UNIVERSITY OF GHANA

COLLEGE OF HUMANITIES

MARKET TIMING, CAPITAL STRUCTURE AND PERFORMANCE OF LISTED FIRMS IN AFRICA

BY

GEORGE KLETCH LAMPTEY

DEPARTMENT OF FINANCE

JULY, 2019

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THIS THESIS IS SUBMITTED TO THE UNIVERSITY OF GHANA, LEGON IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTER OF PHILOSOPHY IN FINANCE DEGREE

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DECLARATION

I do hereby declare that this work is the result of my own research undertaken under supervision 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.

…… ……..

GEORGE KLETCH LAMPTEY DATE

(10431772)

CERTIFICATION

We hereby certify that this thesis was supervised in accordance with procedures laid down by the University of Ghana.

…… ……

DR. E. SARPONG-KUMANKOMA DATE

(LEAD SUPERVISOR)

…….. ……

PROF. J.Y. ABOR DATE

(CO-SUPERVISOR)

DEDICATION

I first dedicate this thesis to my infinite in wisdom, God, Who helped me to attain this great success. Besides, I dedicate this thesis to my family; wife, Mavis Kletch-Lamptey and children, Gerald Ato Kletch-Lamptey, Gabriel George Kojo Kletch-Lamptey, Godfrey Fiifi Kletch-Lamptey and Geoffrey Yoofi Kletch-Lamptey whose prayer and support made my work successful. I really cherish their every little support provided to me throughout the study. God richly bless you all. Lastly, to my late parents, Mr. Harmone K. Lamptey and Susanna Araba Arthur who by God's help brought me to this world to achieve this great height.

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ABSTRACT

The main rationale for this study is to investigate the effect of market timing, capital structure and performance of listed firms in Africa. The thesis employs various econometric models to analyse the unbalanced panel data collected from 16 African countries from 2007-2017. Annual financial reports from Africa listed firms, covering 11- years including the period the study started was obtained from Bureau Van Dijk (ORBIS) database, and the macro data was also obtained from the WDI database. The study used Fixed Effects and Random Effects models where appropriate, based on the Hausman test result obtained.

The results show a negative significant relationship between market timing (market-to-book ratio) and market leverage in Africa. However, the study's findings also show a positive significant relationship between market timing and book leverage. On the firms' performance, the study's results show that, leverage largely has a negative relationship with return on assets (ROA) and TOBIN's Q. Finally, the study's finding reveals that capital structure (leverage) has no significant relationship with market value added (MVA) in Africa.

The policy implication is that, the study's finding will greatly help improve literature knowledge on capital structure decision making and more essentially on market timing (MTB) ratio for the listed firms in Africa. Since the study's findings indicate that market timing has huge implication on firms' performance when issuing shares the study recommends that MTB ratio should be high when going public since it prompts a signal of lower cost of external equity financing and thereby serving as a calyst for a rapid business growth in Africa. Also, ROA should be focused on more by business practitioners so as to help promote business growth in Africa since it provides a strong benchmarks of firms' performance measurements.

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ABBREVIATIONS

BL:	Book Leverage
BvD:	Bureau van Dijk
CS:	Capital Structure
EBITDA/A:	Earnings Before Interest, Taxes, Depreciation and Amortization divided by Total Assets
EPS:	Earnings per Share
EVA:	Economic Value Added
FE:	Fixed Effect
FIXAS/A:	Fixed Assets divided by Total Assets
GH:	Ghana
GFI:	Global Financial Integrity
GLS:	Generalized Least Square
GMM:	Generalized Methods Moments
IMF:	International Monetary Fund
IPO:	Initial Public Offering
LEV:	Leverage
LTD:	Long Term Debt
ML:	Market Leverage
MM:	Modigliani and Miller
MTB:	Market To Book
MTT:	Market Timing Theory
MVA:	Market Value Added
NI:	Net Income

NPV:	Net Present Value
NSE:	National Stock Exchange of India
OLS:	Ordinary Least Square
POT:	Pecking Order Theory
R&D:	Research and Development
ROA:	Return on Assets
ROE:	Return on Equity
SEO:	Seasoned Equity Offering
STD:	Short Term Debt
TD:	Total Debt
TOT:	Trade Off Theory
UK:	United Kingdom
US:	United States
WDI:	WorldBank Development Index

CHAPTER ONE

INTRODUCTION

1.1 The Study Background

Undoubtedly, when firms' managers make the right capital structure decision it ensures effectiveness of the business sustainability, thereby promoting firms' performance. Generally, firms' performance in Africa used to record good revenue generation. However, this has recently dropped compared to trading counterparts in Europe, Asia and US (Gordon, 2017). Really, optimal capital structure practices will not only improve firms' performance but will also help stimulate future growth of firms and shareholders profit maximization. Reviewing capital structure, Bokpin and Arko (2009) posit that the implication of capital structure for firms' success is still relevant based on the seminal article by Modigliani and Miller (1958). This is against the backdrop of the huge debate generated in the financial sector. Modigliani and Miller (1958) theorized that under a perfect competitive capital market, a firm's value is free from the effect of capital structure decisions and that a firm's value is ultimately determined solely by its basic earning power. Nevertheless, Modigliani and Miller (1963) later took tax into consideration and said firms' value can be increased by adding more debt into capital structure. This therefore led to the raging debate on what really drives best capital structure decision. Again, what really determines optimal capital structure is still a point to discuss in Africa due to the effects it has on firms overall future performance.

In fact, the importance of capital structure cannot be overemphasised as far as business growth and development is concerned. From the above standpoint, capital structure expresses how firms aggregately apply liability, equity or hybrid securities to finance business operation for growth and development that will ensure going concern of the business entity as well as profit maximization for firms and their shareholders. Thus, from finance perspectives, capital structure can be explained as how firms invest in their resource or business by a mixture of debt or equity.

Undeniably, capital structure theories such as trade-off theory, pecking-order-theory, and agency cost are highly discussed topics in the finance literature. However, very few studies have been carried out on market timing theory and its effects on leverage even in the developed countries like the UK. Indeed, a significant portion of such studies have focused on such developed countries as the US (Baker & Wurgler 2002; Russel & Hung, 2013; Xu, 2009). Studies on market timing theory in Africa and other emerging economies are still few if juxtaposed to works done in the US. One of the recent efforts to understand the capital structure decision follows the market timing theory (MTT) of Baker and Wurgler (2002). Market timing theory recommends that firms can increase stockholders' capital by timing the securities issued into the public. In this sense, quoted firms can go public (issue equity) if they ascertain that stock prices have gone high and then buyback if they perceive that stock prices have gone low. Baker and Wurgler (2002) define capital structure as "the cumulative outcome of past attempts to time the equity market." In view of this, when stock market activities are timed well it will impact positively on firms' performance. One key objective of MTT is to utilize the opportunity of transitory variations of price (in equity) till it meets the normal market price. To demonstrate it further, Wadhwa and Syamala (2018) posit two assumptions for issuing securities. The first one to capitalize on price

difference by selling the investment when market is favourable. The second is buying back when the prices are unfavourable.

The theory of Baker and Wurgler (2002) shows that market timing (market-to-book) ratio has influence on debt. Their study developed the "external finance weighted average market-to-book ratio", which dwells on the notion that firms have predisposition to issue equity by going public at the time market value is big and issuing leverage at the time market value is small. According to Zavertiaeva and Nechaeva (2017), market-to-book ratio (MTB) has significant effect on market leverage. However, the effect on book leverage was difficult to detect. Also, Chen and Zhao (2006) conducted a study on the relationship between market-to-book ratio and leverage. The findings show a positive link between MTB ratio and leverage. On the contrary, Setyawan (2011) investigated the validity of Market Timing Theory from Indonesian outlook. The study's findings show that MTB ratio has negative effect on market leverage. Similarly, Frank and Goyal's (2004) findings show that MTB ratio has a negative relationship with market leverage but an insignificant relationship with book leverage.

Several studies have also investigated the "effect of capital structure on firm performance" mostly done at the country level. Only few studies have been done at the cross-country level on listed firms and such studies have also produced mixed findings. A good number of such studies have largely tested the Trade-off theory (Kraus & Litzenberger, 1976), Pecking order theory (Myer & Majluf, 1984), Agency cost theory (Jensen & Meckling, 1976) and, lately, the Market timing theory (Baker & Wurgler, 2002). For example, Kraus and Litzenberger's (1976) findings show a positive relationship between capital structure and a firm's performance, while Myer and Majluf (1984) also establish a negative relationship between capital structure and firms'

performance. Furthermore, Abor (2005) shows a positive relationship between leverage and firms' performance which was consistent with trade-off theory. Similarly, Saeedi and Mahmoodi (2011) investigated the relationship between capital structure and firm performance. The study sampled 320 quoted firms on the Teheran Stock Exchange between the periods of 2002-2009. The findings reveal that EPS and Tobin's Q have a significant relationship with capital structure. However, they observed an inverse relationship between capital structure and ROA.

Again, in attempts to measure firms' performance, the empirical literature has extensively used ROA, EPS, return on equity as well as TOBIN's Q (Abor, 2005; 2007; Bokpin, 2012; Anarfo, 2015). However, a recent empirical literature has proven that market value added (MVA) is equally suitable for measuring a firm's performance. Market value added (MVA) as a performance indicator is able to identify a firm's equity market value (or market capitalization) and change in equity capital at a particular period, which serves as catalyst for future investment growth, thereby increasing shareholders' value. Indeed, there is extensive research on the capacity of financial theories which expound capital structure practices. Nevertheless, present significant peculiarities should be considered in the case of emerging markets (Nenu, Vintilă & Gherghina, 2018). Numerous studies have pointed out firms' financing as one of the key challenges bedevilling business growth in Africa. Abor (2008) notes that "the issue of finance has been identified as an immediate reason why businesses in developing countries fail to start or to progress." For this reason, it is imperative for businesses in emerging nations like Africa to generate enough capital (i.e. adapt right equity-debt mixture) to ensure proper business growth. Therefore, it is worthy to state that wrong financing decision or market timing decision will have

serious consequences on business growth and development. This, therefore, calls for proper financing decisions that will help ensure firm performance in Africa.

1.2 Statement of the Problem

The market timing theory is one of the new concepts propounded by Baker and Wurgler (2002). Market timing may be viewed as a deliberate attempt to issue equity (selling off a firm's shares) when it is overvalued or increases in value and to repurchase equity (buying back a firm's shares) when it is undervalued or declines in value. The essence is to take advantage of temporary deviations or price discrepancies (that is arbitrage) in the equity market to make profit or until the price reverts to its real value which in itself can help show performance of a business, since market timing (MTB) ratio can be used to measure investment opportunity of a particular firm. Ellis (2018) and Marsh (1982) argue that market timing theory hypothesis rests on the view that markets are inefficient and therefore securities are not always correctly priced in the market. In this essence, if markets turn to be efficient there would not be an opportunity to time the market and gain an advantage from issuing or repurchasing a specific type of security. Despite this, some researchers hold the belief that market timing theory does not produce coherent (solid) results as required. For example, Xu (2009) shows that market timing measured with past market-to-book ratios did not influence Canadian companies' financing structure, but showed effect on United States companies. Again, Oliveira, Salen, Curto, and Ferreina (2019) show that there was no evidence that fund managers used market timing abilities to anticipate the market movement. Their results question the broad view of Baker and Wurgler's (2002) theory.

Again, some studies have found some vagueness in the market timing dependent variables used such as book leverage and market leverage. For example, Long and Malitz (1985) identified some ambiguity in the literature when predicting the leverage, and they observed considerable discrepancy between the book leverage and market leverage.

To the best of the researcher's knowledge, no study has been carried out on market timing, capital structure and performance of listed firms in Africa. Therefore, this study seeks to address the gap identified in the literature and to contribute to academic knowledge in the following ways.

First, comparatively no cross-country study so far has been conducted analysing effect of market timing on capital structure in Africa. Even with EU nations, empirical studies on market timing have been very few compared to the United States and as a result of this, the literature requires more studies to fill such significant gap (See Chazi, 2004; Guney & Iqbal-Hussain, 2010; Nguyen & Kayani, 2013).

Second, the literature also seems to place a lot of emphasize on earlier works on capital structure theory (like pecking order theory, tradeoff theory, agency cost theory, and signaling theory) against market timing theory. It is therefore imperative that market timing theory is also given attention as it is considered a relatively new theory to the literature which therefore requires more studies to be conducted in the area, especially in the developing world such as Africa, since market timing (market-to-book), ratio to some extent, can be applied as a performance measure for future investment growth of a business. Zhu (2014) reports that only a handful of studies have examined this theory, although with different approaches. Zhu (2014) further indicats that

existing significant gap in the literature suggests a need for more studies to be carried out in both industrialised and emerging nations so as to test the market timing proposition.

Third, the evidence from recent studies points out some level of inconsistencies. For example, Duan, Shou, and Jian (2006) have observed that market timing influence on capital structure is felt for as long as five years, while Li (2006) and Zhang and Tang (2006) have observed that the long-run effect is not significant. Similarly, Hu, Yan, and Deng (2008) claim that market timing has barely few contributions to capital structure. This therefore, calls for more investigation into market timing theory especially in Africa in order to help proffer suggestions after the empirical findings to improve upon the theory since business performance and growth are crucial in Africa.

Fourth, the choice of proxies or measures may not be precisely the right tool for analysing market timing theory and how it affects leverage and firms' performance (Kayhan & Titman, 2007). Fifth, the problem ultimately is that since it has been established that optimal capital structure affects performance, this study seeks to ascertain the drivers of optimal capital structure and how it is affected by market timing.

