EFFECT OF CAPITAL STRUCTURE CHOICE ON FINANCIAL PERFOMANCE OF COMMERCIAL BANKS IN KENYA

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DECLARATION

I declare that this project is my original work and has not been submitted to any other college or university for academic credit.

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This research project has been submitted for examination with my approval as the university supervisor

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LIST OF ABBREVIATIONS

CBK: Central Bank of Kenya

CSE: Chittagong Stock Exchange

DSE: Dhaka Stock Exchange

MM: Modigliani and Miller.

NSE: Nairobi Stock Exchange

ROA: Return on Assets

ROE: Return on Equity.

SME: Small and Medium-Sized Enterprises

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ABSTRACT

A firm's capital structure consists of both debt (bonds) and equity (stock) and has been an issue of great interest in the corporate finance literature. This is due to the fact that the mix of funds (leverage ratio) affects the cost and availability of capital thus, firms' investment source. Several theories from various scholars have been championed to explain the corporate capital phenomena but somehow all seem unreasonable in the real world. The most notable theory was that of Modigliani and Miller in the 1958's Capital irrelevancy paper, "under the perfect capital market assumption that if there is no bankrupt cost and capital markets are frictionless, if without taxes, the firm's value is independent with the structure of the capital". It is from the arguments of this paper that the researcher decided to extend by examining the impact of capital structure choice on performance of commercial banks in Kenya, covering five years from 2009 to 2013 by utilizing data of banks from their annual financial reports. Multiple regression models was applied to estimate the relationship between the capital structure and banking performance. Performance was measured by returns on assets (ROA) and return on equity (ROE) while determinants of capital structure which also served as independent variables included reserve fund, long-term debt, short-term debt and customer deposits. The study revealed that amongst the determinants of capital structure, capital reserve and long-term debts had a strong positive relationship with ROE and ROA. Therefore, the researcher concluded that there is no specific and perfect structure that would apply for all the commercial banks in a uniform manner. This is because banks are at all-time at different levels of what they hold as customer deposits, short-term debt, long-term debt and total capital reserves.

CHAPTER ONE
INTRODUCTION

1.1 Background of the Study

A firm's capital is defined as the money that lenders and equity holders provide to a business for its operations. A firm's capital consists of both debt (bonds) and equity (stock). The bond and equity holders expect to earn a return on their investment in the form of interest, dividends and stock appreciation. The capital structure has been an issue of great interest in the corporate finance literature. This is due to the fact that the mix of funds (leverage ratio) affects the cost and availability of capital thus, firms' investment source.

The modern theories on firms' capital methods originated from the path breaking contribution of Modigliani and Miller in the 1958's capital irrelevancy paper, under the perfect capital market assumption that if there is no bankrupt cost and capital markets are frictionless, if without taxes, the firm's value is independent with the structure of the capital (Miller and Modigliani 1958). Debt can reduce the payable tax, so the best capital method of enterprises should be one hundred percent of the debt. The debate over the significance of a company's choice of capital structure is esoteric. But in essence, it concerns the impact of the total market value of the company (i.e. the combined value of its debt and equity) of splitting the cash flow stream into a debt component and earn equity component. Financial experts traditionally believed that increasing a company's leverage, i.e., increasing the proportion of debt in the company's capital structure, would increase value up to a point.

Modigliani and Miller challenged that view in their famous 1958 article. They argued that the market values the earning power of a company's real assets and that if the company's capital investment program is held fixed and certain other assumptions are satisfied, the combined market value of a company's debt and equity is independent of its choice of capital structure.

Since Modigliani and Miller's capital irrelevancy paper, much attention has focused on the reasonableness of these other assumptions, which include the absence of taxes, bankruptcy costs and other imperfections that exist in the real world. There are various types of finance each with its individual characteristics. Large firms normally need short term, medium term and long term finances to carry on their business operations. These finances in terms of nature could be internal or external.

The theory of the capital structure is an important reference theory in enterprise's financing policy. Whether or not an optimal capital structure exists is one of the most important and complex issues in corporate finance. How an organization is financed is of paramount importance to both the managers of firms and providers of funds. This is because; if a wrong mix of finance is employed; the performance and survival of the business enterprises may be seriously affected. This study is to find out an optimum level of capital through which a firm can increase its financial performance more efficiently and effectively. Hence, the paper seeks to fill the gap in the literature as a result of limited studies that have been conducted so far in this area using Kenyan context.

1.1.1 Capital Structure

Capital structure refers to the composition of firms' financial resources. These funds are required for carrying on the business and are a major determinant on how the business operates hence their availability and quantity is critical to the firm. Debt and equity are two major classes of financing for a business.

Brockington (1990) describes equity as the finance provided by the owners of the business. Equity finance holders a portion of the firm denominated in shares and they are entitled to a part of the profit of a business, referred to as dividend. It is however, not mandatory to pay a dividend all the time as the company may retain the profits for financing expansion of its

operations. Equity owners also share in the risks of the business and are the last to benefit when a business is wound up after debt holders have been paid.

Debt finance, on the other hand, is finance generated through borrowing from external sources such as banks or from issues of bonds, all of which attract a fixed return. Debt may be short term, repayable over periods shorter than one year, or long term, repayable over periods longer than one year. The lender does not gain a control of the business but is paid a specified cost for the use of his funds, called interest. The borrower has a contractual obligation to pay the interest and to repay the principle when due, regardless of the performance or profitability of the business (Brockington 1990).

Conceptually, commercial banks fund their balance sheets in layers, starting with shareholders equity comprising of paid up/assigned capital, retained earnings/accumulated losses and then statutory loan loss reserves. The next layer consists of customer deposits, which are assumed to be stable in most circumstances, even though they can be requested with little or no notice. These range from fixed deposits, savings as well as current deposits. The final capital layer comprises borrowing/debt either from other banks or from the central bank.

While debt holders exert lesser control over the company, and do not determine how the business is run, they earn a fixed rate of return is to be paid for the finance and when it is due. Equity holders are the residual claimants of all the business' returns, bearing most of the risk and having greater control over decisions (Kochhar, 1997).

1.1.2 Financial performance

Return on asset (ROA) is a comprehensive measure of overall bank performance from an accounting perspective (Sinkey, 1992). It is a primary indicator of managerial efficiency. It

indicates how capable the management of the bank has been converting the bank's assets into net earnings. ROA measures the profitability performance of total assets, and could be treated as measure of profitability performance in this study. As it is known, the measure contains two elements total asset (turnover) and effectiveness (profit margin). As mentioned earlier, ROA reflects the bank management ability to generate profits by using the available financial and real assets.

Return on equity (ROE) measures accounting profitability from shareholders perspective. It also illustrates the rate of return flowing to the bank's shareholders. It approximates the net benefit that the stockholders have received from investing their capital (Rose and Hudgins, 2006).

1.1.3 Effect of Capital Structure on Financial Performance

Modigliani and Miller's (1958) capital structure irrelevance theory states that the firm's overall market value and the WACC is independent of capital structure in a perfect market without taxation. However, the tax free perfect market does not hold in the real world. Later, Modigliani and Miller (1963) proposed the modified capital structure relevance theory which analyzed the present value of interest tax shield at the corporate level and found that the higher the debt ratio, the higher the firm value. Miller (1977) extends the MM model to personal as well as to corporate taxes, and introduced the Miller theory which considered the relative advantage of debt over equity.

Nonetheless, over borrowing will lead to financial distress and even bankruptcy. The trade off theory balances the tax advantage of borrowing against the costs of financial distress and states that there exists the optimal capital structure by considering the marginal costs and benefits of each additional unit of financing, and then choosing the form of financing that equates these marginal costs and benefits.

Due to the tax deductibility of interest payment, it is argued that highly profitable companies tend to have higher levels of debt (Modigliani and Miller 1963). However, Myers and Majluf (1984) argued that as a result of asymmetric information, companies prefer internal sources of finance. Higher profitable companies tend to have lower debt levels and higher retained earnings. Relative to this theory, Kester (1986) and Titman and Wessels (1988) find leverage to be negatively related to the levels of profitability.

Fama and French (1998), analyzing the relationship among taxes, financing decisions and the firms value, concluded that debt does not concede tax benefits. Besides, the high leverage degree generates agency problems among shareholders and creditors that predict negative relationships between leverage and profitability. Therefore negative information relating to debt and profitability obscures the tax benefit of the debt. Booth, Demirguc-Kunt and Maksimovic (2001) developed a study attempting to relate capital structure of several companies in the countries with extremely different financial markets. They concluded that the variables that affect the choice of capital structure of companies are similar in spite of the great difference presented in the financial markets. Besides, they concluded that profitability has an inverse relationship with debt levels and size of the firm. Graham (2000) concluded in his work that big and profitable companies present a low debt rate.

The pecking order theory predicts that firms will use retention first, then debt and equity issue as a last resort. The order of preference reflects the relative costs of various financing options. Less profitable firms facing a positive NPV investment opportunity will be more willing to use external funds if cash flows are weak. Therefore, there will be a negative relationship between leverage and profitability. Fama and French (2002) and Myers (1984) both document a negative relationship between leverage and profitability.

Musili (2005) in his study of capital structure in Kenya industrial firms, find that the return on asset is the most significant explanatory variable for actual debt ratios and that managers do avoid issuing undervalued securities by financing with internal equity and then with external claims that are likely to be mis-priced. The trade off theory argues that since less profitable firms provide low shareholder returns, greater leverage in these firms' merely increase bankruptcy risks and the cost of borrowing will therefore lower shareholder returns still further. Further, he states that low shareholder returns will also limit equity issues and therefore, unprofitable firms facing positive NPV investment opportunity will avoid external finance in general and leverage in particular. There will also be a demand side effect as the market will be reluctant to provide capital to such firms. Thus, this study confirmed a positive relationship between leverage and profitability (Musili, 2005)

Munene (2006) in his study of impact of capital structure on firms listed at the NSE concluded that there existed a weak positive relationship between capital structure and profitability of firms quoted at the NSE. Firms listed on the NSE relied on external capital rather than the retained earnings. Therefore, concluded that profitability remained a minor determinant of capital structure.

1.1.4 Commercial Banks in Kenya

The banking industry in Kenya is governed by the Companies Act, the Banking Act, the Central Banks of Kenya Act and the various prudential guidelines issued by the Central Bank of Kenya (CBK). The banking sector in Kenya is the most advanced in East Africa to date. However, only about 20 to 40 percent of the population has access to banking services in Kenya today (Kimenyi and Ndungu, 2009). A component of reforms has been the restructuring of financial institutions. By December 2012, the banking sector consisted of 43

commercial banks, 8 deposit taking micro finance institutions, 7 representatives of foreign banks, 108 foreign exchange bureaus and 2 credit reference bureaus (CBK, 2012)

Kenya experienced a bank crisis in 1986 when a number of _specified'Non-Banking Financial Institutions (NBFIs) and a commercial bank collapsed. To avoid a repeat, eight financial institutions were taken over and merged into a state bank in 1989; Consolidated Bank of Kenya Ltd. The central bank has also strengthened the supervision and the inspection of banks and introduced a Deposit Protection Fund which guarantees deposits up to Kenya Shillings 100,000.00.

In 1986, there was a banking crisis and a few banks collapsed. In 1993, the Exchange bank was closed due to the Golden berg scandal. In 1998, more banks collapsed due to poor management which included; Trust Bank, Reliance Bank, Prudential Bank and Bullion Bank while National bank almost collapsed as well. By then, two multinational banks-the Standard Chartered Bank and Barclays Bank of Kenya; and the parastatal banks - Kenya Commercial Bank and National Bank of Kenya dominated the banking sector. In 1997, the total assets of Kenya's four largest banks (Barclays Bank, Standard Chartered Bank, Kenya commercial Bank and National Bank) were $2.8 billion, representing half of the total assets of all commercial banks.

Commercial banks have expanded both in numbers and in their assets. There were eighty eight (88) banks and NBFIs in 2007 (Ndung'u, 2009). The locally incorporated banks increased, more so in the 1990s with the deliberate government effort to increase local ownership of financial institutions. The locally incorporated commercial banks did not compare well with the foreign banks in their assets levels, as most of them had less than the average compared with foreign banks, the majority of which were above the average level. But the local banks continued to take an increasing share in the market. To ensure competition and mitigate from failures, banks have been merging (eg Southern credit and

Equatorial commercial bank merged in 2007, Commercial Bank of Africa Limited took over First American Bank Kenya Limited and the East African Building Society (EABS) merged with Akiba Bank to form EABS Bank) and to make sure they meet the core capital requirements of the CBK. The Banking Act imposes single shareholder limits such that no one is permitted to hold, directly or indirectly, or otherwise have a beneficial interest in more than 25% of the share capital of any banking institution.

There at 43 commercial banks in Kenya CBK, (2012) which essentially take deposits from individuals and organizations to invest on their behalf. Thirty-five of the banks (most of which are small to medium sized) are locally owned (Central bank of Kenya annual report 2007). The industry is dominated by few large banks hence it is no surprise that the commercial banking landscape is heavily tilted in favour of the big players with top 13 accounting for 80% of the sector's total assets, deposits and net advances. Nine of the major banks are listed at the Nairobi stock Exchange. The banks offer corporate and retail banking services but a smaller number, mainly comprising the larger banks offer other services including investment banking, insurances services, and custodial services amongst others (Dikken & Hoeksema, 2001).

Upon CBK passing new laws on capital base for bank's operations, where under statutory requirements in order for a bank's balance sheet to grow, it had to take in more deposits to enable more lending to take place. Banks more so smaller banks have resulted into mergers to form stronger capital base for lager business and even some that could not find suitable partners have had to close their business.

The competitive nature of the industry, not only in the global economy but also in the local set up has not spared any organization from Economic, social and political turbulence. Porter (1991), states that companies must be flexible to respond rapidly to competitive and market

changes. In Kenya the Economy has created an atmosphere of stiff competition and to survive, various organizations have to benchmark continuously to achieve best practice, which at times has called for outsourcing in order to aggressively gain effectiveness.

More than anticipated rapid growth in the banking sector has resulted in massive new budgetary allocations and employment. This has been precipitated by the fact that bank's target market is widespread all over the country. Banking facilities have to be taken to these customers. Secondly, technology has fast evolved to include real time on line banking. More demands by customers who want conform in all their banking aspects, has made banks be very innovative in providing fast class information and communication technology. Thompson and Strickland (1996) suggest that ICT has therefore evolved to suit the various demands in e-banking sector.

1.2 Research problem

An appropriate capital structure is a critical decision for any business organization. The decision is important not only because of the need to maximize returns to various organizational constituencies, but also because of the impact such a decision have on an organization's ability to deal with its competitive environment.

The structure of firm's funds/capital and its effect on firm performance has for long been a topic of discussion. Following the work of Modigliani and Miller (1958 and 1963), much research has been carried out in corporate finance to determine the influence of a firm's choice of capital structure on performance. The difficulty facing companies when structuring their finance is to determine its impact on performance, as the performance of the business is crucial to the value of the firm and consequently its survival.

Managers have numerous opportunities to exercise discretion with respect to capital decisions. The capital decisions employed may not be meant for the value maximization of the firm but for protection of the manager's interest especially in organization where corporate decisions are dictated by the managers and shares of the company closely held (Dimitris and Psillaki, 2008). Even where shares are not closely held, owner of the equity are generally large in number and an average shareholder controls a minute portion of the shares of the firm. This gives rise to the tendency for such a shareholder to take less interesting the monitoring of managers who when left to themselves, pursue interest different form owners of equity.

Although several recent studies have been done on capital structure and financial performance, these studies do not specifically apply to the banking sector. Kanyuru (2010) and Ondiek (2010) studied the relationship between capital structure and financial performance of firms listed at the NSE. Kaumbuthu (2010) studied the relationship between capital structure and financial performance for listed firms under industrial and Allied sector. Munene (2006) studied the Impact of profitability on capital structure of companies listed at NSE while Musili (2005*)* researched on the Capital structure choice: A survey of industrial firms in Kenya. The banking industry being a key pillar in the financial industry and economy as a whole has not been studied in this context.

It is important to distinguish the banking sector from the general financial sectors. Banks in general, operate under a totally unique and rigorous set of regulations which only apply to that sector making it impossible to explain the relationship of both the banking market and the rest of the market using only a single model or indeed a single dataset (Barth, Caprio and Levine 2004).

Banking sector is also highly supervised with the CBK being the main supervisor and additional supervisor being CMA and NSE as the case may apply for listed banks. In addition banks are subject to Basel II accord, first published in 2004, which is an international document outlining the importance of strict risk and capital management requirements with major emphasis being placed on minimum capital requirements for individual banks. Furthermore, banks are fundamentally highly leveraged relative to the rest of the sectors in the economy, making banks a distinctive test subject for the hypotheses this paper intends to answer.

