

**THE DETERMINANTS OF CAPITAL STRUCTURE OF PRIVATE
HOSPITALS IN NAIROBI, KENYA**

BY

ETYANG' DANIEL GORDON

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DECLARATION


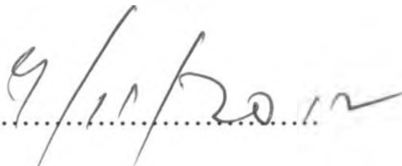
I, the undersigned, declare that this project is my original work and that it has not been presented in any other university or institution for academic credit.

Signature  Date 

ETYANG' DANIEL GORDON

D61/61641/2010

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

Signed  Date 

MIRIE MWANGI

LECTURER, DEPARTMENT OF FINANCE AND ACCOUNTING

SCHOOL OF BUSINESS,

UNIVERSITY OF NAIROBI.

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But above all I wish to acknowledge the hand of the Lord in what I did during the period of this course.

DEDICATION

To my loving parents Livingstone and Agnes Kaunya.

To my dear wife Phanice Amojong Etyang and son Fortune Gordon Kaunya and daughter Favour Flavia Renji.

ABSTRACT

Although the literature on capital structure is vast, hardly any of it is dedicated to the capital structure of non-profit organisations. In this study I investigate the relationship between leverage and profitability, growth, size, liquidity and asset structures of private hospitals in Nairobi. Secondary data available from audited financial statements of three major private hospitals was used for this study. Data collected was analysed through descriptive statistics using SPSS computer package. Regression analysis was used to compute the significance of the relationship between leverage and each factor.

The findings from the study indicate all variables; profitability, growth, hospital size, liquidity and asset structure were negatively related to leverage at 95% confidence level. It was asset structure only that had a positive relationship with leverage. In conclusion, it became apparent that private hospitals in Nairobi basically depend on internal funds for their operations. The major limitation of this study was the availability of data from private hospitals. My recommendation is that private hospitals should be encouraged to share information as regards their financial statements so that a further study to be carried out on all the private hospitals in Nairobi to evaluate if there will be a substantial change of the findings. Further research should also be carried out to determine the financing options of other non-governmental organizations.

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ABBREVIATIONS

CS	-	Capital Structure
CEO	-	Chief Executive Officer
EBIT	-	Earnings before Interest and Tax
EPS	-	Earnings per Share
IFC	-	International Finance Corporation
MM	-	Modigliani and Miller
NFP	-	Not for Profit
NGO	-	Non Governmental Organization
NOI	-	Net Operating Income
NPO	-	Non-profit organization
PHP	-	Private Healthcare Providers
PO	-	Profit Organization
NSE	-	Nairobi Securities Exchange
SME	-	Small and Medium Size Enterprises
WACC-		Weighted Average Cost of Capital

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The capital structure of an enterprise is the particular combination of debt and equity finance that an enterprise uses to fund its long term financing. The main issue/key in it is between what the enterprise is utilizing in its financing operation over a period of time, as the total value of any given enterprise is equal to the total value of its financing fund.

Pandey (2010) states that

“The investment projects of a company can be financed either by increasing the owners’ claim or the creditors’ claim. The owner’s claims increase when the firm raises fund by issuing common shares or by retaining earning while the creditors’ claims increase by borrowing. The various means of financing represent the financial structure of the enterprises or a firm. The financial structure of an enterprise is shown by the liabilities plus equity. Traditionally, short-term borrowings are excluded from the list of methods of financing the firm’s capital structure expenditure of the enterprises. And therefore the term capital structure is said to represent the proportionate relationship between debt and equity. Equity includes paid up share capital, share premium, reserves and retained earnings”.

Capital structure of an enterprise takes into consideration the permanent long-term financing of a company, including long-term debt from Financial Institutions, debentures, bonds, common stock, preferred stock, and retained earnings. While the financial structure includes both short-term and long term sources of financing, thus capital structure is a subset of financial structure. It can be said capital structure determine the composition ownership of the firm, as levered fund being provided by the debt owners while the unlevered being provided equity owners (Pandey, 2010)

1.1.1 Determinants of Capital Structure

Certain attributes of a firm affect its capital structure decision. These attributes are age, asset tangibility, growth, liquidity and profitability, and size.

1.1.2 Age

There are several explanations for why debt might be related to the age of the organization. Newly established organizations might not have a long enough record of accomplishment to demonstrate their creditworthiness to lenders. Berger and Udell (1998) suggest that start-up organizations have difficulty raising capital because they are informationally opaque. Diamond (1989) suggests that organizations with shorter track records also have a greater probability of default. Less mature organizations can also lack the resources necessary to produce the audit-quality financial statements required for bank financing. Petersen and Rajan (1994) find that the interest rate that banks charge decreases with age.

Insomuch as better established organizations are able to obtain more debt or receive more favourable repayment terms, the trade-off theory suggests that debt will increase with age. On the other hand, it is possible that Non Profit Organizations (NPOs) will either pay off debt or accumulate retained earnings as they age. This would be consistent with the preference for internal sources suggested by the pecking order theory. If this is the case, then the older organizations will have less debt. From an agency cost perspective, older organizations will have less debt to the extent that their decision makers are more risk averse, more entrenched, or have greater reputational and career concerns.

1.1.3 Asset Tangibility

In the event of default, tangible assets provide creditors with a secondary source for repayment of outstanding debt. Secured debt also mitigates the asset substitution problem identified in Galai and Masulis (1976) and Jensen and Meckling (1976). For these reasons, organizations with a greater share of tangible assets are expected to benefit from more favourable financing terms than others are able to. Because of this, the trade-off

theory suggests that there is a positive relation between debt and the proportion of the organization's assets that are tangible. Tangible assets can also mitigate concerns over insider resource expropriation. This also suggests that there is a positive relation between debt and asset tangibility from the agency cost point of view.

1.1.4 Growth

Another attribute that can affect capital structure is growth. If tax-exempt organizations must trade-off between the gains from making capital investments and the costs of financial distress, then the trade-off theory suggests a positive relation between debt and growth. Likewise, the pecking order theory suggests that high-growth organizations will use more debt because they are unable to fund all of their investment opportunities with internal sources. But from the agency cost perspective, organizations with investment opportunities are unable to secure financing when some of the benefits accrue to existing creditors. To avoid this "debt overhang" problem, high-growth organizations will use less debt.

1.1.5 Liquidity and Profitability

The trade-off theory predicts that more liquid and more profitable organizations will use more debt because they have a lower probability of bankruptcy and because they receive more favorable repayment terms. On the other hand, the pecking order theory predicts that more liquid and more profitable organizations will use less debt because of the availability of internal funds. From the agency cost perspective, liquidity and profitability have a negative effect by giving decision makers the opportunity to avoid debt in light of personal risk aversion, entrenchment, and reputational and career concerns.

