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**AN INVESTIGATION OF THE DETERMINANTS OF
CAPITAL STRUCTURE OF COMMERCIAL BANKS IN
KENYA**

BY

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the determinants of*



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DECLARATION

This research project is my original work and has not been presented for any degree award in any university.

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DEDICATION

This work is dedicated to my parents, Mr. Charles Opuodho and Mrs. Leonida Opuodho, who taught me the value of hard work, and determination, and who through financial support made this work possible. And above all, to the almighty God for his love and guidance to me throughout my academic life and my other domains

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ABSTRACT

The capital structures of commercial banks have a huge role to play towards the stability of the banks. The objective of the capital structure is to maximize the shareholders wealth by either maximizing the expected return or minimizing the cost of capital. The total value of the firm will be maximized if good decision of the capital structure is made.

The capital structure decision cannot be made in a vacuum. It has to form part of a sensible financial plan that takes into account future investment opportunities and the banks dividend policy. There is need to take into account the effect of an issue of debt or equity on future income of the banks. In order to be able to evaluate the effectiveness of the banks capital structure there is need to establish the determinants of the banks capital structure.

The studies main objectives was first to identify the relationship between capital structure and hypothesized variables such as profitability, business risk, growth rate, size and tax on the firm. Secondly the study seeks to know what the commercial banks use in determining variables when setting up the capital structures.

This study makes an important contribution in the areas of banks capital structure. The corporate managers can use it to identify the determinant of capital structure

that can assist them in their capital structure decision. The study is also be of much use to the government and other policy makers to come up with policies concerning the capital structures.

Data was collected by the use of questionnaire and analyzed with the help of statistical package for social sciences (SPSS).

DEFINITION OF OPERATIONAL TERMS

- Capital market –** This is where companies raise long-term funds. It facilitates the buying and selling of securities such as shares.
- Capital structure –** This refers to the mix of long-term sources of funds, such as debentures, long-term debt, preference share capital and equity Share capital.
- Debentures and Bonds –** These are issued by a firm to the public to raise debt. A debenture or a bond is general obligation of the firm to pay interest and return the principal sum as per the agreement.
- Equity -** This is the financial interest of the owner. It reflects the excess of the firm's assets over its liabilities. Initially equity arises on funds invested by them.
- Liquidity -** The convenience and speed of transforming assets into cash, or transferring assets from one person to another without loss of value.
- Adverse selection -** This are unfavorable conditions used in selection in the lending markets
- Moral Hazards -** The behaviour of borrowers that may be dangerous to the Lenders.

ABBREVIATIONS

C.B.K -	Central Bank of Kenya
EPS -	Earnings per share
G-7 -	Great seven countries- the seven most industrialized nation U.S.A, Japan, Germany, France, England, Canada, Italy
Ke -	Cost of equity capital
Ko -	Weighted average cost of capital
M.M -	Franco Modigliani and Merton Miller
N.S.E -	Nairobi Stock Exchange
SPSS -	Statistical Package of Social Sciences
T.O.T -	Trade off theory
Vu -	Value of ungeared company
Vg -	Value of the geared companies

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CHAPTER ONE

INTRODUCTION

1.1 Introduction

A company's capital structure is the extent to which it is financed by each of its capital sources. It is the entire mix of financing a company uses, which may include types other than pure debt and equity such as capital surpluses, retained earnings and net worth reserves. Kroncke, Nemmers, Gruenwards (1976). The firm may borrow from its bank, expand its current liabilities, sell bonds or preference or common stock, or retain a greater proportion of its earnings.

The undertaking of risky investment projects increasingly require large pooling of financing. Such amounts of resources are frequently beyond a firm's ability to generate and retain cash. A wealth-constrained firm owner endowed with a profitable investment opportunity is driven to raise external capital to finance the project by selling securities. These securities vary in terms of claims to issuer's future rents and in terms of allocation of residual rights of control. Baker, Wurgler (2000).

Capital structure problem therefore emerges as the definition of the mix of securities the firm should optimally issue. The cost of capital is an important element in determining which project to undertake and the composition of assets of the firm. No capital expenditure proposal should be approved that does not promise an expected return greater than the cost of capital in order to maximize net return and growth. Exploration should be done in which the cost of capital

may be minimized through re-arrangement of the capital structure to establish the optimum mix of low-cost debt and high-cost equity. The finance manager should slowly change the capital structure with objective of minimizing the cost of capital to the firm. Kroncke, Nemmers, Gruenwards (1976).

1.2 Background of the Research Problem

The role of the capital structure in the maintaining the stability of the commercial banks cannot be overemphasized. The banks are not likely to be able to generate sufficient cash internally to finance their investment needs. This is why it is necessary for the firms to be able to raise additional finance externally. To do this a firm can use debt and equity that it needs to finance its operations.

There are limited studies focusing on the commercial banks in developing countries Kenya included. This leads to difficulties in setting their capital structure in a way that will maximize the companies' value and also minimize the cost of capital. It is therefore important that the determinants of capital structure be identified to help in the setting up of the capital structure.

Different researchers have come up with different conclusions on capital structure determinants in the developed countries. Despite the difference in the setting up of developed and the developing countries, these factors can be tested to see if they are applicable to the Kenyan commercial banks. Examples of these researchers are Rao (1987) who observed that profitability, assets and timing for raising capital are important determinants of capital structure. Rajan and Zingale

(1995) also observed that growth, size and profitability are significant determinants of capital structure.

1.3 Statement of the Problem

One of the important issues facing commercial banks in Kenya today is how to establish appropriate capital structure levels for their operations. In order to do this it is important that the financial managers and other decision makers of the firm understand its various determinants.

Many managers lack adequate knowledge of the different capital instruments. This has led to poor financing decisions, which is the barrier to the sustainability of the commercial banks. This fact is evident in the fall of many commercial banks in the recent past. This business failure is most frequent due to inability to raise more finances. The financial constraints are also a barrier to the competitiveness of these commercial banks because they cannot offer more products and adopt new technology.

There is also no clear understanding among investors on how commercial banks choose their capital structures. This leads to investors putting their money in companies that do not have a good capital structure that will maximize their wealth. This leads to loss by the investors who decide to buy securities that are not optimal.

Most growing banks run at a financial deficit and are therefore repeatedly raising new capital. They are required to design an appropriate capital structure that will enable them to get new capital from external sources. This prompts the question

of whether the banks are able to raise the additional debt or equity that is needed for its growth and operation. The bank managers therefore need to identify the determinants of capital structure that will be used to get appropriate debt and equity.

The capital structure decision cannot be made in a vacuum. It has to form part of a sensible financial plan that takes into account future investment opportunities and the commercial bank's dividend policy. That is why the financial managers need to think about the composition of their companies' capital structure.

With the realization of the importance of capital structure there is need for the managers to understand its behaviour. In the light of this development, it becomes extremely important to identify and access the determinants of the capital structure in the commercial banks and make necessary recommendations and conclusions.

1.4 Objective of the Study

General objective

1. To identify the determinants of capital structure of commercial banks in Kenya.

Specific objectives

2. To identify the relationship between capital structure and influential variables such as profitability, business operating risk, growth rate, size and tax on the firm.

3. To identify what commercial banks use in determining the variable to consider when setting up the capital structure.
4. To determine if the standard capital structure theories are incorporated in the Kenyan commercial bank's financing decisions.

1.5 Research Questions

This study seeks to answer the following questions:

1. What is the relationship between the capital structure and the various influential variables such as profitability, business operation risk, growth rate, size and tax on the firm?
2. What do the commercial banks use in determining the variable when setting up the capital structures?
3. Are the standard capital structure theories incorporated in the Kenyan commercial banks financing decisions?

1.6 Significance of the Study

The findings of this study will help corporate manager to improve their financial decisions by improving their understanding of factors useful in determining capital structures of the commercial banks. The research is also useful to research scholars to further research on the area of banks' capital structures, and will also be useful to the government and policy makers to identify whether proper determinants are used to make policies concerning the commercial banks capital structures.

1.7 Scope and Limitations

This study focused on the commercial banks in Kenya. It was to establish the common factors that influence capital structure of the commercial banks. A sample of 30 banks was studied and this included commercial banks operating in Nairobi.