Of course, a better understanding of how firms in Africa can optimally finance their business activities is a pressing issue given the implications for performance and the economy at large. Also, a study such as this will help our understanding of the impact of regulations on market timing and market conditions in Africa (Wadhwa and Syamala, 2019). This study will be useful to African countries due to the increasing dynamism in the business space against the backdrop

of global financial inclusiveness, market competition, technology innovativeness, and rapid institutional changes.

1.3 General Objective of the Study

The main objective of this study is to analyse the effect of market timing and capital structure on performance of listed firms in Africa. The specific objectives of the study are as follows:

i. To examine the effect of market timing on capital structure of firms listed on stock exchanges in Africa.
ii. To examine the effect of capital structure on performance of firms listed on stock exchanges in Africa.

1.4 Research Questions

The two key research questions developed for the study are as follows:

i. What is the effect of market timing on capital structure of firms listed on stock exchanges in Africa?
ii. What is the effect of capital structure on the performance of firms listed on stock exchanges in Africa?

1.5 Significance of the Study

As early on indicated, significant studies on capital structure concepts like the Trade-off theory and Pecking order theory have been highly discussed in the finance and economics literature. However, extremely few studies have been carried out on market timing theory (MTT), even in

advanced nations. Observably, a significant portion of these studies have dwelt much on advanced states, particularly the United States (Baker & Wurgler, 2002; Blum, 2011; Russel & Hung, 2013 & Xu, 2009). Studies in Europe and in emerging economies are still sparse. To the best of my knowledge, no study has provided a broader theoretical and empirical evidence using cross-country data in Africa especially on market timing. Generally, only a few studies have been conducted from single country perspectives (e.g. Abdeldayem & Assran, 2013; Ellis, 2018; & Kinoti, 2015). This study will provide empirical analysis which can be drawn upon to help academic researchers, firm practitioners and other stakeholders who have interest in capital structure theory. For instance, firm practitioners as decision-makers will be better informed about the effect of capital structure as well as how to enhance firms' performance aimed at business growth.

Finally, a good capital structure will not only better inform business managers or financial managers on the overall choice of debt, equity or a combination of securities when selecting or financing business projects, but it will also educate financial managers on good corporate practices that would help promote business growth and, for that matter, the maximization of shareholders' wealth.

1.6 Chapter Disposition

The study is organized in five (5) chapters. Chapter one discusses the background of the study, the statement of the problem, general objectives of the study, research questions and significance of the study. Chapter two of the study contains the literature review. It thoroughly discusses the theoretical review of various mainstream capital structure theories. It also reviews the empirical

literature on the effect of market timing on capital structure, and the effect of capital structure on firm performance. It again briefly gives an overview of the African Stock Market.

Chapter three of the study thoroughly explains the methodology of the study. It looks at the research design used for the study. It also explains the sample and sources of data (secondary data) used for the study. It further looks at the panel data model (fixed effect and random effect model) used for the study. chapter three again explains the research model and data analysis method of the study. Finally, it provides a summary of variable definition and measurement. Chapter four of the study thoroughly presents the analysis of results. It also provides detailed discussions on the research results. Chapter five of the study presents a summary of the findings, conclusions and policy recommendations. Finally it offers suggestions for further studies.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the theoretical and empirical literature on market timing and capital structure, and the effect of capital structure on firm performance.

2.2 Theoretical Review: Mainstream Capital Structure Theories

2.2.1 Modigliani and Miller

Modigliani and Miller's capital structure theorem in the 1950s tremendously brought a paradigm shift in thinking in the area of finance. Modern finance development and more importantly financial economics are established on the ideas of Modigliani and Miller. The MM's (theorem 1) holds the assumption that financial structure is irrelevant under perfect capital market settings for the reason that organizations' market capitalization is determined by associated risk of securities and earning power. Simply put, in an idyllic business trading environment, capital structure really does not matter much since it does not show influence on an organization's value. Modigliani and Miller believe that capital market is much perfect and efficient, all things being equal. In a similar claim, the organization's values do not change the organization's capital structure and investors also have all available market information and are, therefore, free to buy and sell all securities with no transaction cost, no taxation, no friction, no bankruptcy, no inflation, no information asymmetry, etc. With their proposition, it will further mean equity and debt choice of financing will not be relevant for firms' value. However, as noted by Nwude and Anyalechi (2018) "in the real world, there are taxes, transaction costs, bankruptcy costs,

differences in borrowing costs, information asymmetries and effects of debt on earnings." Modigliani and Miller's proposition II in 1963 comes with corrections on Modigliani and Miller's (1958) proposition I. The proposition II explains the effect of tax benefit over debt, that firms' overall value could be increased if more debts are taken into consideration during capital structure decisions.

The modification of proposition I by including tax component and bankruptcy cost came as a result of criticisms from the academia, researchers, and business practitioners.

2.2.2 Trade-Off Theory

Trade-off theory formally originated from Kraus and Litzenberger (1973). The theory emerged at the backdrop of MM's theory of irrelevant capital market proposition of no taxation and no bankruptcy assumption. According to the trade-off theory (TOT), optimal debt-equity ratio can be reached by balancing the corporate tax advantages of debt financing against the cost of financial distress that evolve from bankruptcy risk and agency cost. The trade-off theory believes ideal financing structure exists in the business space. That is, the effectiveness of a firm's performance could be influenced by the level of leverage chosen by the company. The trade-off theory allows organizations to select the ultimate financing level of debt-equity ratio which multiplies companies' total worth. Firms' optimum financial structure will be attained by balancing interest on tax shield and bankruptcy cost. Thus, in this scenario, costs and benefits are attained if the an organization selects the best equilibrium debt financing and equity financing that will enhance optimum capital structure for its performance.

As noted by Rogers and Campell (2018), the static trade-off theory proposes that companies should ensure a target capital structure. A firm could therefore obtain a required optimum capital structure by altering its equity-debt ratio by harmonizing its tax protection and cost of financial distress. One of the key essential elements regarding debt financing is the tax shield element (benefits) derived over equity financing securities. The trade-off theory postulates that companies with similar industrial characteristics of operation should have common leverage level. The tradeoff theory could be characterized in two ways: static theory (which looks at firms' tradeoff within the tax savings from leverage and its financial distress over a period) and dynamic theory which looks at the adjustment behaviour after a business has moved from optimal debt point at particular time.

2.2.3. The Pecking Order Theory

Perking order theory, which is chiefly credited to Donaldson (1961), posits that companies hugely wish to go for capital accumulated from within for business growth only if obtainable. However, managers can depend on outside monies if generated cash were not enough to support companies' day-to-day activities. Pecking order theory (POT) holds the assumption that business organizations adhere to prerequisite order of managing the firm's (or the company's) activity with internally generated funds as the main source of financing for business growth and development as against debt financing. If internally generated funds are insufficient, the next option is debt financing. The theory postulates that outside equity financing would be the preceding option to be considered after the internal and debt financing sources have been fully exhausted. Fama and French (2002) argue that "the optimal financing source is that least affected by information asymmetry, therefore internal funds, thus firms' retained earnings are preferred

over external financing. Furthermore, short-term debt is preferred over long-term debt." A study carried out by Seifert and Gonenc (2010) shows that pecking order theory was verified in 4 nations: Germany, the US, Japan and the UK. The findings reveal that big companies of those 4 nations follow pecking order theory greatly, contrary to small companies.

2.2.4 Agency Cost Theory

Agency cost expresses the fundamental connection between the shareholder known as the principal or owner and the corporate management, known as the agent or the manager. Agency cost theory proves that it is the principal that hires the agent. However, due to conflict of interest, this has often created a problem. With the theory, optimal capital structure could be derived when costs and conflict of interest is minimized between the two main business actors (that is, the principal and agent).

According to Musah (2018) citing Jensen and Meckling (1976), leverage level can be used to monitor the managers to pursue the overall firms' objectives and not theirs. By so doing, cost is reduced leading to efficiency which will eventually enhance firm performance. Agency costs can also exist from conflicts between debt and equity investors. These conflicts arise when there is a risk of default.

2.2.5 Signaling Theory

The signaling theory which draws references from information asymmetry regarding organizational shareholders and its managers was propounded by Ross (1977). It observes that if executives realize business is making less profit, they often secure debt to augment business

activities. However, when directors observe that the organization's values have appreciated positively it encourages them to issue equity in the market.

Ross (1997) asserts that if managers have inside information, their choice of capital structure will signal information to the market. Leverage may well be influenced by the theoretical premise that increases in debt are a positive sign that managers are confident about future earnings. Debt contracts are a commitment by managers to make future interest payments. Failure to repay debt could lead to bankruptcy. This signals confidence to the market that the firm will have sufficient cash flows to service debt.

2.2.6 The Market Timing Theory

The market timing theory (MMT) was originated by Baker and Wurgler (2002). Market timing could be explained as "the cumulative outcome of past attempts to time the equity market". The main essence of the theory is that if the market value of a company's shares is overestimated in prices, organizations shall subscribe for equity funding and debt financing when stock prices are underestimated.

The market timing hypothesis falls on the notion that market is inefficient and therefore securities are not always correctly priced in the market. If markets were efficient there would not be an opportunity to time the market and gain an advantage from issuing or repurchasing a specific type of security. Undoubtedly, if the market timing postulates that, for instance, companies target the stock market before issuing shares, then in principle new shares could only be issued if the prices are overestimated (Ellis, 2018; Marsh, 1982).

According to Cheng, Ioannou and Serafeim (2014), the underlying reason for timing behaviour of corporate finance decisions could be related to the costs of selection. The intention is to exploit the temporary fluctuation in the cost of equity relative to other forms of capital. This theory reflects that it is an inverse relationship between market value and capital structure, and it presents that capital structure (leverage) changes are strongly and positively related to their market timing measure.

2.3 Determinants of Capital Structure

2.3.1 Issuing of Securities: Initial Public Offering (IPO)

IPO offers the private company the opportunity to issue first time shares to the public. According to Blum (2011) an IPO is identified as ultimate important activity in the business' life cycle in the event of transitioning from private firm to public firm as far as investors' gains are concerned. Public shares issuance generally paves the way for a firm to raise the needed capital required from public investors. Thus, an IPO permits companies to generate the needed capital towards promotion of business development and maximization of shareholders' wealth. The acquired money (or equity) by going public generally offers investors opportunity to multiply their wealth. IPO could influence future purchases, bigger value, decreasing liability as well as enhancing a company's public image. Nonetheless, Latham and Braun (2010) argue that there are considerable risks associated with activities of IPO with directors and companies. Establishing the change from private to public could take between 9 and 18 months, demanding a huge work of time, and energy besides assets on behalf of the company. Latham and Braun (2010) have argued that financial costs tend to average approximately 7%-14% of the gross

proceeds. However, going public doesn't give automatic success assurance. The US capital markets experienced 20% withdrawal rate of firms that previously announced an IPO, inflicting a multitude of additional losses.

Blum (2011) argues that with numerous companies, IPOs could be the best beneficial source of generating funds to support upcoming projects, but it is equally linked with considerable threat and insecurity. Alti (2006) found that even though firms time equity-issues to look for additional prospects in positive equity markets, the impact is short-term, having no influence on leverage in the long run.

2.3.2 The Seasoned Equity Offering (SEO) Market

According to Guney and Iqbal-Hussain and Guney (2011), seasoned equity offering firms that issue in the hot market issue similar levels of equity compared to cold market firms, since it allows the issuer to issue additional shares to the general public. A "hot market issue" is a particular time where investors place high request for IPOs in the market during the trading session with high investor expectations that the IPO price will rise over a particular period of time. The research on IPOs offers a wide range of accounts to justify the intense changes in the volume of IPOs observed in the market. Many theories predict that hot IPO markets are characterized by clusters of firms in particular industries for which a technological innovation has occurred, suggesting that hot and cold market IPO firms will differ in quality, prospects, and types of business. Others suggest hot market IPOs are firms that take advantage of irrational investors.

Their behaviour, however, appears to be more motivated by reaching a target leverage and hot markets are seen as a temporary window of opportunity to reach this target. It is believed that, IPO firms are motivated by pure market timing purposes but seasoned equity offering (SEO) firms are motivated by rebalancing or reducing leverage levels. In both instances, hot market issuers are inferior in quality with lower growth opportunities, lower levels of investments and with less profitability.

2.3.3 Dividend Payout Policy

The role of dividend payment as far as shareholders are concerned cannot be over emphasized. Myer and Majluf (1984) indicate that companies making huge profit (or performing better) normally do not incur huge debt, due to dividend payout rules of such companies. This is because, usually, firms carrying low retention ratio may be required to issue additional debt which will then cause the firm's leverage to double. Adedeji (2002) indicates that due to unwillingness to reduce dividend during low revenue (or turnover) organizations take loans to pay dividend. Some stockholders believe in the free-cash-flow assumption (i.e. because of agency cost problem) and will therefore require that cash dividend be paid at all cost at the end of the accounting year once the company has declared profit. However, Okoro, Udoka and Alajekwu (2018) point out that free-cash-flow is not the main factor which influences dividend payout.

2.3.4 Firm Size

According to Aggarwal and Jamdee (2003) and Rajan and Zingales (1995), the size of a firm is established to have positive association with leverage. Larger companies usually have a high

leverage. Notably, big companies tend to have better internal resources and easier access to financial markets, besides the benefit of better financial conditions on the market when demanding fresh issuance of capital. According to Virk, Ahmed and Nisar (2014), bigger companies are often well-diversified with little bankruptcy costs which encourages them to acquire additional stocks from the market compared to smaller growing companies.