1.1.6 Size

There are several explanations for why debt typically increases with firm size. Ang, Chua, and McConnell (1982) and Warner (1977) suggest that the direct costs of bankruptcy are inversely related to size. Titman and Wessels (1988) suggest that larger organizations are more diversified and less prone to bankruptcy. Smith (1977) and Titman and Wessels (1988) suggest that it is less expensive for larger organizations to

issue long-term debt. To the extent that financial distress costs and bankruptcy risk are inversely related to size or that debt is less expensive for larger organizations, the trade-off theory suggests that larger organizations will use more debt than smaller organizations do. Likewise, the pecking order theory predicts that larger organizations will use more debt to the extent that informational opacity decreases with size. From the agency cost perspective, if the decision makers of larger organizations are more risk averse, more entrenched, or have greater reputational and career concerns, then larger organizations will use less debt.

1.1.7 Private Hospitals in Nairobi

There is no available data on the number of private hospitals in Nairobi. An attempt has been made by the private hospitals themselves to form their own association, Private Healthcare Providers (PHP) Consortium. According to the PHP Consortium Chief Executive Officer (CEO), John Maliti, there are currently thirteen members (Appendix 1). PHP offices are currently at The Mater Hospital. According to the CEO, there are attempts to increase the membership of PHP to not only in Nairobi but also to the whole country.

In Kenya, hospitals are classified as Non Profit Organizations (NPOs) and as such they are exempted from taxation. Private Hospitals in Kenya are therefore tax exempt organizations.

1.1.8 The theory of non-profit organisation capital structure

The theory of capital structure that has been developed in order to explain firms' financing choices cannot be readily applied to NPO. Whereas the sources of debt are comparable for NPO and Profit Organizations (PO), sources of equity differ significantly. Shareholders of PO are motivated by expected future monetary gains, but the source of external equity to non-profits is philanthropy (Sloan et al. (1988). Accumulation of retained earnings (losses), occurring automatically because of the non distribution constraint, complements external equity.

Various characteristics of NPO-equity have been investigated, such as the diversity of equity sources (Dongili (1997), Tuckman (1993)), its explaining contingencies (Chang, Tuckman (1994)), its effect on financial performance, revenue volatility, goal displacement, process and structure within the NPO (Chang, Tuckman (1994), Froelich (1999)), and motives for equity accumulation in NPO (Chang, Tuckman (1990)). However, research on the capital structure of NPO is rather scarce.

An early exception is the paper by Wedig et al. (1988) that deals, amongst other things, with non-profit hospitals. They rightly remark that since there is no applicable corporate income tax, any risk of bankruptcy might imply that the NFP hospital would select an all-equity capital structure. Yet it is a stylized fact that almost all NFP hospitals have debt obligations. This statement is clearly valid for most NPO, not only for non-profit hospitals. In the rest of their paper a capital structure model is presented that rests on the assumption that NPO maximise the difference between cash inflows and cash outflows, the former modelled to take idiosyncrasies of the US hospital financing mechanism into consideration, ignoring for instance donations, which are not very substantial in hospitals but can be for other NPO.

A comparable paper is Ligon (1997). Wedig et al. (1996) and Gentry (2002) concentrate on specific aspects (the role of municipal bonds, and an empirical analysis of the volume of tax-exempt debt in American non-profit hospitals in a tax-arbitrage context respectively). Bacon (1992) and Bowman (2002), using American data on respectively non-profit hospitals and NPO in general, assess the explanatory power of two classic PO capital structure theories: the static trade-off theory and the pecking order theory. Their conclusions are divergent: Bacon (1992) concludes that the pecking order hypothesis applies to non-profit hospitals and that the static tradeoff does not seem to describe actual financing behavior of non-profit hospitals, whereas Bowman (2002) states that nonprofit managers appear to use a static trade-off decision rule.

The traditional theories of capital structure are based on some minimisation process of the (profit or non-profit) organisation's cost of capital. As for PO, for NPO this cost is the

weighted average of the cost of equity and the cost of debt. How the weights are to be determined in practice is not entirely clear, as, contrary to the situation of PO, market values of debt and equity of npo are not readily available. The literature on the cost for debt of NPO is not very elaborated. In the model of Wedig et al. (1989) for example this cost is introduced as an exogeneously determined parameter.

A little more is published on the cost of equity. Without any justification, Sloan et al. (1988) assert that this should equal the return on equally risky tax-free securities as the outcome of a competition for external equity. Clearly there are some insurmountable problems with this approach, such as the question whether such securities even exist, let alone whether there is a market for them and consequently whether diversification in the CAPM framework proposed by the authors is possible (Jegers (1997)). A more realistic approach is proposed by Wedig (1994) who states donors receive 'dividends-in-kind' in the form of utility gained by seeing the organization's goals advanced. [These goals are] neither alienable nor perfectly substitutable for cash dividends. This implies that the financial cost of equity is in fact zero (see also Bowman (2002)), although this does not preclude providers of external equity to have an impact on investment decisions and criteria, as argued by Fama and Jensen (1985). Summarising, in NPO the cost of equity, being zero, is lower than the cost of debt, whereas in PO the cost of equity is generally higher than the cost of debt, inducing the use of debt to lever the return on equity, and making trade-off mechanisms appropriate. For NPO on the contrary there is no economic ground for engaging in a trade-off exercise between debt and equity. Therefore, other reasons must exist to explain the use of debt financing by NPO.

1.2 Research Problem

Although the literature on capital structure is vast, hardly any of it is dedicated to the capital structure of non-profit organisations. There are so many non-profit organisations (NPO) in Kenya which account for billions of Kenya shillings in total assets. Private hospitals in particular play a big role in the provision of healthcare in Kenya. The major private hospitals are located in Nairobi, the capital city of Kenya and include The Nairobi Hospital, The Aga Khan University Hospital, Gertrude's Children's Hospital, The Karen

and The Mater Hospital. Yet there is relatively little research into the financing structure of these organizations or the underlying determinants of their capital structure choice. The purpose of this study is to help fill this gap in the literature.

Kamere, (1987) investigated the determinants of capital structure and found out that level of interest rates, firms' assets structure, firms' tax advantage of debt and the maturity of debt were important factors in deciding a firm's capital structure.

Odinga (2003) conducted a study on the determinants of capital structure of companies listed at NSE and concluded that profitability and non tax shield are the most significant variables in determining leverage. He also found out that influential variables also vary from company to company indicating that firm specific factors also play a role in determining capital structure.

