UNIVERSITY OF GHANA

THE EFFECT OF CAPITAL STRUCTURE ON THE PROFITABILITY OF OIL MARKETING COMPANIES (OMCS) IN GHANA

BY

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JULY, 2019
DECLARATION

I do hereby declare that this work is the result of my own research and has not been presented by anyone for any academic award in this or any other university. All references used in the work have been fully acknowledged. I bear sole responsibility for any shortcomings.

........................................... ...........................................

MICHAEL ATUQUAYE OKINE  DATE

(10703865)
CERTIFICATION

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

…………………………..                                                      ……………………..

DR (MRS) VERA O. FIADOR                                                     DATE

(SUPERVISOR)
DEDICATION

I dedicate this work to the good Lord for his immense blessings, favour and grace. I also dedicate this work to my mum for encouragement and constant prayers. It has been her desire for me to pursue my masters.

I am also grateful for the support of Ecobank Mccarthy Hill staff who made it possible for me to close early for lectures.

Thank you for the support.
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All the thanksgiving and praise is given to the Lord Almighty for His mercies, favour and grace shown during the period.

I also express gratitude to my supervisor, Dr. (Mrs) Vera Fiador who took time off her busy schedule to ensure that this work was done successfully. My profound gratitude, appreciation and love goes to my family, especially Mum and siblings, and the Branch Manager of Ecobank Mcarthy hill for their immense support. I say a very big thank you.

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ABSTRACT

The central objective of this study is to assess the effect of capital structure on performance of OMCs in Ghana. The data sample consists of six oil marketing companies that have been in continuous existence from 2010-2015. The study employed panel regression models to examine the relationship between capital structure and performance of OMCs in Ghana.

The results of this study show that the analysis of leverage and firm performance relationship produces mixed outturns. The leverage has a positive relationship with return on equity but relates inversely with return on asset. These findings found support for both the bankruptcy cost and tax benefits arguments.

The study results also suggest that the size of the firm has positive and significant effects on return on assets (ROA) and return on equity (ROE). The larger firms have easier access to external funds and are most likely able to meet their investment needs thus increasing their profitability. The results of the regression analysis show that the liquidity ratio produces negative effects on return on asset. This finding confirms the liquidity and profitability trade off theory.
CHAPTER ONE

INTRODUCTION

1.1 Background of Study

Capital structure can be described as the blend of debt and equity which constitutes the aggregate capital of firms (Gatsi & Akoto, 2010). In broad terms, the capital structure of a firm constitutes its net worth, that is its total assets less the amount owed to its creditors (Abor, 2005; Onaolapo & Kajola, 2010). In company law, capital represents a firm's issued or paid up capital. The ability to select the right mix or proportions of equity and debt can assist the firm in solving some of the difficulties it faces as it seeks to maximize its stakeholder returns (Detthamrong, Chancharat, & Vithessonthi, 2017). But the extent of debt to equity adopted by corporate managers remains a strategic choice (Gatsi & Akoto, 2010). Ever since the seminal works of Modigliani and Miller (1958), literature within the framework of capital structure, both in developed and developing countries, has gained a lot of attention and/or discussion.

For instance, Abor (2005), in his study of Ghanaian firms suggested that decisions relating to capital structure are vital for any business enterprise with the intention of ensuring maximum returns to the various parts of the organisation. He further explained that capital structure decision is important because it gives firms the capability to deal with its competitive market situations. The debt of a company consists of an amount borrowed either from the government, statutory financial corporations, banks and individuals, and other financial institutions which are repayable over a period of time with an associated cost. Equity consists of ordinary share capital, share premium, reserves, undistributed profits, preference shares and discretionary provision or contingency fund.
In Ghana, companies within the non-financial firms require capital mostly to establish or procure production facilities, property and equipment to enter into new business ventures (Amidu, 2007a). Funds are also required to finance their working capital requirements, pay a dividend as well as make provision for other expenses. For these investments and expenses to maximize the firm value, the appropriate capital structure choice must be strategically made.

Onaolapo and Kajola (2010) argue that capital structure decisions are very important to both managers of firms and financiers. This is on account of the basis that, if a wrong mix of funds is utilized, the performance and survival of the business enterprise might be extremely influenced. This implies that in arranging the capital structure of firms either at the initial or subsequent stages managers need to consider the interest of investors and other bodies. To understand how non-financial firms in developing countries fund their operational activities in order to maximize their market worth, it is vital to ascertain the impact of capital structure decisions on firm performance. Gowthorpe (2003) asserts profitability ratios as the best measure of a company's financial performance.

To develop any economy, be it at the micro or macro level, a lot depends on how well both the financial and non-financial sectors in the economy are able to improve their productivity capacity so as to contribute to the overall well-being (GDP) of the economy. Therefore, how the non-financial companies in Ghana finance their operations is of great importance to researchers and policy makers. Hence the essence of this present study is to empirically study capital structure decisions and its effect on the financial performance of non-financial firms, particularly Oil Marketing Companies (OMCs) in Ghana.
1.2 Problem Statement

It is important to note that, numerous research works have been carried out on the profitability of financial and non-financial firms in Ghana. Remarkable among them includes Abor (2005) on the profitability of listed companies in Ghana. Another study by Abor and Biekpe (2005) assessed the determinants of capital structure of companies in Ghana. In regard to banks, Amidu (2007b) concentrated on the capital structure determinants of banks in Ghana. Likewise, Gatsi and Akoto (2010) examined capital structure and profitability of banks in Ghana while Etu-Menson and Enyamful (2011) considered capital structure and profitability of rural banks in Ghana. With regard to insurance, Boadi, Antwi & Lartey (2013) focused on performance determinants of firms in the insurance industry in Ghana.

Despite the many empirical studies carried out in Ghana, the issue of capital structure and profitability within the non-financial industry, particularly the oil marketing industry, still remains under-researched, although same cannot be said of other industries.

Most of the studies focused on listed financial firms or both listed financial and non-financial firms. Clearly, very little consideration has been directed towards the investigation of capital structure and profitability of oil marketing companies (OMCs). With a growing oil and gas economy, the role of OMCs in the success of local content policy and the ultimate growth of the economy cannot be overlooked, hence the need for the assessment of their profitability. It is against this backdrop that the current study is being carried out to look at specifically the relationship between leverage and profitability of selected Oil Marketing Companies in Ghana.
1.3 Research Objectives

This study aims:

1. To examine the effect of short-term debt on profitability of selected oil marketing companies in Ghana.
2. To determine the relationship between long-term debt and profitability of oil marketing companies in Ghana.
3. To ascertain the effect of total debt on profitability of oil marketing companies in Ghana.