Rajan and Zingales (1995) are also of the view that larger firms try to reveal more information to outside stockholders, so information asymmetry tends to be lesser than smaller companies. With regard to the trade-off theory, particularly in relation to financial distress, bigger companies get bigger collateral guarantees and become less risky less bankrupt than smaller companies as they tend to be more diversified .

Abor (2008) empirically studied the determinants of capital structure of 230 publicly quoted firms, large unquoted firms and SMEs listed on the Ghana Stock Exchange from the period 1998 - 2003. The findings show that long-term debt (LTD) is positively related with firm size. The study's findings strongly support the findings of Cassar and Holmes (2003), Esperança et al. (2003) and Hall et al. (2004), though theirs found a negative relationship between size and short-term debt (STD). Interestingly, some studies have equally reported a negative relationship between firm size and short-term debt ratio (Chittenden et al., 1996; Michaelas et al., 1999). Bas et al. (2009) also analyse the determinants of capital structure decisions of 11,125 small and private firms in 25 developing countries using data from World Development Indicators and they found that size is among the major determinants of capital structure decisions.

2.3.5 Asset Tangibility

Ganiyu, Adelopo, Rodionova and Samuel (2018) assert that the agency cost theory assumes positive relationship among assets tangibility and companies' leverage. The reason is that tangibility could be used for collateral to obtain loan at a stage of liquidation. Studies that show positive relationship between tangible assets and leverage include De-Jong, Verbeek and Verwijmeren (2011), Ezeoha and Botha (2012) and Drobetz, Dirk and Schroder (2015). Again, Jensen and Meckling (1976) as well as Myer (1977) have predicted positive relationship among asset tangibility and leverage. On the contrary, studies that show adverse association bteween asset tangibility and leverage include Hossain and Ali (2012) and Alves and Ferreira (2011). Zavertiaeva and Nechaeva (2017) have also noted that tangible assets explain the ability of companies to decrease informational asymmetry.

2.3.6 Profitability

The effect of firms' profitability on leverage has been reported differently with strong supporting facts by both trade off theory and pecking order theory. Tradeoff theory believes there are positive association amongst profitability and leverage. The assumption here is huge profit making organizations can take several loans to generate additional income on their investment as against less profitable firms. On the contrary, pecking order theory also postulates that firm profitability has an adverse association with leverage. They hold the assertion that, a profitable firm should rather support the firms' growth with its internally generated funds but not external funds (debt). They posit that, if the firm is performing well (making more profit), then debt is not necessary. Chen and Strange (2005) reported adverse association between profitability and leverage.

2.3.7 Growth Opportunity

Growth opportunity usually shows negative association with debt. Myer and Majluf (1984) reason that companies with high growth opportunities will not rely on debts to finance their business operations but rather will fully rely on internally generated funds. Studies that have shown positive association among growth opportunity and leverage include Sheikh and Wang (2011). Studies that found no significant result include Akinyomi and Olagunju (2013) as well as Babu and Chalam (2014). Capital structure theories believe that the managers of firms with appropriate investment opportunities should choose a lower leverage because if they increase their external liabilities, they cannot use their investment opportunities' advantages. Thus, a negative relationship is created between the future growth and leverage because managers in firms with high growth opportunities will choose a lower leverage. Such results can be seen in regressions which control growth opportunities (Noraversh & Yazdani, 2010).

2.3.8 Liquidity

Firms that have high current assets give an indication of business growth continuity and such firms can go for debts to expand the business. Trade-off theory of Kraus and Litzenberger (1973) predicts positive correlation between liquidity and leverage whereas pecking order theory of Myer and Majluf (1984) predicts adverse association between liquidity and leverage. According to Bt-Shahar and Manja (2018), the trade off theory assumes that big current assets businesses hold huge incentives of securing additional debt and have the capacity of fulfilling such advance (debt) responsibility promptly. In support of Trade-off theory, Hassan and Samour (2015) also reveal that companies with huge liquidity usually encounter little cost of taking debt. The reason

is risk assessment personnel normally identify such companies as not likely to default on their debt since they have enough current asset to convert into cash quickly.

On the contrary, it is also argued that highly liquid firms, rather, depend on equity capital from within to manage the business. The reason is that firms with little liquidity can rather rely on debt to enhance their business growth compared to highly liquid firms. Pecking order theory (POT) holds varied opinion about the impact of liquidity on financing structure. The idea is that highly liquid (current assets) companies have lesser debt financing issues since such companies rely on inside capital to manage business activities.

2.3.9 GDP Growth

Gross Domestic Product (GDP) is largely seen as a measure of a country's overall economic performance at a particular period. Positive GDP growth of a nation influences firms' performance (profitability). High positive GDP growth will encourage companies to generate additional retained earnings to help finance business operations internally. This, consequently, supports pecking order theory. Again, with positive GDP growth, leading to high firm turnover, businesses making profit could borrow more to expand their assets and also pay back the debt on time. This, therefore, supports Trade-off theory (Kraus & Litzenberger, 1973) that GDP growth is positively correlated with leverage.

Other studies which support the assertion that GDP growth has positive correlation with leverage include Gropp and Heider (2007) and Booth et al. (2001). On the contrary, other researchers have found Gross Domestic Product growth to be insignificant with banks' leverage (Octavia &

Brown, 2010; Nguyen & Kayani, 2013). When GPD growth affects firms negatively, especially during economic downturn (ED), it increases firms' bankruptcy cost thereby leading to poor business growth, firm insolvency and liquidation. Demirgus-Kunt and Maksimovic (1998) has observed adverse association with GDP growth and leverage. If companies are making little investment returns (i.e. not meeting the required turnover target set), it will eventually be difficult for such companies to secure debt to support business growth.

2.3.10 Interest Rate

Interest rate affects firms' cost of borrowing and the returns that come with it. Usually, when interest rates go up, investment decreases and low interest rate is likely to escalate business activities of the companies. Therefore, steps to expand business activities will demand for more leverage usage. Vallandro, Zani and Da Silva (2014) have observed positive relationship amongst interest rate and leverage. On the other hand, Graham and Harvey's (2001) study has shown a negative association with leverage. Wangi et al. (2009) indicate that leverage limits the propensity of companies' executives from unwarranted engagement of investment activities for individual advantages. Hence, financing to reduce free cash flows within the firm by paying a fixed interest payment would force the manager to deviate from negative investment and work in the interest of the shareholders.

2.3.11 Inflation

High inflation can disappoint creditors granting long-term credits. However, Homaifa, Zietz and Benkato (1994) show positive association between inflation rate and businesses' leverage. The study argued that inflation decreases actual debt costs through debt refund. According to Booth

et al. (2001), any time inflation rises moneylenders usually claim high interest rate on the capital from the borrower to reconcile the impact of inflation which may weaken purchasing power of currency of particular country. It, therefore, shows positive association between inflation and debt cost. According to Köksal and Orman (2015), the trade-off theory of capital structure provides a theoretical link between inflation and capital structure decision of a firm. The theory predicts that inflation and firm financial leverage move in the same direction. An inflation-induced nominal increase in rate of interest increases the tax benefit of debt and provides an incentive for the use of more debt than equity in financing new projects. Thus, there is a positive relationship between inflation rate and firm financial leverage. However, empirical studies in both developing and developed countries indicate mixed evidence. Noguera (2001) considers the effect of inflation tax on a firm's capital structure for a panel of 40 major companies in the US over the period from 1978 to 1996. The results obtained from the pooled least square regression indicate amongst others that inflation does not have explanatory power for capital structure (Belema & Odi, 2019).

2.3.12 Corruption

Corruption is recognized as one of the important elements affecting firm performance in Africa. Fan, Titman and Twite (2012) state that companies staged in highly corrupt nations with more damaging corruption history usually rely on borrowed capital, and choose short-term debt over long-term debt. The Corruption Perception Index (2016) places Zimbabwe, Tanzania, Nigeria, as well as Kenya among the nations with high corruption rankings (over 115 out of 176), regardless of the hard work in certain nations such as Kenya to adopt anti-corruption measures.

2.4 Test of Mainstream Capital Structure Theories

Jarallah, Saleh and Salim (2018) empirically investigated the traditional tradeoff theory against the pecking order theory of capital structure using data from Japanese listed firms from the Tokyo Stock Exchange. The results in Japanese firms was consistent with the pecking order theory. The study's findings were also consistent with other studies (Lemmon, Roberts & Zender, 2010; Liang et al., 2014; Vos & Ochoki Nyamorios, 1997; Shyam & Myers, 1999; Frank & Goyal, 2003). However, there was a sharp contrasting view regarding pecking order theory in China. Tse and Rodgers (2014) note that the cultural and business environment of China may not give pecking order theory the assistance needed.

Furthermore, empirical evidence that has tested the tradeoff theory has reported mixed findings. Some of them have supported the theory (Boodhoo, 2009; Akintoye, 2008; Qnaolapo & Kajola, 2010) while others have presented findings which reject the findings of the trade theory (Myers, 2001; Zeitun & Tian, 2007; Rao & Syed, 2007; Awunyo-Vitor & Badu, 2012; Chechet & Olayiwola, 2014).

Some empirical evidence also show that both trade-off and pecking order theories are applicable (Korkmaz et al., 2007; Yıldız et al., 2009; Okuyan & Taşçı, 2010; Köksal & Orman, 2015).

2.5 Effect of Market Timing on Capital Structure

Baker and Wurgler (2002) show that largely market timing has high persistent effect on capital structure. Their theory shows that low leverage firms are those that usually raise capital (money)

when market valuation is high. Besides, high leverage firms are equally among those that often raise capital when market valuation is low on the market. Their theory was developed out of market valuation where market timing (weighted market-to book) ratios was regressed on capital structure (leverage). Baker and Wurgler (2002) found out that leverage is negatively associated with past market valuations. However, their theory proposed that a firm's capital structure should be identified by its own unique characteristics and further forecasts that no cumulative effects of past capital structure decisions would be on firms' present leverage ratio.

According to Baker and Wurgler (2002), the equity market timing theory can be understood from two perspectives. The first is to identify the existence of market timing in the formation of the capital structure of companies to see if companies use the windows of market opportunities or not to issue shares. The second approach is whether the effects of market timing are persistent in the long-run or they only occur in the short-run; that is, if companies adopt this practice continuously in order to structure their capital or this practice is temporary and companies raise their debt levels again. According to Baker and Wurgler (2002), at first sight, a short-term impact is expected (Vallandro, Zani & Da Silva, 2014**)**.

A study conducted in Turkey by Bayrakdaroglu, Ege and Yazici (2013) expected to discover that the Turkish firms despite their huge investment development prospects would still subscribe for more leverages. This study also expects market timing (market-to-book) ratio to be equally negatively related with leverage in Africa since usually high MTB ratio gives signs of possible high growth opportunity for firms. For instance, a study of Fatoki and Nasieku (2017) reveals

that market timing ratio is estimation ratio which is applied by securities consultants, stock directors as well as stockholders in order to link firms' market leverage to the book leverage.

Fatoki and Nasieku (2017) observed that the market-to-book (MTB) ratio has been one of the major sources from which the costly external financing theory draws inspiration to interpret capital structure decisions. According to this theory, firms with higher market-to-book ratios are more likely to issue equity because a higher market-to-book ratio signals a lower cost of external equity financing. This view of market-to-book ratio has been the main basis for a formal argument of the market timing hypothesis.

MTB ratio remains added to establish variances within venture prospects of companies. The market timing theory predicts a significant effect on MTB ratio and firms capital structure. As indicated early on, high MTB ratio gives a signal of overvaluation of the stock price and creates an incentive for the firms to issue new stock. The issue of new stock means a lower debt ratio and thus, we expect a negative correlation between market-to-book ratio and debt ratio in Africa. Parsons and Titman (2009) show an adverse association of leverage with proportion of equity market value to equity book value. Therefore, this factor can be a solid predictor of leverage.

Abdeldayem and Assran (2013) investigated how capital structure decisions made by non-financial firms registered in the Egyptian Exchange (EGX) are affected by the prediction of the market timing theory. The findings show that leverage ratio of the Egyptian firms was in a short-term driven by their current market valuation. However, in the long-term, market timing effect was not present at all. Their finding is consistent with Bolte and Truve (2014), Alti (2003) as well as Xu (2009), but contrary to the findings of Baker and Wurgler (2002) and Huang and Ritter (2009). Again, Hovakimian (2004) found that equity issues may be timed though they

may have no significant long-lasting effects on capital structure. Mahajan and Tartaroglu (2008) investigated the impact of market timing on an international scale by looking at the G7 countries specifically. The researchers found that leverage is negatively related to the historical market-to-book ratio in all the G7 countries. Also, Bougatef and Chichti (2010) examined the persistence of equity market timing influence on capital structures in Tunisian as well as of French corporations. The results indicate that high MTB ratios are related to high positive equity issues. However, a study conducted by Russel and Hung (2013) points out that market timing within China's stock marketplace does not show persistent effect on capital structure. Market timing effect ceased to exist in the third year after initial public offering (IPO).

Tilehnouei and Shivaraj (2014) examined the relationship that exists between market-to-book equity ratio and the leverage of firms listed on the Indian National Stock Exchange. The results show an inverse association between MTB equity ratio and leverage. Similary, De Bie and De Haan (2004) investigated the effect of market timing on capital structures of Dutch firms and discovered weak result between market-to-book ratio and leverage.