Kinyua (2005) investigating capital structure for small and medium enterprises concluded that there was a negative relationship between profitability, growth, asset structure and capital structure but a positive relationship for enterprise's age. Matibe (2005) conducted a study on the relationship between ownership structure and capital structure for companies listed at the NSE. She found out that firms owned by the state are more likely to borrow than firms owned by individuals or foreign investors.

Munene (2006) studied the relationship between profitability and sources of financing of quoted companies at the Nairobi Securities Exchange (NSE). The study population of the 48 companies quoted at the NSE between 1999 and 2004 and they concluded that there is a weak positive relationship between capital structure and profitability of firms quoted at the NSE between 1999 and 2004 and therefore other factor contribute to firm capital structure.

There are several advantages to studying the capital structure decision for NPOs. Because the debt ratios of NPOs are unaffected by corporate income taxes, equity market timing, and signaling effects, they are a natural sample upon which to assess the empirical

predictions of the theory of capital structure. In comparison, it is well known that difficulties in estimating marginal tax rates and the endogeneity of corporate income taxes can complicate the study of taxable corporations. Likewise, Baker and Wurgler (2002) and Leary and Roberts (2005) point out that the debt ratios of POs partly represent the cumulative effects of equity market timing. Ross (1977) also points out that POs issue debt to send signals to shareholders about the company's future prospects.

Gentry (2002) looks into whether hospitals engage in tax-arbitrage by indirectly financing their endowments via tax-exempt bonds. Wedig, Sloan, Hassan, and Morrissey (1988) find that hospitals that are more dependent on revenue from cost-based payers use more debt than other hospitals do. Wedig, Hassan, and Morrissey (1996) find that tax-exempt hospitals behave as if they have target levels of tax-exempt debt, that debt targeting is constrained by the availability of capital projects, and that excess debt capacity stimulates investment. Hassan, Wedig and Morrissey (2000) study whether hospitals provide charity care to gain access to the tax-exempt bond market. Bacon (1992) finds that hospital debt increases with asset tangibility, growth, and lagged leverage, and decreases with profitability. Bowman (2002) stands out among these studies because it expands the scope of organizations beyond hospitals to include organizations from the arts and cultural, college and university, and human services industries. This is yet another motivation for this study. None of the above studies focusing on NPOs has been done in Kenya. The aim of this study is to shed light on the determinants of capital structure of private hospitals in Kenya and therefore, seeks to answer the question; what are the determinants of capital structure for private hospitals in Nairobi, Kenya?

1.3 Objectives of the Study

To establish the determinants of capital structure of private hospitals in Nairobi.

1.4 Value of the Study

This study will be important to the following groups;

Academicians: There is relatively little research into the financing structure of NPOs or the underlying determinants of their capital structure choice. This study will advance financial theory for further empirical studies.

Donors: Most NPOs are financed by donors and they would wish that their funds are at all times appropriately utilized. This study will assist in the assessment of the viability of these organisations.

Management of private hospitals: They will be able to discern the most popular method of capital structure choice and the factors that may influence the choice of a financing method.

The Government of Kenya: The government is struggling to ensure universal healthcare services to its citizens and private hospitals will play a greater role in this regard. The government therefore can develop a policy which favours lending to private hospitals.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

In this chapter, literature on the concept of capital structure and capital structure theories will be reviewed. There will also be a section on empirical evidences on capital structure theories followed by a conclusion.

2.2 Theoretical Review

Capital structure (CS) has undergone over 50 years development process starting way back in 1958, and the process was made possible by various individuals in the field of economic and finance, but the major player is Modigliani and Miller (MM), whose 1958 theorem formed the foundation of the capital structure.

2.3 Modigliani and Miller Models

2.3.1 The original MM theory (proposition I)

Modigliani and Miller, (1958) in their famous proposition 1 argued that a firm's value is determined by its real assets not by the securities it issues. This proposition is based on several simplifying assumptions.

- i. There are no corporate or individual income taxes
- ii. There are no Deterrents to investors holding either bonds or stock or to their borrowing to carry securities.
- iii. Stocks and bonds are traded in perfect markets, implying (among other things) that there are no transaction costs and all buyers and sellers are fully informed.
- iv. All investors and corporations can borrow at the same rate, regardless of the amounts.

The Original MM theory (independence theory or the Net operating income (NOI) theory) holds that the overall cost of Capital (K_o) and the total Value of the Firm (V) are unchanged as the debt ratio is increased from 0 to approach 100 percent. It maintained that there was no Value to be gained from the capital structure decisions; any proportion

is as good as any other. The market Value of any firm is independent of its Capital Structure and is given by capitalizing its expected return at the rate appropriate to its risk class.

$$V_L = V_U = \text{EBIT} / K_o = \text{EBIT} / K_{eu}$$

V_L = Market Value of Levered firm

V_U = Market value of Unlevered firm (all equity)

EBIT = Earnings before interest and tax.

K_o = WACC

K_{eu} = Cost of Equity of unlevered company.

In this case we are valuing a company by taking its stream of expected future earnings before interest and tax (EBIT) also called NOI and using WACC as a discount rate to capitalise the expected future stream. Proposition 1 therefore defines the value of the firm solely in terms of its EBIT and the risk variability of the EBIT (MM)

The above equation implies that the cost of capital of any firm, levered and unlevered is equal provided both are in the same risk class. This position was supported by mathematically consistent MM Model.

The theory rests primary on two lines of reasoning:

a) Arbitrage

MM relied on the concept of arbitrage to prove their proposition 1. An arbitrage opportunity occurs when an identical asset sells for two different prices usually but not necessarily in two different markets. Arbitrageurs (market traders who make their money from identifying and exploiting market pricing anomalies) will buy the asset where it is underpriced and sell it where it is priced higher. As a result of arbitrage the price of the asset is quickly equalized.

In the context of MM proposition I an arbitrage occurs when the market value of a geared firm differs from the market value of an otherwise identical firm but all-equity financed firm.

b) Creating 'Home-made' leverage

As MM assumed perfect capital markets where individuals and corporations can borrow at the same rate, investors will consider personal and corporate gearing as perfect substitutes. This means for example that rational investors can use personal borrowings (referred to as Creating Home-made Leverage) to equal corporate leverage and basically construct any degree of corporate leverage they consider appropriate in their own investment portfolio.

Essentially by utilizing homemade leverage, rational investors are able to do for themselves what any firm can do in relation to borrowing at no extra cost. There is thus no advantage to an investor in paying more for an investment in one company compared to another simply because of differences in debt policy. As MM concluded 'levered companies cannot command a premium over unlevered companies because investors have the opportunity of putting the equivalent leverage into portfolio directly by borrowing on personal account.