1.4 Research Questions

This study is driven by the following questions:

1. What effect does short-term debt have on the profitability of oil marketing companies in Ghana?
2. What is the relationship between long-term debt and profitability of oil marketing companies in Ghana?
3. How does total debt impact the profitability of oil marketing companies in Ghana?

1.5 Significance of Study

The significance of this study can be seen in three areas: research, policy and practice.

In terms of research, the results would expand the current knowledge in the area of capital structure from the Ghanaian perspective. It would also help policy developers in their decision-making process on matters that affect the business environment and cost of capital in Ghana.
The findings of this study may be beneficial to business managers in their choice the optimal capital structure. Also, the study may assist corporate finance managers to pay strategic attention to issues relating to leverage and firm profitability.

Lastly, it would serve as a source of knowledge to academia, researchers and students as a result of their varied interest in the issues of capital structure and firm performance, and serve as the reason for further research in the area.

1.6 Research Limitations and Delimitations

The study will solely employ secondary sources of data. Due to the exclusion of primary sources of data, inputs and opinions of corporate managers will not be considered in determining a firm's financial performance.

Finally, the currency sign used in the preparation of financial statements by some local and multinational OMCs will be a problem. However, to ensure precision in the calculation of all financial ratios, all data will be translated from the US dollars to Ghana cedis.

1.7 Thesis Structure

The study is categorised into five chapters, each with sections and potential subsections. The first chapter focuses on the background of the study, the problem statement, research objectives, research questions, research significance, and the scope within which the study is confined. Chapter two reviews the relevant literature on profitability studies in order to provide evidence to support the purpose of the research and seek answers to research questions. It also gives a brief discussion of the industry, the regulations, and the structure of the firms within
the industry. In chapter three, the methodology of the research is discussed, including detailing main ratios to be deployed. Chapter four entails data presentation, analyses of results, conducting of tests, and making graphical illustrations. The final chapter discusses, summarises, concludes, makes recommendations and proposes directions for further research.
CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction
This chapter reviews scholarly articles and books published by researchers on capital structure (CS) and firm performance (profitability). First, it centres on the theoretical underpinnings of the study. It considers the various CS theories and firm performance. Theories on CS such as trade off, pecking order, signalling effect, and agency cost theories are reviewed. Subsequently, the study empirically reviews studies in line with the objectives of this study. The empirical review presents the current state of research relating to the evidence on capital structure and firm profitability. Applications of the theories in Ghana and the resultant findings discussed are also analysed here.

2.1 Theoretical Review
This section presents the theoretical underpinnings of the study. It explains the theories upon which the concept of capital structure is based. A few of these theories and how they apply to the context of the main subjects are thus presented. They include the trade off, pecking order, signalling effect, and agency cost theories, amongst others.

2.2 Capital Structure Theories and Firm Performance
The Capital Structure and firm performance nexus has been the focus of considerable debate, both theoretically and empirically. For the past five decades, the choice on what constitutes an optimal CS has been a contentious issue in the field of finance. Different theories have been advanced and thoroughly discussed by well-known researchers and writers to examine this trade-off. Theories such as the Modigliani & Miller theory, the pecking order theory and the
static trade-off theory are few of the propounded theories under capital structure. Others include the agency cost theory, signalling effect theory and asymmetric information. To understand the link between capital structure and firm performance, we assess some of these theories.

2.2.1 Modigliani and Miller Theory (M & M Theory)

Discussing capital structure without reference to Modigliani and Miller virtually makes the entire work essentially incomplete. In 1958, Modigliani & Miller (M&M) developed what primarily became the modern theory of capital structure. Two noteworthy propositions, to be specific, M & M proposition I and M & M proposition II, were the major contributions by these authors to theories on capital structure.

**M and M Preposition I**

Modigliani and Miller (1958) in their broadly recognized theory of “capital structure irrelevance” explained that the market value of the firm continues to be the same regardless of the capital structure blend that the firm adopts. This supposition is very limited in nature. These assumptions include perfect capital market, no bankruptcy cost, no transaction cost, no taxes, standardized expectations and capital markets frictionless. The “pie” model was used by Ross et al. (2008) in assessing the M & M proposition I. In examining this proposition Modigliani and Miller used two identical companies, one on the left-hand side of a balance sheet with precisely an equal asset and operational size but with different means of financing to the other on the right-hand side.
In further discussing this proposition, Pie A as illustrated by Modigliani and Miller had a total value of 100% divided into 60% stocks and 40% bonds. However, Pie B had 40% stocks and 60% bonds. Figure 2.1 below shows this two-pie model.

**Figure 2.1 Illustration of two pie model of Capital Structure**

Drawing a conclusion based on figure 2.1, Modigliani and Miller opine that the value of the firm at any point in time is independent of its capital structure and therefore two similar firms with the same asset size and operations can opt for a different mode of financing.

**M and M Proposition II**

However, the proposition II of M & M argue that even though the market value of the firm may remain same after altering the capital structure of the firm it does cause vital changes to the debt and equity ratio of the firm.
2.2.2 The Trade-off Theory

The trade-off theory dates back to Kraus and Litzenberger (1973), Scott Jr (1976) and Kim (1978). The theory states that, there exists a level of capital structure which is considered optimum for the maximization of a firm’s value (Frank & Goyal, 2009). At this optimum level, costs of debts and the marginal benefits are equal (Fama & French, 2002). Again, equity finance is seen to be more expensive than debt since charges of interest on debt are tax deductible.

2.2.3 The Pecking Order Theory

The pecking order theory is based on the assumption of information asymmetry among the managers, stakeholders and potential investors of a firm (Myers, 1984; Myers and Majluf in 1984). According to Myers (1984), and Gatsi and Akoto (2010), the pecking order theory describes how firms use less borrowed funds compared to internally generated funds when initially financing their operations.