2.6 Effect of Capital Structure on Firm Performance

According to Kipesha and Moshi (2014), financing decision is among the major issues in business firms, both small and large. Most of the business firms, especially small ones, are said to die or poorly perform due different challenges facing managers or owners on financing decisions. A firm's decision on the use of different forms of financing results in different capital structures which may have different impacts on the firm performance. However, Bergar (2002) argues that increasing the leverage ratio should result in lower agency costs of outside equity and improve firm performance, all other things held constant.

The implication of capital structure on firm performance is extensively studied against the backdrop of the seminal paper of Modigliani and Miller (1958) which expounds that under perfect conditions devoid of bankruptcy costs, frictionless capital as well as no taxes the capital structure of a firm has no effect on the firm's value. According to Myers (2001), different empirical studies have since then been conducted to examine the relevance of MM theories on firms' performance. Some of them have supported the irrelevance of capital structure while other findings have stressed the relevance of capital structure in business firms (Kipesha and Moshi, 2014).

Green et al. (2002) have championed the idea that tax policy has a significant effect on the capital structure decisions of firms. Usually the ordinary tax laws allow firms to deduct interest on debt taxable profits. Tax advantages derived from debt often lead firms to be completely financed through debt. However, this proposition should not entice managers to borrow to the hilt. It is the trade-off that ultimately determines the net effect of taxes on debt usage (Miller, 1977; Myers, 2001). Thus, firms that can derive maximum benefit from debt usage are those whose managers can accurately determine the point where the advantages of interest tax shield ends and where the cost of financial distress starts.

Empirical evidence on the effect of capital structure on firm performance has provided mixed findings. Ahmad, Abdullah and Roslan (2012) conducted a study to ascertain how capital structure influences firm performance in Malaysia. The findings show that STD and TD have

significant a relationship with return on assets (ROA). However, Wang, Winton and Yu (2010) had contrary findings. On the other hand, El-Sayed (2009) show an insignificant association between capital structure and firms' performance in Egypt within 1997-2005. Similarly, Zeitun and Tian (2007) have observed that financial leverage has no significant impact on Tobin's Q, ROE, and ROA. Their study findings support the finding of Ebaid (2009).

Also, Zeitun and Tian (2007), using 167 Jordanian companies over a fifteen-year period (1989 – 2003), found that a firm's capital structure has a significant negative impact on the firm's performance. Similarly, Majumder and Chhibber (1999) and Rao and Syed (2007) also confirm a negative relationship between financial leverage and performance. San and Heng (2011) investigated the association between leverage and firm performance for the period 2005-2008. Forty-nine listed construction firms were sampled and divided into big, small and medium size firms. The findings show that big firms leverage has a positive relationship with firm performance. Their results support the finding of Hasan et al. (2014) which analysed 36 listed firms in Bangladesh and established a significant positive relationship between leverage and ROA, but no significant association with Tobin's Q. Ebaid (2009) examined the performance of Egyptian public listed firms during 1997 – 2005, and reported no significant effect of leverage on firms' performance. Again, Dada and Ghazali (2016), using data on 100 non-financial firms in Nigeria show that assets turnover and tangibility are positively related with Tobin's Q.

Furthermore, Fosu (2013) examined 257 firms in South Africa over the period 1998 – 2009, and identified a positive association between leverage and a firm's performance (see Aliakbar, Seyed and Pejman (2013). However, Abata and Migiro (2016) with sample size of 30 listed firms in

Nigeria during 2005 – 2014, established an insignificant relationship between capital structure and ROA. Similarly, Rajan and Zingales (1995) investigated the capital structure of 48 firms from the US from 1981–1990. The results of that study show an adverse relationship between capital structure and firm performance. The study's findings show that equity financing is preferred to debt financing. The study also supports the pecking order theory which advocates the use of internally generated funds when financing firms' acitivity.

The main gap in the literature on the effect of market timing on firms' performance is the inconsistency in the findings. For example, different findings indicate that the performance of market timing persists for a short-term whilst others reveal a long- term performance. For instance, Baker and Wugler (2002) observe that market timing continues for over 10 years in the US before rebalancing. Hence, there is the need to further test the various claims.

2.7 Effect of Market Timing on Firm Performance

Market timing is extremely essential in influencing quoted firms' performance when the market is well timed. Firms' performance significantly relies on a number of factors. However, the key point of focus here is how to issue share (especially IPOs) and or repurchase back. Thoughtfulness in marketing timing practice will not only enhance firms' performance also ensure maximization of stockholders' value. Market timing basically adapts to changes or dynamism in the market space and such market conditions largely influence financial managers on decisions to take that will impact on firms' performance positively.

As already indicated, the market timing assumption posits that chief decision makers (managers) of firms will issue new shares or securities when the stocks are overvalued (i.e. favourable) and repurchase if share value is undervalued (i.e. with little marketable interest). Since market timing or MTB ratio could be used to express growth opportunity for particular a company, it can therefore equally be used to determine future firms' performance. Now the question is, does market timing influence on firms' 'performance' really persist (or endure) for a short-term, mid-term or long-term?

As already noted above, Baker and Wurgler (2002) have observed that market timing (that is, dissimilarity of market valuation) significantly affects firms' capital structure that continues for over 10-year in the US. However, a study conducted points out that, "market timing" in China's stock market does not indicate continues control on capital structure. Market timing effect disappears three years after IPO. The lack of long-term effect in China may be due to the prominent role of government in monitoring the timing of security issue. Furthermore, even if managers are aware of market timing opportunities, they may not be able to execute it and create value for shareholders, due to practical impediments to re-entering the market soon after an IPO (Russel & Hung, 2013).

Stulz (1990) conducted a study that shows that market timing (MTB ratio) measures growth opportunities and firms will fund these growth opportunities through equity issuances as against capital structure (leverage) so, to prevent debt hold up challenges. According to Hovakimian (2006) the effect of historical average market-to-book on leverage regression is not due to past equity market timing. However, the study reveals that only equity issues may be timed to

conditions of equity market, though they did not have significant long term performance effects on capital structure.

According to Fatoki and Nasieku (2017) market value indicates the external valuation besides prospect of firms' future performance. So, the outcome of good firms' performance by a firm does not only affect the sources of finance, growth and its existence, but also has a huge influence on the larger economy due of its significance to shareholders, managers of firms, creditors and the government. A dwindling firm's performance may seriously affect right to both its internal and external financing besides the growth and survival of the firm. Dhita et al. (2018) have argued that the capital market is identified as an indicator of a rising economy for a nation. Largely, a rising economy doubles a firm's productivity, which contributes to an increase in the firm's performance. The increase in a firm's performance is a major contributing factor making a firm's stock looking highly attractive. Oskolkova and Nechaeva (2017) examined the Impact of Market Timing on the Capital Structure of Russian Companies. The results show that Russian companies time the debt market to attract extra capital if the value of the interest rate in the current period is lower than the rates in previous periods. The net debt issued decreases when interest rates are high, which indicates debt market timing.

Wadhwa and Syamala (2018) have pointed out that firms go public as result of two (2) key aims: (1) to seek for advantages and issue equity when market stocks are high (2) to trade equity on high values to stockholders that are hopeful regarding prospects of firms' performance.

2.8 Overview of African Stock Markets

Africa's stock markets could be considered still young in terms of their market share (or capitalization). Around the year 1989, the African stock market (ASM) had only eight (8) member countries trading. These African stock market traders were made up of five (5) Sub-Saharan Africa countries, namely, Zimbabwe, Cote d'Ivoire, Kenya, South Africa and Nigeria and three (3) countries coming from North Africa, namely Egypt, Morocco and Tunisia. Africa's independence from the former colonies (colonial masters) paved the way for several financial and trade reforms in several African countries leading to trade liberalization and market protection for African people. Now, several African nations have joined the ASM and currently it is made up of 29 member African countries from the 54 independent countries. However, inadequate capital or poor financial system has not enabled the market to function properly to allow many of them to increase their market size as expected.

Although African Stock Market (ASM) has made some positive progress in the stock market numbers in terms of nation (or country) size, many are still illiquid. Stock exchanges in Africa still remain uncompetitive as compared to exchanges in European and the Asian markets. Some of the contributory factors are currency volatility, small market size and floating capital, etc. According to Dahou, Omar and Pfister (2009) the illiquid markets are due to big gaps between buy and sell orders (i.e. shares are rarely traded and business volumes remain excessively small).

Political geography in some parts of Africa has not been favouable to provide the needed incentive to the African stock market to thrive (Yartey, 2005). Investors coming to Africa to do business are often discouraged from investing due to political instability in Africa. According to

Brada, Kutan and Yigit (2006), investments are forward-looking undertakings built on stockholders' anticipation concerning upcoming earnings. The assumption of every investor or business entity is to place their money where they will be able to recoup their profit.

Lack of proper supervision in the African stock markets has played a huge role leading to the low market capitalization and growth. Enforcing the right measures and supervision will enable listed firms or companies to adhere to the rules and regulations that will help transform the business activities of its members (investors) positively thereby leading to high equity market growth and capitalization. The proper supervision and regulatory framework also goes a long way to protect investors' right of trading among themselves on the stock market and outside the stock market. This, therefore, also helps to reduce market arbitrage (or information asymmetry) among trading members.

The reason for going public is to generate capital as well as to share risk among the trading members. Education about stock market and its trading activities is generally poor. Some investors stay off from listing because they hold the assumption that their business plan, activities and financials will be exposed to the public for their competitors to take advantage of. Some also fear that rigid policies and controls will not enure to their benefit if they got listed on the exchange. A study conducted by Yartey (2005) on Ghana Stock Exchange (GSE) shows 33% of companies used for the research did not want to be quoted on Ghana Stock Exchange due to anxiety of not performing well on the exchange. Hence, strong public education on the importance of quoting on the African stock exchange holds advantages of contributing toward increasing market capitalization and for more market expansion.

2.9 Conceptual Framework and Empirical Hypothesis

Figure 2.1 presents the conceptual framework which shows capital structure and market timing and how one affects the other. The figure again shows how capital structure also affects firm performance. The dependent variables used for the study of market timing are Book leverage (BL) and Market leverage (ML) as proxies for leverage. The independent variables for the effect of market timing on capital structure are Market-to-Book (MTB), Profitability (EBITD/A), Dividend (DIV/E), Asset Tangibility (FIXAS/A), Hot Market (HOT MKT), Firm Size (FSZ), and other control variables such as GDP growth (GDPGTH) and Interest (INT).

Furthermore, other independent variables used in analysing capital structure and its effects on firms' performance are Short-term debts (STD), Long-term debts (LTD), Total debts (TD), Firm Size (FSZ), Growth Opportunity (GROWTHOPP), Asset Tangibility (FIXAS/A) and Market Capitalization (MCAP), and their dependent variables for firm performance are ROA, MVA as well as TOBIN's Q. The control variables used in the study are GDP Growth (GDPGTH) and Interest rate (INT).

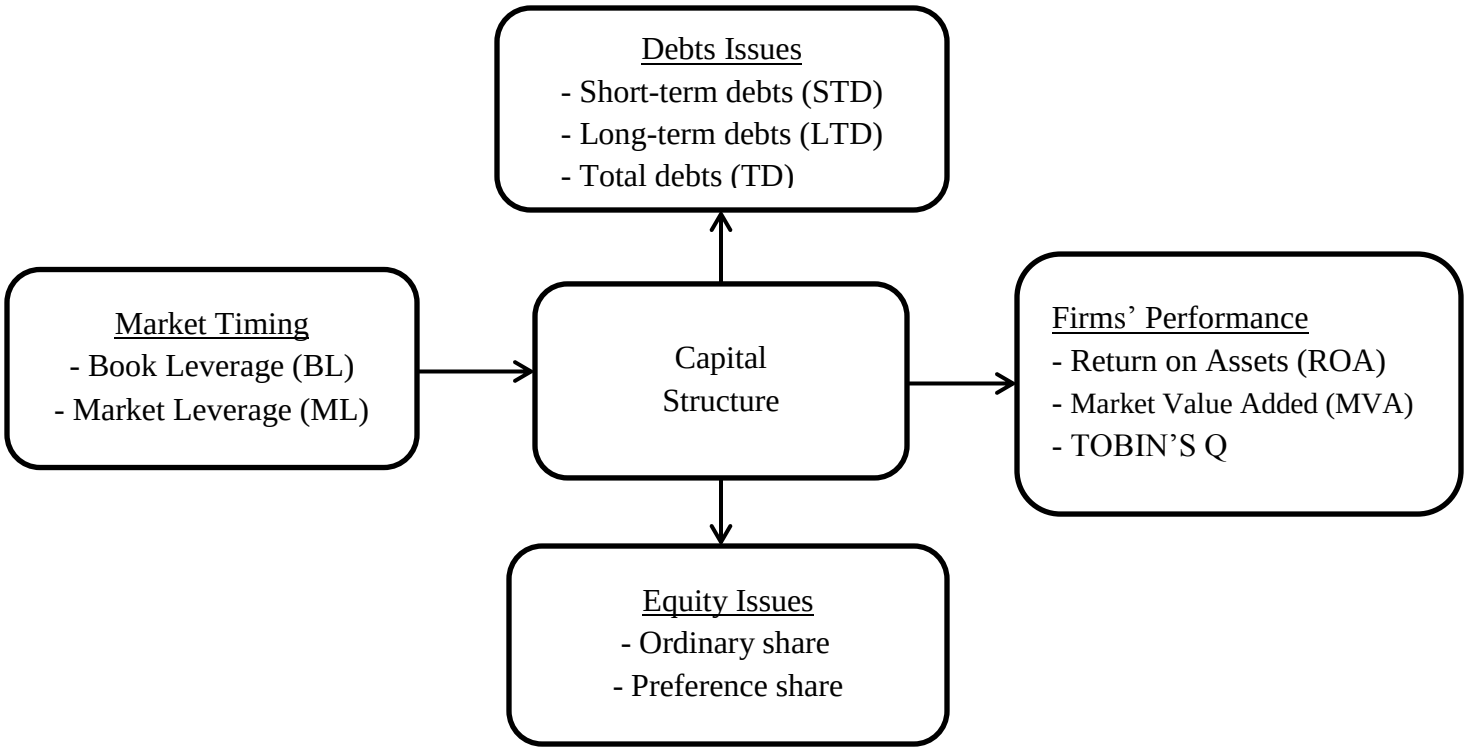

Figure 2. 1: Schematic Diagram of Capital Structure

Source: Researcher's Own Model, 2019.