Limitations

- i. Perfect market does not exist.
- ii. We live in a world of taxes.
- iii. There are Deterrents to some investors holding particular securities and to their borrowing to carry them.
- iv. Brokerage fees and transaction costs exist.
- v. Not all investors and corporations can borrow at the same interest, regardless of the amount.

2.3.2 The 1961 Miller-Modigliani Theorem-(incorporating Dividends payment)

If the financial markets are competitive then, ceteris paribus, the value of the corporation paying dividends equals that of the corporation paying no dividends, i.e., $V^d = V^n$,

Where d= dividend paid

n = no dividend paid.

According to this theory a value of an enterprise which pays dividend is the same as the one that does not so long as the other variables are held the same.

2.3.3 The 1963 Modigliani-Miller Theorem-incorporating taxation

If the financial markets are competitive and corporations are taxed then, ceteris paribus, the value of the levered firm equals that of the unlevered firm plus the value of the debt tax shield, i.e., $V^l = V^u + T$,

Where l= levered firm

u=unlevered firm

T=value of the debt tax shield.

According to Modigliani under this theory the value of an enterprise whose capital is composed of debt is the same the value of one whose capital structure has no debt plus the benefit from corporation taxation on the levered enterprise (as the interest paid by the levered firm has a tax shield).

2.3.4 The 1977 Miller Theorem-incorporating personal and corporate tax

If the financial markets are competitive and both corporations and investors are taxed then the equilibrium value of the levered firm equals that of the unlevered firm, i.e., $V^l = V^u$

Where l=levered firm

U=unlevered

According to Miller, the value of a levered firm that pays corporate tax is the same as the value of unlevered one whose investors are also taxed at the personal level individually at the corporate tax level.

2.4 The Modern Trade-Off Theory

In the continuing debate about capital structure the modern or current mainstream view prefers to explain CS in terms of a trade-off between agency/bankruptcy costs and the tax shield on debt interest.

2.4.1 Agency costs

The idea of agency cost as one of the determinants of capital structure was propounded by Jensen and Meckling (1976), who based their studies on the findings of Fama and Miller (1972). In their study Jensen and Meckling introduced the idea of separating ownership from control and they also pointed out the possible conflict existing between owners and managers which results in an increase of the agency cost (Jensen and Meckling, 1976).

There are three main types of agency costs which can help explain the relevance of capital structure.

- i. **Asset substitution effect:** As Debt/Equity ratio (D/E) increases, management has an increased incentive to undertake risky (even negative Net present Value (NPV) projects. This is because if the project is successful, share holders get all the upside, whereas if it is unsuccessful, debt holders get all the downside. If the projects are undertaken, there is a chance of firm value decreasing and a wealth transfer from debt holders to share holders (Jensen and Meckling, 1976).
- ii. **Underinvestment problem:** If debt is risky (e.g., in a growth company), the gain from the project will accrue to debt holders rather than shareholders. Thus, management have an incentive to reject positive NPV projects, even though they have the potential to increase firm value (Jensen and Meckling, 1976).
- iii. **Free cash flow:** unless free cash flow is given back to investors, management has an incentive to destroy firm value through empire building and perks.

Increasing leverage imposes financial discipline on management (Jensen and Meckling, 1976)

2.4.2 Other agency costs include;

- i. The neutral mutation hypothesis; firms fall into various habits of financing, which do not impact on value.
- ii. Market timing hypothesis; capital structure is the outcome of the historical cumulative timing of the market by managers.
- iii. Accelerated investment effect; even in absence of agency costs, levered firms use to invest faster because of the existence of default risk.

Incurring agency costs has an effect of reducing the shareholders' Value. When debt is introduced the agency problem is extended to the relationship between shareholders and lenders. When a lender is considering whether to advance funds to a company the decision will be based on an assessment on the company's risk, business and financial and of its expected future cash flows (Jensen and Meckling, 1976)

If the loan is made, the interest rate charged and the loans terms and conditions will be influenced by these factors. Once the loan is made it may be open to company's managers to take advantage of lenders; for example using funds to more risky investment that disclosed to lenders. This called asset-substitution problem. To eliminate or at least minimize this type of managerial behavior, lenders will typically insist on restrictive covenants and provisions in loan agreements to protect their interests; for example limiting debt-equity ratios, dividend payout ratios and other liquidity ratios. The cost of all the protective arrangements imposed by lenders is an agency cost, a cost which is borne by the shareholders when the firm uses debt in its CS. Clearly the more debt a firm employs the greater will be the debt-related agency costs (Jensen and Meckling, 1976)

There may come a point when the additional costs of raising more debt may exceed the benefits of interest tax shield. It is also argued that a firm's total agency costs may in fact be reduced as a result of using debt in its CS. The contention is that raising debt exposes

the firm to an external scrutiny or audit as lenders and financiers before providing funds will analyze and assess firm's finances, risks and management capability. These procedures reduce the owners total cost of monitoring and controlling its managers and encourages managers to behave in a manner more consistent with the shareholders wealth maximization (Jensen and Meckling, 1976)

For NPOs, theories based on agency costs predict that a combination of personal risk aversion, entrenchment, and reputational and career concerns will deter decision makers from taking on debt. These effects could be even more pronounced in the tax-exempt sector because of the lack of discipline provided by a market for corporate control.

2.4.3 Bankruptcy costs

Bankruptcy problems occur as a result of fixed interest and principal payment on debt; even though a firm might not formally become bankrupt, financial distress may cause serious operational and financial difficulties that depress its value; for example;

- i. Suppliers refuse to sell on credit
- ii. Key employees resign
- iii. Customers become reluctant to buy its product
- iv. Maintenance of Machinery and equipment is deferred
- v. Research and development projects are curtailed
- vi. Otherwise favorable capital investment opportunities are forgone.

The greater the proportion of debt in the CS the higher the fixed financial charges, therefore the greater the probability that a decline in EBIT and cash flows will lead to bankruptcy or at least some form of financial difficulty. As a modest proportion of debt are included in the CS bankruptcy costs will be nominal with little or no effect of either debt or equity capital. Then as the proportions of debt become large and large its K_e and K_d will rise at an increasing rate. This reflects the impact of bankruptcy costs on investors required rates of return (Jensen and Meckling, 1976)

K_e is affected more than the K_d because debt claims have a more priority over equity; financial distress can reduce the value of equity fully before debts claims will be impaired.