This paper, seeks to study and investigate the relationship between capital structure and the performance of commercial banks in Kenya. Based on agency cost theory (Jensen and Meckling, 1976), it suggests that debt is used as a motivating factor for managerial staff. Agency theory states that separation of top end management to ownership has a negative effect on firm performance; there is no incentive for management to perform at maximum capacity. The financial sector is fundamentally different from any other sector of the market in terms of high leverage and regulation, therefore the results obtained from papers using data across multiple sectors in the market should not be carried over to the financial sector with a high degree of confidence. Further, papers on the relationship of capital structure and Kenyan financial sector performance are very scarce.

The research question for this study is: is the financial performance of the banking sector in Kenya determined by the determinants of capital structure and what the direction of this relationship is.

1.3 Objectives of the study

This study seeks to evaluate the impact of capital structure choice structure on financial performances of the commercials Banks in Kenya.

1.4 Significance of the study

This study will be of great interest to the government of Kenya in formulating policies that steer towards the capital structure that optimizes performance.

Banks and Finance manager can access this research and follow the recommendation to improve the performance of capital structure and allocate resources in a manner that would improve the activities of the bank. Investors who may need to know the relationship between capital structure policy and performance of the banks for them to make a choice which bank to invest their funds.

NSE and CMA will use the findings of this study to determine the effect of capital structure on the banks listed at their market. As regulators, this study will provide the necessary information for regulatory purpose for which they will be able to gauge firm's performance based on capital structure of the banks. Banks not listed will find this study invaluable as they will use the findings of the study to make decisions on the capital structure that would result into the improved results. A copy of this paper will be made available to the University to serve as literature review material for students who engages themselves in similar work.

CHAPTER TWO
LITERATURE REVIEW

2.1 Introduction

This section draws related material from different studies carried out in the past and in different areas. It describes the theories that are examined in the study about capital structure and performance. The capital structure of business is discussed and the methods of its measurement are explained. The main theories discussed that relate capital structure and performance are: Modigliani and Miller propositions, the Trade off theory, Pecking order theory and the Market timing theory.

2.2 Theoretical Review of Capital Structure

Since the publication of the Modigliani and Miller' (1958) "irrelevance theory of capital structure", the theory of corporate capital structure has been a study of interest to financial economists. Over the years three major theories of capital structure emerged which diverge from the assumption of perfect markets under which the "irrelevance model" works. The first is the trade-off theory which assumes that firms trade off the benefits and costs of debt and equity financing and find an "optimal" capital structure after accounting for market imperfections such as taxes, bankruptcy costs and agency costs. The second is the pecking order theory (Myers, 1984, Myers and Majluf, 1984) that argues that firms follow a financing hierarchy to minimize the problem of information asymmetry between the firm's managers-insiders and the outsiders-shareholders.

Recently, Baker and Wurgler (2002) have suggested a new theory of capital structure: The "Market timing theory of capital structure". This theory states that the current capital structure is the cumulative outcome of past attempts to time the equity market. Market timing implies that firms issue new shares when they perceive they are overvalued and that firms

repurchase own shares when they consider these to be undervalued. Market timing issuing behavior has been well established empirically by other already, but Baker and Wurgler show that the influence of market timing on capital structure is highly persistent.

2.2.1 Modigliani-Miller Theorem

Modigliani and Miller start by assuming that the firm has a particular set of expected cash flows. When a firm chooses a certain proportion of debt and equity to finance its assets, all that it does is to divide up the cash flows among investors. Investor and firms are assumed to have equal access to financial markets, which allows for homemade leverage. The investor can create any leverage that was wanted but not offered, or the investor can get rid of any leverage that the firm took on but was not wanted. As a result, the leverage of the firm has no effect on the market value of the firm.

Their paper led subsequently to both clarity and controversy. As a matter of theory, capital structure irrelevance can be proved under a range of circumstances. There are two fundamentally different types of capital structure irrelevance propositions. The classic arbitrage-based irrelevance proposition; provide settings in which arbitrage by investors keeps the value of the firm independent of its leverage. In addition to the original Modigliani and Miller paper, important contributions include papers by Hirshleifer (1966) and Stiglitz (1969). The second irrelevance proposition concludes that "given a firm's irrelevance policy, the dividend payout it chooses to follow will affect neither the current price of its shares nor the total return to its shareholders" (Miller and Modigliani, 1963). In other words, in perfect markets, neither capital structure choices nor dividend policy decisions matter.

Modigliani-Miller theorem has failed under a variety of circumstances. The most commonly used elements include consideration of taxes, transaction costs, bankruptcy cost, agency conflicts, adverse selection, lack of separation between financing and operations, time-

varying financial market opportunities and investor clientele effects. Alternative models use differing elements from this list. Given that so many different ingredients are available, it is not surprising that many different theories have been proposed. Covering all of these would go well beyond the scope of this paper. Haris and Raviv (1991) provided a survey of the development of this theory as of 1991.

Secondly, as an empirical proposition, the Modigliani-Miller irrelevance proposition is not easy to test. With debt and firm value both plausibly endogenous and driven by other factors such as profits, collateral and growth opportunities, we cannot establish a structural test of the theory by regressing value on debt.

A popular defense has been to argue as theory and as follows: "While the Modigliani-Miller theorem does not provide realistic description of how firms finance their operations, it provides a means of finding reasons why financing may matter". This description provides a reasonable interpretation of much of the theory of corporate finance. Accordingly, it influenced the early development of both the trade-off theory and pecking order theory.

2.2.2 Trade-off Theory

The term trade-off theory is used by different authors to describe a family of related theories. In all of these theories, a decision maker running a firm evaluates the various costs and benefits of alternative leverage plans. Often it is assumed that an interior solution is obtained so that marginal costs and marginal benefits are balanced.

The original version of the trade-off theory grew out of the debate over the Modigliani-Miller theorem. When corporate income tax was added to the original irrelevance, this created a benefit for debt in that it served to shield earnings from taxes. Since the firm's objective function is linear and there is no offsetting cost of debt, this implied 100% debt financing.

Several aspects of Myers' definition of the trade-off merit discussion. First, the target is not directly observable. It may be imputed from evidence, but that depends on adding a structure. Second, the tax code is much more complex that assumed by the theory. Depending on which features of the tax code are included, different conclusions regarding the target can be reached. Graham (2000) provides a useful review of the literature on the tax effects.

Third, bankruptcy costs must be deadweight costs rather than transfers from one claimant to another. The nature of these costs is important too.

Fourth transaction costs must take a specific form for the analysis to work. For the adjustment to be gradual rather than abrupt, the marginal cost of adjusting must increase when the adjustment is larger. Leary and Roberts (2005) describe the implications of alternative adjustment cost assumptions.

2.2.2.1 Static trade off Theory

The static trade-off theory affirms that firms have optimal capital structure, which they determine by trading off the costs against the benefits of the use of debt and equity. One of the benefits of the use of debt is the advantage of a debt tax shield. One of the disadvantages of debt is the cost of potential financial distress, especially when the firm relies on too much debt. Already, this leads to a trade-off between tax benefit and the disadvantage of higher risk of financial distress. But there are more cost and benefits involved with the use of debt and equity. One other major cost factor consists of agency costs. Agency costs stem from conflicts of interest between different stakeholders of the firms and because of ex post asymmetric information (Jensen and Meckling, 1976; Jensen, 1986). Hence, incorporating agency costs into the static trade-off theory means that a firm determines its capital structure by trading off the tax advantage of debt against the costs of financial distress of too much debt and the agency costs of advantage of debt against the costs of equity. Many other cost

factors have been suggested under the trade-off theory, and it would lead to far to discuss them all. Therefore, this discussion ends with the assertion that an important prediction of the static trade off theory is that firms target their capital structures, For example if the actual leverage ratio deviates from the optimal one, the firm will adapt its financing behavior in a way that brings the leverage ratio back to the optimal level.

2.2.2.2 Dynamic Trade-off Theory

Constructing models that recognize the role of time requires specifying a number of aspects that are typically ignored in a single-period model. Of particular importance are the roles of expectations and adjustments costs. In a dynamic model, the correct financing decision typically depends on the financing margin that the firm anticipates in the next period. Some firms expect to pay out funds in the next period, while other expects to raise funds. If funds are to be raised, they may take the form of debt or equity. More generally, a firm undertakes a combination of these actions. An important precursor to modern dynamic trade-off theories was Stiglitz (1969), who examines the effects of taxation from a public finance perspective.

The first dynamic models to consider the tax savings versus bankruptcy cost trade-off are Brennan and Schwartz (1984). They analyzed continuous time models with uncertainty, taxes and bankruptcy costs, but no transaction costs. Since firms react to adverse shocks immediately by rebalancing cost take adversely, firms maintain high levels of debt to take advantage of the tax savings.

Dynamic trade-off models can also be used to consider the option values embedded in deferring leverage decisions to the next period. Goldstein et al (2001) observe that a firm with low leverage today has the subsequent option to increase leverage. Under their assumptions, the option to increase leverage in the future serves to reduce the otherwise optimal level of leverage today. Strebulaev (2007) analyzed a model quite similar to that Goldstein & Leland

(2001). Again, if firms optimally finance only periodically because of transaction costs, then the debt ratios of most firms will deviate from the optimum most of the time. In the model, the firm's leverage responds less to short-run equity fluctuations and more to long-run value changes.

Certain ideas are fairly general in dynamic models. The optimal financial choice today depends on what is expected to be optimal in the next period. In the next period, it may be optimal to raise funds or to pay them out. If raising new funds, it might be optimal to raise them in the form of debt or in the form of equity. In each case, what is expected to be optimal in the next period will help to pin down the relevant comparison for the firm in the current period.

Much of the work on dynamic trade-off models is fairly recent and so any judgments on their results must be somewhat tentative. This work has already fundamentally altered our understanding of mean reversion, the role of profits, the role of retained earnings, and path dependence. As a result, the trade-off class models now appears to be much more promising that it did even just a few years ago.

2.2.3 Pecking Order Theory

The pecking order theory does not take an optimal capital structure as a starting point, but instead asserts the empirical fact that firms show a distinct preference for using internal finance (as retained earnings or excess liquid assets) over external finance. If internal fund are not enough to finance investment opportunities, firms may or may not acquire external financing, and if they do, they will choose among the different external finance sources in such a way as to minimize additional costs of asymmetric information. The latter costs basically reflect the "lemon premium" (Akerlof, 1970) that outside investors ask for the risk of failure for the average firm in the market. The resulting pecking order of financing is as

follows: internally generated funds first, followed by respectively low-risk debt financing and share financing.

Empirical evidence supports both the pecking order and trade-off theory. Empirical tests to see whether the pecking order or the trade-off theory is a better predictor of observed capital structures find support for both theories of capital structure (Shyam-Sunder and Myers, 1999; Fama and French 2002).

According to the Pecking Order Theory of business financing advanced by for the Myers and Majluf (1984), the presence of asymmetric information between outsiders and insiders of the firm is used to predict a negative relationship between indebtness and profitability. In the Pecking Order theory, the outsiders are presumed to have less information than managers and owners of the business and nay issues of shares raise funds for expansion or to finance a project will be valued by the potential investor on the value they think is the market value. If the stock is undervalued, according to the owners and managers, they may decline to issue the stock and forego the investment opportunities. On the other hand, if a firm issues shares to outsiders it will, be believed to be overvalued and the share price will fall. This will discourage firms from issuing shares. Myers uses this theory to argue that companies will prefer to use internally generated funds and if external funds are required, debt will be preferred to issuing shares. Firms will use debt only when they have exhausted the internal funds.

The Pecking Order hypothesis in general, advocates that existence of an optimal capital structure (or an optimal capital range)of the firm, this optimal capital structure range being dependent on the firm's trade-off of the various factors influencing its decision of the source of financing. This is against the propositions of the non-optimal capital structure perception.

2.2.4 Market Timing Theory

The market timing theory of capital structure argues that firms time their equity issues in the sense that they issue new stock when the stock price is perceived to be overvalued and buy back own shares when there is undervaluation. Consequently, fluctuations in the stock prices affect firm's capital structures. There are two versions of equity market timing that lead to similar capital structure dynamics.

The first assumes economic agents to be rational. Companies are assumed to issue equity directly after a positive information release which reduces the asymmetry problem between the firm's management and stockholders. The decrease in information asymmetry coincides with an increase in the stock price. In response, firms create their own timing opportunities.

The second theory assumes the economic agents to be irrational (Baker and Wurgler, 2002). Due to irrational behavior there is a time-varying mis-pricing of the stock of the company. Managers issue equity when they believe its costs is irrationally low and purchase equity when they believe its costs is irrationally high. It is important to know that the second version of market timing does not require that the market actually be inefficient. It does not ask managers to successfully predict stock returns. The assumption is simply that managers believe that they can time the market. In a study by Graham and Harvey (2001), managers admitted trying to time the equity market, and most of those that have considered issuing common stock report that "the amount by which our stock is undervalued or over-valued" was an important consideration.

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

Baker and Wurgler (2002) provide evidence that equity market timing has persistent effect on the capital structure of the firm. They find the leverage changes are strongly and positively related to their market timing measure, so they conclude that the capital structure of a firm is the cumulative outcome of past attempts to time the equity market.

2.3 Determinants of Capital Structure

To understand how firms finance their operations, it is necessary to examine the determinants of their capital structure decisions. Both recent and historic studies have tried to find the determinants of capital structure. Titman and Wessels (1988) use the amount of tangible assets, non debt tax shield, growth, uniqueness of the industry, size, volatility of revenue and profitability to explain leverage in a latent variable model. With the banking sector having more of uniqueness of the industry based on CBK requirements and the Basel III accord requirements, this paper will therefore look at the literature surrounding: Reserve fund, long term debt, short term debt and customer deposits are determinants of capital structure.

2.3.1 Customer Deposits

Robert (1984), one measure of proper management in a banking organization lies in the ability to meet maturing obligations without having more liquid fund than are actually needed. Customer deposits which are norm ally inform of transactional accounts, savings or fixed deposits provides major source of banks liquidity. Holding liquid funds has, however an opportunity cost since they could frequently be invested in long-term and consequently higher-yielding assets those which normally comprise a short-term portfolio.

Customer deposits could be differentiated based on the sources: From government and parastatals as well as from private sector and individuals. Further, customer deposits may be differentiated based on maturity. This ranges from within a month period all the way to payable after 5 years. For this study, customer deposits will be taken a ratio of total equity.

2.3.2 Borrowings

Another major source of funds for commercial banks after deposits is borrowing. Commercial banks may borrow from other banks, Central bank or from their head office (for international banks). Banks experiencing a run of deposits can try to supplement disposal of short term assets by borrowing from other banks. The extent to which a bank can normally increase its liabilities to other banks is, at most, amount available within the credit limit set by such bank. When individual bank in domestic system gets into trouble, other banks tend to rally to their support in hopes of avoiding the contagious effect of failure on their own operations.

For this study, borrowing will be categorized into two: short term debts that are payable within a year and long term debts that are payable beyond one year. Debt will be calculated a ratio of total liabilities.

2.3.3 Reserve Fund

In addition to the Capital, every licensed bank has to maintain a reserve fund. These are accumulated value of past profits not yet paid out in dividends to shareholders. Since these earnings could be paid out in dividends, they are part of the equity owner's stack in the financial institution. According to the Pecking Order Theory advanced by for the Myers and Majluf (1984), a firm will exploit internal sources of finance which are cheap and easy to access. The presence of asymmetric information between outsiders and insiders of the firm is used to predict a negative relationship between indebtness and profitability. In the Pecking Order theory, the outsiders are presumed to have less information than managers and owners of the business and nay issues. The reserve fund will be calculated as the ratio of reserve funds and the total equity.

2.4 Traditional determinants of capital structure.

The subject of financial performance has received significant attention from scholars in various areas of business and strategic management. It has also been the primary concern of business practitioners in all types of organizations since financial performance has implications to organization's health and ultimately its survival. High performance reflects management effectiveness and efficiency in making use of company's resources and this in turn contributes to the country's economy at large. Financial and non-financial factors, such as tangibility of assets, firm growth, size and age have an influence on the firms' financial performance and growth. The researcher has chosen these factors because they are the most appropriate ones for Kenyan context among many factors affecting the financial performance. On the other hand, these factors can be easily measured by using data that is available for Kenyan commercial banks.

2.4.1 Tangibility of assets

It is assumed, from the theoretical point of view, that tangible assets can be used as collateral. Therefore higher tangibility lowers the risk of a creditor and increases the value of the assets in the case of bankruptcy. As Booth, Demirguc-Kunt and Maksimovic (2001) realized, the more tangible the firm's assets, the greater its ability to issue secured debt and the less information revealed about future profits. Thus a positive relation between tangibility and leverage is predicted. Several other empirical studies; Rajan and Zingales (1995), Friend and Lang (1988) and Titman and Wessels (1988) confirm this suggestion.