2.9.1 Testing the Hypothesis of the Study

Hypothesis 1: Market Timing (MTB) Ratio and Leverage (Book Leverage)

H_{1a}: *Market Timing (MTB) ratio has negative effect on leverage (book leverage) of listed firms on the Stock Exchange in Africa.*

H_{2b}: *Market Timing (MTB) ratio does not have negative effect on leverage (book leverage) of listed firms on the Stock Exchange in Africa.*

Hypothesis 2: Market Timing (MTB) ratio and Leverage (Market Leverage)

H_{2a}: *Market Timing (MTB) ratio has negative effect on leverage (market leverage) of listed firms on the Stock Exchange in Africa.*

H_{2b}: *Market Timing (MTB) ratio does not have negative effect on leverage (market leverage) of listed firms on the Stock Exchange in Africa.*

Hypothesis 3: Leverage (STD, LTD and TD) and Firm Performance (ROA)

H_{3a}: *Short-term debt (STD) has a negative effect on firm performance (ROA) of a listed firm on the Stock Exchange in Africa.*

H_{3b}: *Long-term debt (LTD) has a negative effect on firm performance (ROA) of listed firms on Stock Exchange in Africa.*

H_{3c}: *Capital structure (total debt) has negative effect on firm performance (ROA) of a listed firm on the Stock Exchange in Africa.*

Hypothesis 4: Leverage (STD, LTD and TD) and Firm Performance (MVA)

H_{4a}: *Capital structure (short term debt) has negative effect on firm performance (MVA) of a listed firm on the Stock Exchange in Africa.*

H_{4b}: *Capital structure (long term debt) has negative effect on firm performance (MVA) of a listed firm on the Stock Exchange in Africa.*

H_{4c}: *Capital structure (total debt) has negative effect on firm performance (MVA) of a listed firm on the Stock Exchange in Africa.*

Hypothesis 5: Leverage (STD, LTD and TD) and Firm Performance (TOBIN'S Q)

H_{5a}: *Capital structure (short term debt) has negative effect on firm performance (TOBIN'S Q) of a listed firm on the Stock Exchange in Africa.*

H_{5b}: *Capital structure (long term debt) has negative effect on firm performance (TOBIN'S Q) of a listed firm on the Stock Exchange in Africa.*

H_{5c}: *Capital structure (total debt) has negative effect on firm performance (TOBIN'S Q) of a listed firm on the Stock Exchange in Africa.*

2.10 Summary of Gaps in the Literature

To the best of the researcher's knowledge, no study has been carried out on market timing, capital structure and performance of listed firms in Africa. The literature also seems to emphasize a lot on earlier capital structure theory works (like pecking order theory, tradeoff theory, agency cost theory, and signaling theory) as against market timing theory. Zhu (2014) reports that only a handful of studies have examined the market timing theory although with different approaches. Zhu (2014) further indicates that existing significant gap in the literature suggests a need for more studies to be carried out in both industrialised and emerging nations so as to test the market timing proposition.

Furthermore, the evidence from recent studies points out some level of inconsistencies. For instance, the choice of proxies or measures may not be precisely the right tool for analysing market timing theory and how it affects leverage and firms' performance (Kayhan & Titman, 2007).

Of course, a better understanding of how firms in Africa can optimally finance their business activities is a pressing issue given the implications for performance of firms and the economy at large. Also, a study such as this will help our understanding of the impact of regulations on market timing and market conditions in Africa (Wadhwa and Syamala, 2019). This study will be useful to African countries due to the increasing dynamism in the business space against the backdrop of global financial inclusiveness, market competition, technology innovativeness, and rapid institutional changes.

CHAPTER THREE

METHODOLOGY

3.1 Introduction

This chapter describes the methodology employed for the study to address the identified gap. It covers the research design, population, sample and sampling method, source of data and type, choice of estimated techniques, variable definitions, empirical model used, and a summary of variables and measurements.

3.2 Research Design

The research design outlines comprehensive methods as well as procedures for solving such identifiable study problems in capital structure decision thereby helping achieve a successful outcome. An accurate research design provides a plausible outcome that helps achieve a desirable result for the study. A research design should be developed in a manner that reduces errors and be simple for the study. A well planned research design mirrors what the actual study is about and its investigation procedures that are going to be carried out and how it must be adhered to when the hypothesese for the study are properly formulated to obtain the desired outcome. Labaree (2013) has argued that a research design is the overall strategy that you choose to integrate the different components of the study in a coherent and logical way, thereby, ensuring it will effectively address the research problem; it constitutes the blueprint for the collection, measurement, and analysis of data.

This study adopts a quantitative research design to enable us achieve the research objective of assessing the effect of market timing on capital structure and performance.

3.3 Sources of Data

To achieve the broader objectives, the study used data from firms listed on stock markets in 16 African countries, out of 54 countries. To this effect, annual financial reports (or financial statements) of 314 listed firms operating in 16 African countries from 2007-2017 were used for the study. Countries (firms) excluded from the study were those with extremely scanty (or inadequate) data for the period of the study. Some of the firms, however, had also gone insolvent or were identified as dormant firms. The annual financial reports were obtained from the Bureau van Dijk (ORBIS) database. The macroeconomic data was gathered from World Bank Development Indicators (WDI) database.

3.4 Model Estimation

3.4.1 Panel Data Model

To analyse the influence of market timing and capital structure on the performance of listed firms in Africa, the researcher considered several econometric models. However, Fixed Effect model and Random Effect model were deemed fit and reliable for the study based on the Hausman test result obtained. Panel data has always been a preferred choice by many researchers because it has observation of several phenomena over several time periods for particular firms or individuals. Panel data model also gives detailed and accurate information across both individuals, time-series and cross-sectional dimensions and can easily deal with both small and large data. It allows the researcher to control for variables the researcher cannot observe across

the firm level or the difference among business practices across firm level. It also allows the researcher to control variables that change over time but not across entities. With panel data the researcher is able to account for individual heterogeneity within the observed group.

According to Hsiao (2007), the crucial feature of panel data is that it measures units as cross sectional data, which refers to *n* firms, but can be extended over a period of time *t*. This leads by definition to larger datasets and, due to the larger amount of information each observation contains, it increases the efficiency of the obtained estimates, i.e. the standard errors are lower compared to those of cross-section datasets. Panel data model is highly effective in terms of studying more complex behavioural models and by this method collinearity within the regressor variables is minimized which also increases the degrees of freedom.

3.4.2 The Fixed Effect Model

Fixed effect is able to explore the relationship between predictor and outcome variables within an entity (i.e. different firms within a country). It also has the ability to absorb all across-group movements and to regulate for very steady individualities within the characters, thereby helping to moderate probable bias. Furthermore, the fixed effect model allows a limited form of endogeneity as the variables are correlated with a stable part of the disturbance only. The fixed effects model accepts that the co-efficiencies are variations between the elements or within units and time. Thus, the variance in fixed effects define the variance in behaviours of units, considering the slope co-efficiencies as constant. Klette and Johansen (2000) has argued that the fixed effect reasons through the individual influence of the firms as model. To verify the presence of influence, the fixed effects model is comparatively stress-free to apply and

experiment the hypothesis for which group-specific fixed effects may not be the same within the individual group.

3.4.3 Random Effect Model

The random effects model was produced to overawed loss of degree of the importance in the fixed effects model. The model takes those persistent co-efficiencies between the elements which do not differ. Tunay (2009) argues that random effect is a model in which the individual effects of firms are unpredicted and accepts that persistent variables would be ascertained randomly so as to achieve unconsidered predicted variables or errors. If the researcher observes that the individual differences across entities have some effect on the dependent variables, then random effect will be appropriate to use. With random effect model the researcher can include time invariant variables within the set.

3. 5 Variable Definition for Effect of Market Timing on Capital Structure

Book Leverage (BL) is defined as total debt to total assets. Market Leverage (ML) is book debt to total assets minus book equity plus market equity. The market-to-book (MTB) ratio is expressed as assets minus book equity plus market equity all divided by total assets. Asset tangibility (FIXAS/A) is seen as fixed assets divided by total assets. Profitability (EBITDA/A) is defined as earnings before interest, taxes, depreciation and amortization divided by total assets. Firm Size (FSZ) is defined as the log of total assets. Dividend (DIV/E) is defined as cash dividend paid divided by book equity. GDP Growth (GDPGTH) is expressed as annual percentage growth rate of GDP at market price. Interest rate (INT) is expressed as interest

payments (on government debt-including long-term bonds, long-term loans, and other debt instruments to domestic and foreign residents). Hot Market (HOT MKT) is expressed as dummy variable which takes the value of one if the number of issues is larger than median value during the particular month for IPOs or year seasoned equity offerings (SEOs).

3.6 Variable Definition for Effect of Capital Structure on Firm Performance

Returns on Asset (ROA) is defined as net income divided by total asset. Market Value Added (MVA) is expressed as equity market value-equity capital. TOBIN'S Q is also defined as market capitalization divided by total asset. Short Term Debt (STD) is seen as short-term debts over total assets. Long-Term Debt (LTD) is expressed as long-term debts over total assets. Total Debt (TD) is total debt/total assets. Firm Size (FSZ) is defined as log of total asset. Dividend (DIV/E) is defined as cash dividend paid divided by book equity. Market Capitalization (MCAP) is expressed as current market price multiplied by current outstanding shareholder's fund. Growth Opportunity (GROWTHOPP) is market capitalization/shareholder's fund. Asset Tangibility (FIXAS/A) is seen as fixed asset/total assets. GDP Growth (GDPGTH) is expressed as annual percentage growth rate of GDP at market price and Interest rate (INT) is expressed as Interest payments (on government debt-including long-term bonds, long-term loans, and other debt instruments to domestic and foreign residents).

3.7 Modelling Effect of Market Timing on Capital Structure

To investigate the effect of market timing on capital structure, a basic model similar to Baker and Wurgler (2002), Setyawan and Frensidy (2013), Rajan and Zingales (1995), Abdeldayem and Assran (2013) as well as Guney and Igbal-Hussain (2010) was used.

$$Y_{it} = \alpha_o + \beta_1\left(\frac{M}{B}\right)_{it-1} + \beta_2\left(\frac{FIXAS}{A}\right)_{it-1} + \beta_3\left(\frac{EBITDA}{A}\right)_{it-1} + \beta_4 Log(SZ)_{it-1} + \beta_5\left(\frac{DIV}{E}\right)_{it-1} + \beta_6(GDPGTH)_{it-1} + \beta_7(INT)_{it-1} + \beta_8(HOT\ MKT)_{it-1} + \varepsilon_{it} \quad \ldots\ldots\ldots\ldots\ldots\ldots (1)$$

From the expression Y_{it} (dependent variable) is firm i's capital structure in year t which represents book leverage (BL) and market leverage (ML). Market-to-book ratio is the main variable of interest for the market timing. The rest are auxiliary regressor variables. The **β** represents the co-efficients of the independent variables in the various equations, while **α** represents the constant term. The ε_{it} also indicates the decompose error term, where $\varepsilon_{it} = V_i + W_t + \mu_{it}$. The variables were lagged to ensure a robust estimate of the independent variables. The specific models for book leverage (BL) and market leverage (ML) are as follows:

$$BL = \alpha_o + \beta_1\left(\frac{M}{B}\right)_{it-1} + \beta_2\left(\frac{FIXAS}{A}\right)_{it-1} + \beta_3\left(\frac{EBITDA}{A}\right)_{it-1} + \beta_4 Log(SZ)_{it-1} + \beta_5\left(\frac{DIV}{E}\right)_{it-1} + \beta_6(GDPGTH)_{it-1} + \beta_7(INT)_{it-1} + \beta_8(HOT\ MKT)_{it-1} + \varepsilon_{it} \quad \ldots\ldots\ldots\ldots\ldots\ldots (2)$$

$$ML = \alpha_o + \beta_1\left(\frac{M}{B}\right)_{it-1} + \beta_2\left(\frac{FIXAS}{A}\right)_{it-1} + \beta_3\left(\frac{EBITDA}{A}\right)_{it-1} + \beta_4 Log(SZ)_{it-1} + \beta_5\left(\frac{DIV}{E}\right)_{it-1} + \beta_6(GDPGTH)_{it-1} + \beta_7(INT)_{it-1} + \beta_8(HOT\ MKT)_{it-1} + \varepsilon_{it} \quad \ldots\ldots\ldots\ldots\ldots\ldots (3)$$