As the debt ratio becomes so high that the threat of bankruptcy is imminent, bankruptcy costs cause K_e and K_d curves to turn sharply upward. Beyond that point the firm simply cannot borrow or obtain additional equity funds in the capital markets at any cost (Jensen and Meckling, 1976)

For NPOs, the expectation is that there is little to no benefit from the deductibility of interest expense. However, even without a tax savings benefit NPOs can benefit from debt by leveraging their capital investments and increasing their return on equity. Likewise, NPOs must also trade-off between the benefits from making capital investments and the costs of financial distress because of their inability to access the equity markets.

2.5 Other Models

2.5.1 Information Asymmetry and Signaling Models

Since the late 1970s various information asymmetry-signaling models of CS have been advanced for example Ross (1977). Essentially these Models attempt to explain CS in terms of the ways in which managers use issues of debt and equity to signal information about a firm's future prospects to less well informed owners and investors.

In reality managers will possess intimate inside information about a firm's operations. As insiders they will have access to more information about a firm than its shareholders and investors. The unequal access to and distribution of information between managers and owners are known as information asymmetry and it is an agency cost borne by the shareholders.

If new funds are required the managers need to make a decision whether to raise the funds through debt or equity. By issuing debt the company will be signaling to investors and current shareholders that the future outlook for the company is bright (positive signal). In contrast the decision by a company (particularly a mature established company

which has many financing options available to it) to issue equity would generally be interpreted as a negative signal (Ross (1977)).

2.5.2 Pecking Order Model

The pecking order theory was developed by Myers (1984) and Myers and Majluf (1984). Myers essentially argues that management of firms will follow a distinct order in their preferences for using sources of corporate finance for investment and therefore do not seek to maintain an optimal or target capital structure.

According to Myers, Managers will prefer first of all to use retained earnings to finance investment rather than resort to issuing debt or equity. If retained earnings are exhausted or insufficient to fund investment project and additional financing needs to be raised externally, then managers will prefer to use debt rather than equity. Thus, in Myers view a firm's CS at any point in time is simply a reflection of its past pecking order preferences for long-term financing.

For NPOs, the adverse selection costs associated with debt include not only the interest expense, but also restrictive bond covenants or other restrictions on managerial discretion. Inasmuch as these costs can give decision makers the incentive to prefer internal sources of capital, the pecking order theory suggests that organizations will turn to external debt only when internal sources are insufficient to fund their capital investments.

2.6 Uniqueness of Nonprofit Finance

The NPO form is generally defined through the non-distribution constraint coined by Hansmann (1980), stating that NPOs are precluded from distributing financial surplus from operation. Thus, NPOs lack private ownership or stock trading on an equity market. This constraint allows NPOs to attract private donations which are tax-deductible, as well as being exempt from corporate profit tax and other taxes. Just as in POs we can distinguish between two major sources of capital; debt and equity. Unlike in the realm of

POs, we must recognise that lack of an equity market for the NPO residual implies inherently an incomplete markets framework.

2.6.1 Equity

Despite the aforementioned equity gap, there are distinct internal and external sources of equity for the NPO. The latter includes primarily donative capital that is solicited from a well functioning philanthropy market. In this context, Wedig(1994) develops a framework that treats donors as equity holders and donations as external equity, where dividend is paid out in kind. Such dividend-in-kind is neither alienable nor perfectly substitutable for cash dividends. Instead it provides marginal utility at a decreasing rate. However, this is a weak metaphor as, given heterogeneous donors, dividend-in-kind is not comparable on a per dollar invested basis and in some sense accrues automatically and not at the discretion of any board. Furthermore, it is important to recognise that donative capital is often restricted and in general the arbitrage of returns on assets of similar characteristics is meaningless, and, therefore, so is the opportunity cost of capital.

Internal equity can take two forms. The first, which is also found in POs, is fund balance. The second, is the NPO endowment which consists of perpetual investments, the returns on which are used for precautionary savings (Fisman and Hubbard (2005)) and investment. Recognising the importance of the endowment Bowman(2002) proposes that NPOs be thought of as holding companies - made up of an operating company and a supporting mutual fund.

2.6.2 Debt

Both market and non-market debt constitute NPO borrowing channels. Market debt is assessed on a commercial basis and hence investor's required rate of return is established in the market. Non-market debt on the other hand is mostly sourced from individuals with close links to the NPO. Covenants and rates on such loans depend on the utility functions of providers and will often be more generous than market rates. Market debt instruments are similar to those found in POs and include mortgages, bank loans and regular bond

covenants. The difference is found in NPOs' access to cheaper tax-exempt private activity bonds, issued through state or local authority to fund "qualified" projects.

In 1986, the US Congress restricted the volume of issues for each NPO to \$150 million (hospitals were excluded), lifting the restriction only in 1997. It is significant to note that Federal law bars creditors from legally prosecuting financially unstable NPOs, yet allows NPOs to file for voluntary bankruptcy in order to liquidate. While such procedures are unlikely to recover lent funds they mean that NPOs are not always solvent. Despite a virtually non-existent direct cost of bankruptcy it can be argued that indirect bankruptcy costs, especially in terms of social value, are huge. The reason for this is that reputation is arguably the most valuable asset a NPO has. Near bankruptcy might force a NPO to reduce program expenditures and therefore jeopardize reputational capital and hence any future donor support. Given NPOs' tax-exemption, market debt loses one of its traditional benefits - the tax shield, which arises through the tax deductibility of interest payments. However, many authors (Wedig (1996)), point out that the ability to borrow at tax-exempt rates benefits NPOs with an indirect tax shield. Hence, NPOs either borrow funds in tax-exempt markets and invests these in higher yielding assets or gain indirect arbitrage profits through substitution of internal funds.

2.7 Empirical Evidence on Capital Structure

The empirical research on NPO capital structure is severely lacking. In Kenya, there is little or no published literature on capital structure determinants for NPOs. However, several studies have been carried out in the rest of the world on NPO capital structure.

Jegers and Vershueren (2006), is a study of the determinants of capital structure of Californian NPOs. The authors focus on equity costs, borrowing constraints and agency and test using a sample of 22,776 NPOs from the Internal Revenue Service (IRS) Core files. In addition, there exist several papers relating specifically to hospitals, but often their results and ideas are hard to generalise to the entire nonprofit universe.

Bacon (1992) and Bowman (2002), using American data on respectively non-profit hospitals and NPO in general, assess the explanatory power of two classic PO capital structure theories: the static trade-off theory and the pecking order theory. Their conclusions are divergent: Bacon (1992) concludes that the pecking order hypothesis applies to non-profit hospitals and that the static tradeoff does not seem to describe actual financing behavior of non-profit hospitals, whereas Bowman (2002) states that nonprofit managers appear to use a static trade-off decision rule.