The major limitation of this study was the amount of time of study as capital structure decisions are long term and it may change as time goes by. Confidential data was also difficult to get, as many organizations do not like to disclose their confidential information. Lack of finance was also a constraint, as the researcher had to rely on his own finances.

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CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter deals with literature review. It summarizes the work done on the topic by other authors. It has literature on the traditional view of gearing and the required return, capital structure irrelevance 1:MM (Miller and Modigliani), capital structure decision and taxes, the agency theory of capital structure, pecking order theory, trade off theory, market timing theory of capital structures, Legal environment, empirical study of capital structure, critical review and the conceptual framework.

2.1 The Traditional View of Gearing and the Required Return

The traditional view emphasizes the benefits of using relatively cheap debt capital in particular, the effect on rate of return required on investment. Pike and Neale(2003).

This theory holds that there exists an optimal level of leverage. The implication is that minimizing the cost of capital when optimal level of capital is employed, maximizes the value of the firm, Bearly and Myer (1988). It is based on the argument that at low debt, increasing leverage does not increase the cost of debt hence replacement of an expensive source of capital (equity), with a cheaper source of capital (debt) translates into the value of the firm. It is the benefits that create borrowing incentives to firms.

However borrowing will continue up to a certain level, and beyond which, the cost of debt begins to rise. It is at the turning point that the firms' value is at the maximum and is considered to be optimal capital structure level.

The market value of the whole company rises because the value per unit of the residual equity increases due to the increase in EPS. Sooner or later shareholders will become concerned by the greater financial risk to which their earnings are exposed and begin to seek higher returns. The providers of additional debt are likely to raise their requirements, as they perceive the probability of default increasing. Pike, Neale (2003).

2.2 Capital Structure Irrelevances 1: MM

Franco Modigliani and Merton Miller shortened as MM in (1958) offered an economic argument about company capital structure decision that has proved very useful. The MM economics of company capital structures predicts, that for companies like geared and ungeared it would make no difference to shareholders wealth whether the company borrowed money or not. Financial markets would ensure that this is the final result. They stated that under the set of conditions specified for capital markets, how much or how little debt a company has in its capital structure is irrelevant. Kenneth J Boudreaux (1999)

The set of condition that are needed are that the capital market should be perfect and efficient. This implies that market imperfections, including taxes, cost of financial distress, and agency cost and other frictions that would cause any differences between the cash flows a company produces from its operations and

those that are actually claimed by the capital suppliers are not existent. Baker and Wurgler (2000).

This view of a company capital structure decision implies that its bond share and total value behaves in a very specific manner as the company changes its capital structure to have a higher or lower proportion of debt financing. The MM idea to this point makes it clear that total value of the company must be unaffected by a change in its capital structure. This means that as the company substitute debt for equity in its financing the total value of the company must remain the same. This in turn implies that each increase in debt value must be accompanied by an equal decrease in equity value, or else the company's value must change which according to MM proposition 1 it cannot.

2.3 Capital Structure Decision and Taxes

The MM arbitrage argument produces the result of company capital structure irrelevant in an efficient and a perfect market. This market is unrealistic in the sense that there are no taxes. A company is taxed by the government an amount of income or profits it makes. When companies can report the payment of interest for the income tax purposes the companies taxes are lower by an amount called interest tax shield. J Boudreaux (1999).

Brealey and Myers (1988) posit that tax shield can be a valuable asset. Suppose that the debt of a firm is permanent that it plans to refinance its present debt obligation when they mature and to keep rolling over its debt obligation indefinitely. Then the firm will be saving permanent stream of cash flow equal to

the tax shield each year. The tax shield depends on the corporate tax rate and the ability of the firm to earn enough to cover interest payments.

The deductibility of interest payment by companies should cause there to be a bias in company capital structure towards the use of borrowing instead of the use of equity capital. The reason is simply that debt is cheaper in the sense that the total taxes paid will be lower than if the companies were to use equity. The more highly geared a company becomes the more tax relief it obtains and the smaller its tax liability becomes Stephen Lumby (1991).

2.4 Capital Structure Irrelevance II: Taxes

One reason why companies do not use debt exclusively is that it may not be cheap, as it seems. Merton Miller (1997) observed that that benefits of borrowing can only be finally calculated by finding the amount of cash that companies can get into all capital suppliers pockets after all taxes at the company and personal level have been deducted. For example the bondholders also pay personal taxes on the income they get from company interest payment. Boudreaux added that most tax system have personal tax rates that are progressive (i.e. are higher with higher income), J Boudreaux (1999).

This latter observation made Miller to argue that as company issued more and more debt they would be forced to pay higher and higher interest rate in order to induce those in higher tax brackets to purchase their bonds. This is because the bondholders will be paying higher and higher personal income tax on interest income from companies. Eventually the increase in interest rates on company

borrowing would offset the benefit of deducting interest rates at the company level, and there would be no particular reason to issue debt instead of equity.

Competition would cause companies to continue issuing bonds until interest rate had risen enough to cause all net tax benefits of company borrowing to disappear. Then there will be no reason for borrowing as a source of capital to be preferred to issuance of equity.

2.5 The Agency Theory of Capital Structure

Agency consideration seems to hold the most promise of being the other factor in a company's capital structure decision. Agency deals with situation where the decision-making authority of principal (such as shareholders and bondholders) is delegated to an agent (such as the managers of the company). Agency consideration concerns itself with the instance where agency conflicts of interest may arise among principals and agents and how those conflicts of interest are resolved, J Boudreaux (1999).

Stephen Lumby (1991) says that agency problem is concerned with how the instructions or, objectives and reward, given to agents can be formulated so that the agent acting in their own interest also act on the interest of the principal. He sees the principal agent problem to be the problem of external financial control of managements by the suppliers of company finance.

In order to try to avoid this sort of situation we find that the debt suppliers often impose very restrictive conditions on loan agreements that constrain management

freedom of action. This will prohibit the company from switching projects without the lenders permission.

One of the more important mechanisms that financial markets use to resolve conflict of interest is by the issuance of complex debt contracts. Example include:

- 1 Constraints on the way a company can operate its assets.
- 2 Maintenance of various financial ratios.
- 3 Limitation upon dividends payments.

2.6 Pecking Order Theory of Capital Structure

Pecking order theory posits that firms choose the following sequence: first they rely on retained earnings, then issue debt and lastly, issue new equity Glen and Pinto (1997). The reason given for this sequence stems from differences in information between company insiders and outsiders and the transaction costs.

Brealey and Myers (1988) explains the inverse relationship between profitability and debt ratio this way:

1. Firms prefer internal finance.
2. Firms adapt their target dividend payout to their investment opportunities while trying to sudden change in dividends.
3. Sticky dividends policies plus unpredicted fluctuations in profitability and investment opportunities, means that, internally generated cash flow is sometimes more than capital expenditure and other times less. If it is more the firm pays the debt off or invest in marketable securities. If it is less the firm first draws down its cash balance or sell its marketable securities.

4. If external finance is required, firms issue the safest security first. That is they start with debt, then hybrid securities such as convertible bonds, then equity as a last resort.

There is no well-defined target debt-equity mix. There are two types of equity, internal and external, one at the top of the pecking order and one at the bottom. Each firm's observed debt ratio reflects its cumulative requirements for external finance.

The pecking order explains why most profitable firms generally borrow less, not because they have low debt target ratio but because they don't need outside money. Less profitable firms issue debt because they do not have internal funds sufficient for their capital investment program, and because debt financing is first on the pecking order of external financing.

The pecking order theory rests on, sticky dividend policy, a preference for internal funds and an aversion to issuing equity. Pecking order posits that financial managers who do not strive for optimal financing decision but simply finance by the line of least resistance. Therefore, internal funds relieve financial managers of contact with outside investors and the disciplining influences of the security market. If they are to seek external financing debt is next on the line of least resistance.

However, a pecking order might also spring from fully rationally economic motive, from difference in issuing costs. Internal funds have no issuing cost but if outside finance is needed issue costs are less for debt than for equity. Thus, it

makes sense to use retained earnings, rather than external equity, and to build up financial slack, in the form of cash, marketable securities, or unused debt capacity, to reduce the odds that a future stock issue will be necessary.