3.8 Modelling Determinants of Firm Performance

The study developed another model to assess the effect of capital structure on firm performance in Africa. This model mirrored Abor (2007; 2008).

$$Y_{it} = \beta_0 + \beta_{it} LEV_{it} + \beta_{it} \sum_{i=1}^{n} Z_{it} + \varepsilon_{it} \ldots\ldots\ldots\ldots\ldots\ldots (4)$$

In this model, Y_{it} shows firm i's performance in year t (dependent variables). LEV_{it} corresponds to the matrix of capital structure variables (independent variables). Z_{it} denotes control variables (firm-specific and country-specific) for firm i in period t. The symbol β, represents the respective coefficient of the independent variables in the equations and β_0 for the constant terms. Considering 3 outcome variables, including ROA, MVA and TOBIN's Q, employed to evaluate firms' performance, equation (4) can be transcribed as equations (5), (6), and (7), separately as follows:

$$ROA_{it} = \beta_0 + \beta_1 STD_{it} + \beta_2 LTD_{it} + \beta_3 TD_{it} + \beta_4 FSZ_{it} + \beta_5\left(\frac{DIV}{E}\right)_{it} + \beta_6\left(\frac{FIXAS}{A}\right)_{it} + \beta_7 GROWTHOPP_{it} + \beta_8 MCAP_{it} + \beta_9 INT_{it} + \beta_{10} GDPGTH_{it} + \varepsilon_{it} \ldots\ldots\ldots (5)$$

$$MVA_{it} = = \beta_0 + \beta_1 STD_{it} + \beta_2 LTD_{it} + \beta_3 TD_{it} + \beta_4 FSZ_{it} + \beta_5\left(\frac{DIV}{E}\right)_{it} + \beta_6\left(\frac{FIXAS}{A}\right)_{it} + \beta_7 GROWTHOPP_{it} + \beta_8 MCAP_{it} + \beta_9 INT_{it} + \beta_{10} GDPGTH_{it} + \varepsilon_{it} \ldots\ldots\ldots (6)$$

$$TOBIN'SQ_{it} = \beta_0 + \beta_1 STD_{it} + \beta_2 LTD_{it} + \beta_3 TD_{it} + \beta_4 FSZ_{it} + \beta_5\left(\frac{DIV}{E}\right)_{it} + \beta_6\left(\frac{FIXAS}{A}\right)_{it} + \beta_7 GROWTHOPP_{it} + \beta_8 MCAP_{it} + \beta_9 INT_{it} + \beta_{10} GDPGTH_{it} + \varepsilon_{it} \ldots\ldots\ldots (7)$$

Table 3. 1 **: Summary of Variables and Measurements**

Dependent Variable / Independent Variables and Macrovariables	**Theory Prediction**	**Measurement**	**Literature**
Book Leverage (BL)*	-	Total Debt to total assets.	Setyawan & Frensidy (2013), Guney and Iqbal-Hussain, (2010), Abdeldayem and Assran (2013), Zhu (2014)
Market Leverage (ML)*	-	Market Leverage is Book Debt to the result of Total Assets minus Book Equity plus Market Equity.	Setyawan & Frensidy (2013), (Baker and Wurgler 2002), Zhu (2014), Abdeldayem and Assran (2013).
Profitability (EBITD/A)	+/-	Earnings Before Interest, Taxes Depreciation and Amortization/Asset	Abor (2008) and Chazi (2004)
Market-To-Book(MTB)	-	The Market-To-Book ratio is Assets minus Book Equity plus Market Equity all divided by Total Assets.	Setyawan & Frensidy (2013), Baker & Wurgler (2002), Chazi (2004), Guney and Iqbal-Hussain (2010)
Asset Tangibility (FIXAS/A)	+/-	Ratio of Fixed Asset/ Total Assets	Abor (2008)
Firm Size (SZ)	+	Log of total assets	Setyawan & Frensidy (2013), Salim & Yadav (2012)
Growth Opportunity (GrowthOpp)	+/-	Ratio of Market Capitalization/Shareholder's fund	Huang and Song (2006), Rajan and Zingales (1995), Tong & Green (2005)
Market Capitalization (MCap)	+	Current Market price multiply by current outstanding shareholder's fund	Mahajan and Tartaroglu (2008)
Dividends (DIV/E)	-	Cash Dividend paid/ by Book	Al-Najjar (2011)

		Equity	
Hot Market (HotMkt)	+	Dummy variable which takes the value of one if number of issues are larger than median value during the particular month for IPOs or year SEOs	Iqbal-Hussain & Guney (2010).
Return On Asset(ROA)*	+/-	Net Income/Total Asset	Abor (2005; 2007), Salim & Yadav (2012)**.** Amraoui, Jianmu and Bouarara (2018)**,** Akgun, Samiloglu and Oztop (2018)
Market Value Added (MVA)*	+/ Insignificant	Equity Market Value-Equity Capital	Panigrahi (2017), Sichigea and Vasilescu (2015)
TOBIN'S Q*	+	Market Capitalization/Total Asset	Dada and Ghazali (2016)
GDP Growth	+	GDP Growth is expressed as annual percentage growth rate of GDP at market prices based on constant local currency.	Carpes Dani et al. (2016)
Short Term Debt (STD)	-	Short-Term Debt/Total Assets	Abor (2005), Anafo (2015**),** Salim & Yadav (2012).
Long-Term Debt (LTD)	-	Long-Term Debt/Total Assets	Abor (2005), Salim & Yadav (2012).
Total Debt (TD)	-	Total Debt/Total Assets	Abor (2005; 2007), Salim & Yadav (2012).
Interest Rate	-	Interest rate is expressed as interest payments (include government debt; long-term bonds, long-term loans, and other debt instruments-to domestic and foreign residents)	Graham and Harvey (2001)

Source: Researcher's Construct.
Leverage (in *) is the dependent variable and all the other variables are regressors / Macro/ dummy variables.

CHAPTER FOUR

RESULTS AND DISCUSSION

4.1 Introduction

This chapter of the study shows the comprehensive results obtained from analysing the study's data. It presents and discusses the effects of market timing on capital structure and the influence of capital structure on listed firms' performance. To this end, it analyses and discusses the descriptive statistics as well as the correlation matrix of the study. The chapter further analyses and discusses the regression result of the study.

4.2 Descriptive Statistics:

Table 4.1 below presents the descriptive statistics from the dependent variables and regressor variables. The book leverage (BL) has a mean of 0.451 and a standard deviation of 0.379 which implies that on average those sampled firms in Africa slightly rely on leverage (debts), hence, increasing their book value marginally. Market Leverage (ML) also has a mean figure of 0.772 with a standard deviation figure of 0.35 indicating that, on average, sampled firms in Africa's debts decreased as equity finance increased. Comparatively, market leverage is generally higher than book leverage as can be identified from the results. MTB ratio has mean value of 0.591 and standard deviation of 0.724. The results show that, on average, market timing (MTB) ratio was high in Africa which therefore encourages firm managers to issue equity as against the book leverage.

Again, from Table 4.1, ROA has a mean value of 0.049 and a Standard deviation of 0.311. The ROA basically assesses quality plus efficiency of firms' management in generating more retained earnings to the business based on the available resource (total assets) of the firm. In essence, ROA shows the degree of profit generated by a firm from its total assets. On average, ROA generated for the study period (2007–2017) is 0.049 which is low in Africa.

Table 4. 1**: Descriptive Statistics**

VARIABLE	OBS	MEAN	STD DEV.	MIN	MAX
BL	3445	0.451	0.379	0	6.875
ML	3454	0.772	0.35	0	1.852
MTB	3454	0.591	0.724	0	15.358
ROA	3454	0.049	0.311	-2.235	16.364
MVA	3443	3.17E+11	2.11E+11	-639000	4.42E+12
TOBIN'S Q	3453	0.805	1.089	0	13.6
STD	3454	0.362	0.314	0	5.622
LTD	3448	0.092	0.178	0	4.208
TD	3448	0.452	0.378	0	6.875
FIXAS/A	3452	0.418	0.3	0	1.649
EBITDA/A	3451	0.119	0.332	-1.3	17.774
DIV/E	3431	0.054	0.205	0	5.88
FSZ	3454	4.42	1.808	0	8.506
GDPGTH	3453	0.043	0.037	-0.177	0.197
HOT MKT	3454	0.545	0.498	0	1
GROWTHOPP	3450	1.823	15.023	-717.19	242.11
INT	3452	0.068	0.068	0	0.242
In MCAP	3031	20.4	3.279	9.21	29.118

Source: Researcher's own computations (2019) with STATA (v.14).
Note: BL=Book Leverage, ML=Market Leverage, MTB ratio=Market-To-Book ratio, ROA=Return on Assets, MVA=Market Value Added, TOBIN'S Q, STD= Short-term debts, LTD=Long-term debts, TD= Total debts, FIXAS/A= Asset Tangibility, EBITD/A=Profitability, DIV/E=Dividend, FSZ= Firm Size, GDPGTH= GDP growth, HOT MKT= Hot Market, GROWTHOPP= Growth Opportunity, INT= Interest rate and MCAP= Market Capitalization.

Market value added (MVA) has a mean value of 3.17e+10 and a standard deviation of 0.311. The results imply that on average market value added as management performance assessment

indicator was very low in Africa. Also, TOBIN'S Q has a mean value of 0.805 and a standard deviation of 1.089. TOBIN'S Q basically measures the ability of firms to replace their assets when needed. The result shows that, on average, listed firms in Africa were able to attain their TOBIN'S Q target. Table 4.1 analysis on leverage (STD, LTD and TD) shows that STD has a mean value of 0.362 and a standard deviation of 0.314. For the LTD, it indicates that the mean value was 0.092 and standard deviation was 0.178. Regarding the total debt (TD), the mean value shows 0.452 and standard deviation is 0.378. The result shows that firm managers in Africa mostly rely on short-term debt funds when embarking on business projects or financing projects as against long-term debt funds.

For asset tangibility (FIXAS/A), the mean was 0.418 and the standard deviation was 0.3, meaning firms in Africa hold high the level of tangible assets which could be used as collateral for debt financing to support business growth. The implication is that, it would be difficult to secure debt. Also, profitability (EBITDA/A) had a mean value of 0.119 and a standard deviation of 0.332. What it means is that business profitability is quite low in Africa thereby affecting business growth negatively. It again noted that dividend (DIV/E) has a mean value of 0.054 and a standard deviation of 0.205. Firm size (FSZ) had a mean value of 4.42 and a standard deviation of 1.808. Furthermore, reporting on the GDP Growth, the mean value had 0.043 and a standard deviation of 0.037. With hot market (Hot Mkt), the mean value was 0.545 and a standard deviation of 0.498. This means the market was "hot" during the period. However, equity market valuation was not too high. Usually, hot market has CAGR (Compound Annual Growth Rate) greater than 25%. Growth opportunity (GrowthOPP) showed a mean value of 1.823 and standard deviation of 15.023. It implies that, on average, growth opportunity keeps increasing as business

also keeps increasing. This gives an indication of high growth opportunity and business prospect for future investors in Africa . Interest rate (INT) had a mean value of 0.068 and standard deviation of 0.068. This means that interest rate on business is proportionally high in Africa and this affects the cost of doing business. For market capitalization (MCAP), the mean value was 20.4 and the standard deviation, 3.279. This implies that capital or shareholders' funds required to promote firms' value in Africa are marginaaly low in Africa.

4.3 Correlation Matrix of Market Timing on Capital Structure

Table 4.2 shows correlation matrix for the explanatory variables so as to clarify the subject of multicolinearity in the results in order to prevent any spurious regression results in the data. From the table, it could be identified that there was no multicollinearity within the regressor variables. To be accurately sure that no multicollinearity existed, the study ran VIF test (see Table 4.4) for verification of tolerance level and it showed that no multicollinearity existed in the independent variables.

Table 4. 2 **: Correlations Matrix of Market Timing on Capital Structure**

VARIABLES	BL	ML	MTB	FIXAS/A	EBITDA/A	DIV/E	FSZ	GDPGTH	HOTMKT	INT
BL	1									
ML	0.449	1								
MTB	0.512	-0.019	1							
FIXAS/A	0.034	0.374	0.079	1						
EBITDA/A	-0.012	0.048	0.106	0.053	1					
DIV/E	-0.004	0.018	0.075	0.023	0.08	1				
FSZ	0.39	0.774	0.232	0.445	0.104	0.073	1			
GDPGTH	-0.023	-0.136	0.073	-0.052	0.013	0.023	-0.091	1		
HOTMKT	-0.031	-0.052	-0.029	-0.038	-0.031	-0.012	-0.063	-0.025	1	
INT	-0.084	-0.05	-0.088	-0.012	-0.029	-0.01	-0.047	0.038	-0.055	1

Source: Researcher's own computations (2019) with STATA (v.14).

Note: BL=Book Leverage, ML=Market Leverage, MTB ratio=Market-to-Book ratio, ROA=Return on Assets, FIXAS/A= Asset Tangibility, EBITD/A=Profitability, DIV/E=Dividend, FSZ= Firm Size, GDPGTH= GDP growth, HOT MKT= Hot Market and INT= Interest rate.

Therefore, the relationship between firm size (FSZ) and market leverage (ML) with positive significant result of 0.774 from Table 4.2 could be that, firms with a big size give investors confidence that when shares are issued to the public, it could lead to high positive association of predictor variables as far as equity issuing is concerned, and such large firms can also go for debt to expand their business activities. Regarding market-to-book (MTB) and book leverage (BL) values, the correlation between the values also showed strong positive significant results. The reason could be that since market-to-book ratio values are reported to be often high when shares are issued to the public, it can contribute to high positive relationship between the variables, as identified (0.512).

