of 0.011508, indicating a bad correlation with profit margin. This variable is not statistically significant at either the 1% or 5% levels, indicating that liquidity is not a significant factor in determining how well Ghanaian enterprises that produce goods perform. The analysis supported the findings of Velnampy and Anojan (2014), who determined that capital structure and liquidity had an impact on the profitability of all listed enterprises in the telecoms sector

of the Colombo Stock Exchange, Sri Lanka, from 2008 to 2012. The study's findings showed that equity had a beta coefficient of -0.0275188, showing that leverage had a negative relationship with profit margin. This infers that there was no significant relationship. The findings also demonstrate that equity is important at the 1% level. In their investigation of the relationship between working capital management and profitability for Pakistani companies registered on the Karachi Stock Exchange, Raheman and Nasr (2007) discovered a significant inverse link between corporate liquidity and profitability. It has a statistically significant negative impact on listed goods manufacturing companies' return on equity on the Ghana Stock Exchange.

According to the study's findings, profits per share were favourably correlated with profit margin, with a beta coefficient of 0.1271569. The findings also demonstrate that equity is important at the 1% level. The outcome is consistent with Mwangi et al.'s (2014) findings that equity and profitability are directly correlated, whereas earnings per share and profitability show a positive link. It has a statistically significant favourable impact on listed goods manufacturing companies' return on equity on the Ghana Stock Exchange.

Table 4.11: Random Effect Results

Fixed-effects (within) regression	Number of obs	=	48
Group variable: Company	Number of Group	=	4
R-sq:	Obs per group:		
Within	= 0.7822	min	= 12
Between	= 0.9929	avg	= 12.0
Overall	= 0.6470	max	= 12
	Wald chi2 (5)	=	84.13
Prob > chi2	=	0.0000	
Corr(u_i, xb)	=	0 (assumed)	

ROA	Coef.	Std. Err.	t	p> t	95% conf.	Interval
LEV	-.0217922	.0128601	-1.69	0.090	-.0469974	.0034131
LIQ	.011508	.0156881	0.73	0.463	-.0192402	.0422562
EQU	-.0275188	.0389264	-0.71	0.480	-.1038132	.0487757
EPS	.1271569	.020189	6.30	0.000	.0875871	.1667267
FS	-.0107468	.0362685	-0.30	0.767	-.0818318	.0603382
cons	.5383903	.3719238	1.45	0.148	-.1905669	1.267347

Source: Field Data, 2023

According to the study's hypothesis, firm size was shown to be negatively correlated with profit margin, as indicated by a beta value of -0.0107468. The findings also indicate that, at a 1% level, company size is significant. The outcome conflicts with the findings of Vijayakumar and Tamizhselvan (2010) discovered that while business size and profitability have a negative link, they also directly correlate. It has a statistically significant favourable impact on listed goods manufacturing companies' return on equity on the Ghana Stock Exchange.

4.6.4 Model 4: $EPS = B_0 + B_1LEV + B_2LIQ + B_3EQU + B_4FS + E_T$

This model examines the how leverage, liquidity, equity and firm size influence earnings per share of goods manufacturing companies listed on Ghana Stock Exchange.

4.6.4.1 Correlations

The correlation coefficient matrix is one of the descriptive metrics that demonstrates the strength of each pair of variables' association with one another in the developed model. The matrix provided in Table 4.12 indicates that there is a negative but statistically significant relationship between leverage and earnings per share. Table 4.12 displays a high negative correlation between leverage and profit margin, with a value of -0.3049 (p-value 0.0351), showing that as leverage increases, earnings per share decreases. This implies that there is a substantial negative association between leverage and earnings per share, showing that earnings per share as leverage increases.

The findings of the regression analysis revealed there was positive relationship between liquidity and earnings per share with a coefficient of 0.3133 with a p-value of 0.0301. This infers that both liquidity and earnings per share increase concurrently. The fact that the coefficient is positive indicates that liquidity positively affects earnings per share. The findings, which are presented in Table 4.12, corroborated those of investigations carried out by Malik and Ahmed (2013) and Kaur and Silky (2013).