2.7 Trade Off Theory of Capital Structure

Modigliani and Miller proved that capital structure is irrelevant in a perfect and efficient market. The trade off theory determines an optimal capital structure by adding various market imperfections, including taxes; cost of financial distress, and agency costs but retains assumptions of market efficiency and symmetric information. Backer and Wurgler (2000).

Financial manager often think of the firms debt equity decision as a trade off between interests tax shields and cost of financial distress. This trade off theory of capital structure recognizes that debt ratio may vary from firm to firm. Companies with safe, tangible assets and plenty of taxable income to shield ought to have high target ratios. Unprofitable companies with risky intangible assets ought to rely primarily on equity financing. Brealey and Myers (1988).

Some imperfections that lead to optimal tradeoffs are as follows. Higher taxes on dividends indicate more debt Miller and Modigliani (1963). Higher non-debt tax shield indicate less debt DeAgelo and Masuls (1980). Higher cost of financial distress indicate more equity short of bankruptcy, senior debt can force managers to forgo profitable investment opportunities Myers (1977). Agency problems can call for more or less debt. Too much equity can lead to free cash flow and conflict of interest between managers and shareholders Jensen (1986). Too much debt can

lead to assets substitution and conflict of interest between managers and bondholders Pandey I.M (2002). In addition the optimal leverage ratio need not be constant. Under trade off theory firms adjust capital structure towards a target that may change with firms' and investors characteristics and the tax environment.

The market to book ratio can be connected to a number of different elements of the trade off theory. It is most commonly attached to costly financial distress, Rajan and Zingales (1995). Firms with growth and investment opportunities have the most to loose when overhanging debt prevent new capital from being acquired or leads to inefficient bankruptcy negotiations during which some investment opportunities are lost forever. The key prediction of trade off theory is that capital structure eventually adjusts to changes in the market to book ratio.

2.8 Market Timing Theory of Capital Structures

Managers may conclude that stocks are overvalued or undervalued and that outside investors will under react to issue or repurchase announcements. This under reaction leaves some room to exploit the perceived mispricing and thereby benefits ongoing shareholders. Although market timing incentives derive primarily from a going concern for a going shareholder, agency consideration or overconfidence may also play a role. For example when equity is undervalued career concerns and empire building may cause a reluctance to return capital or to increase leverage.

Gervais, Heaton and odean (2000) considered the effects of managerial overconfidence in related context. The market theory suggests simple and more

realistic explanation for the empirical facts. Managers issue equity when they believe it is overvalued and repurchase equity or issue debt when they believe it is undervalued. Beliefs about valuation are likely to be highly correlated with the market to book ratio, net equity issue will be positively related to market to book. Since there is no optimal capital structure, managers need not reserve these decisions when the firm appears to be correctly valued. These leave the temporary fluctuation in market to book value to have a permanent effect on capital structure. Since market timing gains depend on the amount of overvalued equity issued, managers will issue as much as they can when they think it is overvalued, even if there is no special use for the proceeds. A natural place to store the excess proceed is in cash. Market timing theory does not require that the market actually be inefficient. It does not ask managers to successfully predict stock return. The critical assumption is that managers believe that they can time the market.

2.9 Legal Environment

There are important differences on the ability of firms to raise capital in different countries Laporta, Lopez-de-silanes, Shleif and Visny (1998) trace this effects to difference in legal regimes. This authors show that these legal regimes have large effects on the size and breadth of capital markets. Countries with weak creditors rights have significantly smaller local debt markets. Weak local financial markets appear to be associated with lower rates of investment and economic expansion. Evidence of this effect is provided at the, industry level by Rajan and Zingale (1995), and Demigut-kunt and Maksimovic (2001) at firm level.

In cross country analysis of the determinant of capital structure choice, Rajan and Zingale (1995) focus on the G-7 countries, finding limited evidence of systematic differences across legal environment of these countries. Dermirgüt-kunt, and Maksimovic (2001) analyzed firms in developing countries finding that these firms use less long-term debt than do comparable firms in developed countries and that unspecified country factor was a significant determinant of capital structure.

The ability to renegotiate strategically with creditors in times of financial distress is attractive to the distressed firm but reduces its incentives to avoid bankruptcy, creating an agency problem that is reflected in high borrowing rates. Since shareholders bear agency costs they want to minimize renegotiation opportunities and do so by concentrating their borrowing in creditor friendly environments while avoiding less-creditor friendly environments.

Certain patterns appear consistently in countries with underdeveloped capital markets and weak creditors protection. They face higher interest rate on borrowing than do countries with strong creditor protection. Since there is adverse selection in the lending market and moral hazard once borrower receives loans, local banks and other lenders need to expend resources to investigate potential borrowers, monitor their behaviour once loan is granted and deploy legal resources to enforce contracts. These are real resources cost that should be reflected in still higher interest rates paid by borrowers and received by lenders in countries with weak creditor protection. Desai, Foley and Hines Jr (2003).

2.10 The Empirical Study of Capital Structure

The empirical study by various researchers on the determinants of capital structure has identified various variables. This is growth opportunities, size of the firm, profitability, collateral and business operating risk as discussed below.

2.10.1 Growth Opportunities

From companies with growth opportunities, Chandra, P (1975) suggests that firms should use equity to finance their growth because such financing reduces agency cost between shareholders and managers whereas firms with less growth prospect should use debt because it has a disciplinary role. Myers (1977) observes that equity holders in highly levered firms with significant growth opportunities have incentives to adopt sub optimal investment policies and therefore creditors will be more reluctant to lend for long horizons. Short-term financing can solve this problem Titman and Wessels (1988) or convertible bonds Jensen and Meckling (1976). From a pecking order theory perspective growth firms with strong financing need will issue securities less subject to informational asymmetry problem. If these firms have very close relationship with banks, there will be less informational asymmetry problems, and they will be able to have access to long-term debt financing as well. Rajan and zingale (1995) find a negative relation between growth opportunities and leverage. They suggest that this may be due to firms issuing equity when the stock prices are high. As mentioned by Ramesh K. Rao, (1969) large stock prices are usually associated with improved growth opportunities, leading to a lower debt ratio.

2.10.2 Size of the Firm

Barclay and Smith (1995) have shown that firms' sizes are an important predictor of debt maturity in the US. Larger firms tend to be more diversified, and hence their cash flows are less volatile. Size may then be inversely related to the probability of bankruptcy (Rajan and Zingales (1995)). They suggested that large firms have access to the markets and can borrow at better conditions. For smaller firms the conflict between creditors and shareholders is more severe because managers of such firms tend to be larger shareholders and are better able to switch from one investment project to another, Pandey I. M (2002).

2.10.3 Profitability

Modigliani and Miller (1963) argue that, due to the tax deductibility of interest payment, companies may prefer debt to equity. This would suggest that highly profitable firms would choose to have a high level of debt in order to obtain attractive tax shields. Myers and Majluf (1984) predict that as a result of asymmetric information, companies with a high level of profits tend to finance investments with retained earnings rather than by the raising of debt finance.

2.10.4 Collateral

Tangible assets are likely to have an impact on the borrowing decision of a firm because they are less subject to informational asymmetries and usually they have a greater value than intangible assets in case of bankruptcy. Additionally, the moral hazard risk is reduced when the firm offers tangible assets as collateral, because this constitutes a positive signal to the creditors who can request the

selling of these assets constitute a good collateral for loans. Based on the agency problem between managers and shareholders, Harris and Raviv (1990) suggest that firms with more tangible assets should take more debt. This is due to the behaviour of managers who refuse to liquidate the firms even when the liquidation value is higher than the going concern.

2.10.5 Business Operating Risk

Titman and Wessels (1988) observed that leverage increases the volatility of the net profit. Firms that have high operating risk can lower the volatility of the net profit by reducing the level of debt. By so doing bankruptcy risk will decrease, and the profitability of fully benefiting from the tax shield will increase. A negative relation between operating risk and leverage is also expected from the pecking order theory perspective, firms with high volatility of results to try to accumulate cash during good years, to avoid under investment issues in the future.

2.11 Critical Review

From the pecking order theory perspective firm with growth opportunity are expected to issue more shares as opposed to debt. This is because the stock prices are high and therefore raise good amount of financing for the firm. A negative relation is expected between growth opportunity and leverage.