According to the theory, the use of internal financing remains the initial financing option for financial managers. This implies that in times of need firms don’t have to issue debt or equity but should simply use internally generated funds such as retained earnings as investment capital (Myers, 1984). In the case of insufficient internal capital, the next option to resort to will then be external financing which is further divided into equity and debt financing.
2.2.4 The Signalling Effect Theory

According to this theory, managers have better information of their firms than outsiders and thus communicate this to investors through the debt issue. Gatsi and Akoto (2010) expressed that, over the tenor of the debt, facility firms are expected to compulsorily make periodic cash payments to debt-holders on fixed instalment basis. Also, in the event of default on debt repayments managers are likely to lose their jobs as the firm may be forced into bankruptcy. With this notion in mind, managers will work to ensure the existence of the firm so as to maintain their positions.

2.2.5 The Agency Cost Theory

Agency cost arises as a result of the firm using debt in its capital structure. Berle and Means (1932) developed this concept and argue that in large modern corporations with highly diluted equity ownership, decisions of manager’s are likely to depart from those required to maximize the value of shareholders. Jensen and Meckling (1976) argue that this results in agency loss, which is the value accruing to shareholders which falls below what they would have realised if they were in direct control of the firm. The event of agency cost thus results from associations amongst shareholders and corporate managers, as well as between debt-holders and shareholders.

Additionally, they characterized this relationship as the principal-agent relationship, where the firm’s managers are considered as the agent while debt holders and shareholders are both seen as the principals. Usually, conflict occurs within this relationship when the agent does not implement actions that result in the maximization of the principals’ value.
Gatsi and Akoto (2010) defined agency costs as the cost that results when principals and agents of the firm have differences in terms of interests which leads them to attempt to maximize their own objectives at each other’s expense. Kim et al., (2006) argues that, as a result, owners of the firm would impose some level of restrictions on managers’ conduct to ensure the accepted alignment of interest to the owner's objectives.

Harris and Raviv (1990) opine that because of the reality that managers hold less than 100% of the residual claim, it results in conflict between shareholders and managers. Although profit enhancing activities undertaken by managers are not captured they, however, bear the entire cost of these activities, especially the danger of being rendered jobless.

Basically, the whole concept hinges on the separation of ownership and control. Abor (2008) suggests that managers may not work hard, but enjoy huge bonuses and make choices that are favourable to them. Additionally, managers may undertake projects that enhance their control of resources despite the fact that it may lead to a reduction in the firm's value. For instance, even though liquidating a firm may be the best choice in the interest of investors, however, to maintain their positions managers would opt to continue operations. Harris and Raviv (1990) support this point and further argue that managers are motivated to continue operations under any situation even if owners opt for a shutdown of the firm.

Furthermore, Jensen (1986) argues that managers of large mature corporations with substantial free cash flow available may not profitably reinvest in the firm or invest in low-return projects. Thus, in their attempt to limit such unwarranted conduct from managers, shareholders insist that more debt is added to the firm's capital structure to effectively bond managers to pay out
future cash flows and to also improve managerial performance (Leibenstein, 1966; Champion, 1999).

Gatsi and Akoto (2010) explained that mandatory principal and interest payments required under debt agreement performs the role of dividend payments which are not binding thereby reducing excess free cash flow. Therefore, firms generating a large amount of cash flow but with limited growth prospects can rather enhance their firm's value by simply adding more debt which ensures critical evaluation of capital expenditure plans by managers.

Abor (2008) further argues that moral hazard is the cause of the conflict between debt-holders and shareholders. Jensen and Meckling (1976) opine that the incentive for shareholders to invest sub optimally is the major cause of conflict between debt-holders and equity holders. Abor (2008) further states, specifically that, equity holders enjoy large proportion of benefits when their company's investment yields high returns, however, he mentioned that due to shareholders’ limited liability, a large part of the consequences is borne by debt holders.

According to Barnea, Haugen and Snebet (1980) the maturity structure and call provisions of debt can help resolve agency problems. They further explain that when the maturity structure of debt obligations are short, the ability of debt holders to recover debt offered before the termination date can help address agency problems. Arshadi (1989) also contends that agency cost can be reduced by incorporating call provisions into the debt contracts.

In conclusion, in order for firms to reduce agency problems that arise from the relationship between them and debt-holders and also to maximize their value they should reduce the amount of debt in their capital structure.
2.2.6 Ownership Theories

Though studies have found foreign firms as being more profitable or efficient than the domestic firms (Bonin, Hasan, & Wachtel, 2005; Chiu, Luo, Chen, Wang, & Tsai, 2013; Havrylchyk, 2006; Kravtsova, 2008; Sáez-Fernández, Picazo-Tadeo, & Beltrán-Esteve, 2015; Sturm & Williams, 2004; Weill, 2003), others have contended that domestic firms are more productive and /or efficient than foreign ones (Lensink, Meesters, & Naaborg, 2008; Miller & Parkhe, 2002; Staub, da Silva e Souza, & Tabak, 2010). These phenomena have been explained by a number of theories and hypothesis.

Firstly, studies contend that better multinational performance has been explained within the contexts of eclectic theory, portfolio diversification theory and global advantage hypothesis. Dunning’s (1977) eclectic theory, Markowitz’s (1952) portfolio diversification theory and global advantage hypothesis argue that multinational operations of a bank bring some gains to the firm’s operation in the form of enhanced scale efficiency, better policies and reduced business risks.

The eclectic paradigm was first introduced by Dunning (1973, 1979, and 1980) is based on earlier studies by Rostas (1948) and Frankel (1955) who examined higher productivity in US manufacturing firms in comparison to UK firms. From Dunning’s (1977) eclectic theory, a banking firm will operate outside its national boundary if it has firm-specific advantages such as better technology, innovative products, a trademark, enhanced service quality, superior managerial expertise and better distribution channels over the native banks. Therefore, international firms take advantage of imperfections including factor immobility, unreliable information, and monopoly rents in the external market to internationalise their operations. According to this view, firms invest abroad in order to exploit certain intangible firm-specific
assets in imperfect markets. In the banking industry, the customer bases are factors which are immobile and this requires firms which want to exploit such resources to go multinational. All things being equal, the size and scale of foreign banks enables them to face lower average costs, and lower business risk, which leads to improved profitability, in comparison to purely domestic banks (Tecles & Tabak, 2010). Therefore, geographically diversified banks are expected to be more efficient and profit productive than domestic firms.