2.4.2 Firm growth

According to Myers (1977), firms with high future growth opportunities should use more equity financing, because a higher leveraged company is more likely to pass up profitable investment opportunities. It is also important to note that the dividend payout of the firm could affect the choice of capital in financing growth. Generally, firms with low dividend payout are able to retain more profits for investments. Such firms would therefore depend more on internally generated funds and less on debt finance. On the other hand, firms with

high dividend payout are expected to rely more in order to finance their growth. Growth, do place a greater demand on internally generated funds and push the firm into borrowing hence the implication of a negative relation between growth opportunities and leverage.

2.4.3 Company Size

The size of the firm affects its financial performance in many ways. Large firms can exploit economies of scale and scope and thus being more efficient compared to small firms. In addition, small firms may have less power than large firms; hence they may find it difficult to firms become large, they might suffer from inefficiencies, leading to inferior financial performance. Theory, therefore, is equivocal on the precise relationship between size and performance (Majumdar, 1997).

Size has significant statistical impact on financial performance of firms. This is supported by Liargavas and Skandalis, 2008; Tarawneh, 2006, Kakani, Saha and Reddy (2001). Chen and Wong, (2004), stated that the larger firms are more profitable. Hence, large firms have more resources, more accounting staff and sophisticated information systems that result in high performance. Furthermore, large companies tend to be followed by a relatively large number of financial analysts who usually rely on timely release of annual reports to confirm and revise their expectations of companies' present and future economic prospects.

2.4.4 Company Age

Several earlier studies (Batra, 1999, Lumpkin and Dess, 1999) argued that firm age has an influence on its performance. Sorensen & Stuart, 200, argued that organization inertia operating in old firms tend to make them inflexible and unable to appreciate changes in the environment. Newer and smaller firms, as a result, take away market share in spite of disadvantages like lack of capital, brand names and corporate reputation with older firms (Kakani, Saha and Reddy, 2001). Regarding firm age, older firms are more experienced, have

enjoyed the benefits of learning, are not prone to the liabilities of newness, and can, therefore, enjoy superior performance. Older firms may also benefit from reputation effects, which allow them to earn a higher margin on sales.

2.5 Empirical Evidence on Impact of Capital Structure on Firm's Performance

Abor (2008) empirically supports the Pecking order hypothesis. Firm size was found to have a positive relationship to short term debt ratio to SMEs and debt ratios of quoted firms, but negative with respect to long-term debt ratio in the case of quoted firms. This confirms the Pecking order theory.

Chowdhury and Chowdhury (2010), empirically support the argument of Modigliani and Miller (MM). They tested the influence of debt-equity structure on the value of shares given different sizes, industries and growth opportunities with the companies incorporated in the Dhaka stock exchange (DSE) and Chittagong stock exchange (CSE) in Bangladesh.

Ibrahim (2009) examined the impact of capital structure choice on firms in Egypt, using a multiple regression analysis in estimating the relationship between leverage level and firm's performance, with the study period being between 1997 and 2005. Three accounting based measures of financial performance (RoE, RoA and GPMP) were used. The result revealed that capital structure choice is a decision in general, has weak to no impact on firm's performance.

Munene, (2006) studied the impact of profitability on capital structure on companies listed at the NSE. The study was carried out over a period of six years from 1999 to 2004 and the data collected was analyzed using regression. The study established that profitability on its own does not exclusively account for variability in capital structure. The study revealed that there were more variable that could be in play to determine a firm's capital structure.

Muritala (2012) analyzed 10 listed non financial firms in Nigeria between 2006 and 2010. The study provides evidence of a negative and significant relationship between asset tangibility and ROA as a measure of performance in the model. Fama and French (2002) and Myers (1984) both document a negative relationship between leverage and profitability. Kaumbuthu (2010) realized a negative relationship between debt equity ratio and ROE. Increase in debt leads to a decrease in the ROE. By this, firms are not willing to source funds externally when ROE of the firm is on increase.

Ondiek (2010) analyzed the relationship between capital structure and financial performance of firms listed at NSE. The study relied on secondary data and the population size was all companies that were quoted at NSE as at June 2010. The study revealed that capital structure of listed companies is influence by tangibility of assets, by size and by profitability. The results suggest that capital structure of listed companies can be explained by trade of and pecking order theories.

Stulz (1990) noted that debt can have both a positive and negative effect on the value of the firm (even in the absence of corporate taxes and bankruptcy cost). He built a model in which over investment and underinvestment can be alleviated by debt financing. His model assumes that managers have no equity ownership in the firm and receive utility by managing a larger firm. The "power of manager" may motivate the self-interested managers to undertake negative present value project. In order to solve this problem, shareholders force firms to issue debt.

Skopljak (2012) studied capital structure and firm performance in Australia. The study was carried out on 23 banks in Australia for the period between 2005 and 2007. The finding revealed significant and robust quadratic relationship between capital structure and firm performance of Australian financial institutions. At relatively low levels of leverage an

increase in debt leads to increased profit efficiency hence superior banks performance while at relatively high levels of leverage, increased debt leads to decreased profit efficiency as well as bank's performance.

2.6 Conclusion of Literature Review

When regarding to a firm's capital structure, the MM theorem opened a literature on the fundamental nature of debt versus equity. The capital structure of a firm is the result of the transactions with various suppliers of finance. In the perfect capital market world of MM, costs of different forms of finance do not vary independently and therefore there is no extra gain from opportunistically choosing among them.

Various theories of capital structure differ in their interpretation of these factors. Each emphasizes some costs and benefits of alternative financing strategies, so they are not designed to be general. According to the standard pecking order theory, adverse selection accounts for the corporate use of debt. Both theories having weak parts, it is not surprising that there is active research on this matter. In the market timing theory, there is no optimal capital structure, so market timing decisions accumulate over time into the capital structure outcome. From this, the market timing theory appears to have the most explanatory interest.

CHAPTER THREE
METHODOLOGY

3.1 Introduction

This section discusses the methods to be applied in carrying out this research study. It is organized under the following headings; research design, target population data, collection procedures and data analysis techniques.

3.2 Research Design

This is causal research design. A causal research survey is a process of collecting data from members of population in order to determine the current status of the subject under study with respect to one or more variables. The major emphasis of a descriptive study is to determine frequency of occurrence or the extent to which variables are related. The design is suitable because the study requires an accurate examination of the effects of change of capital on performance of banks.

3.3 Population

The study examined the impact of capital structure on financial performance of banks in Kenya. The study included all banks supervised by the CBK. In all, 43 banks qualified for the study. The study period chosen was 2009 to 2013. This is because, this is the period whereby most of changes were being implemented by most commercial banks including the implementation of technology in operations some of which were intended to improve the financial performance of the banks. They also required huge capital to be able to implement some of these projects. Thus, the population of this study comprised all the 43 banks registered by Central Banks of Kenya (appendix I) and it was possible to get reliable financial statements on all banks from the CBK bank supervision report. The only banks which qualified for the study were 28 in total.

3.4 Data collection

The researcher used secondary data for this study. Particular study collection of secondary data allowed the researcher to economize on resources, provide more efficient management of the time needed to collect the information as well as obtaining a greater number of observations. The data for this particular study was retrieved from the banks' financial statements such as income statements, balance sheets and annual reports. Other data necessary for the study were extracted from the annual reports of NSE, as well as from the banks' libraries.

3.5 Data analysis

The study employed multiple regression analysis to measure the impact of different factors on the bank's financial performance. The data analysis helped to explore cross sectional and time series data simultaneously. To analyze the relationship between the dependent and the independent variables, the following regression equation were used:

$$ROA_{it} = \beta_{0it} + \beta_1 CD_{it} + \beta_2 LDT_{it} + \beta_3 SDT_{it} + \beta_4 TCR_{it} + \mu_{it.}$$

$$ROE_{it} = \beta_{0it} + \beta_1 CD_{it} + \beta_2 LDT_{it} + \beta_3 SDT_{it} + \beta_4 TCR_{it} + \mu_{it}$$

ROA is Return on Assets and is measured as a ratio Net profit after tax to Total assets

ROE is Return on Equity and is measured as a ratio Net profit after tax to total paid up equity.

β_0 is the constant term.

β_1 , $\beta 2$, β_3 and β_4 are coefficients.

CD_{it} is the ratio of customer deposits to the summation of total equity and liabilities for bank i in year t

LDT_{it} is the long term debt of bank i at year t measured as total debts payable beyond one year divided by total banks liabilities.

SDT_{it} is the short term debt of bank i at year t measured as total debts payable within one year divided by total banks liabilities.

TCR_t is capital reserve of the bank i in year t measured by dividing total accumulated capital reserve to total equity.

$\mu_{it.}$ Are the error terms.

Data was analyzed using Statistical Package for Social Sciences (SPSS).

T-test will be used to determine whether there is a linear relationship between variable and each independent variable in isolation. The following hypotheses will be used.

H_o: There is no linear relationship between the dependent variable and each independent variable.

H_1: There is a linear relationship between the dependent variable and each independent variable.

These variable description and hypotheses will guide the research in data analysis.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

In this chapter data pertaining to the effects of capital structure choice on financial performance of Commercial Banks in Kenya was analyzed and interpreted. The Commercial Banks' capital structure was analyzed in two aspects; under customer deposits, debt (short term and long term) and reserve capital. Further, the researcher also explored capital structure under the traditional determinants of capital structure: Age of the firm, Size of the firm, Tangibility of the Assets and Firm growth. Data from the 43 banks for the period between years 2009 and 2013 were combined and analyzed.

4.2 Data Analysis

Data was reviewed for the last five years on the capital structure and financial performance of the commercial banks of the 43 banks combined. The researcher went ahead and narrowed down to the individual banks in Kenya. It emerged that the ROA and ROE of about 27 out of the 43 banks were relatively high.

4.2.1 Return on Assets (ROA)

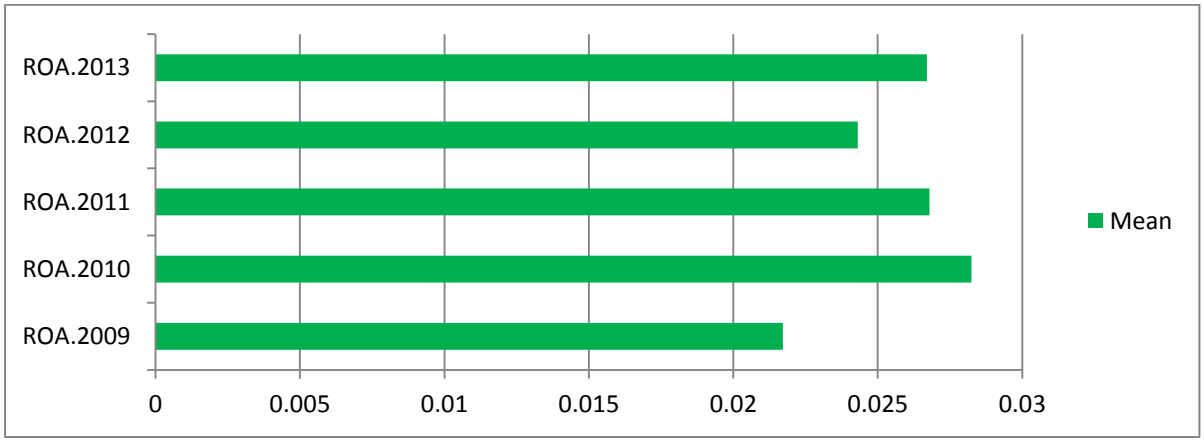
Return on Assets is measured as a ratio Net profit after tax to Total assets. The table below highlights returns on assets mean and their deviation from the year 2009 to 2013.

Table 4.1: Return on Assets Between 2009 - 2013

	Mean	Std. Deviation	N
ROA.2009	0.02171	0.020091	27
ROA.2010	0.02824	0.017894	27
ROA.2011	0.02679	0.013558	27
ROA.2012	0.02431	0.018541	27
ROA.2013	0.0267	0.016203	27

Figure 4.1 below shows the mean of ROA for each year under study.

Figure 4.1: ROA Mean for Five Years



It can be noted that in the industry in general, the year 2010 recorded the highest ROA which means the general managerial efficiency was at its best hence were able to utilize their assets better as compared to the year 2009 when the ROA was at its lowest.

Table 4.2: Annual ROA for each Bank for the Years under Study

ROA	0.034	0.033	0.034	0.039	0.043	0.018	0.018	0.012	0.01	0.004
YEAR	2013	2012	2011	2010	2009	2013	2012	2011	2010	2009
BANK	ABC	ABC	ABC	ABC	ABC	BAI	BAI	BAI	BAI	BAI
ROA	0.039	0.03	0.037	0.043	0.043	0.044	0.056	0.059	0.075	0.043
YEAR	2013	2012	2011	2010	2009	2013	2012	2011	2010	2009
BANK	BOB	BOB	BOB	BOB	BOB	Bar	Bar	Bar	Bar	Bar
ROA	0.008	0.014	0.015	0.013	0.011	0.028	0.021	0.014	0.014	0.008
YEAR	2013	2012	2011	2010	2009	2013	2012	2011	2010	2009
BANK	BOA	BOA	BOA	BOA	BOA	CFC	CFC	CFC	CFC	CFC
ROA	0.026	0.026	0.018	0.03	0.033	-0.007	-0	0.01	0.017	0.021
YEAR	2013	2012	2011	2010	2009	2013	2012	2011	2010	2009
BANK	CBA	CBA	CBA	CBA	CBA	ConB	ConB	ConB	ConB	ConB
ROA	0.045	0.042	0.033	0.035	0.031	0.007	0.011	0.009	0.007	0.016
YEAR	2013	2012	2011	2010	2009	2013	2012	2011	2010	2009
BANK	COOP	COOP	COOP	COOP	COOP	CreB	CreB	CreB	CreB	CreB

ROA	0.035	0.033	0.031	0.033	0.022	0.014	0.008	0.015	0.007	-0.06
YEAR	2013	2012	2011	2010	2009	2013	2012	2011	2010	2009
BANK	DTB	DTB	DTB	DTB	DTB	ECO	ECO	ECO	ECO	ECO

ROA	0.004	-0.03	0.006	-0.01	0.011	0.053	0.051	0.053	0.05	0.047
YEAR	2013	2012	2011	2010	2009	2013	2012	2011	2010	2009
BANK	Equa	Equa	Equa	Equa	Equa	EQTY	EQTY	EQTY	EQTY	EQTY

ROA	0.029	0.018	0.016	0.021	0.019	0.007	0.018	0.021	0.01	0.006
YEAR	2013	2012	2011	2010	2009	2013	2012	2011	2010	2009
BANK	FAMY	FAMY	FAMY	FAMY	FAMY	FINA	FINA	FINA	FINA	FINA

ROA	0.033	0.022	0.029	0.058	0.025	0.043	0.041	0.047	0.046	0.036
YEAR	2013	2012	2011	2010	2009	2013	2012	2011	2010	2009
BANK	GIRO	GIRO	GIRO	GIRO	GIRO	IMPL	IMPL	IMPL	IMPL	IMPL