Larger banks tend to be more diversified and hence their cash flows are less volatile. This makes the larger banks have access to the markets and to be able to

borrow at better conditions. The smaller banks on the other hand are expected to have low debt ratios due to fear of financial distress.

Companies with high profits are expected to have low debt ratios. This is because they do not need a lot of financing as they can finance using retained profits instead. Tangible assets such as building can be used as collateral for borrowing. Banks with a lot of tangible assets are expected to have a high debt because they can borrow more and at better conditions.

A negative relation is also expected between business operating risk and leverage. Firms with high volatility of result are expected to borrow less to avoid financial distress during the period of low earnings. On the other hand the cost of borrowing is expected to be negatively related to leverage. A bank facing high interest rate will borrow less to avoid incurring too much costs.

Countries with underdeveloped capital market and weak creditor protection are expected to have low leverage. Kenya being a country with underdeveloped capital market it is expected that the debt ratio will be low.

2.12 Conclusion of Literature Review

Numerous studies have been carried out on the capital structure of companies in developed countries. These studies have led to various literatures on the determinant of capital structure that must be looked at by the managers of companies. Although the setting is different from developed countries the study seeks to find if the determinants apply in the commercial banks of Kenya. The

study will look at various determinants and come up with a conclusion on their effect on capital structure.

2.13 Conceptual Framework

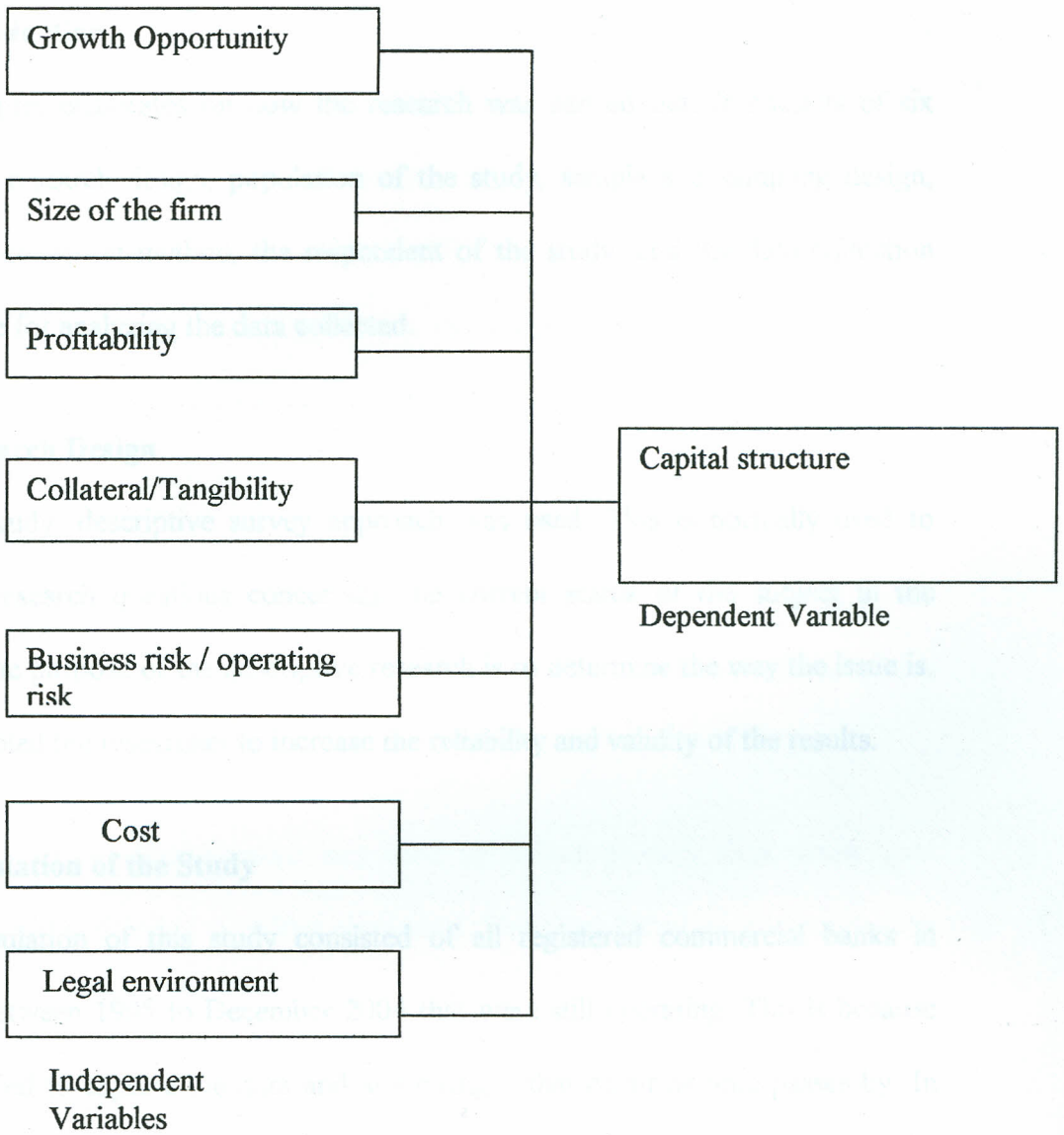
The dependent variable of capital structure is influenced by several independent variables. These are growth opportunities, size of the firm, profitability, collateral or tangibility of the assets, and the business operating risk.

Growth opportunities affect the financing decision of the firm. Firms with high growth rates should use equity capital to reduce the agency cost. Size is also an important determinant of the capital structure. Larger firms are diversified in assets and cash flow and therefore they can access credit more easily. Profitability which is also determinant highly profitable firms would chooses to have to handle level of debt in order to obtain attractive tax shield.

Tangibility of collateral also impact on the borrowing of a firm. A firm with more tangible collateral can offer it as security for borrowing of a firm. Firm operation risk is also another determinant. A firm with high operation risk can lower the volatility of the Net profit by reducing the level of debts.

This research study is given direction by the following diagram:

Figure 2.1: Conceptual framework.



Source: Researcher (2005)

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter elaborates on how the research was carried out. It consists of six sections, research design, population of the study, sample and sampling design, the data collection method, the respondent of the study, and the data collection technique for analyzing the data collected.

3.1 Research Design

In this study, descriptive survey approach was used. This is normally used to answer research questions concerning the current status of the subject in the study. The purpose of the descriptive research is to determine the way the issue is. This enabled the researcher to increase the reliability and validity of the results.

3.2 Population of the Study

The population of this study consisted of all registered commercial banks in Kenya between 1995 to December 2004 that were still operating. This is because of the need to capture the data and any changes that occur as time passes by. In total there are 43 banks in Kenya.

3.3 The Research Area

The study covered Nairobi region. This is because all banks have their headquarters in Nairobi. Research information is optimized in Nairobi.

3.4 The Sample and Sampling Design

A sample of 30 banks was selected for the study. The research used stratified random sampling procedure to select the commercial banks that were used in this study. Then a simple random sampling was used to select a proportion from each stratum according to the size of the stratum.

The 43 banks were stratified into four strata in terms of shareholding (Appendix iv): Those foreign owned (3), those foreign owned but locally incorporated (partly owned by locals) (3), those with government participation (3) and those banks wholly locally owned (21).

3.5 Data Collection Method.

Both primary and secondary data were used to collect the data. The primary data was used to come up with the information which are unique to the banks or which has not been captured in secondary data.

A semi-structural questionnaire was used to collect primary data. Both open ended and closed ended questions were used. The open-ended questions aimed at collecting qualitative data and more so to encourage respondents to provide as much information as possible. The closed ended questions were used to collect specific information on the capital structure. The questionnaire was pre-tested before distribution.

The secondary data was obtained from the banks annual report, records kept at Nairobi Stock Exchange (N.S.E), and also records kept by the Central Bank of Kenya (C.B.K.).

3.6 Data Analysis and Presentation

The analysis was done with the help of statistical package for social sciences (SPSS) software. Analysis was done by the use of descriptive statistics such as frequency tables, percentages and pie charts. The descriptive statistics helps to establish pattern trends and relationships from information gathered (Mugenda 1999).