Smith (2010) on his study of capital structure determinants for tax-exempt organizations finds out that debt use is positively related to asset tangibility, growth, and size, and negatively related to age, liquidity, and profitability. Tax-exempt sector-specific findings indicate that debt is also positively related to the efficacy of state laws against the misuse of assets and to the percentage of decision makers that are paid and negatively related to decision-maker compensation and to charitable contributions. Religious organizations most commonly borrow from internal sources, those in education use tax-exempt bonds, while human services organizations use mortgages and notes payable.

In Kenya, several studies on capital structure have been done but none has focused on NPOs. For instance, Omondi (1996) carried out a research to identify on the basis of past information which factors play a significant role in the capital structure decisions of public quoted companies. The past information used was based on the findings of Kamere (1987), the period of study was between 1987 and 1994. The factors that were tested were the firm's age, industrial class, growth, size, interest charges, profitability, asset structure and ownership structure. The findings were similar to those of Kamere (1987).

Chonde (2002) carried out a research to identify which factors influence the capital structure decisions of public sector enterprises in Kenya. The factors which were tested were asset structure, size, profitability, growth and liquidity. The findings were as follows;

Asset structure turned out to be negatively but insignificantly correlated with capital structure in all firms.

Size proved to be negatively correlated with capital structure,

Growth was positive but insignificantly correlated with capital structure,

Liquidity was negative and insignificantly correlated with capital structure,

Profitability turned out as the only factor which determines leverage in public sector enterprises. It was significantly positively correlated with capital structure.

Odinga (2003) conducted a study on the determinants of capital structure of companies listed at NSE and concluded that profitability and non tax shield are the most significant variables in determining leverage. He also found out that influential variables also vary from company to company indicating that firm specific factors also play a role in determining capital structure.

Kinyua (2005) investigating capital structure for small and medium enterprises concluded that there was a negative relationship between profitability, growth, asset structure and capital structure but a positive relationship for enterprise's age. Matibe (2005) conducted a study on the relationship between ownership structure and capital structure for companies listed at the NSE. She found out that firms owned by the state are more likely to borrow than firms owned by individuals or foreign investors.

2.8 Summary and Conclusions

Overall, the results suggest that current theories of capital structure all contribute to decision making practice though certain aspects of the theories are strongly refuted. Importantly, finance directors' opinions are not fully consistent with either of the main theories. There are several possible reasons for this. Clearly, the capital structure decision is a complex, multi-dimensional problem. Humans have restricted rationality so it would be surprising if all factors were considered. In addition, some responses may reflect organizational slowness in adapting to changes in the relevant environment.

Moreover, financing decisions are likely to be the product of complex group processes. Capital structure theory is not (yet) able to capture these complexities due to lack of the use of dynamic regression models in methodology to capture or recognize various relationships over time.

A number of factors influence the financing decisions of firms. Most of those decisions are industry and firm specific. Due to such Leeway in the choice of capital structure, it has become increasingly difficult to recommend a comprehensive and conventional capital structure policy for firms. Such contentious surroundings capital structure has been termed by Myers (1984) as the “capital structure puzzle”. Academicians have come up with different perspectives to try and address various facets of capital structure but still, subsequent scholars have always documented limitations of earlier studies.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter sets out the research methodology that will be used to meet the objectives of this study. Included herein are the population of the study, the sample, the model and data analysis to be adopted for the purpose of this study.

3.2 The population

The population of this study consists of all private hospitals under Private Healthcare Providers (PHP) Consortium. Currently, there are thirteen hospitals in Nairobi that form this consortium (Appendix I).

3.3 The Sample

The sample of this study consisted of all the PHP consortium hospitals who have consistently produced their audited financial statements for five years between 2006-2010. This period was conveniently chosen by the researcher and was basically dictated by the availability of data to undertake the study. There are three hospitals which fulfilled this condition. A list of the hospitals included in the study is in Appendix II.

3.4 Data Collection

This study is based wholly on secondary data available from the audited financial statements. These reports were availed on request from the individual hospitals. The following information was then extracted from the financial statements;

Leverage – measured by book values debt and equity ratios (debt/equity)

Asset structure – measured by the ratio of book values of fixed assets to total assets (Fixed Assets/Total Assets)

Size – measured by the ratio of sales to total assets (Sales/Total Assets)

Profitability – measured by the ratio of earnings before interest and taxes (EBIT) to total assets (EBIT/Total Assets)

Growth – measured by the book values of total assets less equity divided by assets (Total Assets-(Equity/Total Assets)).

Liquidity – measured by the ratio of current assets to current liabilities (Current Assets/Current Liabilities)

Justification

This study limits itself to those factors that have shown up consistently within previous researches as being correlated with leverage.

3.5 Data Analysis

Data collected on the variables of interest within the period of study was analysed through descriptive statistics. Further, multiple regression and correlation analysis was used to explain the nature and significance of the relationship between changes in the response variable (leverage) and changes in the predictor variables (determinants) identified in the study.

The Multiple Regression Equation used is shown here below;

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \epsilon$$

Where

Y = Leverage- measured by book values debt and equity ratios

β_0 = the value of the leverage without inclusion of the predictor variables

β_{0-5} = Regression coefficients – defines the amount by which Y is changed for every unit change in the predictor variable

X_{1-5} = The predictor variables where;

X_1 - Profitability- measured by the ratio of earnings before interest to total assets

X_2 - Growth- measured by the book values of total assets less equity divided by assets

X_3 - Size- measured by the ratio of sales to total assets

X_4 - Liquidity- measured by the ratio of current assets to current liabilities

X_5 - Asset Structure- measured by the ratio of book values of fixed assets to total assets

ϵ - The error term which defines the variation in the response variable Y which cannot be explained by the included predictor variables.

The test is whether the independent variables (asset structure, size, profitability, growth and liquidity) are capable of predicting leverage.

The means for all the factors were calculated on an annual basis. The ratio of debt to equity was obtained on a yearly basis and the means computed. Data analysis was based on these means. Regression analysis was used to compute the significance of the relationship between leverage and each factor.

The SPSS Version 17 computer package was used to analyse the data.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

This section covers the analysis of the data, the results and interpretations. The first step in analysing the data was through descriptive statistics and this was done using SPSS.