The portfolio diversification theory also argues that multinational firms are able to reduce systematic (non-diversifiable) risks when they operate on a multinational level (Markowitz, 1952). Because economies in different countries are in different business cycles at different times, firms that operate in these different countries are more likely to reduce fluctuations in their yearly earnings and revenue, thereby reducing business risks associated with their business activities than those who operate at the domestic levels only (Markowitz, 1952). Therefore, multinationality enables systematic risks of any economy to be reduced by holding international portfolio of assets in different countries (Escobar & Vredenburg, 2011). Clarke, Cull, Peria, and Sánchez (2003) argue that multinational operation of banks, therefore leads to greater stability of operation and lower business risks than domestic expansion.

Contrary to theories that posit foreign firms as been more efficient or profitable than local firms, the home field advantage hypothesis presents local firms as being rather more profitable or efficient than the foreign firms (Sturm & Williams, 2008; Sufian, 2011). The home field advantage hypothesis attributes have an efficiency advantage to domestic firms over foreign firms because foreign firms incur some additional costs which domestic firms do not incur (Berger, Deyoung, Genay, & Udell, 2000). Examples of such expenses are the cost of staff turnover in overseas postings, the cost of monitoring from a distance, and the cost of barriers
to entry including language differences, cultural differences, barriers of the market structure and barriers in the regulatory environment (Sturm & Williams, 2004). Additionally, it is argued that local firms are likely know the market better than foreign ones, and should therefore be able to operate more efficiently.

2.2.7 Conclusive Implications of discussed theories on profitability

From the theoretical discussions, the study concludes by establishing that firms target their capital structure when implementing the trade-off theory and if there is any deviation the firm will adjust its financing behaviour back to the optimal level. However, it is inferred that trade-off theory despite the fact that, it has dominated the reasoning of capital structure for a long time, has a couple of weaknesses. The main weakness is that firms that are large and very profitable borrow less for their financing. This contradicts a major assumption under the static trade-off theory which postulates how profitable firms use more debt compared to firms with unpredictable and less profit; this study seeks to confirm this notion.

With regards to the pecking order theory, it is expected that firms that generate high returns would use less debt finance compared to firms that generate low earnings. The model thus explains why a large number of profitable firms borrow less compared to the less profitable ones. This is because profitable firms are able to retain a large percentage of their internally generated funds out of which they are able to undertake new capital investment. However, less profitable firms are not able retain much internal funds which pushes them to rely mostly on external borrowings.
2.3 Empirical Review

The choice of using debt or equity capital remains one of the critical financial decisions confronting companies across the world because of the possible effects it will have on corporate performance and shareholders' interests (Glen & Pinto, 1994). They further argue that such decisions can best be reached if managers are aware of how CS affects the profitability of the firm.

Abor (2008) concluded that a large proportion of the total debt of Ghanaian firms consist of short-term debt. He further suggested that important determinants of CS decisions of firms include; the age of the firm, structure of assets, firm size, firm risk, managerial ownership, and profitability. Furthermore, firm location, the entrepreneur’s educational background and gender, industry, export status, and form of business were also important factors considered when explaining the capital structure choices of Small Business Enterprise (SME’s).

A lot of research have been conducted to assess the association between leverage and firm profitability although the results remain inconclusive. However, concluding evidence from some past empirical studies support the pecking order theory. The studies carried out found that firms generally have an inverse relationship between profitability and leverage.

Friend and Lang (1988) in their study found a significant and inverse nexus between debt ratios and profitability. Furthermore, Titman and Wessels (1988) concluded that profitable firms maintain relatively lower debt levels since if they require capital it could be raised internally. Furthermore, Fama and French (1998), contend that the use of debt does not automatically generate tax benefits, rather agency problem among equity and debt holders may occur due to high leverage which could lead to an inverse nexus between leverage and profitability.
In the banking sector, Gatsi and Akoto (2010) observed a significant negative linkage between short-term debts and total debts, and NIM in their study on capital structure and profitability of Ghanaian banks. In the same study, a negative but insignificant relationship was observed between long-term debts and net interest margins. This study established that profitable banks in Ghana borrow less because they depend on internal funding sources. Graham (2004) found that profitable and large firms use less debt signifying that total debt and profitability are inversely related.

2.4 Chapter Summary

This chapter basically focused on the theoretical and the empirical literature. The theoretical facet hinges on relevant theories to this study, which are the M & M theory, the trade-off, the pecking order, the signalling effect and the agency cost theories of capital structure. The empirical literature focused on studies in relation to CS and various forms of firm performance, as well as the methodologies used.
CHAPTER THREE

METHODOLOGY

3.1 Introduction
Methodology can be described as the system of methods followed in a particular discipline. It is any tool employed to provide solutions to problems and also arrive at new information of a particular research question (Boateng, 2016). A research’s methodology therefore helps to achieve results by generating a better understanding of a problem under examination.

This chapter describes how the research questions will be answered by the methods and processes used to collect and analyse the data. It also spells out how the intended objectives of the study will be achieved.

3.2 Research Approach and Data Source
The study uses the quantitative approach of research because it enables deductions from statistical tests and allows for analysis of collected data using statistical procedures and hypothesis testing (Creswell, 2008). The data sample consists of six oil marketing companies that have been in continuous existence from 2010-2015. Data is extracted from the companies under consideration through their annual reports.

3.3 Profitability Analysis (Return on Assets and Return on Equity)
For the purposes of this research, Return on assets (ROA) and return on equity (ROE) are adopted to assess performance. ROA is an indicator of how profitable a company is relative to its total assets (Srivastava, Shervani, & Fahey, 1998). This financial performance indicator is favoured widely by firms when evaluating the earning capacity of their total assets. It shows management’s effectiveness in generating net income from every one of the assets of the
organisation (Wen, 2011). ROA indicates profit before tax per cedi, which is attributed to the assets used whereas ROE indicates profit before tax per cedi, which is attributed to equity.