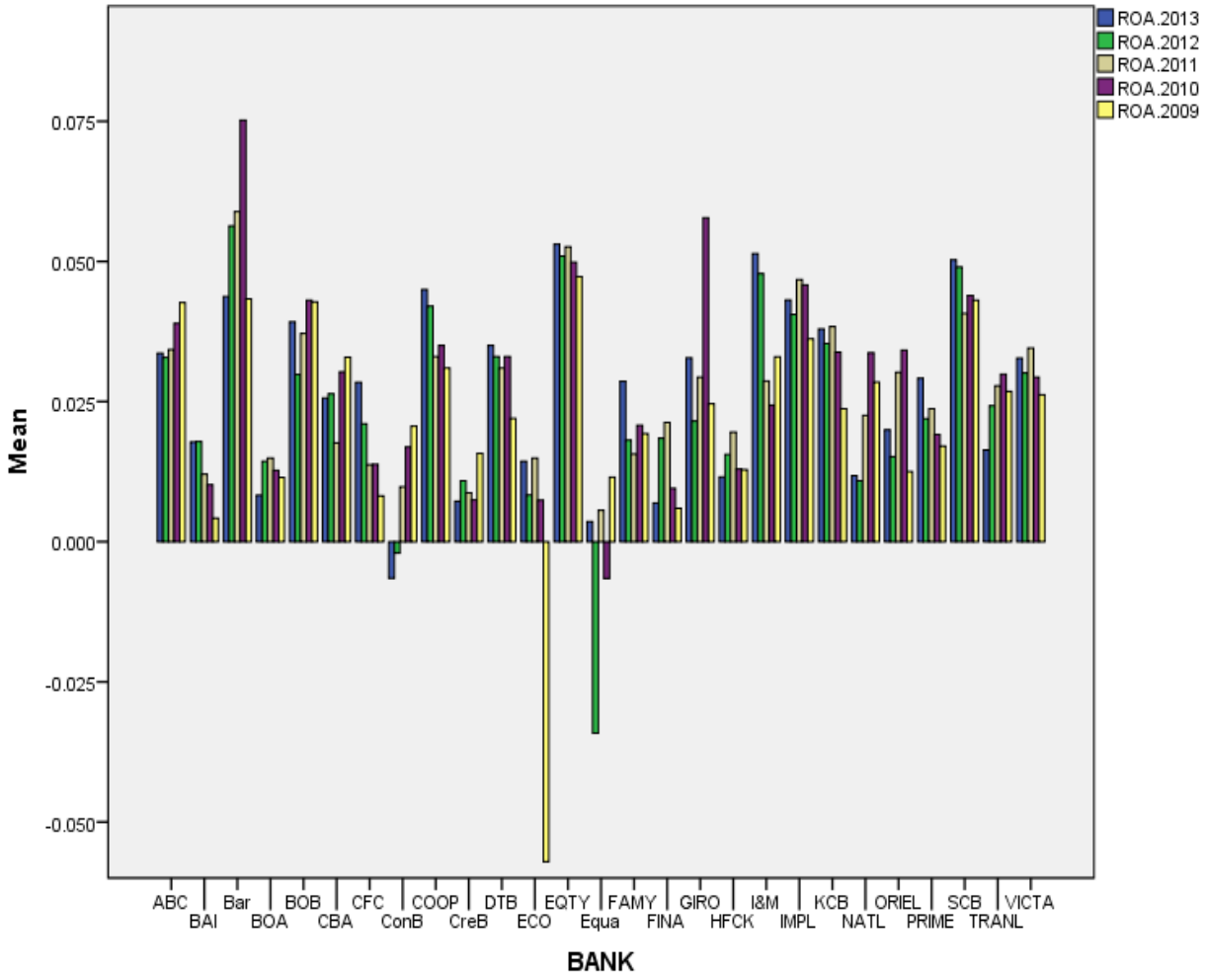
ROA	0.012	0.016	0.02	0.013	0.013	0.051	0.048	0.029	0.024	0.033
YEAR	2013	2012	2011	2010	2009	2013	2012	2011	2010	2009
BANK	HFCK	HFCK	HFCK	HFCK	HFCK	I&M	I&M	I&M	I&M	I&M

ROA	0.038	0.035	0.038	0.034	0.024	0.012	0.011	0.023	0.034	0.028
YEAR	2013	2012	2011	2010	2009	2013	2012	2011	2010	2009
BANK	KCB	KCB	KCB	KCB	KCB	NATL	NATL	NATL	NATL	NATL

ROA	0.02	0.015	0.03	0.034	0.013	0.029	0.022	0.024	0.019	0.017
YEAR	2013	2012	2011	2010	2009	2013	2012	2011	2010	2009
BANK	ORIEL	ORIEL	ORIEL	ORIEL	ORIEL	PRIME	PRIME	PRIME	PRIME	PRIME
ROA	0.05	0.049	0.041	0.044	0.043	0.016	0.024	0.028	0.03	0.027
YEAR	2013	2012	2011	2010	2009	2013	2012	2011	2010	2009
BANK	SCB	SCB	SCB	SCB	SCB	TRANL	TRANL	TRANL	TRANL	TRANL

ROA	0.033	0.03	0.035	0.029	0.026
YEAR	2013	2012	2011	2010	2009
BANK	VICTA	VICTA	VICTA	VICTA	VICTA

Figure 4.2: A Bar Graph of ROA against Respective Banks for the Years under Study



The above bar graph (Figure 4.2) derived from Table 4.2 in Appendix 2 represents the various ROA scenarios in the 43 banks. Looking at Barclays Bank Ltd over the five years, the year 2010 recorded their best ROA which means the managerial efficiency was high. Thereafter the ROA declined on each year. The reasons for this level of decline can be researched on further. On the other hand Eco Bank Ltd had a high negative ROA in the year 2009. This is possibly the year when they established the businesses in Kenya hence were incurring high fixed costs. Nevertheless they have improved over time though with high fluctuations on their ROA.

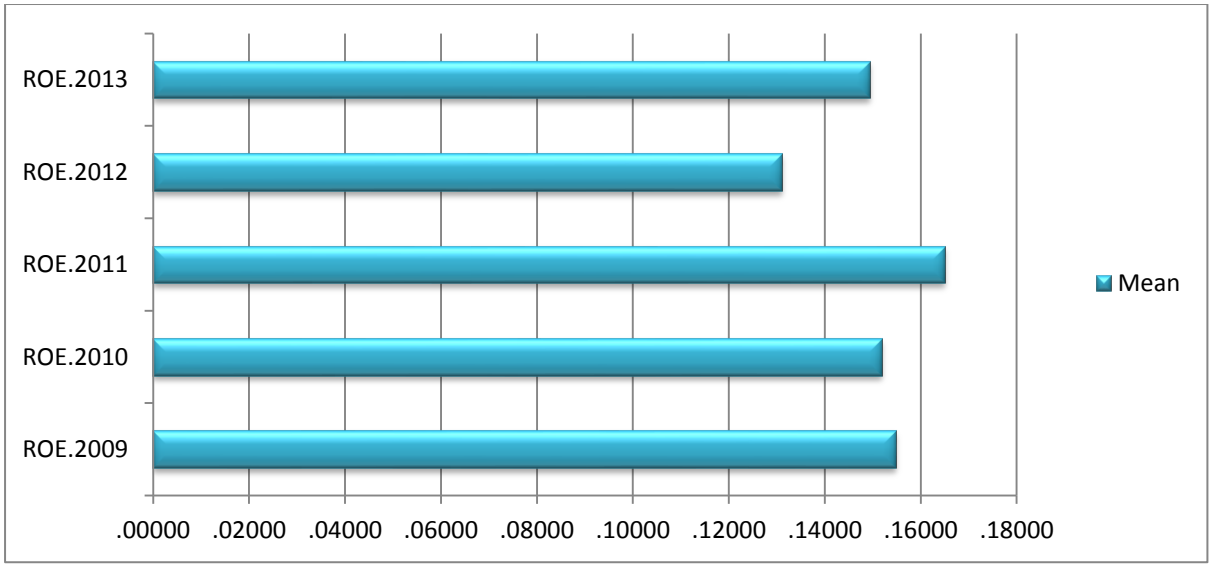
4.2.2 Return on Equity (ROE)

Return on Equity is measured as a ratio Net profit after tax to total paid up equity. The table below shows the mean of ROE from 2009 to 2013.

Table 4.3: ROE Mean for Five Years

	Mean	Std. Deviation	N
ROE.2009	.15472	.267504	27
ROE.2010	.15187	.114837	27
ROE.2011	.16500	.101556	27
ROE.2012	.13108	.192346	27
ROE.2013	.14940	.111895	27

Figure 4.3: ROE Mean for Five Years



The ROE of the industry was highest in the year 2011. It is worth noting that this is the year when there were high lending interest rates and high Central Bank Rate. Therefore it follows that the owners of Equity also demanded for higher returns on their funds. This situation however, slowed down in the year 2012 considering that at some point the demand for credit also reduced.

Table 4.4: Annual ROE for each of the bank for the year of study

ROE	0.029	0.029	0.029	0.033	0.034	0.106	0.155	0.118	0.08	0.028
YEAR	2013	2012	2011	2010	2009	2013	2012	2011	2010	2009
BANK	ABC	ABC	ABC	ABC	ABC	BAI	BAI	BAI	BAI	BAI
ROE	0.269	0.239	0.276	0.294	0.308	0.294	0.405	0.415	0.485	0.327
YEAR	2013	2012	2011	2010	2009	2013	2012	2011	2010	2009
BANK	BOB	BOB	BOB	BOB	BOB	Bar	Bar	Bar	Bar	Bar

ROE	0.067	0.143	0.124	0.126	0.091	0.158	0.11	0.189	0.147	0.098
YEAR	2013	2012	2011	2010	2009	2013	2012	2011	2010	2009
BANK	BOA	BOA	BOA	BOA	BOA	CFC	CFC	CFC	CFC	CFC
ROE	0.244	0.243	0.156	0.251	0.205	-0.088	-0.03	0.108	0.134	0.144
YEAR	2013	2012	2011	2010	2009	2013	2012	2011	2010	2009
BANK	CBA	CBA	CBA	CBA	CBA	ConB	ConB	ConB	ConB	ConB

ROE	0.3	0.31	0.26	0.25	0.2	0.043	0.059	0.049	0.036	0.079
YEAR	2013	2012	2011	2010	2009	2013	2012	2011	2010	2009
BANK	COOP	COOP	COOP	COOP	COOP	CreB	CreB	CreB	CreB	CreB

ROE	0.244	0.258	0.259	0.287	0.194	0.116	0.083	0.124	0.117	-0.37
YEAR	2013	2012	2011	2010	2009	2013	2012	2011	2010	2009
BANK	DTB	DTB	DTB	DTB	DTB	ECO	ECO	ECO	ECO	ECO
ROE	0.041	-0.67	0.06	-0.08	0.071	0.249	0.258	0.301	0.262	0.196
YEAR	2013	2012	2011	2010	2009	2013	2012	2011	2010	2009
BANK	Equa	Equa	Equa	Equa	Equa	EQTY	EQTY	EQTY	EQTY	EQTY

ROE	0.207	0.115	0.014	0.018	0.017	0.039	0.17	0.203	0.1	0.059
YEAR	2013	2012	2011	2010	2009	2013	2012	2011	2010	2009
BANK	FAMY	FAMY	FAMY	FAMY	FAMY	FINA	FINA	FINA	FINA	FINA

ROE	0.028	0.018	0.025	0.05	0.022	0.324	0.308	0.325	0.293	0.247
YEAR	2013	2012	2011	2010	2009	2013	2012	2011	2010	2009
BANK	GIRO	GIRO	GIRO	GIRO	GIRO	IMPL	IMPL	IMPL	IMPL	IMPL
ROE	0.061	0.078	0.132	0.089	0.057	0.304	0.294	0.204	0.153	0.241
YEAR	2013	2012	2011	2010	2009	2013	2012	2011	2010	2009
BANK	HFCK	HFCK	HFCK	HFCK	HFCK	I&M	I&M	I&M	I&M	I&M

ROE	0.244	0.25	0.247	0.183	0.179	0.092	0.07	0.148	0.204	1.323
YEAR	2013	2012	2011	2010	2009	2013	2012	2011	2010	2009
BANK	KCB	KCB	KCB	KCB	KCB	NATL	NATL	NATL	NATL	NATL

ROE	0.092	0.068	0.118	0.137	0.039	0.248	0.229	0.223	0.156	0.132
YEAR	2013	2012	2011	2010	2009	2013	2012	2011	2010	2009
BANK	ORIEL	ORIEL	ORIEL	ORIEL	ORIEL	PRIME	PRIME	PRIME	PRIME	PRIME
ROE	0.042	0.041	0.036	0.038	0.038	0.085	0.116	0.116	0.092	0.068
YEAR	2013	2012	2011	2010	2009	2013	2012	2011	2010	2009
BANK	SCB	SCB	SCB	SCB	SCB	TRANL	TRANL	TRANL	TRANL	TRANL

ROE	0.196	0.184	0.195	0.161	0.153
YEAR	2013	2012	2011	2010	2009
BANK	VICTA	VICTA	VICTA	VICTA	VICTA

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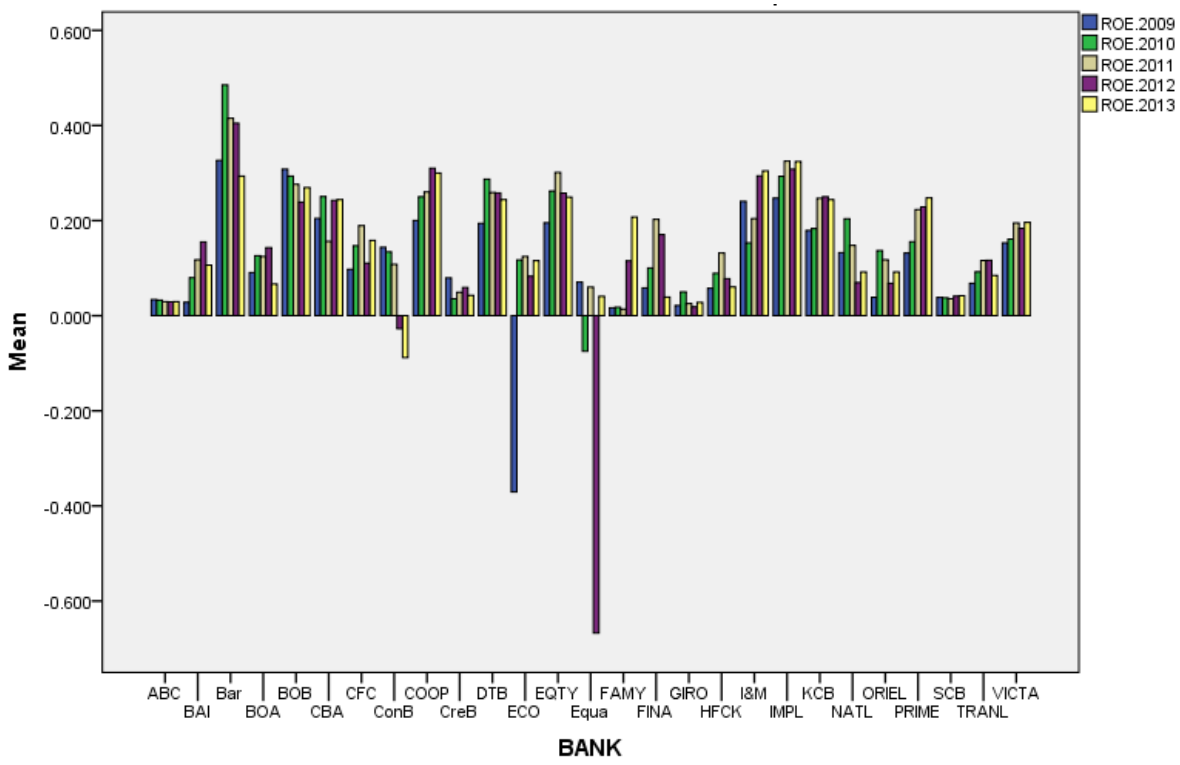
Figure 4.4: A Bar Graph of ROE against Respective Banks for the Years under Study



The ROE for majority of the banks were positive with small fluctuations as shown in Figure 4.4. However, there were few banks like Equatorial, Consolidated and Eco Banks that have

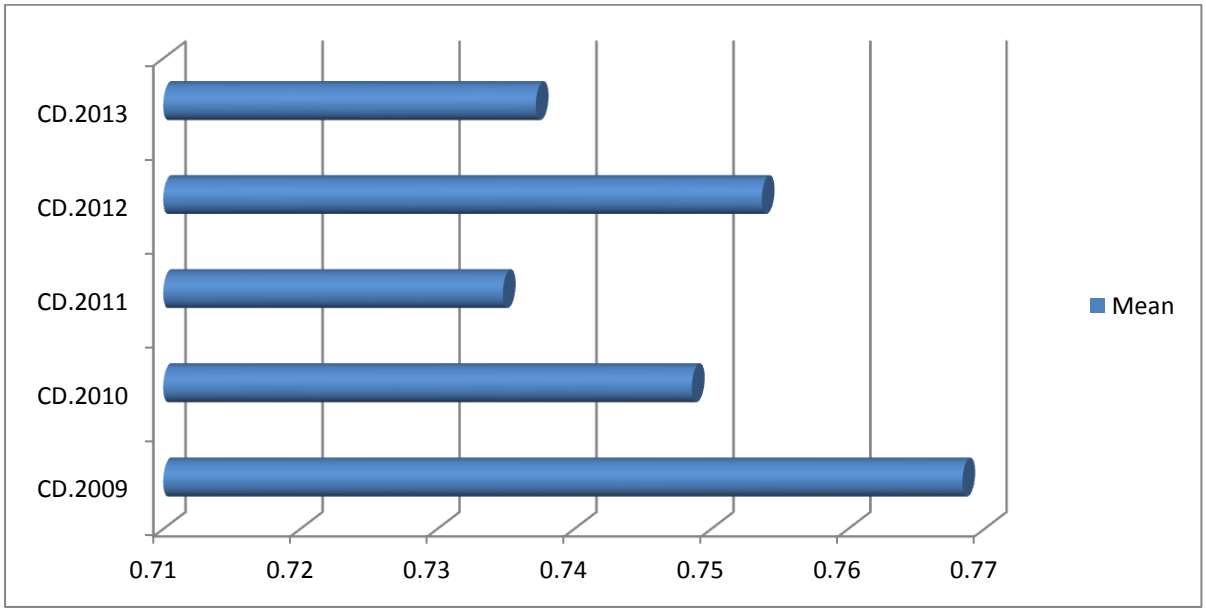
had instances where they were negative. This could be attributed to low profits after tax against the funds injected by the shareholders. The situation was worse for Equatorial in the year 2012 though highly improved in the year 2013. The situation is still bad for Eco Bank in the year 2013 hence may have to take serious change of strategies in order to salvage the situation.