CHAPTER FOUR

DATA INTERPRETATION, ANALYSIS AND FINDINGS

4.0 Introduction

The study was to investigate the determinants of capital structure of the commercial banks in Kenya. The primary data was collected using a questionnaire that was designed to get response from financial managers. The questionnaire was distributed to the 30 sampled banks. However only 24 of the banks filled and returned the questionnaire. This means that 80 percent of the respondents filled and returned the questionnaires while 20 percent of the respondents did not fill the questionnaire citing stringent company rules and policies. Primary data was compiled tabulated and presented in the form of frequencies, percentages and pie charts for ease of analysis.

Secondary data was collected from the published annual reports and accounts of the companies. This was acquired from Central Bank of Kenya (C.B.K), Nairobi Stock Exchange (N.S.E) and the headquarters of the commercial banks. The data collected related to tangibility, debt, size, non-debt tax shield, and profitability. This was fed into the Statistical Package for Social Science (SPSS) for regression and correlation analysis.

4.1 Primary Data Analysis

Comparison of the Stratum

The four stratum chosen include banks that are foreign owned, those that are foreign owned but locally incorporated, banks that have government participation, and those that are wholly locally owned. These banks had several similarity and differences that are explained below.

The similarities are seen in various areas. First the components of the banks financing were mainly identified as equity and retained earnings. This confirmed that banks in all the stratum use equity and retained earnings to finance their investments. Another similarity is the purpose of the banks capital structure, the respondents across the stratum said that maximization of shareholders value and minimization of the issuing cost were the main purposes. Profitability was also identified across the stratum as the main determinant of the capital structure. Its effect was mainly felt that it was to reduce the amount of outside financing needed to finance new investment and for the operation of the banks.

Various differences between the stratum were also seen. Most of the costs that affected the capital structure seemed to differ from one stratum to the other. Costs such as financial distress and loss of investment opportunities were mainly from banks with government participation and those that are wholly locally owned. Another difference that was evidence was that the amount of collateral to a bank was more important to locally owned banks than the rest of the stratum. Getting more investors was also more important to foreign owned banks with local

incorporation and banks with government participation than the rest of the stratum.

Descriptive Data Analysis

The data collected from the questionnaire were mainly analyzed using tables and pie charts.

Table1
Components of banks financing

	Components	Total	Frequency (yes)	Percentages (yes)	Total %
A	Equity	24	24	100	100
B	Debt	24	9	37.5	100
C	Retained earnings	24	24	87.5	100

The main components of commercial banks financing was identified as equity with all the respondents saying that they mostly use equity. The numbers of commercial banks that use debt are quite low. Only 37.5 percent of the respondents said that they use debt to finance their operations. Retained earnings on the other hand is widely used with up to 87.5 percent of the commercial banks using it. This means that banks retain some of their profits to be used to finance it instead of primarily relying on debt financing.

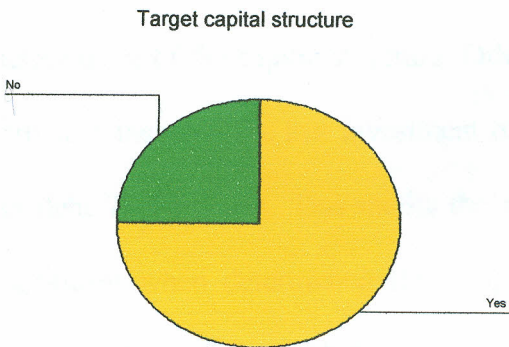
Table 2

Purpose of banks capital structure

	Total	Frequency (yes)	Percentage	Total %
Minimization of cost	24	17	70.8	100
Maximization of shareholders value	24	24	100	100
Taking care of future investment activities	24	12	50	100
Minimizing financial distress	24	9	37.5	100

The main purpose of commercial banks financing was identified as maximization of the shareholders value. All the respondents accepted that maximization of shareholders value is the primary purpose of the way their capital structure is set. The other main purpose that was given weight was minimization of cost, which received 70.8 percent respondent. Taking care of future investments needs was a cost to 50 percent of the respondents while minimization of financial distress is not a major purpose as it received only 37.5 percent.

Figure 4.1



Most banks in Kenya have a target capital structure; as shown in figure 4.1 above 75 percent of the respondents said that they have a target capital structure. 25 percent said no claiming that they change their capital structure depending on the prevailing economic conditions and any future opportunities that may arise.

Table3
Costs that affect the capital structure

	Total	Frequency (yes)	Percentage	Total %
Costs of financial distress	24	11	45.8	100
Interest rate of debt	24	19	79.2	100
Taxes	24	13	54.2	100
Cost of issuing securities	24	24	100	100
Bankruptcy cost	24	6	25	100
Lost investment opportunities	24	15	62.5	100

In order to minimize cost it is important for the financial managers to understand the various costs that affect the capital structure. The main costs that were identified as shown in table 3 above is the cost of issuing securities where all the respondents said that the cost of issuing debt or equity was an important determinant of the capital structure. Other costs that significantly affect the capital structure included the lost investment opportunities 62.5 percent and interest rate on debt 78.6 percent. This marks the main cost that commercial banks consider significant when determining their capital structure. Other costs that were not considered significant include the cost of financial distress with 45.8 percent and

bankruptcy cost 25 percent. This may be because of strict regulation by the Central Bank of Kenya to ensure stability in the banking industry.

Table 4

Determinant of appropriate amount of debt

	Total	Very important %	Important %	Fairly important %	Not important %	Total %
Profitability	24	100	-	-	-	100
Growth	24	37.5	31.2	18.8	12.5	100
Size	24	50	37.5	12.5	-	100
Business risk	24	25	37.5	20	17.5	100
Asset Tangibility	24	23	27	50	-	100
Tax rate	24	16.3	35.7	35.5	12.5	100

Various determinants of capital structure were identified giving them weights according to their importance as shown in table 4. Profitability was identified as being the most important determinant of capital structure. All the respondents said that profitability was the most important determinant. This shows that banks in Kenya look at their profitability to establish whether to have more debt or more equity.

The research also confirmed that size is a determinant of the capital structure. 50 percent of the respondents said that it was very important while 37.5 percent said that it was important. This totals to 87.5 percent of the respondents. This implies that banks look at their sizes before deciding on the amount of debt to take.

Growth opportunity was also considered as being an important determinant. 37.5 percent said that it was very important while 31.2 said that it was important. This totals to 68.6percent of the respondents, which may be attributed to the need of future investment. The other important factor is the business risk. 25 percent felt that it was very important while 37.5 percent felt that it was important. This totals up to 62.5 percent of the respondents who felt that business risk is a factor.

Asset tangibility is also considered a factor with 27 percent saying that it is important and 23 percent said that it was very important. This may be attributed to the fact that not all the banks need to use assets as collateral for borrowing. Similarly tax rates were also identified as a determinant with a total of 52 percent of the respondent. This is confirmed by the fact that 35.7 percent and 16.3 percent of the respondents said it was important and it was very important respectively.

Table 5

Types of taxes affecting the capital structure

	Total	Frequency (yes)	Percentages (yes)	Total %
Corporate taxes	24	17	70.8	100
Taxes on dividends	24	15	62.5	100
Taxes on Capital gains	24	-	-	100

The various taxes that were considered important are the corporate taxes and taxes on dividends. 68.8 percent of the respondents considered corporate taxes as the major tax influencing the capital structure and 62.5 said that taxes on dividends were also important. Corporate taxes is deducted from the banks income and this

determines how much profits is attributable to the shareholders and hence the value of the bank. Taxes on dividends also determine what a shareholder gets and this may also determine their interest in investing in the banks. Capital gain is not taxed and therefore it does not affect the capital structure of commercial banks in Kenya as is evident in the table 5.

Table 6

Effect of size on the capital structure

	Total	Frequency (yes)	Percentages (yes)	Total %
Amount of collateral	24	6	25	100
Higher profitability	24	22	91.7	100
Access to more credit	24	18	75	100
More investors	24	13	54.2	100

The research established that the size as a determinant was useful in the amount of profitability of the bank. This is seen in table 6 where size determines how profitable a firm is. 97.1 of the respondents said that bigger banks are more profitable. Bigger banks can also access more credit compared to the smaller banks. This is evident from the table where 75 percent of the respondents said so. The research has also established that size determines the number of investors a firm can have. This is evident from 53.3 percent of the respondents.