3.4 Model Specification and Variable Measurements

Table 3.1 Variable Definition

<table>
<thead>
<tr>
<th>Variable</th>
<th>Legend</th>
<th>Measurement</th>
<th>Expected Sign</th>
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</thead>
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<tr>
<td>Dependent Variables</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Return on asset</td>
<td>ROA</td>
<td>Net profit (before taxes)/Total assets</td>
<td></td>
</tr>
<tr>
<td>Return on equity</td>
<td>ROE</td>
<td>Net profit (before taxes)/Equity</td>
<td></td>
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<tr>
<td>Independent Variables</td>
<td></td>
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<tr>
<td>Total debt to total asset</td>
<td>TDTA</td>
<td>Total debt/Total asset</td>
<td>Indeterminate</td>
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<td>Liquidity</td>
<td>LQDTY</td>
<td>Current asset/Current liabilities</td>
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<tr>
<td>Size</td>
<td>SZ</td>
<td>Natural logarithm of total assets</td>
<td>Positive</td>
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<td>Growth opportunities</td>
<td>GROWTH</td>
<td>growth in sales/revenue</td>
<td>Positive</td>
</tr>
<tr>
<td>Economic growth</td>
<td>GDP</td>
<td>Natural logarithm of GDP</td>
<td>Positive</td>
</tr>
<tr>
<td>Inflation</td>
<td>INF</td>
<td>Natural logarithm of CPI</td>
<td>Indeterminate</td>
</tr>
</tbody>
</table>

3.4.1 Model Specification and Data Analysis

The general model for the regression analysis is given in the form below:

$$ Y_{i,t} = \alpha + \beta X_{i,t} + \mu_i + \nu_t + \epsilon_{i,t} \quad i = 1, \ldots, N; t = 1, \ldots, T $$

(1)

Where subscript $i$ and $t$ represent the firm and time, respectively. In this case, $i$ represents the cross-section dimension and $t$ represents the time-series component. $Y_{i,t}$ is the dependable variable that is a measure of firm performance, $\alpha$ is a scalar, the coefficients, $\beta$ is $K \times 1$ and $X_{i,t}$ is the observation on $K$, explanatory variables, $\mu_i + \nu_t$ are firm specific effect and
time specific effect respectively, and $\epsilon_{i,t}$ comprises the unobserved heterogeneities.

This study can be found in the works of Amidu (2007), Salim & Yadav (2012), Onay & Ozsoz (2013) and Hasan et al., (2014) and specifies the empirical model for the analysis as follows:

$$Y_{it} = \beta_0 + \beta CS_{it} + \alpha X_{it} + \gamma MACRO_{i,t} + \mu_i + \nu_t + \epsilon_{i,t}$$  \hspace{1cm} (2)

In this basic model,

1. $Y_{it}$ represents OMC profitability; ROE and ROA for firm $i$ in time $t$.

2. $CS_{it}$ represents capital structure variable for firm $i$ in time $t$ and includes
   - Total debt to total assets (TDTA)

3. $X_{it}$ is the matrix of firm specific variables for firm $i$ in time $t$ and includes
   - Liquidity (LQDTY)
   - Size (SZ)
   - Growth opportunities (GROWTH)

4. $MACRO_{i,t}$ is the matrix of macroeconomic variables for firm $i$ in time $t$ and includes
   - Economic growth (GDP)
   - Inflation (INF)

5. $\epsilon$ is the unobserved heterogeneity.

The equation (2) is estimated using both fixed effect and random effect models. In the case of the fixed effect model, the composite error term is divided into a fixed effect component (which is assumed to correlate with independent variables) and a pure random error term, whereas in the random effect model, the fixed effects are assumed as not correlating with the independent variables and therefore are added to the pure error term. After estimation, the Hausman test will be used to determine which of the two approaches fit the data best.
3.5 Data Analysis

The research employs the use of Excel, E-view 10, Stata and R version 3.4.1 in its statistical analyses. This common software has data handling capabilities so is hence able to analyse data and produce descriptive data.

Data in the study will be analysed using both descriptive and inferential statistical analytical techniques. The descriptive statistics will comprise mean, kurtosis, and standard deviations. The technique of correlation will help to determine the direction of the relationship between the dependent and the independent variables of the study. Regression technique on the other hand will help to determine the causal relationship between the variables of the study.
CHAPTER FOUR

ANALYSIS AND DISCUSSION OF RESULTS

4.1 Introduction

This chapter deals with the results obtained from the analysis of the data set for this study. The correlation matrix of both the effect and causal variables in the econometric model used in the study are discussed and shown. The general regression outputs are finally presented, and discussions based on the obtained results are made.

4.2 Descriptive Statistics

The data used in this study was sourced from the annual reports of selected OMCs. The data sample consists of 6 major OMCs covering a six (6) year period from 2010 to 2015 and giving thirty-six (36) observations. Even though other OMCs existed prior to 2015, they were not included in the sample because the study adopts a balanced panel. Table 4.1 and 4.2 present summary and descriptive statistics of the variables used to carry out the analyses.

Table 4.1 Summary of Descriptive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std. Dev.</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROE</td>
<td>0.103</td>
<td>0.641</td>
<td>-8.488</td>
<td>3.444</td>
</tr>
<tr>
<td>ROA</td>
<td>0.031</td>
<td>0.088</td>
<td>-0.349</td>
<td>0.530</td>
</tr>
<tr>
<td>LEV</td>
<td>0.694</td>
<td>0.195</td>
<td>0.041</td>
<td>0.999</td>
</tr>
<tr>
<td>LIQ</td>
<td>1.017</td>
<td>0.189</td>
<td>0.523</td>
<td>3.920</td>
</tr>
<tr>
<td>SIZE</td>
<td>7.314</td>
<td>0.561</td>
<td>5.796</td>
<td>8.731</td>
</tr>
<tr>
<td>GROWTH</td>
<td>4.007</td>
<td>71.116</td>
<td>-163.700</td>
<td>1157.740</td>
</tr>
<tr>
<td>GDP</td>
<td>7.813</td>
<td>3.272</td>
<td>4.00</td>
<td>15.00</td>
</tr>
<tr>
<td>INF</td>
<td>12.750</td>
<td>3.598</td>
<td>8.727</td>
<td>19.251</td>
</tr>
</tbody>
</table>
Profitability benchmarks which were represented by both ROA and ROE exhibit mixed outcomes. Findings from the table bring to bear that most of the firms, on the average, appear not to have done so well with respect to return on assets. On the average, the firms recorded three (3) pesewas in profit for every one (1) Cedi of assets employed. From Table 4.1, we see that the mean profitability in terms of returns per assets is 0.3% with the least performing OMC recording as low as -34.9%. However, a decent return on equity was recorded with an average reading 10.35%. It is apparent to see a substantial variation between high and low performing of firms in terms of returns on equity. Within the period 2010 – 2015, while the worst performing firm recorded and ROE of -848.8%, the highest performer recorded 3.444%. Thus, there is a wide deviation between the firms with regard to their profitability.