4.2.3 Customer Deposit

Table 4.2: Customer Deposit Mean for Five Years

	Mean	Std. Deviation	N
CD.2009	0.7684	0.11343	27
CD.2010	0.7486	0.07873	27
CD.2011	0.7348	0.09647	27
CD.2012	0.7537	0.09092	27
CD.2013	0.7372	0.08509	27

Figure 4.5: A Bar Graph of Customer Deposit Mean



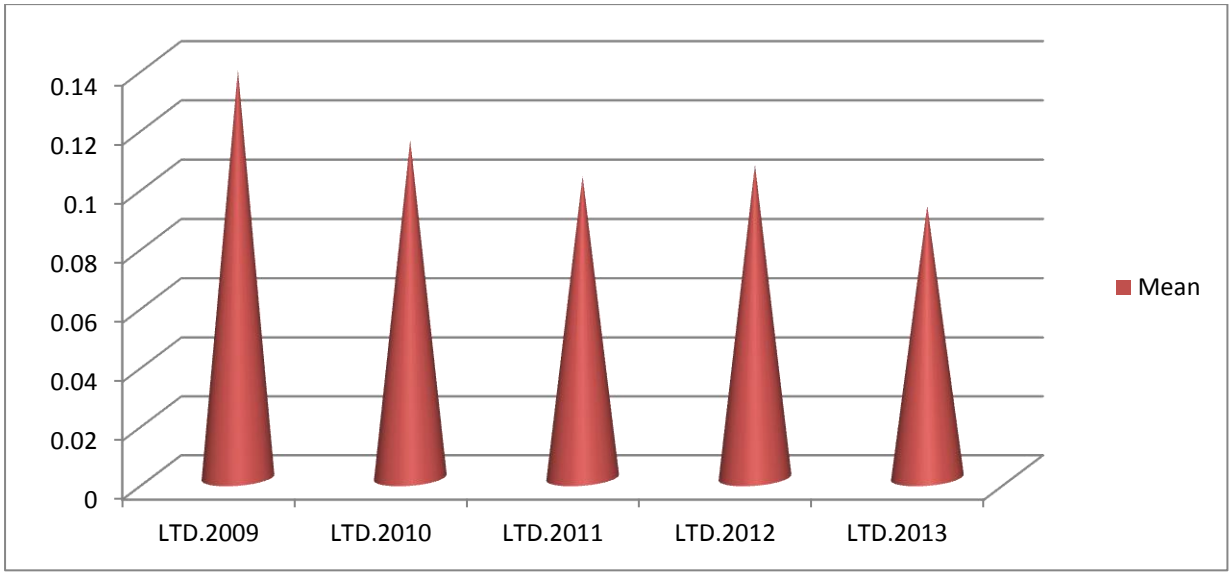
In Figure 4.5, the level of customer deposit was highest in the year 2009. This is an indication that the customers had more confidence keeping more of their cash in the banks. This has however changed over time and reduced signaling a situation where customers prefer to invest elsewhere rather than keep cash in the banks.

4.2.4 Long Term Debt

Table 4.3: Long Term Debt for Five Years

	Mean	Std. Deviation	N
LTD.2009	0.1378	0.29319	27
LTD.2010	0.1142	0.24346	27
LTD.2011	0.1021	0.20887	27
LTD.2012	0.1059	0.21923	27
LTD.2013	0.092	0.1711	27

Figure 4.6: A Bar Graph of Long Term Debt Mean



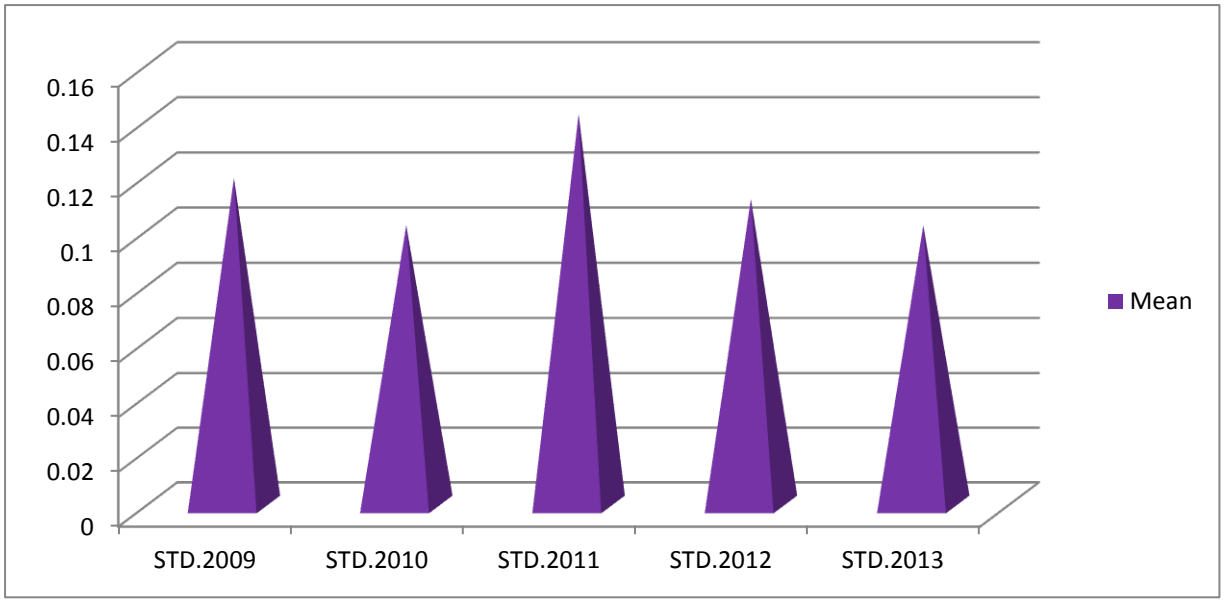
Long term debt was also highest in the year 2009 which generally means that the industry also borrowed more funds for further lending probably due to increase in lending propositions to various customer brackets as indicated in Figure 4.6.

4.2.5 Short Term Debt

Table 4.4: Short Term Debt for Five Years

	Mean	Std. Deviation	N
STD.2009	0.1189	0.26452	27
STD.2010	0.1018	0.14029	27
STD.2011	0.1421	0.23393	27
STD.2012	0.1113	0.22872	27
STD.2013	0.1017	0.18437	27

Figure 4.7: A Bar Graph of Short Term Debt mean



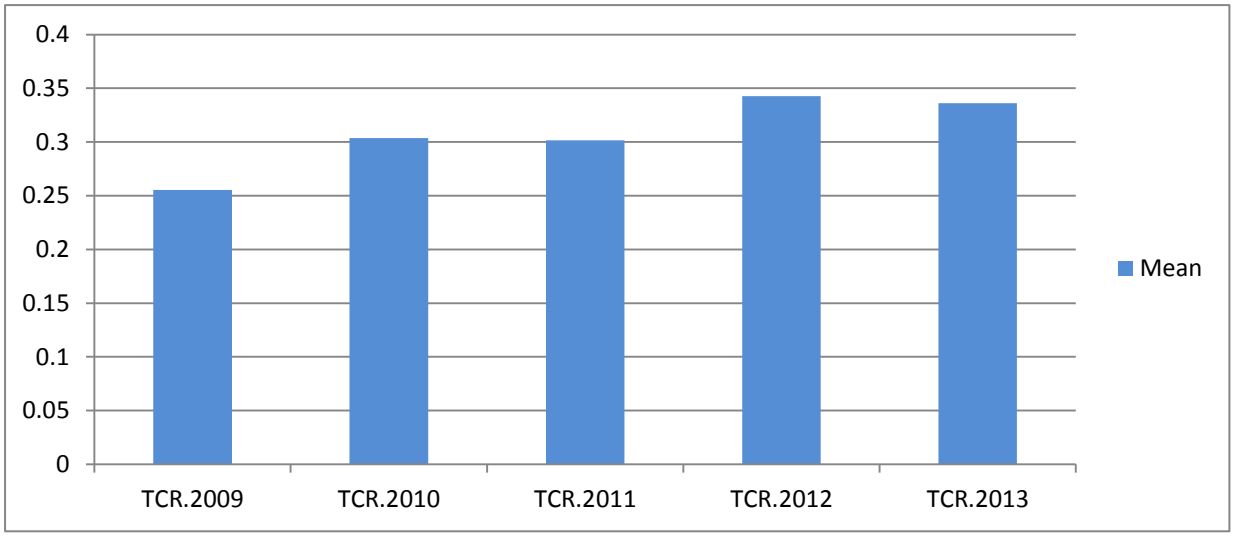
The year 2011 saw the level of short term debt increase so much. This can be attributed to the scenario where the interest rates were very high and bans had to look for ways of obtaining short term debt to manage their customers. The short term debt was a better alternative to long term debt since it was easier to take calculated risks on them as compared to long term yet the market was highly depressed and the Central Bank Rate kept increasing over time.

4.2.6 Total Capital Reserve

Table 4.5: Total Capital Reserve for Five Years

	Mean	Std. Deviation	N
TCR.2009	0.2553	0.35779	27
TCR.2010	0.3036	0.36728	27
TCR.2011	0.3014	0.31848	27
TCR.2012	0.3427	0.25633	27
TCR.2013	0.3362	0.25235	27

Figure 4.8: A Bar Graph of Total Capital Reserve Mean



The Total Capital Reserve was highest in 2012. This can be attributed to increase in the customer deposits over time which was a culmination of the change in legislation. During this time several banks had gone through mergers all the way from 2009.

4.2.7 Estimated or Empirical Model – Traditional Approach

Below is Table 4.7 showing regression model of ROA 2013 against banks capital structure. The year 2013 was chosen to represent the rest because it had relatively high mean for both ROE and ROA in the preceding figures.

Table 4.6: Return on Asset 2013 against Capital Structure Regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.269[a]	.072	-.149	.01736	.072	.327	5	21	.891

a. Predictors: (Constant), SIZE2013, AGE2013, TANG2013, GRTH2013, DBRT2013

The Adjusted R square is -0.149. When converted to percentage, this depicts that 15% of the total variability in ROA in 2013 is explained by the factors influencing the capital structure which entails Size, Age, Tangibility, Growth Rate and Debt Ratio of the financial institution. Other dynamic forces in the market explain 85% of ROA variability.

Table 4.7: Return on Asset 2013 against Capital Structure ANOVA

ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	.000	5	.000	.327	.891[b]
Residual	.006	21	.000		
Total	.007	26			

Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	-.054	.110		-.488	.631	-.281	.174
GRTH2013	.024	.028	.196	.874	.392	-.033	.082
TANG2013	.004	.081	.010	.045	.965	-.166	.173
DBRT2013	.036	.038	.815	.951	.352	-.043	.115
AGE2013	.000	.000	-.153	-.696	.494	.000	.000
SIZE2013	.003	.003	.836	.973	.341	-.003	.009

a. Dependent Variable: ROA2013

a. Dependent Variable: ROA2013

b. Predictors: (Constant), SIZE2013, AGE2013, TANG2013, GRTH2013, DBRT2013

From the ANOVA results above (**Table 4.8**) with significance of 0.891, the researcher rejects the null hypothesis that there is linear relationship between the dependent variable and each independent variables in the model, since p-value >0.05.

Table 4.8: Return on Asset 2013 against Capital Structure Coefficients

The coefficient table (**Table 4.9**) tells all the relationship between the independent and dependent variables in the model. The size in the table above explains 84% of the total variability in ROA (t=0.973). The size t-value is the only one amongst the rest which is closer to the critical value of 95% confidence interval (Z-score = 1.96). The other variable with significant explanation is debt ratio (t=0.951 and p=0.352). Other than age, all the beta coefficients of independent variables are positive meaning that for every unit increase in each independent variable has a multiple increase in the ROA with highest deviation in size and least in age.

Another year that underscores significant performance in ROA comparatively in line with study objectives is 2012. The model summary had the Adjusted R square is -0.231. When converted to percentage, this depicts that about 23% of the total variability in ROA in 2012 is explained by the capital structure which entails Size, Age, Tangibility, Growth Rate and Debt Ratio of the financial institution. Other dynamic forces in the market explain 85% of ROA variability. From the ANOVA results on appendix 2 there is significance of 1.000, the researcher accepts the null hypothesis that there is no linear relationship between the dependent variable and each independent variables in the model, since p-value >0.05. From the coefficient table in appendix 2 ROA 2012, the debt ratio explains 11% of the total variability in ROA (t=0.136). Tangibility t-value is the only one amongst the rest which is closer to the critical value of 95% confidence interval (Z-score = 1.96).

Regression for ROE 2013 results are shown in the following tables.

Table 4.9: Return on Equity for 2013 against Capital Structure Regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.336[a]	.113	-.098	4.89252	.113	.536	5	21	.747

a. Predictors: (Constant), SIZE2013, AGE2013, TANG2013, GRTH2013, DBRT2013

The Adjusted R square is -0.098. That depicts that depicts that (in percentage) about 10% of the total variability in ROE in 2013 is explained by the capital structure which entails Size, Age, Tangibility, Growth Rate and Debt Ratio of the financial institution.

Table 4.10: Return on Equity for 2013 against Capital Structure ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	64.125	5	12.825	.536	.747[b]
	Residual	502.672	21	23.937		
	Total	566.797	26			

a. Dependent Variable: ROE2013

b. Predictors: (Constant), SIZE2013, AGE2013, TANG2013, GRTH2013, DBRT2013

With degree of freedom of 5, F=0.536 and p=0.747, the model suggest a strong relationship between ROE and the capital structure.

Table 4.11: Return on Equity for 2013 against Capital Structure Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B		Correlations		
		B	Std. Error	Beta			Lower Bound	Upper Bound	Zero-order	Partial	Part
1	(Constant)	15.45	30.89		0.5	0.622	-48.8	79.68			
	GRTH2013	-11.2	7.799	-0.32	-1.43	0.167	-27.4	5.052	-0.263	-0.298	-0.294
	TANG2013	-0.08	22.93	-0	-0	0.997	-47.8	47.6	0.034	-0.001	-0.001
	DBRT2013	-0.16	10.71	-0.01	-0.02	0.988	-22.4	22.11	0.131	-0.003	-0.003
	AGE2013	0.021	0.046	0.1	0.464	0.647	-0.07	0.116	0.087	0.101	0.095
	SIZE2013	-0.2	0.844	-0.2	-0.24	0.816	-1.95	1.556	-0.118	-0.051	-0.048

a. Dependent Variable: ROE2013

Total capital reserve in Table 4.12 above explains 10% of the total variability in ROE (t=0.464). Total capital reserve t-value is the highest and closer to the critical value of 95% confidence interval (Z-score = 1.96).

The Adjusted R square for ROE 2010 is -0.193. That depicts that depicts that (in percentage) about 19% of the total variability in ROE in 2010 is explained by the capital structure which entails Size, Age, Tangibility, Growth Rate and Debt Ratio of the financial institution.

With degree of freedom of 5, F=0.158 and p=0.975, the model suggest a strong relationship between ROE and the capital structure.

4.2.8 Estimated or Empirical Model – Conventional Approach

Below is Table 4.7 showing regression model of ROA 2013 against banks capital structure. The year 2013 was chosen to represent the rest because it had relatively high mean for both ROE and ROA in the preceding figures.

Table 4.12: Return on Asset 2013 against Capital Structure Regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.616[a]	.380	.267	.013875	.380	3.364	4	22	.027

a. Predictors: (Constant), TCR.2013, CD.2013, STD.2013, LTD.2013

The Adjusted R square is 0.267. When converted to percentage, this depicts that 27% of the total variability in ROA in 2013 is explained by the capital structure which entails Total Capital Reserve, Customer Deposit, Short Term Debt and Long Term Debt. Other dynamic forces in the market explain 73% of ROA variability.