Similar to the prior substantial link, there is no correlation between equity and earnings per share, which was shown correlation value of 0.1989 (p-value 0.1752). The results were in contradicted with Ajibola et al. (2018) while supported Arikepar (2020).

Table 4.12 displays a substantial negative correlation between firm size and earnings per share, with a value of -0.3346 (p-value 0.0201), showing that there was no

significant relationship firm size and earnings per share. This implies a substantial negative association between business size and earnings per share, showing a decline in firm size while earnings per share increasing. The results of the regression analysis revealed a coefficient of -0.4820 with a p-value of 0.0005. The positive correlation indicates that liquidity is negatively impacted by earnings per share. The findings, which are presented in Table 4.12, corroborated previous research by Kaur and Silky (2013).

Further investigation finds a strong inverse relationship (-0.3296; p-value 0.0221) between equity and leverage. From the outcome of the study, it was identified that firm size and leverage positively correlated and statistically significant as depicted in the table below (0.3243; p-value 0.0245). As illustrated in table 4.12, equity negatively related to liquidity while firm size strongly correlated with liquidity. It was discovered that there was negative correlation between equity and liquidity as well as firm size and liquidity leverage, with coefficients of -0.3754 and -0.7295 while p-values were 0.0086 and 0.0000 respectively as portrayed in table 4.12. The study also discovered a strong positive correlation between firm size and equity with a p-value of 0.0000 and a correlation coefficient of 0.6537. The outcome of this study corresponded with Ishaya and Abduljeleel's (2014) findings. This result demonstrated that firm size and earnings per share have a convincing relationship.

Table 4.12: Correlation

	EPS	LEV	LIQ	EQU	FS
EPS	10000				
LEV	-0.3049*	1.0000			
	0.0351				
LIQ	0.3133*	-0.4820*	1.0000		
	0.0301	0.0005			
EQU	0.1989	-0.3296*	-0.3754*	1.0000	
	0.1752	0.0221	0.0086		
FS	-0.0405	0.3243 *	-0.7295*	0.6537 *	1.0000
	0.7846	0.0245	0.0000	0.0000	

Source: Field Data, 2023

4.6.4.2 Panel Regression

According to the test, the fixed effect and random effect coefficients of leverage were -0.1255539 and 0.0030969, respectively. The results showed that, liquidity for fixed effect and random effect respectively exhibited coefficients of 0.1169171 and 0.2800343. The study also demonstrated that equity was shown by both the fixed effect and the random effect to be 0.3401781 and 0.3209152, respectively. The fixed effect and random effect with respect to firm size revealed positive values such as 0.263077 and 0.1463506, respectively, as shown in table 4.13.

Additionally, the results of the study further indicated prob>chi2 was 0.0910 revealed that the different in coefficients are not systematic. The typical Hausman test empirical result shown in Table 4.13 demonstrates that the hypothesis is accepted. The findings contradict earlier results by Lee (2009) on the effect of firm size on the profitability of public firms in the United States from 1987 to 2006.

Table 4.13: Hausman Test: Model 4

	Coefficients			
	(b) Fixed	(B) Random	(b – B) Difference	sqrt(diag(V_b_v_B)) S. E
LEV	-.1255539	.0030969	-.1286508	.0494226
LIQ	.1169171	.2800343	-.1631172	.1032318
EQU	.3401781	.3209152	.0192629	
FS	.263077	.1463506	.1167264	.0199353

b. Consistent under Ho and Ha; obtained from xtreg

B. Inconsistent under Ha. Efficient under Ho; obtained from xtreg

Test: Ho; difference in coefficients not systematic

$$\begin{aligned} \text{chi2}(5) &= (b-B)' \{(v_b.v_B)^{-1}\} (b-B) \\ &= 8.02 \end{aligned}$$

$$\text{Prob}>\text{chi2} = 0.0910$$

4.6.4.3 Random Effect Results

From the results obtained that the model revealed that overall coefficient determination R Square was 0.2225 which means that the independent variables explained 22.25% of the variation in the dependent variable. The findings indicate that there is weak connection between financial performance (earnings per share) and dependent variable (leverage, liquidity, equity and firm size) in the listed goods manufacturing companies in Ghana. It was further revealed that F value was 12.31 while p-value showed a value of 0.0152. This indicates that the overall model is statistically significant.