The debt ratio shows that the firms are financially leveraged with the mean debt ratio standing at 0.69. The debt to total asset ratio is a test of the proportion of a firm’s total asset that is financed through debts. This shows that the firms finance a considerable proportion of their assets using debt. The debt to assets ratio shows that lenders financed about 69.4 percent of the total assets of the firms using debt. Most of their assets are financed through debts relative to equity financing. This confirms prior findings by Abor (2005) that about 86% of Ghanaian firms employ debt in their capital structure. However, there is a wide variation in the proportion of assets financed by debts. While the minimum debt to assets ratio is 4.1 per cent, the maximum proportion of assets financed by debt is 99.9 per cent.

The descriptive statistics revealed that the liquidity variables showed significant variations, perhaps due to the variations in structures of the firms. The average current ratio stood at 1.02 while 0.52 was the minimum and 3.92 was the maximum. Within the period 2010 – 2015 the firms recorded on the average 1.02 cedis in liquid assets to pay for every 1 Cedi in current liability. The average firm size is 7.31. Firm size ranges from 5.79 to 8.73. The average growth
rate in revenue is 4.01. With a standard deviation of 71.17, there is rather a huge variation in the firms’ rate of growth in revenue.

In terms of the macroeconomic variables, GDP recorded an average of 7.8 per cent within the study period, peaking at 15.00 per cent and tumbling to a minimum reading of 4.00 percent. The average inflation is 12.75 per cent. Within the period, inflation ranged from 8.73 per cent to 19.25 per cent.

4.3 The Relationship between Capital Structure and OMC Performance

Correlation Analysis

The correlation matrix below will give us other insights on how capital structure and other variables might have influenced the behaviour of ROA and ROE by considering their relationships with them.

<table>
<thead>
<tr>
<th></th>
<th>ROE</th>
<th>ROA</th>
<th>LEV</th>
<th>SIZE</th>
<th>LIQ</th>
<th>GROWTH</th>
<th>GDP</th>
<th>INF</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROE/ROA</td>
<td>1.0000</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEV</td>
<td>0.0011</td>
<td>-0.1671</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SIZE</td>
<td>0.1321</td>
<td>0.0695</td>
<td>0.4400</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LIQ</td>
<td>-0.0004</td>
<td>0.0106</td>
<td>-0.2037</td>
<td>-0.0942</td>
<td>1.0000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GROWTH</td>
<td>-0.0696</td>
<td>-0.1715</td>
<td>-0.0120</td>
<td>-0.0319</td>
<td>-0.0069</td>
<td>1.0000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>GDP</td>
<td>0.0938</td>
<td>0.0530</td>
<td>-0.0046</td>
<td>0.0160</td>
<td>-0.0124</td>
<td>-0.0122</td>
<td>1.0000</td>
<td></td>
</tr>
<tr>
<td>INF</td>
<td>-0.1396</td>
<td>-0.0791</td>
<td>-0.0713</td>
<td>-0.1666</td>
<td>-0.0019</td>
<td>-0.0506</td>
<td>-0.6859</td>
<td>1.0000</td>
</tr>
</tbody>
</table>

Leverage has a positive relationship with return on equity, but relates inversely with return on asset. These results confirm both the agency theory of debt financing (Jensen, 1986; Stulz, 1990), and the bankruptcy cost arguments (Fama & French, 2002; Chen, 2009).
The findings from Table 4.2 depict a positive correlation between size and the firm performance measures. Firm size tends to have a positive impact on return on assets and return on equity; Uwuigbe, Jafaru and Ajayi, (2012) document similar results in their study. They explain that larger firms have a relatively easier access to the capital markets and can easily obtain investable funds at lower costs and thus are more profitable relative to smaller firms.

The liquidity variable has a positive relationship with return on asset. This may suggest that improved liquidity situations may improve the firms’ returns on asset. Indeed, liquidity ratios represent the ability of the firms to meet their financial obligations; and the higher ratio, the stronger the financial positions of the firms. However, the correlation analysis shows a negative correlation between the liquidity ratio and return on equity. Higher liquidity ratios may suggest the failure of the firms to utilise their current assets optimally which may result into lower profits and thus, low return on equity.

Growth in revenue has a negative relationship with the performance measures. This is however counterintuitive. As expected, GDP has a positive relationship with both return on equity and return on assets while inflation relates inversely with both performance measures.

4.4 Effect of Capital Structure on the Performance of OMCs

The effect of capital structure and other variables on OMCs profitability, measured by ROA and ROE, is assessed to achieve the second and third objectives of this study. Variables such as liquidity, size, sales growth, GDP and inflation are considered as control variables. Before conducting this analysis, however, a test is first performed to check for possible multicollinearity problems among the regressors. Generally, there is low correlation among the independent variables.
The fitness of the regression model used for this analysis is tested and some of the results are seen in the Regression statistics. The coefficient of determination is used to test the model fitness. Statistically, the closer the coefficient of determination (R2) value is to 100%, the stronger the regression model and its reliability. From the regression tables below, the R squared confirms the fitness and reliability of the regression model used. The outputs of the robust least squares panel estimations, generalised least squares and fixed effects estimations are presented in Table 4.3 and Table 4.4 respectively.