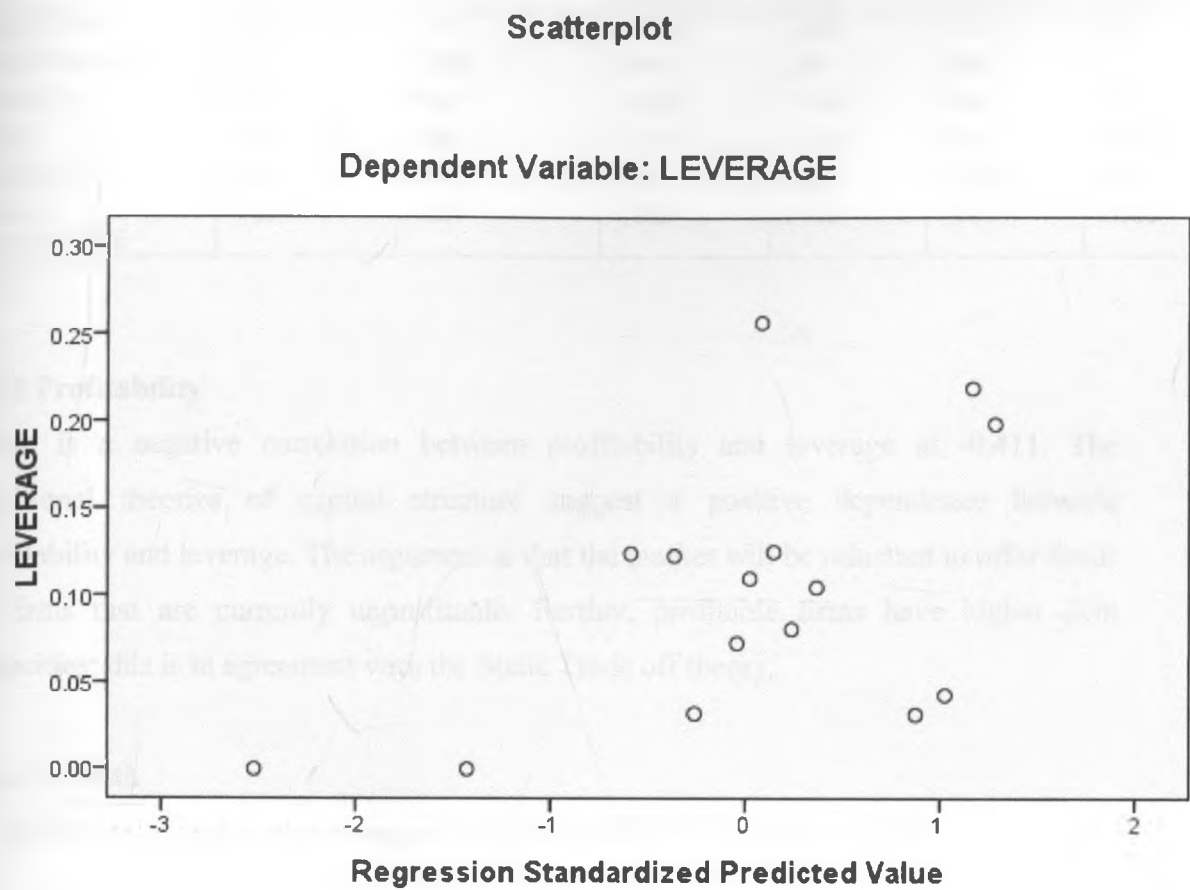
4.2 Analysis and Findings

The determinants that have been studied show that the average debt to equity ratio is 0.1011. This indicates that private hospitals in Nairobi finance their operations mainly from equity and much less from debt. The combined average run for profitability is 0.0985, while growth has a mean of 0.1307, size 1.0980, liquidity 1.5910 and asset structure 0.6518. These results are shown in Table 4.1 below.

Table 4.1: Descriptive Statistics

	Mean	Std. Deviation	N
LEVERAGE	.1011	.07731	15
PROFITABILITY	.0985	.08278	15
GROWTH	.1307	.12899	15
SIZE	1.0980	.13287	15
LIQUIDITY	1.5910	.72105	15
ASSET STRUCTURE	.6518	.08001	15

Figure 4.1: Scatter Plot



The above scatter plot shows an upward trend. The trend seems to be linear and as such a linear regression analysis can be used for further analysis.

4.3 The analysis for Determinants

The results from the scatter graph indicated a linear trend which facilitated the process of carrying out regression analysis on the data. This was done through correlation analysis, goodness of fit and the model equations. The results were as follows:

Table 4.2: Showing Correlation of the combined run

	LEVERAGE	PROFITABILITY	GROWTH	SIZE	LIQUIDITY	ASSET STRUCTURE
LEVERAGE	1.000	-.411	-.333	-.093	-.400	.068
PROFITABILITY	-.411	1.000	.340	.563	.616	-.231
GROWTH	-.333	.340	1.000	-.143	.342	-.155
SIZE	-.093	.563	-.143	1.000	.224	-.430
LIQUIDITY	-.400	.616	.342	.224	1.000	-.566
ASSET STRUCTURE	.068	-.231	-.155	-.430	-.566	1.000

4.3.1 Profitability

There is a negative correlation between profitability and leverage at -0.411. The traditional theories of capital structure suggest a positive dependence between profitability and leverage. The argument is that the market will be reluctant to offer funds to firms that are currently unprofitable. Further, profitable firms have higher debt capacities; this is in agreement with the Static Trade off theory.

4.3.2 Growth

A negative relationship also emerges between growth and leverage at -0.333.

4.3.3 Size

This has been calculated by the ratio of sales to total assets. From the analysis, a weak negative correlation of -0.093 emerges. The results suggest that the larger the hospital, the lower the leverage.

4.3.4 Liquidity

This is represented by the ratio of current assets to current liabilities. We found this to be negatively correlated with leverage at -0.400. This indicates that firms with low liquidity borrow more to finance their operations and more liquid firms utilize the funds their funds for expansion and thus borrow less.

4.3.5 Asset Structure

This has been calculated as the ratio of fixed assets to total assets. There is a weak positive relationship between asset structure and leverage. This means that the higher the level of fixed assets the higher the leverage.

4.3.6 Goodness of fit of the models

The strength of the model was tested by the coefficient of determination, that is, the percentage variation in the dependent variable being explained by the changes in the independent variables. The findings were as shown below.

Table 4.3 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	.509 ^a	.259	-.152	.08298	.259	.631	5	9	.682

a. Predictors: (Constant), ASSET STRUCTURE, GROWTH, PROFITABILITY, SIZE, LIQUIDITY

b. Dependent Variable: LEVERAGE

The coefficient of determination (R Square) equals 0.259. This shows that the predictor variables explain 25.9% of the variation in leverage leaving 74.1% unexplained. The P value of 0.682 implies that the model is significant at the 5 percent significance level.