Table 4.13: Return on Asset 2013 against Capital Structure ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.003	4	.001	3.364	.027[b]
	Residual	.004	22	.000		
	Total	.007	26			

a. Dependent Variable: ROA.2013

b. Predictors: (Constant), TCR.2013, CD.2013, STD.2013, LTD.2013

From the ANOVA results above (**Table 4.14**) with significance of 0.027, the researcher rejects the null hypothesis that there is no linear relationship between the dependent variable and each independent variables in the model, since p-value <0.05.

Table 4.14: Return on Asset 2013 against Capital Structure Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.008	.029		.270	.790	-.051	.067
	CD.2013	.005	.037	.025	.130	.898	-.071	.081
	LTD.2013	.035	.020	.370	1.777	.089	-.006	.076
	STD.2013	.000	.016	.005	.027	.979	-.034	.034
	TCR.2013	.036	.012	.566	3.129	.005	.012	.060

a. Dependent Variable: ROA.2013

The coefficient table (**Table 4.15**) tells all the relationship between the independent and dependent variables in the model. Total capital reserve in the table above explains 57% of the total variability in ROA (t=3.129). Total capital reserve t-value is the only one amongst the rest which is closer to the critical value of 95% confidence interval (Z-score = 1.96). The other variable with significant explanation long term debt (t=1.777 and p=0.089). All the beta coefficients of independent variables are positive meaning that for every unit increase in each independent variable has a multiple increase in the ROA with highest deviation in total capital reserve and least in short term debts.

From the table on Appendix 2, it can be depicted that the ROA has a Pearson correlation of 0.222^{xx} and 0.309^{xx} on short-term debts and total capital reserve. Long term debt also has a significance of 0.415xx in relation with short term debts. All these are indicators of strong significance of the correlations.

Another year that underscores significant performance in ROA comparatively in line with study objectives is 2011. The model summary had the Adjusted R square is 0.191. When converted to percentage, this depicts that about 20% of the total variability in ROA in 2011 is explained by the capital structure which entails Total Capital Reserve, Customer Deposit, Short Term Debt and Long Term Debt. Other dynamic forces in the market explain 80% of

ROA variability. From the ANOVA results on appendix 2 there is significance of 0.069, the researcher accepts the null hypothesis that there is no linear relationship between the dependent variable and each independent variables in the model, since p-value >0.05. From the coefficient table in appendix 2 ROA 2011, the short term debt explains 53% of the total variability in ROA (t=2.602). Short term debt t-value is the only one amongst the rest which is closer to the critical value of 95% confidence interval (Z-score = 1.96).

Regression for ROE 2013 results are shown in the following tables.

Table 4.15: Return on Equity for 2013 against Capital Structure Regression

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.730[a]	.533	.448	.083143	.533	6.273	4	22	.002

a. Predictors: (Constant), TCR.2013, CD.2013, STD.2013, LTD.2013

The Adjusted R square is 0.448. That depicts that depicts that (in percentage) about 45% of the total variability in ROE in 2013 is explained by the capital structure which entails Total Capital Reserve, Customer Deposit, Short Term Debt and Long Term Debt.

Table 4.16: Return on Equity for 2013 against Capital Structure ANOVA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.173	4	.043	6.273	.002[b]
	Residual	.152	22	.007		
	Total	.326	26			

a. Dependent Variable: ROE.2013

b. Predictors: (Constant), TCR.2013, CD.2013, STD.2013, LTD.2013

With degree of freedom of 4, F=6.273 and p=0.002, the model suggest a strong relationship between ROE and the capital structure.

Table 4.17: Return on Equity for 2013 against Capital Structure Coefficients

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.170	.171		.995	.331	-.184	.525
	CD.2013	-.140	.220	-.106	-.637	.530	-.596	.316
	LTD.2013	-.166	.118	-.254	-1.403	.175	-.411	.079
	STD.2013	.002	.098	.004	.023	.982	-.201	.206
	TCR.2013	.290	.070	.655	4.168	.000	.146	.435

a. Dependent Variable: ROE.2013

Total capital reserve in Table 4.18 above explains 66% of the total variability in ROE (t=4.168). Total capital reserve t-value is the highest and closer to the critical value of 95% confidence interval (Z-score = 1.96).

From the table on Appendix 2, it can be depicted that the ROE has a Pearson correlation of 0.023 and 0.129 on short term debts and total capital reserve. Long term debt also has a significance of 0.415xx in relation with short term debts. All these are indicators of strong significance of the correlations.

The Adjusted R square for ROE 2011 is 0.455. That depicts that depicts that (in percentage) about 46% of the total variability in ROE in 2011 is explained by the capital structure which entails Total Capital Reserve, Customer Deposit, Short Term Debt and Long Term Debt.

With degree of freedom of 4, F=6.427 and p=0.001, the model suggest a strong relationship between ROE and the capital structure.

Comparatively, the values of ROE in 2011 were significantly high. The Adjusted R Square value of 0.455 intimates about 46% of total variability in ROE in that year is explained by the capital structure in the model as shown in Appendix 2.

Short term debts and total capital reserve in Appendix 2 explains 52% respectively of the total variability in ROE (t=3.106 and t=3.455). The two t-values are the highest in the beta coefficients and are closer to the critical value of 95% confidence interval (Z-score = 1.96).

4.3 Results and Discussion

The study evaluated the various variables that the researcher picked out to check the effect of capital structure choice on financial performance of commercial banks in Kenya. From the above levels of analysis, variables like customer deposits, short term debts, long term debts, total capital reserves, size, age, tangibility, growth rate and debt ratio of the financial institution.

The result of the study shows that both ROA and ROE have a positive relationship with the capital structure variables under study for commercial banks. The ROA mean was highest in the year 2010. This is an indicator that the general managerial efficiency in the banking industry was best then but was negatively affected in the subsequent years probably due to the changes in the external environment like run away interest rates.

The ROE mean in 2011 was highest which shows a scenario where the customer deposits were high and considering the lending environment then when the lending interest rates were on the run away and the Central Bank Rate increased monthly. The interest paid on deposits was therefore equally high increasing that ROE.

The level of customer deposit was highest in the year 2009. This is an indication that the customers had more confidence keeping more of their cash in the banks. This has however

changed over time and reduced signaling a situation where customers prefer to invest elsewhere rather than keep cash in the banks. Long term debt was also highest in the year 2009 which generally means that the industry also borrowed more funds for further lending probably due to increase in lending propositions to various customer brackets. The high level of customer deposits and long term debt in 2009 can also be attributed to change of legislation where the banks were expected to reach certain threshold in their capital base.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This chapter depicts the summary of the study, the conclusion and recommendations for further research. The overall goal of the study was to appreciate the effects of capital structure choice on financial performance of commercial banks in Kenya. The results of the study are presented and discussed in the proceeding sections.

5.2 Summary of the Study

The study was geared towards finding out the effects of capital structure choice on financial performance of commercial banks in Kenya. The study involved analyzing data from secondary sources. Most of the data was obtained from CBK involving all the 43 banks in Kenya. The Commercial Banks had the following determinants of Capital Structure analyzed; Age of the firm, Size of the firm, Tangibility of the Assets and Firm growth. Data from the 43 banks for the period between years 2009 and 2013 were combined and analyzed.

The objective of the study was to evaluate the effect of capital structure choice structure on financial performances of the commercials Banks in Kenya. The researcher analyzed the ROA and ROE for a period of 5 years between years 2009 to year 2013. The year 2013 saw the highest ROA and ROE than the previous years.

Prevailing structure of financing applied by commercial banks matter a lot since it has a pointer either to the ROA or the ROE. The independent variables are the customer deposits, short term debt, long term debt and the total capital reserve. How these independent variables are chosen have a direct correlation with the ROA and ROE.

5.3 Conclusion

The debate on the effect of capital structure choice structure on financial performances of the commercials Banks in Kenya is inconclusive and may go on indefinitely. There are several schools of thought. This is due to the fact that there are several theories that seek to explain the aspect of capital structure on performance yet we have only narrowed down to two aspects of performance; i.e. ROA and ROE. It is imperative to note that there are several other reasons that would influence performance. These are: internal financing, loans from other banks, loans from non-banks, issuance of debt securities, issuance of equity, available investment opportunities, drop in CBR and political risk, project proposal highlighting the strengths, weaknesses, opportunities and threats, financial projections, monitoring costs, credit or default risk because of the problem of information asymmetry and enforcement costs.

The difficulty facing banks when structuring their finance is to determine its impact on performance, as the performance of the business is crucial to the value of the firm and consequently its survival. Modigliani-Miller theorem has failed under a variety of circumstances. The most commonly used elements include consideration of taxes, transaction costs, bankruptcy cost, agency conflicts, adverse selection, lack of separation between financing and operations, time- varying financial market opportunities and investor clientele effects.

Many other cost factors have been suggested under the trade-off theory, and it would lead to far to discuss them all. Therefore, this discussion ends with the assertion that an important prediction of the static trade off theory is that firms target their capital structures, For example if the actual leverage ratio deviates from the optimal one, the firm will adapt its financing behavior in a way that brings the leverage ratio back to the optimal level.

5.4 Limitations of the Study

One of the major limitations experienced was use of secondary data entirely. The researcher was not able to clearly determine what other quantitative and qualitative problems affect capital structure choice of commercial banks in Kenya other than the customer deposits, short term debt, long term debt and total capital reserve. There are so many qualitative aspects that would have come out better had we used primary data and captured the sentiments directly from the source.

The models applied to analyze the data were so complex and it took a long time to actually work out and interpret the results. The researcher would have projected the model better had I combined the use of primary data as well. This is because some variables in the model required more input other than what was extracted.

Time was a major constraint in this study. The researcher would have wanted to analyze more relationships but this was not possible since time to complete the study was highly limited. There was need to review more studies by other researchers to actually investigate various dimensions on effect of capital structure choice.

There are limited local previous studies on the same research problem. Most studies that were close were looking more at the general capital structures. The researcher therefore did not review as much of local studies as desired.

The population and sample used was highly summarized. The researcher could have done more with primary data on the dynamics and complexities affecting different sectors as individuals.

5.5 Recommendations

5.5.1 Policy Recommendations

The Central Bank of Kenya has had to put up stringent policy environment which is aimed at strengthening the commercial banks through enhanced capital requirements. The push to have banks increase their capital buffer has preoccupied central bankers globally over the past few years following the 2007-2009 financial crises. Under the Basel III rules being implemented globally, banks are expected to raise their capital thresholds. The Basel accords are a set of guidelines meant to strengthen banks' capital adequacy ratios, quality of assets and risk management.

The new rules require all lenders in the country to maintain a minimum core capital to risk-weighted assets ratio — a measure of a bank's financial strength based on what shareholders have put in — of 10.50 per cent, up from the current eight per cent, and a total capital to risk-weighted assets ratio — a gauge of a bank's financial strength based on total capital including items such as goodwill and revaluation — of 14.50 per cent, up from the current 12 per cent.

The capital requirements relate to banks setting aside capital to cater for operational and market risks. Previously, capital was only set aside for credit risk. The rationale for this requirement is to ensure that we have strong, resilient banks

5.5.2 Suggestions for Further Research

Capital structure is a fundamental decision that organizations have to make from time to time depending on their requirements and their projections for the future. It is therefore safe to conclude that there is no specific and perfect structure that would apply for all the commercial banks in a uniform manner. This is because they are also at different levels of what they hold as customer deposits, short term debt, long term debt and total capital

reserves. The fact that there are other aspects of the external environment that influence banks' decisions on what would influence their performance.

Studies have shown that there is a pervasive view amongst some stakeholders. Modigliani-Miller theorem has failed under a variety of circumstances. The most commonly used elements include consideration of taxes, transaction costs, bankruptcy cost, agency conflicts, adverse selection, lack of separation between financing and operations, time- varying financial market opportunities and investor clientele effects

The static trade-off theory affirms that firms have optimal capital structure, which they determine by trading off the costs against the benefits of the use of debt and equity. One of the benefits of the use of debt is the advantage of a debt tax shield. One of the disadvantages of debt is the cost of potential financial distress, especially when the firm relies on too much debt. Already, this leads to a trade-off between tax benefit and the disadvantage of higher risk of financial distress. But there are more cost and benefits involved with the use of debt and equity. One other major cost factor consists of agency costs.

Pecking order theory uses this theory to argue that companies will prefer to use internally generated funds and if external funds are required, debt will be preferred to issuing shares. Firms will use debt only when they have exhausted the internal funds.

The optimal financial choice today depends on what is expected to be optimal in the next period. In the next period, it may be optimal to raise funds or to pay them out. If raising new funds, it might be optimal to raise them in the form of debt or in the form of equity. In each case, what is expected to be optimal in the next period will help to pin down the relevant comparison for the firm in the current period.

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APPENDICES

Appendix 1: Banks in Kenya.

1. African Banking Corporation Ltd.
2. Bank of Africa Kenya ltd.
3. Bank of Baroda (K) ltd.
4. Bank of India.
5. Barclays Bank of Kenya ltd.
6. CFC Stanbic Bank Ltd.
7. Charterhouse bank Ltd (Under statuory management).
8. Chase Bank (K) Ltd.
9. Citibank N.A Kenya.
10. Commercial Bank of Africa ltd.
11. Consolidated Bank of Kenya Ltd.
12. Co-operative Bank of Kenya Ltd.
13. Credit Bank Ltd.
14. Development Bank of Kenya Ltd.
15. Diamond Trust Bank (K) Ltd.
16. Dubai Bank Kenya Ltd.
17. Equitorial commercial Bank Ltd.
18. Equity Bank Ltd.
19. Family Bank Ltd.
20. Fidelity commercial Bank Ltd.
21. Fina Bank Ltd.
22. First Community Bank Ltd.
23. Giro commercial Bank Ltd.
24. Guardian Bank Ltd.
25. Gulf African Bank Ltd.
26. Habib Bank A.G Zurich.
27. Habib Bank Ltd.
28. Imperial Bank Ltd.
29. Investment and Mortgages Bank Ltd.
30. Jamii Bora Bank Ltd.
31. Kenya Commercial Bank Ltd.

32. K-Rep Bank (K) Ltd.
33. Middle East Bank (K).
34. National Bank of Kenya Ltd.
35. NIC Bank Ltd.
36. Oriental Commercial Bank Ltd.
37. Paramount Universal Bank Ltd.
38. Prime Bank Ltd.
39. Standard Chartered Bank (K) Ltd.
40. Trans-National Bank Ltd.
41. Victoria Commercial Bank Ltd.
42. UBA Kenya Bank Ltd.

Source-Central Bank of Kenya website.