### 4.4.1 Regression Results on Return on Equity (ROE)

The Table below presents the panel regression results on Return on equity of the selected OMCs across the study period.
<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>RLS</th>
<th>GLS</th>
<th>Fixed Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>-0.1357</td>
<td>-0.6476</td>
<td>-1.9082*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.1748)</td>
<td>(0.7021)</td>
<td>(1.0071)</td>
<td></td>
</tr>
<tr>
<td>LEV</td>
<td>0.2190***</td>
<td>-0.2318</td>
<td>-0.0300</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0557)</td>
<td>(0.2237)</td>
<td>(0.2718)</td>
<td></td>
</tr>
<tr>
<td>SIZE</td>
<td>0.0129</td>
<td>0.1610**</td>
<td>0.2894**</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0194)</td>
<td>(0.0781)</td>
<td>(0.1161)</td>
<td></td>
</tr>
<tr>
<td>LIQ</td>
<td>0.0075</td>
<td>-0.0073</td>
<td>0.0328</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0518)</td>
<td>(0.2081)</td>
<td>(0.2201)</td>
<td></td>
</tr>
<tr>
<td>GROWTH</td>
<td>-0.0007***</td>
<td>-0.0006</td>
<td>-0.0006</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0001)</td>
<td>(0.0005)</td>
<td>(0.0006)</td>
<td></td>
</tr>
<tr>
<td>GDP</td>
<td>0.0034</td>
<td>0.0017</td>
<td>0.0073</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0041)</td>
<td>(0.0164)</td>
<td>(0.0163)</td>
<td></td>
</tr>
<tr>
<td>INF</td>
<td>-0.0012</td>
<td>-0.0212</td>
<td>-0.0135</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.0038)</td>
<td>(0.0152)</td>
<td>(0.0154)</td>
<td></td>
</tr>
</tbody>
</table>

R-Squared/Rw-squared | 0.8552 | 0.4679 |

Prob(Rn-squared stat.) | 0.0000 |
LR statistic | 861.78 |
F-Statistic | 5.5937 |
Prob. | 0.0000 |

The results from Table 4.3 show that leverage produces positive effects on return on equity. This is consistent with Abor (2005), Salteh et al., (2012) and Nikoo (2015). Indeed, Modigliani and Miller (1963) in the revised proposition explain that the use of debt provides tax advantages which have the tendency to increase the value of the firm. Also, Jensen (1986) shows that the use of debt may increase the value of the firm since it is compelled to disgorge cash to meet debt obligations which in turn limits the quantum of cash available to managers for discretionary and value decreasing expenditures; thus, the use of debt essentially lessens the potential conflicts between managers and shareholders to increase firm value.
Stulz (1990) furthers Jensen’s (1986) contention and discovers that firm value is positively affected by leverage. The positive association between leverage and ROE is, perhaps, a clear signal that OMCs with the capacity to take on debts are more likely to undertake huge investments. Liquidity is however, statistically insignificant in explaining the return on equity of OMCs in Ghana.

4.4.2 Regression Results for Return on Assets (ROA)

This study also investigates the influences of capital structure on the return on assets of OMCs in Ghana. The results of the regression estimates are reported in Table 4.4. Contrary to the findings for ROE, high debts were associated with low profitability, measured by ROA.

This result is consistent with earlier findings by Ramadan and Ramadan (2015), Oguna (2014) and Manawaduge et al., (2011) who all report an inverse relationship between leverage ratios and firm profitability.

Opler and Titman (1994) document that the use of debt could be disadvantageous to the firm since in the event of a slowdown in industry activities, highly leveraged firms significantly lose market share to the benefit of the firms with relatively less leverage. Fama and French (2002) also explain that firm performance is not positively affected by debt financing since the supposed tax benefits from debt are largely eroded by the inherent agency problems.
Table 4.4 Regression Results on ROA

<table>
<thead>
<tr>
<th>Variable</th>
<th>ROA</th>
<th>GLS</th>
<th>Fixed Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>RLS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>0.0864**</td>
<td>-0.0266</td>
<td>-0.2834**</td>
</tr>
<tr>
<td></td>
<td>(0.0401)</td>
<td>(0.0944)</td>
<td>(0.1150)</td>
</tr>
<tr>
<td>LEV</td>
<td>-0.0475***</td>
<td>-0.1133***</td>
<td>-0.0824**</td>
</tr>
<tr>
<td></td>
<td>(0.0128)</td>
<td>(0.0301)</td>
<td>(0.0310)</td>
</tr>
<tr>
<td>SIZE</td>
<td>0.0007</td>
<td>0.0247**</td>
<td>0.0514***</td>
</tr>
<tr>
<td></td>
<td>(0.0045)</td>
<td>(0.0105)</td>
<td>(0.0133)</td>
</tr>
<tr>
<td>LIQ</td>
<td>-0.0219*</td>
<td>-0.0127</td>
<td>-0.0010</td>
</tr>
<tr>
<td></td>
<td>(0.0119)</td>
<td>(0.0280)</td>
<td>(0.0251)</td>
</tr>
<tr>
<td>GROWTH</td>
<td>-0.0002***</td>
<td>-0.0002***</td>
<td>-0.0002**</td>
</tr>
<tr>
<td></td>
<td>(0.00003)</td>
<td>(0.0001)</td>
<td>(0.0001)</td>
</tr>
<tr>
<td>GDP</td>
<td>0.0006</td>
<td>-0.0004</td>
<td>0.0007</td>
</tr>
<tr>
<td></td>
<td>(0.0009)</td>
<td>(0.0022)</td>
<td>(0.0019)</td>
</tr>
<tr>
<td>INF</td>
<td>-0.0009</td>
<td>-0.0022</td>
<td>-0.0007</td>
</tr>
<tr>
<td></td>
<td>(0.0009)</td>
<td>(0.0020)</td>
<td>(0.0018)</td>
</tr>
</tbody>
</table>

R-Squared/Rw-squared

<table>
<thead>
<tr>
<th></th>
<th>0.9044</th>
<th>0.8940</th>
</tr>
</thead>
<tbody>
<tr>
<td>R-squared statistic</td>
<td>1727.552</td>
<td></td>
</tr>
<tr>
<td>Prob(Rn-squared stat.)</td>
<td>0.0000</td>
<td></td>
</tr>
</tbody>
</table>

LR statistic

<table>
<thead>
<tr>
<th></th>
<th>1144.032</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prob(LR statistic)</td>
<td>0.0002</td>
</tr>
</tbody>
</table>

F-Statistic

<table>
<thead>
<tr>
<th></th>
<th>53.64</th>
</tr>
</thead>
<tbody>
<tr>
<td>Prob.</td>
<td>0.0000</td>
</tr>
</tbody>
</table>

The results show that liquidity has significant inverse effects on return on asset. This result confirms the liquidity and profitability trade off. Holding adequate liquidity means that the OMCs can reduce the risk of losses emanating from its attempt to sell illiquid assets to meet sudden withdrawal demands by depositors. This, however, implies that some assets are probably not invested in the available high interest earning securities, which has declining implications on OMCs profitability. The study results also suggest that the size of the OMCs have positive and significant effects on return on assets and return on equity. Larger firms have
easier access to external funds and are most likely to meet their investment needs thus increasing their profitability.