4.4 Hausman Test Result: The Fixed Effect Model and Random Effect Model

In an attempt to ascertain the most reliable estimation between the fixed effect estimation and the random effect estimation, Hausman test was conducted to test if there was a significant difference between the two estimates (the fixed effect estimator and the random effect estimator). The null hypothesis underlying the test showed (Hausman test showed significant 5% level**)** that the two estimates differ significantly from the result and that the fixed effect was more preferable to the random effect estimate for the Market timing (book leverage (BL) and market leverage (ML)). The researcher further used the Hausman Test to measure the random and fixed effects model to determine the appropriate model fit for the study of firms' performance (ROA, MVA and TOBIN'S Q). The null hypothesis of the fixed effects model was appropriate for ROA against the alternative hypothesis of the random effects model. However, the null hypothesis of random effect model was more appropriate for MVA as against the fixed effect model. Again,

the null hypothesis of the fixed-effects model was appropriate for TOBIN'S Q against the alternative hypothesis of the random effects model.

The results of the Hausman test were reported in each regression results below in Table 4.3 and Table 4.6, 4.7 and 4.8, respectively. Notably, the test statistics developed by Hausman has an asymptotic Chi-square distribution as presented in Table 4.3. and Table 4.6, 4.7 and 4.8 respectively.

4.5 Analysis of Regression Results: The Effect of Market Timing on Capital Structure

Table 4.3 below shows the regression analysis of effect of market timing on capital structure. From the fixed effect model, MTB ratio demonstrates a strong negative association with market leverage which accepts the second hypothesis (H_{2a}) at 1% level. This means firms with high MTB ratios will have more benefits of securing high (or low) equity prices when issuing or repurchasing shares from the market. Thus, firms (or companies) with high market-to-book ratios will have the incentive of issuing more equities or purchasing equities due to high MTB ratio, signaling much lower cost of external equity financing from the investor which implies that a unit increase in MTB ratio will lead to a decrease of market leverage by 4.26% in Africa.

This result supports the findings of Baker and Wurgler (2002), Kayhan and Titman (2007), Frank and Goyal (2004), Rajan and Zingales (1995), Aggrwal and Jamdee (2003) and Hovakimian (2006). On the contrary, MTB ratio and book leverage indicates a positive significant association which rejects the first hypothesis (H_{1b}) at 5% level. The negative result suggests that during the

time of the IPO the value of the MTB ratio was low in Africa which consequently directed firms to choose debt.

Saad and Siaggian (2011) posit that high MTB ratio is as a result of positive signal from investors that they have confidence in a firm's future prospect. However, the result shows a positive association between MTB ratio and book leverage and this finding supports Bolt and Truve (2014). Though the study expected the result to be a negative correlation (see Baker and Wurgler, 2002), the result proved positive in Africa. The reason for the positive result may be that, at the time the firm was raising new funds, market value was low so the firm issued debt instead of equity.

Table 4. 3 **: Effect of Market Timing on Capital Structure**

Fixed Effect Models		
	Model (1)	**Model (2)**
VARIABLES	**Book leverage**	**Market leverage**
MTB	0.228**	-0.0426***
	(0.115)	(0.0141)
FIXAS/A	-0.134***	0.0866***
	(0.0455)	(0.0324)
EBITDA/A	-0.0175	0.0179
	(0.064)	(0.0113)
DIV/E	0.00501	-0.00513
	(0.0202)	(0.01000)
FSZ	0.0802***	0.164***
	(0.0142)	(0.0038)
GDPGTH	-0.00602	-0.0136
	(0.151)	(0.0765)
HOT MKT	-0.00133	0.00126
	(0.00401)	(0.00221)
INT	-0.248***	-0.066
	(0.0782)	(0.0528)
CONSTANT	0.0366*	0.0367***
	(0.0214)	(0.0121)
OBSERVATIONS	3,414	3,423
R-SQUARED	0.501	0.882
ADJUSTED R^2	0.5	0.881
NUMBER OF FIRMS	314	314
HAUSMAN TEST RESULTS		
CHI-SQUARE	59.75	64.86
P-VALUES	0.0000	0.0000

Source: Researcher's Own Computations (2019) with STATA (v.14).

Note: (***), (**) and (*) show that coefficients are significant at 1%, 5% and 10 % levels of the above respectively with t- statistics in parentheses.

Asset tangibility (FIXAS/A) shows a strong negative significant association with book leverage. The result implies that a unit increase in asset tangibility (FIXAS/A) will lead to a decrease of

book leverage by 13.4% in Africa. This result again strongly supports findings of Alves and Ferreira (2011), Mutenheri and Green (2003) and Hossain and Ali (2012). The study expected a negative influence of tangibility on book leverage because during IPO, fixed assets will not be used as collateral for financing since IPO will help increase fixed assets with equity funding of new members (shareholders). However, the effect of Asset tangibility (FIXAS/A) on market leverage reveals strong positive significant association which further supports the work of Huang and Song (2002), Ezeoha and Botha (2012) and De-Jong et al. (2011). This result denotes that a unit increase in asset tangibility (FIXAS/A) will lead to increase in market leverage by 8.7% in Africa. This means the more tangible the assets for the firm are, the more its leverage. A further explanation is that companies that have large tangibility such as current asset can quickly convert to cash easily. It can also increase a firm's debt ratio since it can payoff (or settle) the debt through its tangibility in the event of business wind up or liquidation. Again it could be used as collateral for more debt to increase a firm's asset base.

Again with fixed effect model, firm size (FSZ) shows a strong positive significant relationship with both market leverage and book leverage which means a unit increase in fixed asset (FSZ) will lead to a increase in book leverage and market leverage by 8.0% and 16.4% in that order in Africa. The reason is that large firms in Africa could obtain more debt or go in for more leverage since their firm size gives way for more profits to service their debt obligation. This result confirms studies conducted by Booth et al. (2001), Rajan and Zingales (1995) and Deesomsak, Paudyal and Pescetto (2004). It further supports the tradeoff theory on leverage.

The Interest rate (INT) shows a strong negative significant correlation with book leverage. This means a unit decrease in interest rate will lead to a decrease in book leverage by 24.8%. The

explanation of leverage, regarding macro-variables such as interest rate confirms other results, including Graham and Harvey (2001) and Drobetz and Pensa (2006). The reason for the positive effect of interest rate on market leverage is that a decrease in interest rates will affect firms' leverage in Africa.

4.6 Variance Inflation Factor

Table 4.4 below reports the results of variance inflation factor of effect of market timing on capital structure. The study checked whether multi-collinearity exists in the entire data of the independent variables or not.

Table 4.4 : **Variance Inflation Factor of Market Timing on Capital Structure**

	VIF	**1/VIF**
FSZ	1.336	0.749
FIXAS/A	1.25	0.8
MTB	1.083	0.923
EBITDA/A	1.024	0.977
GDPGTH	1.021	0.98
DIV/E	1.014	0.986
INT	1.013	0.987
HOT MKT	1.009	0.991
Mean VIF	1.094	.

Source: Researcher's own computations (2019) with STATA (v.14)
Note: ROA=Return on Assets, MVA=Market Value Added, TOBIN'S Q, STD= Short-term debts, LTD=Long-term debts, TD= Total debts, FSZ= Firm Size, DIV/E=Dividend, FIXAS/A= Asset Tangibility, GROWTHOPP= Growth Opportunity, MCAP= Market Capitalization, INT= Interest rate and GDPGTH= GDP growth.

Variance Inflation Factor (VIF) rule of thumb indicates that when VIF data (computed variables) falls below ten (10) then there is no multi-collinearity (meaning multi-collinearity does not exist). However, when it falls above ten (10), it means that multi-collinearity exists. From the measurement it shows that no multi-collinearity exists in this study.

4.7 Correlations Matrix: Effect of Capital on Firm Performance

Table 4.5 below exhibits the correlation matrix of the regressor variables to clarify the issue of multi-collinearity from the results and prevents any spurious regression findings from the data. The study ran VIF to check the tolerance level of the study. Based on that, market-to-book (MTB) was dropped from the model due to multi-collinearity. Therefore, from the analysis it shows no multi-collinearity exists within predictor variables again.

Table 4. 5 : Correlations Matrix of Effects of Capital Structure on Firms Performance

VARIABLES	ROA	MVA	TOBIN'S Q	STD	LTD	TD	FSZ	DIV/E	FIXAS/A	GROWTHOPP	InMCAP	INT	GDPGTH
ROA	1												
MVA	0.045	1											
TOBIN'S Q	0.142	0.221	1										
STD	-0.124	0.007	0.046	1									
LTD	-0.107	0.001	-0.008	0.123	1								
TD	-0.154	0.003	0.03	0.882	0.568	1							
FSZ	0.072	0.13	0.201	0.376	0.177	0.386	1						
DIV/E	0.072	0.044	0.276	0.017	-0.043	-0.006	0.073	1					
FIXAS/A	0.027	0.071	0.165	-0.12	0.288	0.03	0.443	0.025	1				
GROWTHOPP	0.021	0.031	0.105	0.018	0.036	0.032	0.06	0.078	0.005	1			
InMCAP	0.11	0.323	0.325	-0.029	-0.038	-0.049	0.443	0.095	-0.03	0.06	1		
INT	-0.003	-0.025	0.045	-0.069	-0.065	-0.086	-0.043	-0.007	-0.011	0.01	0.134	1	
GDPGTH	0.026	0.032	0.023	0.01	-0.072	-0.022	-0.089	0.021	-0.052	-0.005	-0.011	0.039	1

Source: Researcher's own computations (2019) with STATA (v.14)

Note: ROA=Return on Assets, MVA=Market Value Added, TOBIN'S Q, STD= Short-term debts, LTD=Long-term debts, TD= Total debts, FSZ= Firm Size, DIV/E=Dividend, FIXAS/A= Asset Tangibility, GROWTHOPP= Growth Opportunity, MCAP= Market Capitalization, INT= Interest rate and GDPGTH= GDP growth.

From the results of Table 4.5, STD and TD show 0.882 and LTD and TD show 0.568 which are a little bit high. However, according to Kennedy (2008) and Neter et al. (1996) if the VIFs are less than 10, it indicates multi-collinearity is not a serious concern. Hence, no multi-collinearity exists from the study. From the analysis, ROA has an adverse relationship with capital structure (STD, LTD and TD), and macro-variable interest rate (INT) whereas asset tangibility (FIXAS/A), dividend (DIV/E), firm size (FSZ), growth opportunity (GROWTHOPP), market capitalization (MCAP), and GDP Growth (GDPGTH) all revealed positive relationship with ROA.

The second dependent variable in this survey is market value added (MVA). From the analysis, MVA shows positive correlation with leverage (STD, and TD) and the rest of the variables except LTD. From the study, it is proven that almost all the variables measuring firm performance (MVA) show significant result. The last dependent variable used in the study to assess firm performance is TOBIN'S Q. From the analysis, TOBIN'S Q also reveals a negative correlation with capital structure (LTD) and positive association among TOBIN'S Q and STD and LTD. Again, the study shows that most of the variables were significant.

4.8 Regression Results: The Effects of Capital Structure on Firm Performance

4.8.1 The Fixed Effects – Firms' Performance (ROA)

Table 4.6 below summarizes the regression results from the FE model. From the study's analysis, leverage (STD, LTD and TD), expressed as capital structure, shows highly strong negative significant relationship with ROA at 1% in model (1-3) respectively. This means that firms with much less STD, LTD and TD ratio will much experience high financial performance

(or increase firm performance in Africa). This implies that listed firms with a unit higher debt ratios for all

Table 4. 6**: Regression Results Analysis: Effect of Leverage on Firm performance (ROA)**

	Fixed Effect Model		
	Model (1)	Model (2)	Model (3)
VARIABLES	**ROA**	**ROA**	**ROA**
STD	-0.216***		
	(0.0211)		
LTD		-0.216***	
		(0.0477)	
TD			-0.188***
			(0.0168)
FSZ	0.0018	0.00305	0.00265
	(0.00416)	(0.00457)	(0.00411)
DIV/E	0.0731***	0.0751***	0.0665***
	(0.0219)	(0.0187)	(0.0208)
FIXAS/A	-0.0990***	0.0356***	-0.0585***
	(0.0141)	(0.0131)	(0.0115)
GROWTHOPP	0.00019	0.000274	0.000253
	(0.000214)	(0.000263)	(0.000226)
LMCAP	0.00988***	0.0101***	0.00953***
	(0.00185)	(0.00189)	(0.00184)
INT	-0.107*	-0.101*	-0.130**
	(0.0552)	(0.0572)	(0.0546)
GDPGTH	0.378***	0.228*	0.312**
	(0.13)	(0.131)	(0.128)
CONSTANT	-0.0328	-0.169***	-0.0372
	(0.0358)	(0.0396)	(0.0357)
OBSERVATIONS	3,030	3,030	3,030
R-SQUARED	0.049	0.03	0.056
ADJUSTED R^2	0.047	0.027	0.053
NUMBER OF FIRMS	314	314	314
HAUSMAN TEST RESULTS			
CHI-SQUARE	56.47	54.82	42.31
PI-VALUE	0.0000	0.0010	0.0020

Source: Researcher's Own Computations (2019) with STATA (v.14).
Note: (***), (**) and (*) show that coefficients are significant at 1%, 5% and 10 % levels of the above respectively with t- statistics in parentheses**.**

STD, LTD and TD will decrease firms' performance (ROA) or profitability in Africa by 21.6% and 18.8%. This result accepts the third hypothesis *(H3a), (H3b) and (H3c)* in that order. The study strongly confirms Abor (2007), Ebaid (2009) on STD and TD besides Kasozi (2017), Rouf (2015) and Ramadan and Ramadan (2015). The possible reason is that highly profitable firms or good performing firms mainly rely on internal funds for their project financing (or depend on little additional funding for business activities). This assertion, therefore, confirms the pecking order theory. The study observed that dividend (DIV/E) has a strong positive significant relationship with ROA. What it means is that a unit increase of dividend ratio will cause an increase in firm performance (ROA) by 7.3%, 7.5% and 6.6% in that order for its STD, LTD and TD.