Appendix 2: Table 4.18: List of Banks and their Respective Mean of ROA

BANK	YEAR	ROA	ROE	CD	LTD	STD	TCR
ABC	2013	0.034	0.029	0.76	0.48	0.24	0.12
ABC	2012	0.033	0.029	0.76	0.72	0.57	0.11
ABC	2011	0.034	0.029	0.79	0.04	0.07	0.14
ABC	2010	0.039	0.033	0.76	0.08	0.10	0.16
ABC	2009	0.043	0.034	0.79	0.24	0.26	0.19
BAI	2013	0.018	0.106	0.81	0.01	0.00	0.04
BAI	2012	0.018	0.155	0.86	0.00	0.00	-0.12
BAI	2011	0.012	0.118	0.84	0.00	0.05	-0.33
BAI	2010	0.010	0.080	0.85	-0.01	0.01	-0.43
BAI	2009	0.004	0.028	0.83	-0.02	0.01	-0.52
BOB	2013	0.039	0.269	0.76	0.00	0.90	0.85
BOB	2012	0.030	0.239	0.76	0.00	1.09	0.80
BOB	2011	0.037	0.276	0.82	0.00	0.04	0.77
BOB	2010	0.043	0.294	0.79	0.00	0.05	0.76
BOB	2009	0.043	0.308	0.85	0.00	0.09	0.66
Bar	2013	0.044	0.294	0.63	0.02	0.08	0.12
Bar	2012	0.056	0.405	0.70	0.03	0.02	0.21
Bar	2011	0.059	0.415	0.79	0.03	0.91	0.23
Bar	2010	0.075	0.485	0.76	0.03	0.02	0.20
Bar	2009	0.043	0.327	0.79	0.03	0.01	0.23
BOA	2013	0.008	0.067	0.70	0.07	0.13	0.17
BOA	2012	0.014	0.143	0.72	0.02	0.17	0.17
BOA	2011	0.015	0.124	0.62	0.03	0.25	0.15
BOA	2010	0.013	0.126	0.75	0.05	0.10	0.16
BOA	2009	0.011	0.091	0.74	0.05	0.09	0.14
CFC	2013	0.028	0.158	0.72	0.04	0.02	0.40
CFC	2012	0.021	0.110	0.70	0.06	0.02	0.31
CFC	2011	0.014	0.189	0.53	0.05	0.26	0.62
CFC	2010	0.014	0.147	0.68	0.07	0.16	0.60
CFC	2009	0.008	0.098	0.57	0.05	0.30	0.54
CBA	2013	0.026	0.244	0.72	0.00	0.17	0.53
CBA	2012	0.026	0.243	0.77	0.00	0.11	0.47
CBA	2011	0.018	0.156	0.81	0.00	0.07	0.37
CBA	2010	0.030	0.251	0.92	0.00	0.05	0.34
CBA	2009	0.033	0.205	1.11	0.00	0.04	0.28
ConB	2013	-0.007	-0.088	0.70	0.14	0.08	0.10
ConB	2012	-0.002	-0.027	0.75	0.15	0.01	0.17
ConB	2011	0.010	0.108	0.79	0.22	0.09	0.19
ConB	2010	0.017	0.134	0.78	0.40	0.02	0.13
ConB	2009	0.021	0.144	0.59	0.50	0.07	0.09
COOP	2013	0.045	0.300	0.78	0.05	0.02	0.72
COOP	2012	0.042	**0.310**	0.81	0.03	0.02	0.66
COOP	2011	0.033	**0.260**	0.86	0.00	0.02	0.53
COOP	2010	0.035	**0.250**	0.84	0.00	0.03	0.52
COOP	2009	0.031	**0.200**	0.84	0.00	0.02	0.45
CreB	2013	0.007	0.043	0.75	0.00	0.07	0.07
CreB	2012	0.011	0.059	0.75	0.00	0.06	0.14
CreB	2011	0.009	0.049	0.73	0.00	0.07	0.13
CreB	2010	0.007	0.036	0.72	0.00	0.07	0.12
CreB	2009	0.016	0.079	0.76	0.00	0.03	0.26
DTB	2013	0.035	0.244	0.79	0.04	0.03	0.75
DTB	2012	0.033	0.258	0.80	0.03	0.02	0.68

DTB	2011	0.031	0.259	0.77	0.06	0.02	0.68
DTB	2010	0.033	0.287	0.77	0.04	0.03	0.74
DTB	2009	0.022	0.194	0.77	0.05	0.03	0.79
ECO	2013	0.014	0.116	0.70	0.07	0.13	0.17
ECO	2012	0.008	0.083	0.72	0.02	0.17	0.17
ECO	2011	0.015	0.124	0.62	0.03	0.25	0.15
ECO	2010	0.007	0.117	0.61	0.11	0.21	0.71
ECO	2009	-0.057	-0.371	0.78	0.04	0.04	-0.23
Equa	2013	0.004	0.041	0.89	0.01	0.01	0.11
Equa	2012	-0.034	-0.667	0.92	0.01	0.02	0.24
Equa	2011	0.006	0.060	0.76	0.02	0.14	-0.43
Equa	2010	-0.007	-0.075	0.77	0.00	0.14	-0.65
Equa	2009	0.011	0.071	0.79	0.00	0.05	0.17
EQTY	2013	0.053	0.249	0.67	0.14	0.00	0.61
EQTY	2012	0.051	0.258	0.65	0.15	0.01	0.56
EQTY	2011	0.053	0.301	0.53	0.09	0.02	0.30
EQTY	2010	0.050	0.262	0.73	0.06	0.00	0.61
EQTY	2009	0.047	0.196	0.68	0.08	0.00	0.02
FAMY	2013	0.029	0.207	0.80	0.04	0.01	0.46
FAMY	2012	0.018	0.115	0.79	0.03	0.00	0.34
FAMY	2011	0.016	0.014	0.79	0.62	0.00	0.13
FAMY	2010	0.021	0.018	0.75	0.60	0.00	0.15
FAMY	2009	0.019	0.017	0.75	1.12	0.00	0.14
FINA	2013	0.007	0.039	0.79	0.01	0.02	0.27
FINA	2012	0.018	0.170	0.85	0.01	0.01	0.47
FINA	2011	0.021	0.203	0.57	0.01	0.02	0.49
FINA	2010	0.010	0.100	0.83	0.02	0.03	0.49
FINA	2009	0.006	0.059	0.80	0.02	0.07	0.38
GIRO	2013	0.033	0.028	0.77	0.06	0.00	0.15
GIRO	2012	0.022	0.018	0.78	0.08	0.01	0.14
GIRO	2011	0.029	0.025	0.79	0.12	0.12	0.13
GIRO	2010	0.058	0.050	0.76	0.13	0.57	0.13
GIRO	2009	0.025	0.022	0.83	0.35	0.13	0.12
IMPL	2013	0.043	0.324	0.79	0.01	0.05	0.70
IMPL	2012	0.041	0.308	0.80	0.03	0.04	0.68
IMPL	2011	0.047	0.325	0.75	0.03	0.07	0.61
IMPL	2010	0.046	0.293	0.71	0.00	0.13	0.54
IMPL	2009	0.036	0.247	0.80	0.02	0.05	0.48
HFCK	2013	0.012	0.061	0.44	0.33	0.00	0.39
HFCK	2012	0.016	0.078	0.42	0.36	0.01	0.37
HFCK	2011	0.020	0.132	0.59	0.26	0.03	0.75
HFCK	2010	0.013	0.089	0.54	0.29	0.06	0.72
HFCK	2009	0.013	0.057	0.67	0.00	0.12	0.71
I&M	2013	0.051	0.304	0.69	0.10	0.05	0.61
I&M	2012	0.048	0.294	0.74	0.04	0.06	0.55
I&M	2011	0.029	0.204	0.79	0.04	0.03	0.50
I&M	2010	0.024	0.153	0.79	0.03	0.02	0.35
I&M	2009	0.033	0.241	0.82	0.03	0.00	0.02
KCB	2013	0.038	0.244	0.68	0.13	0.11	0.16
KCB	2012	0.035	0.250	0.69	0.17	0.18	0.15
KCB	2011	0.038	0.247	0.70	0.21	0.34	0.13
KCB	2010	0.034	0.183	0.69	0.07	0.34	0.16
KCB	2009	0.024	0.179	0.76	0.13	0.37	0.12
NATL	2013	0.012	0.092	0.84	0.00	0.00	0.30
NATL	2012	0.011	0.070	0.82	0.00	0.00	0.27

NATL	2011	0.023	0.148	0.83	0.00	0.00	0.32
NATL	2010	0.034	0.204	0.80	0.00	0.02	0.29
NATL	2009	0.028	1.323	0.94	0.03	0.00	0.78
ORIEL	2013	0.020	0.092	0.77	0.00	0.01	-0.09
ORIEL	2012	0.015	0.068	0.77	0.00	0.00	-0.19
ORIEL	2011	0.030	0.118	0.73	0.00	0.00	-0.28
ORIEL	2010	0.034	0.137	0.72	0.00	0.04	-0.45
ORIEL	2009	0.013	0.039	0.66	0.00	0.02	-0.68
PRIME	2013	0.029	0.248	0.82	0.00	0.06	0.48
PRIME	2012	0.022	0.229	0.84	0.00	0.06	0.40
PRIME	2011	0.024	0.223	0.82	0.00	0.06	0.47
PRIME	2010	0.019	0.156	0.80	0.00	0.07	0.59
PRIME	2009	0.017	0.132	0.81	0.00	0.02	0.59
SCB	2013	0.050	0.042	0.64	0.75	0.43	0.16
SCB	2012	0.049	0.041	0.67	0.90	0.23	0.16
SCB	2011	0.041	0.036	0.71	0.92	0.87	0.13
SCB	2010	0.044	0.038	0.66	1.11	0.45	0.14
SCB	2009	0.043	0.038	0.66	1.01	1.36	0.11
TRANL	2013	0.016	0.085	0.73	0.00	0.04	0.44
TRANL	2012	0.024	0.116	0.73	0.00	0.02	0.64
TRANL	2011	0.028	0.116	0.72	0.00	0.00	0.62
TRANL	2010	0.030	0.092	0.63	0.00	0.00	0.57
TRANL	2009	0.027	0.068	0.55	0.00	0.01	0.56
VICTA	2013	0.033	0.196	0.77	0.00	0.07	0.26
VICTA	2012	0.030	0.184	0.77	0.00	0.07	0.69
VICTA	2011	0.035	0.195	0.79	0.00	0.03	0.63
VICTA	2010	0.029	0.161	0.79	0.00	0.02	0.56
VICTA	2009	0.026	0.153	0.80	0.00	0.02	0.49

Appendix 3: Regression Model of the Capital Structure and Bank Performance

Correlations: ROA

Descriptive Statistics

	Mean	Std. Deviation	N
ROA	.02555	.017293	135
CD	.7485	.09308	135
LTD	.1104	.22779	135
STD	.1151	.21209	135
TCR	.3078	.31108	135

Correlations

		ROA	CD	LTD	STD	TCR
ROA	Pearson Correlation	1	-.055	.154	.222**	.309**
	Sig. (2-tailed)		.527	.075	.010	.000
	Sum of Squares and Cross-products	.040	-.012	.081	.109	.223
	Covariance	.000	.000	.001	.001	.002
	N	135	135	135	135	135
CD	Pearson Correlation	-.055	1	-.274**	-.157	-.045
	Sig. (2-tailed)	.527		.001	.068	.604
	Sum of Squares and Cross-products	-.012	1.161	-.778	-.416	-.175
	Covariance	.000	.009	-.006	-.003	-.001
	N	135	135	135	135	135
LTD	Pearson Correlation	.154	-.274**	1	.415**	-.144
	Sig. (2-tailed)	.075	.001		.000	.095
	Sum of Squares and Cross-products	.081	-.778	6.953	2.684	-1.369
	Covariance	.001	-.006	.052	.020	-.010
	N	135	135	135	135	135
STD	Pearson Correlation	.222**	-.157	.415**	1	-.006
	Sig. (2-tailed)	.010	.068	.000		.943
	Sum of Squares and Cross-products	.109	-.416	2.684	6.028	-.055
	Covariance	.001	-.003	.020	.045	.000
	N	135	135	135	135	135
TCR	Pearson Correlation	.309**	-.045	-.144	-.006	1
	Sig. (2-tailed)	.000	.604	.095	.943	
	Sum of Squares and Cross-products	.223	-.175	-1.369	-.055	12.967
	Covariance	.002	-.001	-.010	.000	.097
	N	135	135	135	135	135

**. Correlation is significant at the 0.01 level (2-tailed).

Correlations: ROE

Descriptive Statistics

	Mean	Std. Deviation	N
ROE	.95950	4.204547	135
CD	.7485	.09308	135
LTD	.1104	.22779	135
STD	.1151	.21209	135
TCR	.3078	.31108	135

Correlations

		ROE	CD	LTD	STD	TCR
ROE	Pearson Correlation	1	-.096	.023	.129	-.085
	Sig. (2-tailed)		.268	.793	.134	.327
	Sum of Squares and Cross-products	2368.881	-5.031	2.919	15.471	-14.905
	Covariance	17.678	-.038	.022	.115	-.111
	N	135	135	135	135	135
CD	Pearson Correlation	-.096	1	-.274**	-.157	-.045
	Sig. (2-tailed)	.268		.001	.068	.604
	Sum of Squares and Cross-products	-5.031	1.161	-.778	-.416	-.175
	Covariance	-.038	.009	-.006	-.003	-.001
	N	135	135	135	135	135
LTD	Pearson Correlation	.023	-.274**	1	.415**	-.144
	Sig. (2-tailed)	.793	.001		.000	.095
	Sum of Squares and Cross-products	2.919	-.778	6.953	2.684	-1.369
	Covariance	.022	-.006	.052	.020	-.010
	N	135	135	135	135	135
STD	Pearson Correlation	.129	-.157	.415**	1	-.006
	Sig. (2-tailed)	.134	.068	.000		.943
	Sum of Squares and Cross-products	15.471	-.416	2.684	6.028	-.055
	Covariance	.115	-.003	.020	.045	.000
	N	135	135	135	135	135
TCR	Pearson Correlation	-.085	-.045	-.144	-.006	1
	Sig. (2-tailed)	.327	.604	.095	.943	
	Sum of Squares and Cross-products	-14.905	-.175	-1.369	-.055	12.967
	Covariance	-.111	-.001	-.010	.000	.097
	N	135	135	135	135	135

**. Correlation is significant at the 0.01 level (2-tailed).

ROA 2013

Descriptive Statistics

	Mean	Std. Deviation	N
ROA.2013	.02670	.016203	27
CD.2013	.7372	.08509	27
LTD.2013	.0920	.17110	27
STD.2013	.1017	.18437	27
TCR.2013	.3362	.25235	27

Correlations

		ROA.2013	CD.2013	LTD.2013	STD.2013	TCR.2013
Pearson Correlation	ROA.2013	1.000	-.135	.260	.255	.504
	CD.2013	-.135	1.000	-.478	-.076	.031
	LTD.2013	.260	-.478	1.000	.293	-.175
	STD.2013	.255	-.076	.293	1.000	.253
	TCR.2013	.504	.031	-.175	.253	1.000
Sig. (1-tailed)	ROA.2013	.	.251	.095	.100	.004
	CD.2013	.251	.	.006	.352	.440
	LTD.2013	.095	.006	.	.069	.191
	STD.2013	.100	.352	.069	.	.102
	TCR.2013	.004	.440	.191	.102	.
N	ROA.2013	27	27	27	27	27
	CD.2013	27	27	27	27	27
	LTD.2013	27	27	27	27	27
	STD.2013	27	27	27	27	27
	TCR.2013	27	27	27	27	27

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.616[a]	.380	.267	.013875	.380	3.364	4	22	.027

a. Predictors: (Constant), TCR.2013, CD.2013, STD.2013, LTD.2013

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.003	4	.001	3.364	.027[b]
	Residual	.004	22	.000		
	Total	.007	26			

a. Dependent Variable: ROA.2013

b. Predictors: (Constant), TCR.2013, CD.2013, STD.2013, LTD.2013

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.008	.029		.270	.790	-.051	.067
	CD.2013	.005	.037	.025	.130	.898	-.071	.081
	LTD.2013	.035	.020	.370	1.777	.089	-.006	.076
	STD.2013	.000	.016	.005	.027	.979	-.034	.034
	TCR.2013	.036	.012	.566	3.129	.005	.012	.060

a. Dependent Variable: ROA.2013

ROE 2013

Descriptive Statistics

	Mean	Std. Deviation	N
ROE.2013	.14940	.111895	27
CD.2013	.7372	.08509	27
LTD.2013	.0920	.17110	27
STD.2013	.1017	.18437	27
TCR.2013	.3362	.25235	27

Correlations

		ROE.2013	CD.2013	LTD.2013	STD.2013	TCR.2013
Pearson Correlation	ROE.2013	1.000	.034	-.316	.103	.697
	CD.2013	.034	1.000	-.478	-.076	.031
	LTD.2013	-.316	-.478	1.000	.293	-.175
	STD.2013	.103	-.076	.293	1.000	.253
	TCR.2013	.697	.031	-.175	.253	1.000
Sig. (1-tailed)	ROE.2013	.	.432	.054	.305	.000
	CD.2013	.432	.	.006	.352	.440
	LTD.2013	.054	.006	.	.069	.191
	STD.2013	.305	.352	.069	.	.102
	TCR.2013	.000	.440	.191	.102	.
N	ROE.2013	27	27	27	27	27
	CD.2013	27	27	27	27	27
	LTD.2013	27	27	27	27	27
	STD.2013	27	27	27	27	27
	TCR.2013	27	27	27	27	27

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.730[a]	.533	.448	.083143	.533	6.273	4	22	.002

a. Predictors: (Constant), TCR.2013, CD.2013, STD.2013, LTD.2013

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.173	4	.043	6.273	.002[b]
	Residual	.152	22	.007		
	Total	.326	26			

a. Dependent Variable: ROE.2013

b. Predictors: (Constant), TCR.2013, CD.2013, STD.2013, LTD.2013

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.170	.171		.995	.331	-.184	.525
	CD.2013	-.140	.220	-.106	-.637	.530	-.596	.316
	LTD.2013	-.166	.118	-.254	-1.403	.175	-.411	.079
	STD.2013	.002	.098	.004	.023	.982	-.201	.206
	TCR.2013	.290	.070	.655	4.168	.000	.146	.435

a. Dependent Variable: ROE.2013

ROA 2012

Descriptive Statistics

	Mean	Std. Deviation	N
ROA.2012	.02431	.018541	27
CD.2012	.7537	.09092	27
LTD.2012	.1059	.21923	27
STD.2012	.1113	.22872	27
TCR.2012	.3427	.25633	27