Table 7

Effect of profitability on capital structure

	Total	Frequency (yes)	Percentage (yes)	Total %
Better borrowing rates	24	17	70.8	100
Reduction in amount of debt needed	24	19	79.2	100
Interest tax shield	24	11	45.8	100

Profitability is useful in the reduction of the amount of debt needed to finance the banks. This is evident where 79.2 percent of the respondents said that it reduces the amount of debt needed. Profitable banks can retain some of their earnings to use and hence they do not need outside financing. 70.8 % also said that profitability is useful in ensuring that they get better rates of borrowings. Lenders can give better rates to profitable banks because they are considered less risky.

Table 8

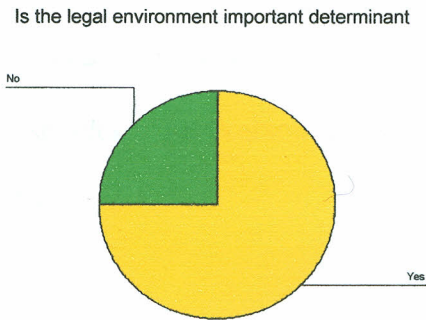
Choosing the timing for new securities

	Total	Frequency (yes)	Percentages (Yes)	Total %
When market is overvalued	24	15	62.5	100
When market is correctly valued	24	9	37.5	100
When market is undervalued	24	-	-	100

The research also established that when timing for new securities most banks choose when the markets are overvalued. This is especially true for the listed companies. 62.5 percent confirmed this. When the market is overvalued the firm

gains by getting more than its value of shares. 37.5 percent of the banks prefer to offer new securities when the market is correctly valued.

Figure 4.2



The research also established that most banks consider legal environment as a determinant of the capital structure as shown in figure 4.2. This is seen in the diagram above where 75 percent of the respondents said that it is a determinant. Stronger laws are useful in protection of the lenders and the borrowers. On the other hand 25 percent of the respondents did not consider the legal environment as a determinant of the capital structure.

Most of the banks also felt that Kenyan legal environment is moderate as shown in table9 below.43.75 percent felt that it was moderate, 37.5 percent argued that the legal environment is weak while 18.75 percent said that it was strong.

Table 9

Grading the Kenyan legal environment

	Total	Weak %	Moderate%	Strong%	Total %
Frequency	24	37.50	43.75	18.78	100

4.2 Secondary Data Analysis

Correlation

Correlation technique is used to analyse the degree of relationship between two variables. The importance of correlation is that it examines how variables are related. Correlation also establishes the direction of association between two variables. The Pearson correlation results of this study are shown below in table 10.

Table 10

Pearson Correlations

	Leverage	Tangibility	Profitability	Growth	Size	Non debt Tax shield
Leverage	1.000	.531	-.784	-.258	.033	.161
Tangibility	.531	1.000	-.534	.193	-.193	.173
Profitability	-.784	-.534	1.000	-.235	-.033	-.143
Growth	-.258	.193	-.235	1.000	-.402	.414
Size	.033	-.193	-.033	-.402	1.000	-.496
Non debt Tax shield	.161	.173	-.143	.414	-.496	1.000

Table 10 above presents the correlation results for all the variables. The research established the following from the correlation table.

First the correlation between leverage and asset tangibility is positive. This implies that the more tangible assets a firm has the more debt it can borrow. The growth rate and leverage are also positively correlated. A bank with high growth rate will most likely use equity funding according to the agency theory. This will

make the bank borrow less. Debt is also positively correlated to the size of the bank. A large bank is able to borrow more than a smaller bank. Similarly non-debt tax shield is also positively correlated to debt. This implies that banks will also maintain some debt to act as a tax shield.

Alternatively profitability is negatively correlated to the leverage. This implies that profitable banks do not need as much debt as less profitable banks. The profitable banks can use internal funds such as retained earnings to fund their operations as explained in the Pecking Order Theory (P.O.T).

Regression

Although correlation indicates the relationship between two variables it does not imply any causal relationship between the variables this is where regression is applied. Regression analysis is used when a researcher is interested in finding out whether independent variables predicts a given dependent variables. The regression result of variables for this study that was obtained is given in table 11.

Table 11
Regression
Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig	95% Confidence Interval for B	
	B	Std. Error	Beta			Lower Bound	Upper Bound
(Constant)	14,218	8.489		2.675	.049	-9.352	37.788
Tangibility	3.785	1.712	1.768	2.211	.092	-8.537	.968
Profitability	3.118	.983	-2.721	-2.138	.032	-3.846	1.610
Growth	-3.116	1.390	-2.167	-2.809	.046	-1.400	.768
Size	-1.911	1.215	-1.771	-1.573	.291	-5.284	1.462
Tax shield	21.935	13.148	.839	1.668	.171	-14.570	58.440

The coefficient of correlation ranges from 0 to positive and negative. 0 means that there is no relationship between the variables. Positive figure show positive relationship and Negative figures show negative relationship. To test for significance the t-ratio and its significance are used. The t- ratio is considered significant if it is more than 2 and if its significance is 0.05 or less.

The relationship between tangibility and leverage

Tangibility is expected to have an impact on the borrowing decision of the banks. Tangible assets usually have a higher value than the intangible assets. They are seen as collateral and therefore can be used to secure debt. It is therefore argued that firms with tangible assets can take more debt.

This result from the model in table 11 shows a positive relation between tangibility and leverage. The regression coefficient is estimated to be 1.768. The t-ratio of 2.211 and a significance of 0.92 also confirm this positive relationship that is not statistically significant. This could be attributed to the various economic conditions facing the various banks whereby some have stable financial base and do not need to borrow despite having tangible assets.

The relationship between profitability and leverage

The pecking order theory holds that firms follow a pecking order in financial choices. Internally generated funds come first and there for profitable firms will prefer to use retained earnings instead of equity and debt. The relationship between profitability and leverage is expected to be negative.

The regression coefficient of profitability is estimated to be -2.167, which implies that profitability is negatively related to the capital structure. The t-ratio is estimated to be -2.138 and a significance of 0.32. The result also shows that it is statistically significant. The result also shows that profitability is the most predominant variable affecting the capital structure.

The relationship between growth rate and leverage

Firms with high growth rate are expected to use equity to finance their growth as opposed to debt. This is important in reducing the agency cost between shareholders and managers. Therefore the expected result is a negative relationship between growth and leverage.

The result from regression shows that growth rate has a negative relationship with leverage. The regression coefficient is -2.167 and a t- ratio of -2.809 , which confirms a negative relationship. This result is also statistically significant. The result is in line with the expected result where high growth banks use more equity to finance their operations and investments.

The relationship between size and leverage

The expected result was that size is positively related to leverage. This is because larger firms tend to be more diversified and hence limit their financial distress. They are therefore expected to have an upper hand in securing long-term debts than the smaller firms.

However the regression coefficient results predicts a negative relationship with leverage. The coefficient of regression is -1.771 . The t-ratio of -1.573 with a significance of 0.291 shows that it is not statistically significant. These results can be attributed to different banks having different strategies in their capital structure decision.

The relationship between non-debt tax shield and leverage

The result of the regression shows that the non-debt tax shield is positively related to leverage. The regression coefficient of 0.839 confirms this. However t-ratio of 1.668 and a significance of 0.171 shows that it is not statistically significant.

If the result were significant it would have been in line with the theory that the main reason for borrowing is to take advantage of interest tax shield. This result can be attributed to the stringent regulatory rules by Central Bank of Kenya (C.B.K).

Table12

Model summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.932 ^a	.869	.704	.1271593

a. Predictors: (Constant), Growth rate, Tax shield, Tangibility, Profitability, Size

R square =0.869 and Adjusted R =0.704

R squared is the proportion of variability in the dependent variable accounted for by independent variables.

Both the R-squared and the adjusted R show a very strong result of 86.9 percent and 70.4 percent respectively of the relationship between all the variable and leverage. This confirms that Tangibility, Profitability, Growth, Size, and Non-debt tax shield are valid determinants of the capital structure of the commercial banks in Kenya.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.0 Introduction

This chapter presents the summary, conclusion, and recommendations of the study.

5.1 Summary

The capital structure of the commercial banks consists of all the ways the commercial banks finance their operations. The commercial banks mainly use equity to finance their operations. This is followed by the use of retained earnings and then debt. The main objectives of the various financing choices made by commercial banks are maximization of shareholders wealth and also the minimization of the cost of financing its operations.