As depicted in table 4.14, leverage was discovered to have a beta coefficient of 0.0030969, demonstrating a positive correlation between leverage and earning per share. This variable is statistically not significant at both 1% and 5% levels and implies that leverage is not a significant driver of earning per share in Ghanaian goods manufacturing companies listed on Ghana Stock Exchange. The outcome is not

consistent with Abdul (2012) investigated the connection between Pakistani firm performance and capital structure choices. Evidence gathered revealed statistically leverage does not significant influence earnings per share of listed goods manufacturing companies on the Ghana Stock Exchange.

According to the study, liquidity had a beta coefficient of 0.2800343 and p-value of 0.011, indicating a correlation with earnings per share. This variable is statistically significant at 5% levels, indicating that liquidity is a significant factor in determining how well Ghanaian enterprises that produce goods perform. The analysis maintained the findings of Velnampy and Anojan (2014), who determined that capital structure and liquidity had an impact on the profitability of all listed enterprises in the telecoms sector of the Colombo Stock Exchange, Sri Lanka, from 2008 to 2012.

The study's findings showed that equity had a beta coefficient of 0.3209152, showing that liquidity had no relationship with earnings per share. This infers that there was no significant relationship between equity and earnings per share. The findings also demonstrate that equity is not important at the 1% level. In their investigation of the relationship between working capital management and profitability for Pakistani companies registered on the Karachi Stock Exchange, Raheman and Nasr (2007) discovered a significant inverse link between corporate liquidity and profitability. It has a statistically significant negative impact on listed goods manufacturing companies' return on equity on the Ghana Stock Exchange.

According to the study's findings, firm size as control variable earnings per share were favourably correlated with a beta coefficient of 0.1463506 and p-value of 0.031. The findings also demonstrate that firm size is important at the 5% level. The outcome is consistent with Mwangi et al.'s (2014) findings that earnings per share and profitability

are directly correlated, and indicated a positive link between the variables. It has a statistically significant favourable impact on listed goods manufacturing companies' earnings per share on the Ghana Stock Exchange.

Table 4.14: Random Effect Results

Fixed-effects (within) regression	Number of obs	=	48
Group variable: Company	Number of Group	=	4
R-sq:	Obs per group:		
Within	= 0.1755	min	= 12
Between	= 0.5798	avg	= 12.0
Overall	= 0.2225	max	= 12
	Wald chi2 (4)	=	12.31
Corr(u_i, xb)	= 0 (assumed)	Prob > chi2	= 0.0152

PM	Coef.	Std. Err.	t	p> t 	95% conf.	Interval
LEV	.0030969	.0971377	0.03	0.975	-.1872895	.1934833
LIQ	.02800343	.1105384	0.53	0.011	.063383	.4966856
EQU	.3209152	.2899306	0.11	0.268	-.2473384	.8891688
EPS	.1463506	.2730447	0.54	0.592	-.3888072	.6815084
cons	-5.753414	2.668814	-2.16	0.031	-10.98419	-.522635

Source: Field Data, 2023

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

The chapter presents summary of key findings, conclusions and recommendations. It deals with the specific objectives tested by the study, which comprise financial structure practices, relationship between the financial structure and financial performance and level of debt to equity; it associated risk and their impact on the performance of the selected firms.

5.2 Summary of findings

The study identified that leverage has negative impact on return on asset, but then again, this was statistically weak relationship. It was further found equity has no relationship with return on assets while evidence revealed that there negative correlation between firm size and return on assets, though significant impact on return on asset. It was observed there was positive relationship between liquidity and return on assets with a value of 0.5503 with p-value of 0.0001. It came to known that there was positive significant association between earnings per share and return on assets. Meanwhile, it was found that there was insignificant relationship between equity and return on asset.

The correlation matrix revealed negative significant relationship between liquidity and leverage while evidence also shown that there negative significant relationship between equity and leverage. Another finding of study revealed that earnings per share show a significant negative relationship with leverage. It was ascertained that firm size has positive relationship with leverage whereas equity shows a significant negative relationship with liquidity with leverage. It was further shown that firm size shows a

significant negative relationship with liquidity with leverage; and earnings per share shows a significant positive relationship with liquidity with leverage. The study discovered firm size shows a significant positive relationship with equity, meanwhile earnings per share do not reveal any relationship with equity.