Growth in revenue has a negative and significant relationship with return on equity and return on asset. This is however counterintuitive. Both GDP growth rate and inflation are not statistically significant in determining performance (ROA and ROE) of OMCs in Ghana. GDP carries the expected sign, indicating that as the economy grows NBFIs will also perform well which is consistent with theoretical arguments. Sufian and Habibullah (2009) also observed an inverse relationship between inflation and firm performance particularly in the cases of an unanticipated inflation.

**4.5 Chapter Summary**

In this chapter, the study estimates the regression model specified in equation (1). The descriptive statistics, correlation analysis and the regression results were presented in tables. The results show that the capital structure variable affects the firm performance measures differently. Leverage has a positive feedback on return on equity but produces a negative effect on return on assets. The study’s results provide evidence for the trade-off between liquidity and bank profitability.
CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary

Oil marketing companies (OMCs) form an integral part of the economic system. The fundamental role of OMCs in the economy means that their performance is key to the health and growth of the economy. OMCs, like most business entities are expected to maximize the wealth of owners. Thus, employing the financing mix, which also translates into increasing profits, is of great importance to the banks.

Finance theories suggest that the debt financing decisions may play an important role in the performance of the firm. The use of debt provides tax advantages; thus, capital mix that is skewed towards debt has the tendency to increase the value of the firm. The use of debt compels firms to disgorge cash to meet debt obligations which limits their value decreasing expenditures and thus, increasing firm value. Although debt may improve the returns accruing to existing shareholders, increases in leverage heightens the burden of agency cost and financial distress. The probability of bankruptcy erodes the supposed tax benefits from debt and could affect the performance of the firm negatively. Thus, this research investigated the effects of capital structure on the financial performance of OMCs in Ghana. With a sample of six of OMCs, this study investigated the effects of leverage ratio on the financial performance of OMCs. The performance measures employed were return on assets and return on equity and the leverage ratio used is total debt to total assets ratio.

The influences of capital structure on the performance of the OMCs in Ghana was assessed and analysed using descriptive statistics, correlation analysis and panel regression models.
5.2 Conclusion

Descriptive statistics confirm earlier findings by Abor (2005) that about 86% of Ghanaian firms employ debt in their capital structure. The leverage ratio shows that the firms finance a considerable proportion of their assets using debt. The descriptive statistics revealed that lenders financed about 69.4 per cent of the total assets of the firms. Most of assets of the OMCs are financed through debts relative to equity financing. However, there is a wide variation in the proportion of assets financed by debts with the minimum debt to assets ratio standing at 4.1 per cent, while the firm with the maximum proportion of assets financed by debt recorded 99.9 percent.

The results of this study show that the analysis of leverage and firm performance relationships produce mixed outturns. Leverage has a positive relationship with return on equity but relates inversely with return on asset. These findings support both the bankruptcy cost and tax benefits arguments. The use of debt provides tax advantages, limits value decreasing expenditures and thus, improving the returns accruing to existing shareholders. However, the burden of agency cost and financial distress associated with increasing levels of debt, may affect the performance of a firm negatively.

Indeed, Opler & Titman (1994) explain that in the event of slowdown in industry activities, highly leveraged firms significantly lose market share to the benefit of those with relatively less leverage.

The study results also suggest that the size of the firm has positive and significant effects on return on assets and return on equity. Larger firms have easier access to external funds and are
most likely to be able to meet their investment needs thus, increasing their profitability. Results from the regression analysis show that the liquidity ratio produces negative effects on return on asset. This finding confirms the liquidity and profitability trade off theory. Holding liquid assets involves an opportunity cost as the OMCs hold assets that could otherwise be invested in high interest earning securities. This affects profitability negatively and thus, the poor financial performance of the firms. GDP affects firm performance positively while inflation has negative influences on both return on equity and return on assets.

5.3 Recommendations

Based on the results from this study, the following recommendations are made:

The findings of this study show that increasing leverage may imply greater cost to firms with declining implications for their profits. Thus, OMCs should consider debt instruments with significant low costs and seek debt ratios that do not jeopardize their firms’ value. While the application of debt would provide tax shield earnings, it is important that the firms take caution in the use of debt which should lessen the risk of insolvency associated with increasing debt levels.

Essentially, high solvency ratios may threaten the general performance of even oil marketing firms. It is therefore expedient that financial firms enhance their solvency positions by engaging proper credit risk and working capital management practices. It is of grave importance that NBFIs practice prudent risk management to safeguard the assets of the company and protect the investors’ interests. The solvency position of the firms can be improved with sound credit management and efficient management of loan portfolios and the
adoption of sound corporate governance. These practices will also ensure that the firms are better positioned to meet their financial obligations always.

The findings of this study indicate the liquidity and profitability trade-off. This calls for adequate treasury and liquidity management. Thus, employees should be sufficiently trained in the areas of treasury and liquidity management. It is important that issues of liquidity are considered as key business decisions and treated with utmost importance. It is also crucial that the liquidity position of the firm is carefully monitored, and any changing condition is assessed and addressed promptly.

The liquidity management system of the firm should involve the adoption of an optimum system which sets out to address possible risk of liquidity gaps and increase profits and returns on investment. This should help to enhance the survival and sustainability of the firm and improve the stability, development and growth of the financial system. It is important to obtain a detailed understanding of the liquidity stand of the firm across all counterparties, business lines, accounts and currencies to optimize liquidity balances. The setting of minimum liquidity levels enables the managers to minimize the risk of a liquidity gap and maintain enough liquidity to cover maturing obligations and everyday operating expenses.

There is the need to ensure stability on the macroeconomic front and engender significant growth since external events within the macro economy can influence the performance of the OMCs. Activities within the economy can influence the firm’s liquidity holdings and profitability. Demand for credit facilities increases as economic activities uptick, hence possible rises in profits from the improved lending activities. Stability on the macroeconomic
front and greater economic activities is therefore necessary in the management of liquidity risks.
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