The study identified various determinants of capital structures. Profitability was given the most weight as the predominant determinant of capital structure. It seemed that most banks set their amount of debt or equity depending on how profitable they are. Other determinants that were identified as important were growth opportunities, business risk, asset tangibility, tax rate and size of the bank were also found to be determinants.

Another important determinant of capital structure that was identified is the cost of issuing new securities. Banks seemed to like minimization of cost and therefore when issuing securities they look at the cost of debt and equity. Cost in the form

of interest rate, lost investment opportunities and interest rate on debt were also considered when setting up the capital structure.

Lastly, legal environment was also identified as a determinant of the capital structure. A country with a strong legal environment protects borrowers and lenders rights. This encourages more lending as the creditors are assured of using the law in case of any default. It also reduces the cost of lending such as monitoring of the debt and this in turn is reflected in the low rates of interest. The low rate of interest also encourages the borrower to borrow more.

5.2 Conclusions

This research gives a lot of information on the determinant of capital structure. It has identified profitability as the main determinant of the capital structure of the commercial banks. This is closely followed by the cost of getting the required capital structure. The research has also identified other determinants of capital structure such as business operation risk, growth rates, size, legal environment and non-debt tax shield on the bank.

The research has also established that some of the capital structure theories such as Pecking order theory, market timing, and agency theory are applicable in the Kenyan commercial banks.

5.3 Recommendations

The following are the recommendations that will be useful in improving the capital structures of the commercial banks.

1. Reduction of taxes charged to the commercial banks. The reduction of taxes should be done by reducing the corporate taxes and by reducing the taxes on dividends. Reduction of corporate taxes will improve profitability, which will improve on the shareholders wealth. Reduction of taxes on dividends will be useful in encouraging investment in various commercial banks.
2. The government should also strengthen the laws dealing with lenders and borrowers. Stronger laws will be useful in protecting the right of the creditors, which will be reflected in low cost of borrowing which will encourage borrowing more.
3. Smaller bank that cannot raise enough financing to maintain growth and investment should merge to form bigger banks with more assets that can get more investors to invest in them.
4. Banks with high investment needs but limited financing can list their banks in the Nairobi Stock Exchange (N.S.E). Here they will be able to get capital from the public, which will enable them to grow.
5. Banks should diversify their investments so as to minimize their business risks. Diversification minimizes the risk that a bank faces in case of a change in the economic conditions.

5.4 Recommendation for further research

This study recommends that further research to be carried out on the following areas:

1. The capital structure practices of other financial institutions such as the insurance companies, building societies and investment banks.
2. The various laws that should be enforced to protect both the borrowers and the lenders improve on the securities of their investments.

REFERENCES

Baker, Wurgler, (2000), **Market Timing and Capital Structures**, Harvard Business School, Boston.

Barclay, Michael, Smith, (1995), **The Maturing Structure of Corporate Debt**, Journal of Finance 50, pg 609-632.

Booth et. al. (2001), **Capital Structure in Developing Countries**, Journal of Finance.

Breale, A.R. Myers C.S (1988), **Principle of Corporate Finance 3rd Ed**, McGraw-Hill, Singapore.

Chandra, P. (1975), **Evaluation of Equity shares in India**, Sultan Chand and Sons, New Delhi.

DeAngelo H, Masulis, R (1980), **Optimal Capital Structure Choice Theory and Test**, Journal of Finance.

Demigut-Kunt, Maksimovic, (2001), **Capital Structure in Developing Countries**, Journal of Finance.

Desai, Hines Jr (2003), **A Multinational Perspective on Capital Structure Choice and Internal Capital Markets**, Working paper, London.

Modigliani, F. Miller, M. (1958), **The Cost of Capital, Corporation Finance and theory of investment**, American economic review.

Glen, Pinto (1997), **Debt or Equity? How Firms in Developing Countries Choose**, Word bank publication, Washington D.C.

Graham, Harvey, (2001), **The Theory and Practice of Corporate Finance: Evidence from the Field**, Journal of Financial Economics 60,187-243.

Harris M, Raviv (1990), **Capital Structure and the Informal Role of Debt**, Journal of Finance.

Holland John, (1993), **International Financial Management 2nd Ed**, Blackwell Publishers, Massachusetts.

Jensen, Michael, (1986), **The Agency Cost of Free Cash Flow, Corporate Finance and Takeovers**, New York American Economic Review 76, 323-329.

Kenneth, J Boudreaux, (1999), **Finance**, Financial Times Limited, London.

Kroncke et. al. (1976), **Managerial Finance: Essentials**, West Publishing Company, Network.

Miller, M. H, (1997), **Debt and Taxes**, Journal of Finance.

Myers and Steward, (1977), **Determinants of Corporate Borrowing**, New York
Journal of Financial Economics.

Myers Steward, Majluf, (1984), **Corporate Financing and Investment Decision
when Firms have Information and Investors do not have**, Journal of Finance.

Pandey I.M, (2002), **Financial Management**, Vikas Publishing House, New
Delhi.

Pike, Neale, (2003), **Corporate Finance and Investment 4th ed**, Prentice Hall,
Madrid.

Rajan, Zingale, (1995), **What do we know about Capital Structure? Some
Evidence from International Data**, Journal of Finance 50, 1421-1460.

Rao, K. R, (1969), **Leverage and the Value of the Firm**, Journal of Finance pg
637-647.

Stephen Lumby, (1991), **Investment Appraisal and Financing decision 4thed**,
Chapman and Hall, U.K.

Titman, Vessels, (1988), **The Determinant of Capital Structure Choice**,
Journal of Finance.

APPENDIX I

Specimen Letter to Respondents

KENYATTA UNIVERSITY,
SCHOOL OF BUSINESS,
DEPARTMENT OF ACCOUNTING AND FINANCE,
P.O BOX, 43844,
NAIROBI.

To the Respondent,

RE: REQUEST TO CONDUCT STUDY.

I am a postgraduate student From Kenyatta University researching on the topic
“The Determinant of Capital Structure of the Commercial Banks in Kenya.”

You have been selected as one of the respondents in this study. I would like to
request you to complete the questionnaire. The information supplied will be used
strictly for academic purposes and will be treated with utmost confidentiality.

Your cooperation will be highly appreciated.

Thank you.

Gordon Ochere Opuodho

MBA Student.

APPENDIX II

Questionnaire

Date -----

Interview -----

Identification of the firm (optional) -----

1. What is your position in the organization? -----

2. What are the main components of your bank financing?

	Yes	No
a. Equity	<input type="checkbox"/>	<input type="checkbox"/>
b. Debt	<input type="checkbox"/>	<input type="checkbox"/>
c. Retained earnings	<input type="checkbox"/>	<input type="checkbox"/>
d. Reserves	<input type="checkbox"/>	<input type="checkbox"/>

Others specify -----

3. What is the purpose of the banks capital structure?

	Yes	No
a. Minimization of cost	<input type="checkbox"/>	<input type="checkbox"/>
b. Maximization of shareholders value	<input type="checkbox"/>	<input type="checkbox"/>
c. Take care of future investment opportunities	<input type="checkbox"/>	<input type="checkbox"/>
d. Minimizing financial distress	<input type="checkbox"/>	<input type="checkbox"/>
e. Others (specify)-----		

4. Does the bank have a target capital structure?

a. Yes b. No.