From result obtained from the study, it was revealed that leverage, equity and firm size have negative correlation, but statistically weak relationship with return on equity. Evidence revealed significant negative correlation between leverage and return on equity with value -0.3681 (p-value > 0.0100), which points that as leverage decreases, the dependent variable return on equity increase. It was further ascertained the regression output revealed coefficient of 0.4273 and p-value is 0.0025 portray that liquidity has positive effect return on equity since the coefficient positive. Evidence gathered further revealed that there was negative correlation between firm size and return on equity while earnings per share showed positive but correlation with return on equity. It was found firm size shows a strong and significant positive relationship with equity.

In addition, the study revealed that leverage, equity and firm size have a negative but statistically insignificant connection with return on equity.

Meanwhile, it revealed that there was strong negative correlation between leverage and profit margin, indicating that as leverage increases, profit margin declines. Regression analysis of the results showed that there was positive link between liquidity and return on equity.

Liquidity and leverage had a substantial negative association and between equity and leverage per the results of the correlation matrix ascertained from the study.

Furthermore, the study found that there was negative but statistically significant relationship between leverage and earnings per share. This implies that there is a substantial negative association between leverage and earnings per share, showing that earnings per share as leverage increases. The findings of the regression analysis revealed there was positive relationship between liquidity and earnings per share. This infers that both liquidity and earnings per share increase concurrently. The fact that the coefficient is positive indicates that liquidity positively affects earnings per share. It was shown that there was negative correlation between firm size and earnings per share. This implies a substantial negative association between business size and earnings per share, showing a decline in firm size while earnings per share increasing. Further investigation finds a strong inverse relationship between equity and leverage. From the outcome of the study, it was identified that firm size and leverage positively correlated and statistically.

5.3 Conclusions

From the study findings, it is concludes that leverage has negative impact on return on asset, but then again, this was statistically weak relationship. According to the outcome of the study equity has no relationship with return on assets and firm size also has negative correlation with return on assets.

The study concludes that liquidity and leverage has negative significant relationship between equity and leverage. Similarly, the study draws conclusion that earnings per share show a significant negative relationship with leverage. It was concluded that there was strong negative correlation between leverage and profit margin. The study came with conclusion that liquidity and leverage had a substantial negative association and

between equity and leverage per the results of the correlation matrix ascertained from the study.

Conclusion is drawn that statistically there was significant relationship between leverage and earnings per share. It is assumed based on the findings that liquidity has positive impact earnings per share of the listed manufacturing companies.

5.4 Recommendations

The study made the following policy recommendations and recommendations for further studies that are established upon critical evaluation of the outcomes of the study.

5.4.1 Policy Recommendations

The study found that leverage has negative impact on return on asset, but then again, this was statistically weak relationship. The study recommends the need for the listed manufacturing companies to look at their leverage strategies and policy further in order to improve the impact of leverage on their return on assets.

Further, there is the need for the manufacturing companies listed on Ghana Stock Exchange to reconsider their equity policy so as to have positive effect on return on assets. With the companies need to properly and effectively evaluate their leverage policies in order to make informed decisions.

The again found that statistically there was significant relationship between leverage and earnings per share. The study recommends the need for the listed manufacturing companies to continue to meet the effective evaluation of leverage strategies and its effective implementation in order to improve their earnings per share. This could also create wealth for the shareholders and as well attract more investors.

5.4.2 Recommendations for further Studies

The study focused on four key predictor variables that financial performance among listed consumer goods manufacturers in Ghana. These include leverage, liquidity, total assets and total equity. Based on the variables tested by the study, the study recommends for further research involving other variables not captured in the current study to ascertain their influence on financial performance. Furthermore, the study was carried out on elected listed consumer goods manufacturers in Ghana, signifying the need to undertake a study in other sectors to determine the extent to which the current results will be comparable to those in elected listed consumer goods manufacturers in Ghana.

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