The study's result strongly supports the findings of Baskin (1989), Al-Najjar (2011), Baskin (1989), Myer and Majurf (1984) and Jensen (1986). Equity returns basically measures how effectively firm managers use shareholders' resources to generate earnings after their tax obligation. A company that pays out dividend from its retained earnings gives a possible indication that such a firm is performing well and therefore gives investors' assurance that the company is a going-concern type which gives investors' confidence to operate with. From the analysis, the study shows that dividend (DIV/E) has a strong positive significant correlation with ROA at 1% in model (1-3).

The study further looks at how explanatory variables such as asset tangibility (FIXAS/A) affects firm performance (ROA). The result shows a very strong significant relationship at 1% but negative in model (1) and (3) and positive in model (2). This means a unit increase in asset

tangibility (FIXAS/A) will equally lead to a decline in firms' performace (ROA) by 9.9% and 5.8% in that order. However, a unit increase in asset tangibility (FIXAS/A) for the corresponding model (2) will lead to an increase in firms' performace (ROA) by 3.6%. The understanding is that generally asset tangibility does not predict firm performance (ROA) but can be used to serve as collateral in times of bankruptcy or when the firm is undergoing financial distress.

Again, market capitalization (MCAP) shows a strong positive significant association with ROA at 1% in models 1-3. The results imply a unit increase in market capitalization each (model (1-3) will cause an increase in firms' performace (ROA) by 0.1%. The same applies to market value added (MVA) and TOBIN'S Q. For ROA, it means that a firm's market capitalization reflects how wealthy the firm is in terms of performance (ROA) and its future growth expectation. The study also analyses if interest rate has influence on ROA. The finding indicates that interest rate has an adverse significant relationship with firm performance (ROA) at 10% in all the models (1-3). This study's assertion is supported by Ruhomaun, Saeedi and Nagavhi (2019). This is because rapid interest rate fluctuation (volatility) puts the business at huge interest rate risk thereby affecting firm performance negatively.

The result for GDP Growth (GDPGTH) also indicates a strong positive significant association with ROA at 1% for model (1) and 5% for model 2 and 3 in that order for STD, LTD and TD. This means that as Africa's GDP Growth increases, it will lead to increase in firms' performance (ROA) by 37.8%, 22.8% and 31.2%. The study's findings are buttressed by Irungu et al. (2018) that GDP growth positively associates with investment and revenue growth.

4.8.2 The Random Effects Model – Firms' Performance (MVA)

From Table 4.7 below using Random Effects (RE) model, the study analyses if leverage (capital structure) has influence on market valued added (MVA) or not. The result shows that STD has an insignificant adverse association with MVA in models 4 and 6 and positive association with LTD in model 5 though not significant in all the models. The result rejected two of the fourth hypothesis *(H_4a)* and *(H_4b)* but accepted (*H_4c).* In essence, leverage has no significant correlation with market value added (MVA) and this study's result is partly supported by Bognarova (2017), Pandya (2016) and Nirish and Alfred (2014).

Asset tangibility (FIXAS/A) indicates a negative significant coefficient with MVA at 10% in models 5 and 6 though insignificant in model 4. This means that a unit increase in asset tangibility (FIXAS/A) will lead to a decrease of market value added (MVA) by 5.5% in Africa. The study, besides, indicates that market capitalization (MCAP) has a strong positive significant association with MVA in Africa among quoted firms. This shows that a unit increase in market capitalization (MCAP) will lead to an increase in market value added (MVA) by 99.1%, 99.0% and 98.9% in Africa. The study's finding is partly buttressed by Oluwatoyin and Gbadebo (2009).

Table 4. 7 **: Regression Results Analysis: Effect of Leverage on Firm performance (MVA)**

Random Effect Model

	Model (4)	**Model (5)**	**Model (6)**
VARIABLES	**MVA**	**MVA**	**MVA**
STDTA	-0.0152		
	(0.0183)		
LTDTA		0.029	
		(0.0243)	
TDTA			-0.00184
			(0.0128)
FSZ	-0.0105	-0.00762	-0.00788
	(0.0139)	(0.0135)	(0.0125)
DIV/E	-0.0138	-0.0143	-0.0133
	(0.0142)	(0.0147)	(0.0144)
FIXAS/A	-0.0493	-0.0530*	-0.0546*
	(0.031)	(0.0307)	(0.0287)
GROWTHOPP	-4.56E-05	-5.32E-05	-4.62E-05
	(0.00147)	(0.00147)	(0.00147)
LMCAP	0.991***	0.990***	0.989***
	(0.00397)	(0.0041)	(0.00407)
INT	0.0615	0.0613	0.0546
	(0.0578)	(0.0583)	(0.0571)
GDPGTH	0.0367	0.0414	0.034
	(0.199)	(0.198)	(0.201)
CONSTANT	0.202**	0.189**	0.214***
	(0.0794)	(0.0782)	(0.0779)
OBSERVATIONS	3,023	3,023	3,023
R-SQUARED	0.997	0.997	0.997
ADJUSTED R^2	0.996	0.996	0.996
NUMBER OF FIRMS	314	314	314
HAUSMAN TEST RESULTS			
CHI-SQUARE	79.39	71.57	86.64
PI-VALUE	0.0006	0.0000	0.0000

Source: Researcher's Own Computations (2019) with STATA (v.14).

Note: (***), (**) and (*) show that coefficients are significant at 1%, 5% and 10 % levels of the above respectively with t -statistics in parentheses**.**

4.8.3 The Fixed Effects Model – Firms' Performance (TOBIN'S Q)

Table 4.8 in the study's analysis below shows that leverage (STD, LTD and TD) has negative coefficient with TOBIN'S Q, though only STD shows a significant relationship at 10% in Africa. That means that a unit increase in capital structure (STD) will lead to a decrease of TOBIN's Q by 15.5%. This study confirms Awunyo-Vitor and Badu (2012) and (Tianyu, 2013). Regarding firm size (FSZ), the result points to a strong positive significant association with TOBIN'S Q at 1% in the models 7-9. That means a unit increase in firm size (FSZ) will lead to a decrease of TOBIN's Q by 41.9% and 42.4%. This implies that as the firm size increases, it will lead to a decrease in firms' performance as a result of problems of economy of scale in Africa. The test result accepted the fifth hypothesis *(H15a), (H5b) and (H5c)* respectively. The study's result supports the findings of agency cost and other studies such as Abor (2007), Olajide, Funmi and Olayemi (2017), Margaritis and Psillaki (2007), Huang and Song (2002) and Akintoye (2009). The study further analyses if market capitalization has a strong relationship with TOBIN'S Q. The result shows highly a strong positive significant relationship between market capitalization and TOBIN'S Q at 1% in the models 7-9. This mean that a unit increase in market capitalization will lead to an increase in TOBIN's Q by 16.5% and 16.4%.

Table 4. 8 **: Regression Results Analysis: Effect of Leverage on Firm performance (TOBIN'S Q)**

Fixed Effect Model

VARIABLES	**Model (7) TOBIN'S Q**	**Model (8) TOBIN'S Q**	**Model (9) TOBIN'S Q**
STDTA	-0.115**		
	(0.0515)		
LTDTA		-0.022	
		(0.0837)	
TDTA			-0.0816
			(0.0521)
FSZ	-0.419***	-0.424***	-0.424***
	(0.0566)	(0.0572)	(0.0575)
DIV/E	0.662***	0.659***	0.660***
	(0.163)	(0.163)	(0.163)
FIXAS/A	0.126	0.169	0.147
	(0.111)	(0.109)	(0.108)
GROWTHOPP	0.00109	0.0011	0.00109
	(0.00103)	(0.00102)	(0.00103)
LMCAP	0.165***	0.165***	0.164***
	(0.0142)	(0.0142)	(0.0141)
INT	0.485	0.507	0.491
	(0.366)	(0.367)	(0.365)
GDPGTH	0.885*	0.873*	0.876*
	(0.486)	(0.489)	(0.484)
CONSTANT	-0.448**	-0.498**	-0.421**
	(0.208)	(0.208)	(0.208)
OBSERVATIONS	3,029	3,029	3,029
R-SQUARED	0.289	0.286	0.289
ADJUSTED R^2	0.287	0.284	0.287
No. OF FIRMS	314	314	314
HAUSMAN TEST RESULTS			
CHI-SQUARE	52.17	45.68	95.79
PI-VALUE	0.0000	0.0015	0.0000

Source: Researcher's Own Computations (2019) with STATA (v.14).

Note: (***), (**) and (*) show that coefficients are significant at 1%, 5% and 10 % levels of the above respectively with t-statistics in parentheses**.**

GDP Growth (GDPGTH) also indicates a positive significant relationship with TOBIN'S Q at 10% respectively. This means that a unit increase in GDP growth rate (GDPTH) will lead to an increase of firm performance (TOBINS's Q) by 88.5%, 87.3% and 87.6% in that order in Africa. This buttresses the theory that as economic activities increase, firms' performance continues to improve for more investment growth.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter of the study provides a concise summary of the study. It consequently provides procedures used to attain the study's objective set. The chapter also provides a conclusion from the findings, outlines useful recommendations and suggestions for further research for industry practitioners, academia, policy makers and researchers.

5.2 Summary

The central objective of the study was to examine market timing, capital structure and performance of listed firms in Africa. The study separately examined the effect of market timing on capital structure and the effect of capital structure on firm performance in Africa.

The study sampled 314 listed firms in Africa during the period 2007 – 2017. The study employed fixed effect model to examine the effects of market timing on capital structure, and fixed effects and random effects model for the effects of capital structure on firm performance based on the Hausman test. From the sampled data analysed the following results were obtained:

- The MTB ratio test showed a strong negative significant relationship with market leverage in Africa. This is because it is assumed that during the time of IPO, the value of MTB ratio was high in African market which prompted the firms to reduce debts.

- The study's test showed positive significance relationship between MTB ratio and book leverage in Africa.
- The study found that STD has negative effect on ROA of listed in Africa.
- The study's test on LTD showed a strong negative significant effect on ROA of listed firms in Africa.
- The study confirmed that TD has negative significant effect on ROA of listed firms in Africa.
- The study's finding showed adverse association with both STD, LTD and TD and MVA of listed firms in Africa though it was not significant.
- The test shows STD has a negative significant effect on TOBIN'S Q of listed firms in Africa.
- The test further showed LTD and TD have adverse correlation effect on firm performance (TOBIN'S Q) of listed firms in Africa though it was insignificant.

5.3 Conclusion

The aspiration of every company is to maximize investors' wealth. This only becomes a reality if the firms (or businesses) perform creditably well. In order to maximize shareholders' value, capital structure decision making processes must be extremely fundamental and need to be carefully considered by firm managers in Africa. Making the right capital structure (right debt-equity mix) decision or ensuring right market timing (MTB) will not only lead to business growth but also ensure going concern of the business for future firm performance. The following are the study's conclusions.

Market timing (MTB) ratio is market based valuation used by managers to measure potential growth opportunity or investment growth available to a particular listed firm. The assumption is that MTB ratio should be high when going public. The study's finding from the analysis reveals that generally market timing (MTB) negatively affects capital structure in Africa.

Also, capital structure (leverage) largely has inverse relationship with ROA. This is built on the study's findings that capital structure (including STD, LTD and TD) has a negative significant relationship with firm performance (ROA) in Africa. This, therefore, makes ROA a strong benchmark indicator for firm performance measurement in Africa. Again, the study indicates that STD has a strong negative significant association with TOBIN's Q in Africa.

The study shows that there is no empirical fact to fully conclude that capital structure or leverage (include STD, LTD, and TD) has substantial effects on market value added (MVA) in Africa, since the study findings posit no significant relationship between leverage (STD, LTD and TD) and market value added (MVA).

5.4 Policy Recommendations

The following are some suggested recommendations:

- The study's findings indicate that market timing (MTB) has a huge implication on business performance when issuing shares. Ordinarily, the assumption is that MTB ratio should be high when going public. With market timing and its information asymmetry, thereof, firm management (insiders) should thoroughly assess the market to ensure proper

market timing so as to achieve the desired investment growth outcome which would ultimately enhance companies' fortune in Africa.

- Based on the findings of the study, it is recommended that firm-managers should not excessively finance their business project with leverage (debts). Instead, they should concentrate on financing with retained earnings since debt negatively affects firm performance in Africa if not propely utilized well.

5.5 Suggestions for Further Research

The study suggests that further research work should increase the sample size and extend the period of study. Also, the study suggests that further research work should be carried out on Baker and Wurgler's (2002) "*external finance weighted-average*" market-to-book ratio with the same variables and model used in order to compare the result between US and Africa.

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