5. Which of the costs below affect the capital structures?

	Yes	No
(a) Cost of financial distress	<input type="checkbox"/>	<input type="checkbox"/>
(b) Interest rate of debt	<input type="checkbox"/>	<input type="checkbox"/>
(c) Taxes	<input type="checkbox"/>	<input type="checkbox"/>
(d) Cost of issuing securities	<input type="checkbox"/>	<input type="checkbox"/>
(e) Bankruptcy cost	<input type="checkbox"/>	<input type="checkbox"/>
(f) Lost investment opportunities	<input type="checkbox"/>	<input type="checkbox"/>
(g) Others (specify)-----		

6. How important does the bank consider each of the factors as the determinant of appropriate amount of debt for your firms? (Tick where appropriate)

	Not Important	Fairly important	Important	Very important
(a) Profitability	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(b) Growth	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(c) Size	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(d) Business risk	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(e) Asset/ collateral tangibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(f) Tax rate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
(g) Others (specify)-----				

7. Which of the taxes below affect the capital structure decision?

	Yes	No
(a) Corporate taxes	<input type="checkbox"/>	<input type="checkbox"/>
(b) Taxes on dividends	<input type="checkbox"/>	<input type="checkbox"/>
(c) Taxes on capital gains	<input type="checkbox"/>	<input type="checkbox"/>

Others (specify)-----

8. How does the size of the business affect the banks capital structure?

	Yes	No
(a) Amount of collateral	<input type="checkbox"/>	<input type="checkbox"/>
(b) Higher profitability	<input type="checkbox"/>	<input type="checkbox"/>
(c) Access to more credit	<input type="checkbox"/>	<input type="checkbox"/>
(d) Can get more investors	<input type="checkbox"/>	<input type="checkbox"/>

(e) Others (specify)-----

9. How does profitability affect capital structure?

	Yes	No
(a) Better borrowing rate	<input type="checkbox"/>	<input type="checkbox"/>
(b) Reduction in the amount of debt needed	<input type="checkbox"/>	<input type="checkbox"/>
(c) Interest tax shield	<input type="checkbox"/>	<input type="checkbox"/>

(d) Others specify-----

10. Is the bank listed in Nairobi Stock Exchange?

a. Yes b. No

11. How do you choose the timing for offering new securities?

	Yes	No
(a) When the market is overvalued	<input type="checkbox"/>	<input type="checkbox"/>
(b) When the market is correctly valued	<input type="checkbox"/>	<input type="checkbox"/>
(c) When the market is undervalued	<input type="checkbox"/>	<input type="checkbox"/>
(d) Others specify-----		

12. Does the bank consider legal environment to be an important determinant of the capital structure? a. Yes b. No

13. If yes how would you grade Kenyan legal environment?

	Yes	No
(a) Weak	<input type="checkbox"/>	<input type="checkbox"/>
(b) Moderate	<input type="checkbox"/>	<input type="checkbox"/>
(c) Strong	<input type="checkbox"/>	<input type="checkbox"/>

Thank you for your co-operation

APPENDIX III

Work Plan

ACTIVITY	MAY	JUNE	JULY- AUGUST
(a) Pilot (pre-testing) and proposal submission			
(b) Data collection			
(c) Data analysis			
(d) Report writing and submission			

APPENDIX IV

Sampling Procedure

SHARE HOLDING	COMMERCIAL BANKS	SAMPLE SIZE.
Commercial Banks foreign owned	<ol style="list-style-type: none"> 1. Citibank N.A 2. Credit Agricole Indosuez. 3. Habib Bank A.G Zurich. 4. Habib Bank Ltd. 5. Dubai Bank Ltd. 	3
Commercial Banks foreign owned but locally incorporated. (Partly owned by locals).	<ol style="list-style-type: none"> 1. Bank of Baroda (K) ltd. 2. Barclays Bank of Kenya ltd. 3. Development Bank of Kenya ltd. 4. Diamond Trust Bank (K) ltd. 5. K-Rep Bank ltd. 6. Stanbic Bank Kenya ltd. 7. Standard Chartered Bank (K) ltd. 	4
Commercial Banks with government participation.	<ol style="list-style-type: none"> 1. Consolidated Bank of Kenya ltd. 2. Industrial Development Bank. 3. Kenya Commercial Bank ltd. 4. National Bank of Kenya ltd. 	3

SHARE HOLDING	COMMERCIAL BANKS	SAMPLE
Commercial Banks locally owned.	<ol style="list-style-type: none"> 1. African Banking corporation ltd. 2. Akiba Bank ltd. 3. Cfc Bank ltd. 4. Charterhouse Bank ltd. 5. Chase Bank (K) ltd. 6. City Finance Bank ltd. 7. Co-operative Bank of Kenya ltd 8. Commercial Bank of Africa ltd. 9. Credit Bank ltd. 10. Daima Bank ltd 11. Delphis Bank ltd. 12. Equitorial Commercial Bank ltd. 13. Equity Bank ltd. 14. Fidelity Commercial Bank ltd. 15. Fina Bank ltd. 16. First American Bank of Kenya ltd. 17. Giro Commercial Bank ltd. 18. Guardian Bank ltd. 19. Imperial Bank. 20. Investments & Morgages Bank ltd. 21. Middle East Bank (K) ltd. 22. National Industrial Credit Bank ltd. 23. Paramount Universal Bank ltd. 	SIZE 20

<p>1. African Banking Corp Ltd.</p> <p>2. Abbot Bank</p> <p>3. Bank of Africa</p> <p>4. Bank of Australasia</p>	<p>24. Prime Bank Ltd.</p> <p>25. Southern Credit Banking Corp Ltd.</p> <p>26. Trans-National Bank Ltd.</p> <p>27. Victoria Commercial Bank Ltd.</p>	<p>28. Western Bank</p> <p>29. Imperial Bank</p> <p>30. Investments & Mortgage Bank</p> <p>31. Kenya Commercial Bank</p> <p>32. K-Net Bank</p> <p>33. MCB Bank</p> <p>34. National Bank of Kenya</p> <p>35. National Industrial Credit Bank</p> <p>36. Oriental Commercial Bank</p> <p>37. Parliament National Bank</p> <p>38. Prime Bank</p> <p>39. Savings & Finance Corp Ltd.</p> <p>40. Traffic Bank</p> <p>41. Industrial Commercial Bank</p> <p>42. Trust Banking Corp</p> <p>43. W.A. Commercial Bank</p>
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Source: Researcher (2005).

Bolding indicates selected commercial banks

APPENDIX V

List of Banks in Kenya

1. African Banking Corporation
2. Akiba Bank
3. Bank of Africa Kenya Ltd
4. Bank of Baroda
5. Bank of India
6. Barclays Bank of Kenya
7. CFC Bank
8. Charterhouse Bank
9. Chase Bank
10. Citi Bank N.A
11. City Finance Bank
12. Commercial Bank of Africa
13. Consolidated Bank
14. Cooperative Bank of Kenya
15. Credit Bank
16. Daima Bank
17. Development Bank of Kenya
18. Diamond Trust Bank
19. Dubai Bank
20. Equitorial Commercial Bank
21. Equity Bank Ltd
22. Fidelity Commercial Bank
23. Fina Bank
24. First-American Bank
25. Giro-Commercial Bank
26. Gurdian Bank
27. Habib AG-Zurich
28. Habib Bank Ltd
29. Imperial Bank
30. Investments & Mortgages Bank
31. Kenya Commercial Bank
32. K-Rep Bank
33. Middle East Bank
34. National Bank of Kenya
35. National Industrial Credit Bank
36. Oriental Commercial Bank
37. Paramount-Universal Bank
38. Prime Bank
39. Southern Credit Banking Corpora
40. Stanbic Bank
41. Standard Chartered Bank
42. Trans-National Bank
43. Victoria Commercial Bank

APPENDIX VI

Budget.

ITEM /ACTIVITY	RATE (Ksh)	COST (Ksh)
Literature Search		
<ul style="list-style-type: none"> • Travel to libraries upper case within Nairobi. 	15 days @ Ksh 150 per day.	2,250
<ul style="list-style-type: none"> • Accommodation and subsistence at research areas 	10 days @ Ksh 2,000	20,000
Sub-total for literature search		22,250
1. Field Research		
<ul style="list-style-type: none"> • Travel; 	20 days @ Ksh 200	4,000
Sub-total for field Research		4, 000
Other Expenses		
<ul style="list-style-type: none"> • Fools caps 	3 reams @ Ksh 500	1,500
<ul style="list-style-type: none"> • Photocopy services 	1,500	1,500
<ul style="list-style-type: none"> • Internet use 	3,000	3,000
<ul style="list-style-type: none"> • Secretarial services 	400 pages @ Ksh 40	16,000
<ul style="list-style-type: none"> • Concreting pages 	400 pages @ Ksh 20	8,000
<ul style="list-style-type: none"> • Production & Project 	Photocopying 6 copies x 200 @ Ksh 3	4,800
<ul style="list-style-type: none"> • Binding and copies 	8 Copies @Ksh 250	2,000
Sub-total for other expenses		36, 800
GRAND TOTAL		<u>Ksh 63,050.</u>