Correlations

		ROA.2012	CD.2012	LTD.2012	STD.2012	TCR.2012
Pearson Correlation	ROA.2012	1.000	-.314	.267	.145	.344
	CD.2012	-.314	1.000	-.418	-.059	-.002
	LTD.2012	.267	-.418	1.000	.273	-.234
	STD.2012	.145	-.059	.273	1.000	.196
	TCR.2012	.344	-.002	-.234	.196	1.000
Sig. (1-tailed)	ROA.2012	.	.055	.089	.236	.040
	CD.2012	.055	.	.015	.385	.497
	LTD.2012	.089	.015	.	.084	.120
	STD.2012	.236	.385	.084	.	.163
	TCR.2012	.040	.497	.120	.163	.
N	ROA.2012	27	27	27	27	27
	CD.2012	27	27	27	27	27
	LTD.2012	27	27	27	27	27
	STD.2012	27	27	27	27	27
	TCR.2012	27	27	27	27	27

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.527[a]	.278	.147	.017129	.278	2.116	4	22	.113

a. Predictors: (Constant), TCR.2012, CD.2012, STD.2012, LTD.2012

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.002	4	.001	2.116	.113[b]
	Residual	.006	22	.000		
	Total	.009	26			

a. Dependent Variable: ROA.2012

b. Predictors: (Constant), TCR.2012, CD.2012, STD.2012, LTD.2012

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.041	.033		1.257	.222	-.027	.110
	CD.2012	-.039	.041	-.194	-.960	.347	-.125	.046
	LTD.2012	.025	.019	.291	1.326	.198	-.014	.063
	STD.2012	-.002	.016	-.028	-.142	.888	-.035	.031
	TCR.2012	.030	.014	.417	2.129	.045	.001	.060

a. Dependent Variable: ROA.2012

ROE 2012

Descriptive Statistics

	Mean	Std. Deviation	N
ROE.2012	.13108	.192346	27
CD.2012	.7537	.09092	27
LTD.2012	.1059	.21923	27
STD.2012	.1113	.22872	27
TCR.2012	.3427	.25633	27

Correlations

		ROE.2012	CD.2012	LTD.2012	STD.2012	TCR.2012
Pearson Correlation	ROE.2012	1.000	-.237	-.138	.075	.364
	CD.2012	-.237	1.000	-.418	-.059	-.002
	LTD.2012	-.138	-.418	1.000	.273	-.234
	STD.2012	.075	-.059	.273	1.000	.196
	TCR.2012	.364	-.002	-.234	.196	1.000
Sig. (1-tailed)	ROE.2012	.	.116	.246	.356	.031
	CD.2012	.116	.	.015	.385	.497
	LTD.2012	.246	.015	.	.084	.120
	STD.2012	.356	.385	.084	.	.163
	TCR.2012	.031	.497	.120	.163	.
N	ROE.2012	27	27	27	27	27
	CD.2012	27	27	27	27	27
	LTD.2012	27	27	27	27	27
	STD.2012	27	27	27	27	27
	TCR.2012	27	27	27	27	27

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.470[a]	.221	.080	.184536	.221	1.562	4	22	.220

a. Predictors: (Constant), TCR.2012, CD.2012, STD.2012, LTD.2012

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.213	4	.053	1.562	.220[b]
	Residual	.749	22	.034		
	Total	.962	26			

a. Dependent Variable: ROE.2012

b. Predictors: (Constant), TCR.2012, CD.2012, STD.2012, LTD.2012

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.587	.355		1.655	.112	-.148	1.323
	CD.2012	-.688	.443	-.325	-1.553	.135	-1.607	.231
	LTD.2012	-.192	.200	-.219	-.959	.348	-.607	.223
	STD.2012	.047	.172	.056	.274	.787	-.310	.404
	TCR.2012	.226	.153	.301	1.480	.153	-.091	.542

a. Dependent Variable: ROE.2012

ROA 2011

Descriptive Statistics

	Mean	Std. Deviation	N
ROA.2011	.02679	.013558	27
CD.2011	.7348	.09647	27
LTD.2011	.1021	.20887	27
STD.2011	.1421	.23393	27
TCR.2011	.3014	.31848	27

Correlations

		ROA.2011	CD.2011	LTD.2011	STD.2011	TCR.2011
Pearson Correlation	ROA.2011	1.000	.044	.079	.389	.288
	CD.2011	.044	1.000	-.087	-.110	-.130
	LTD.2011	.079	-.087	1.000	.459	-.117
	STD.2011	.389	-.110	.459	1.000	-.185
	TCR.2011	.288	-.130	-.117	-.185	1.000
Sig. (1-tailed)	ROA.2011	.	.415	.348	.022	.072
	CD.2011	.415	.	.332	.292	.259
	LTD.2011	.348	.332	.	.008	.280
	STD.2011	.022	.292	.008	.	.178
	TCR.2011	.072	.259	.280	.178	.
N	ROA.2011	27	27	27	27	27
	CD.2011	27	27	27	27	27
	LTD.2011	27	27	27	27	27
	STD.2011	27	27	27	27	27
	TCR.2011	27	27	27	27	27

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.562[a]	.316	.191	.012194	.316	2.536	4	22	.069

a. Predictors: (Constant), TCR.2011, LTD.2011, CD.2011, STD.2011

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.002	4	.000	2.536	.069[b]
	Residual	.003	22	.000		
	Total	.005	26			

a. Dependent Variable: ROA.2011

b. Predictors: (Constant), TCR.2011, LTD.2011, CD.2011, STD.2011

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.003	.020		.170	.866	-.037	.044
	CD.2011	.020	.025	.143	.797	.434	-.032	.073
	LTD.2011	-.007	.013	-.104	-.521	.607	-.034	.020
	STD.2011	.030	.012	.525	2.602	.016	.006	.055
	TCR.2011	.017	.008	.392	2.155	.042	.001	.033

a. Dependent Variable: ROA.2011

ROE 2011

Descriptive Statistics

	Mean	Std. Deviation	N
ROE.2011	.16500	.101556	27
CD.2011	.7348	.09647	27
LTD.2011	.1021	.20887	27
STD.2011	.1421	.23393	27
TCR.2011	.3014	.31848	27

Correlations

		ROE.2011	CD.2011	LTD.2011	STD.2011	TCR.2011
Pearson Correlation	ROE.2011	1.000	-.037	-.379	.162	.480
	CD.2011	-.037	1.000	-.087	-.110	-.130
	LTD.2011	-.379	-.087	1.000	.459	-.117
	STD.2011	.162	-.110	.459	1.000	-.185
	TCR.2011	.480	-.130	-.117	-.185	1.000
Sig. (1-tailed)	ROE.2011	.	.426	.025	.210	.006
	CD.2011	.426	.	.332	.292	.259
	LTD.2011	.025	.332	.	.008	.280
	STD.2011	.210	.292	.008	.	.178
	TCR.2011	.006	.259	.280	.178	.
N	ROE.2011	27	27	27	27	27
	CD.2011	27	27	27	27	27
	LTD.2011	27	27	27	27	27
	STD.2011	27	27	27	27	27
	TCR.2011	27	27	27	27	27

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.734[a]	.539	.455	.074971	.539	6.427	4	22	.001

a. Predictors: (Constant), TCR.2011, LTD.2011, CD.2011, STD.2011

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.145	4	.036	6.427	.001[b]
	Residual	.124	22	.006		
	Total	.268	26			

a. Dependent Variable: ROE.2011

b. Predictors: (Constant), TCR.2011, LTD.2011, CD.2011, STD.2011

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.082	.120		.680	.504	-.168	.331
	CD.2011	.040	.155	.038	.258	.799	-.282	.362
	LTD.2011	-.268	.079	-.552	-3.381	.003	-.433	-.104
	STD.2011	.223	.072	.515	3.106	.005	.074	.373
	TCR.2011	.164	.048	.516	3.455	.002	.066	.263

a. Dependent Variable: ROE.2011

ROA 2010

Descriptive Statistics

	Mean	Std. Deviation	N
ROA.2010	.02824	.017894	27
CD.2010	.7486	.07873	27
LTD.2010	.1142	.24346	27
STD.2010	.1018	.14029	27
TCR.2010	.3036	.36728	27

Correlations

		ROA.2010	CD.2010	LTD.2010	STD.2010	TCR.2010
Pearson Correlation	ROA.2010	1.000	.052	.067	.225	.191
	CD.2010	.052	1.000	-.319	-.299	-.225
	LTD.2010	.067	-.319	1.000	.404	-.068
	STD.2010	.225	-.299	.404	1.000	-.120
	TCR.2010	.191	-.225	-.068	-.120	1.000
Sig. (1-tailed)	ROA.2010	.	.398	.370	.130	.170
	CD.2010	.398	.	.052	.065	.130
	LTD.2010	.370	.052	.	.018	.367
	STD.2010	.130	.065	.018	.	.275
	TCR.2010	.170	.130	.367	.275	.
N	ROA.2010	27	27	27	27	27
	CD.2010	27	27	27	27	27
	LTD.2010	27	27	27	27	27
	STD.2010	27	27	27	27	27
	TCR.2010	27	27	27	27	27

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.369[a]	.137	-.020	.018076	.137	.870	4	22	.498

a. Predictors: (Constant), TCR.2010, LTD.2010, CD.2010, STD.2010

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.001	4	.000	.870	.498[b]
	Residual	.007	22	.000		
	Total	.008	26			

a. Dependent Variable: ROA.2010

b. Predictors: (Constant), TCR.2010, LTD.2010, CD.2010, STD.2010

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-.017	.040		-.427	.673	-.101	.066
	CD.2010	.049	.051	.218	.977	.339	-.055	.154
	LTD.2010	.002	.016	.030	.135	.894	-.032	.036
	STD.2010	.040	.029	.311	1.391	.178	-.020	.099
	TCR.2010	.014	.010	.279	1.339	.194	-.007	.035

a. Dependent Variable: ROA.2010

ROE 2010

Descriptive Statistics

	Mean	Std. Deviation	N
ROE.2010	.15187	.114837	27
CD.2010	.7486	.07873	27
LTD.2010	.1142	.24346	27
STD.2010	.1018	.14029	27
TCR.2010	.3036	.36728	27

Correlations

		ROE.2010	CD.2010	LTD.2010	STD.2010	TCR.2010
Pearson Correlation	ROE.2010	1.000	.211	-.324	-.285	.449
	CD.2010	.211	1.000	-.319	-.299	-.225
	LTD.2010	-.324	-.319	1.000	.404	-.068
	STD.2010	-.285	-.299	.404	1.000	-.120
	TCR.2010	.449	-.225	-.068	-.120	1.000
Sig. (1-tailed)	ROE.2010	.	.145	.050	.075	.009
	CD.2010	.145	.	.052	.065	.130
	LTD.2010	.050	.052	.	.018	.367
	STD.2010	.075	.065	.018	.	.275
	TCR.2010	.009	.130	.367	.275	.
N	ROE.2010	27	27	27	27	27
	CD.2010	27	27	27	27	27
	LTD.2010	27	27	27	27	27
	STD.2010	27	27	27	27	27
	TCR.2010	27	27	27	27	27

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.590[a]	.348	.229	.100820	.348	2.933	4	22	.044

a. Predictors: (Constant), TCR.2010, LTD.2010, CD.2010, STD.2010

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.119	4	.030	2.933	.044[b]
	Residual	.224	22	.010		
	Total	.343	26			

a. Dependent Variable: ROE.2010

b. Predictors: (Constant), TCR.2010, LTD.2010, CD.2010, STD.2010

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-.135	.225		-.600	.554	-.601	.331
	CD.2010	.345	.282	.236	1.221	.235	-.241	.930
	LTD.2010	-.086	.092	-.181	-.935	.360	-.275	.104
	STD.2010	-.068	.159	-.084	-.430	.671	-.399	.262
	TCR.2010	.150	.057	.480	2.647	.015	.032	.267

a. Dependent Variable: ROE.2010

ROA 2009

Descriptive Statistics

	Mean	Std. Deviation	N
ROA.2009	.02171	.020091	27
CD.2009	.7684	.11343	27
LTD.2009	.1378	.29319	27
STD.2009	.1189	.26452	27
TCR.2009	.2553	.35779	27

Correlations

		ROA.2009	CD.2009	LTD.2009	STD.2009	TCR.2009
Pearson Correlation	ROA.2009	1.000	.108	.157	.198	.307
	CD.2009	.108	1.000	-.230	-.254	.106
	LTD.2009	.157	-.230	1.000	.567	-.151
	STD.2009	.198	-.254	.567	1.000	-.048
	TCR.2009	.307	.106	-.151	-.048	1.000
Sig. (1-tailed)	ROA.2009	.	.295	.217	.161	.060
	CD.2009	.295	.	.124	.101	.300
	LTD.2009	.217	.124	.	.001	.226
	STD.2009	.161	.101	.001	.	.405
	TCR.2009	.060	.300	.226	.405	.
N	ROA.2009	27	27	27	27	27
	CD.2009	27	27	27	27	27
	LTD.2009	27	27	27	27	27
	STD.2009	27	27	27	27	27
	TCR.2009	27	27	27	27	27

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.414[a]	.171	.020	.019885	.171	1.135	4	22	.366

a. Predictors: (Constant), TCR.2009, STD.2009, CD.2009, LTD.2009

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.002	4	.000	1.135	.366[b]
	Residual	.009	22	.000		
	Total	.010	26			

a. Dependent Variable: ROA.2009

b. Predictors: (Constant), TCR.2009, STD.2009, CD.2009, LTD.2009

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-.006	.028		-.222	.826	-.065	.053
	CD.2009	.027	.036	.151	.745	.464	-.048	.101
	LTD.2009	.010	.016	.143	.598	.556	-.024	.044
	STD.2009	.013	.018	.171	.715	.482	-.025	.051
	TCR.2009	.018	.011	.321	1.626	.118	-.005	.041

a. Dependent Variable: ROA.2009

ROE 2009

Descriptive Statistics

	Mean	Std. Deviation	N
ROE.2009	.11061	.130464	27
CD.2009	.7684	.11343	27
LTD.2009	.1378	.29319	27
STD.2009	.1189	.26452	27
TCR.2009	.2553	.35779	27

Correlations

		ROE.2009	CD.2009	LTD.2009	STD.2009	TCR.2009
Pearson Correlation	ROE.2009	1.000	.207	-.200	-.120	.406
	CD.2009	.207	1.000	-.230	-.254	.106
	LTD.2009	-.200	-.230	1.000	.567	-.151
	STD.2009	-.120	-.254	.567	1.000	-.048
	TCR.2009	.406	.106	-.151	-.048	1.000
Sig. (1-tailed)	ROE.2009	.	.150	.159	.276	.018
	CD.2009	.150	.	.124	.101	.300
	LTD.2009	.159	.124	.	.001	.226
	STD.2009	.276	.101	.001	.	.405
	TCR.2009	.018	.300	.226	.405	.
N	ROE.2009	27	27	27	27	27
	CD.2009	27	27	27	27	27
	LTD.2009	27	27	27	27	27
	STD.2009	27	27	27	27	27
	TCR.2009	27	27	27	27	27

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.451[a]	.203	.059	.126584	.203	1.405	4	22	.265

a. Predictors: (Constant), TCR.2009, STD.2009, CD.2009, LTD.2009

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.090	4	.023	1.405	.265[b]
	Residual	.353	22	.016		
	Total	.443	26			

a. Dependent Variable: ROE.2009

b. Predictors: (Constant), TCR.2009, STD.2009, CD.2009, LTD.2009

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-.042	.181		-.233	.818	-.417	.333
	CD.2009	.162	.228	.141	.711	.485	-.311	.636
	LTD.2009	-.048	.104	-.109	-.463	.648	-.265	.168
	STD.2009	-.002	.115	-.004	-.018	.985	-.242	.237
	TCR.2009	.137	.071	.374	1.937	.066	-.010	.283

a. Dependent Variable: ROE.2009

Appendix 3: Introductory Letter

UNIVERSITY OF NAIROBI

SCHOOL OF BUSINESS

DEPARTMENT OF FINANCE AND ECONOMICS

P O BOX 30197

NAIROBI.

Dear Respondent,

RE: MBA RESEARCH - INTRODUCTORY LETTER.

I am a master's student researching on the topic **"Effect of Capital Structure Choice on Financial Perfomance of Commercial Banks in Kenya"**

Your organization has been chosen as you are well positioned to provide relevant information that will enable study achieve its objectives. I intend to research on the above mentioned study by reviewing data from secondary sources.

The information availed will be used only for academic purposes and will be treated with strict confidence. Where possible, a copy of the research report will be availed to you upon request.

Your co-operation and assistance will be highly appreciated.

Thank you.

Yours sincerely,

Isack Barasa Magero