4.3.7 The Regression Equation

Using unstandardized coefficients (B values), the established multiple linear regression is as shown below:

Table 4.4: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	.372	.581		.640	.538	-.942	1.685
	PROFITABILITY	-.129	.535	-.139	-.242	.814	-1.339	1.080
	GROWTH	-.125	.213	-.208	-.583	.574	-.607	.358
	SIZE	-.036	.291	-.061	-.123	.905	-.693	.622
	LIQUIDITY	-.038	.055	-.357	-.698	.503	-.162	.086
	ASSET STRUCTURE	-.217	.440	-.224	-.493	.634	-1.212	.779

a. Dependent Variable: LEVERAGE

The coefficients in the above table were used to write the regression equation for leverage as follows:

$$\text{Leverage} = 0.372 - 0.129X_1 - 0.125X_2 - 0.036X_3 - 0.038X_4 - 0.217X_5$$

Where

0.372= Constant

X_{1-5} = The predictor variables where;

X_1 - Profitability

X_2 - Growth

X_3 - Size

X_4 - Liquidity

X_5 - Asset Structure

4.4 Second Order Conditions

In order to recommend the regression equation for forecasting, it is necessary to test for the second order conditions. This includes the test of multicollinearity and normality. Multicollinearity tests on whether there is a correlation between the predictor variables used.

Table 4.5: Coefficient Correlations

Model		ASSET STRUCTURE	GROWTH	PROFITABILITY	SIZE	LIQUIDITY
1 Correlations	ASSET STRUCTURE	1.000	.297	-.564	.630	.684
	GROWTH	.297	1.000	-.467	.492	.126
	PROFITABILITY	-.564	-.467	1.000	-.755	-.697
	SIZE	.630	.492	-.755	1.000	.502
	LIQUIDITY	.684	.126	-.697	.502	1.000
Covariances	ASSET STRUCTURE	.194	.028	-.133	.081	.017
	GROWTH	.028	.046	-.053	.030	.001
	PROFITABILITY	-.133	-.053	.286	-.117	-.020
	SIZE	.081	.030	-.117	.084	.008
	LIQUIDITY	.017	.001	-.020	.008	.003

a. Dependent Variable: LEVERAGE

From the above table, we find positive correlations between all the predictor variables with the exception of profitability which exhibited a negative correlation with the other four predictor variables.

Normality uses histogram or plot of residuals. It is assumed that the distribution from the histogram will take the shape of a normal curve and the plot of residuals will form 45 degrees diagonal line for the normality test.

Figure 4.2: Normal P-P Plot of Regression Standardized Residuals

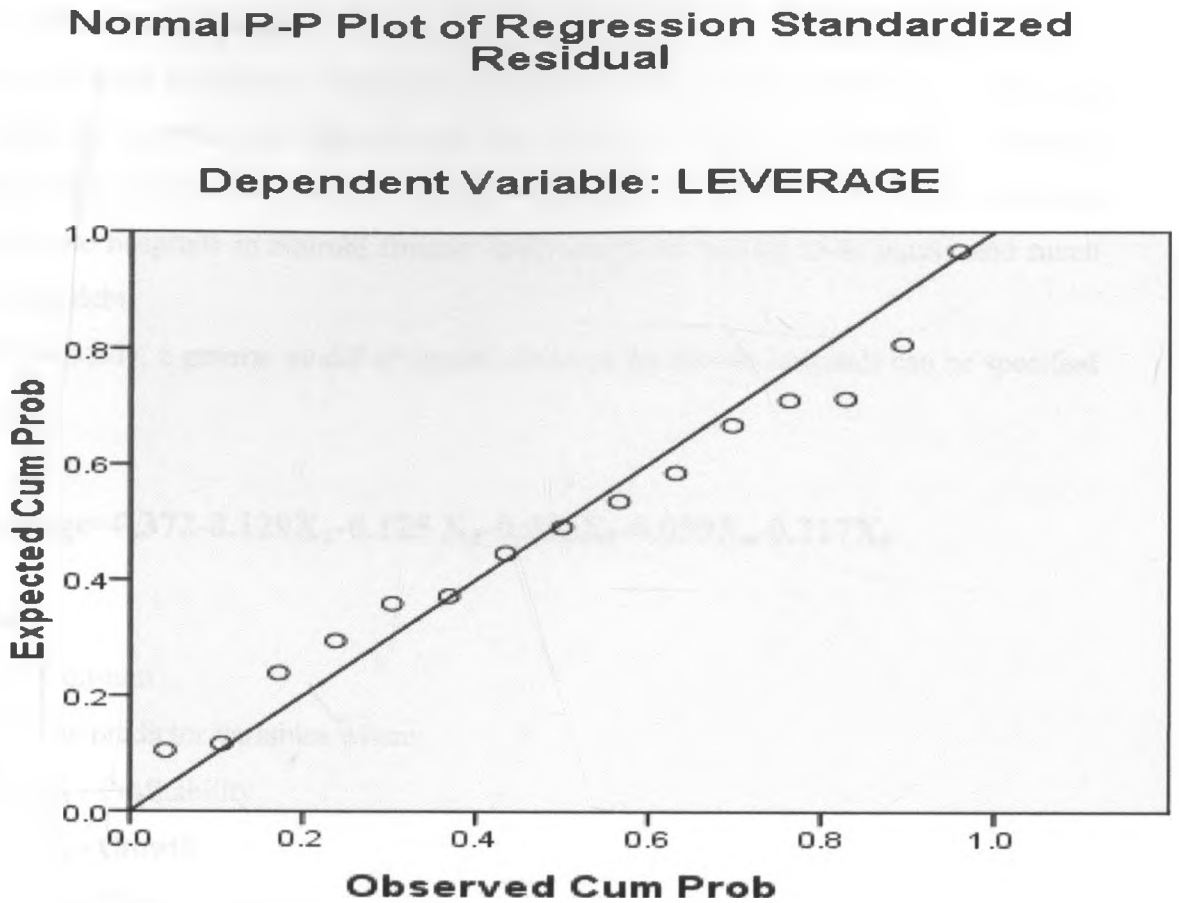


Figure 4.2 indicates that most of the data points are on the 45 degree line. This shows that the data is normally distributed.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary of Findings

The study used regression analysis to establish the relationship between leverage and profitability, growth, size, liquidity and asset structures of private hospitals in Nairobi. The findings of this study indicate that the mean debt to equity ratio is 0.1011 implying that private hospitals in Nairobi finance their operations mainly from equity and much less from debt.

From the study, a generic model of capital structure for private hospitals can be specified as:

$$\text{Leverage} = 0.372 - 0.129X_1 - 0.125X_2 - 0.036X_3 - 0.038X_4 - 0.217X_5$$

Where

0.372 = Constant

X_{1-5} = The predictor variables where;

X_1 - Profitability

X_2 - Growth

X_3 - Size

X_4 - Liquidity

X_5 - Asset Structure

This model implies that for any private hospital, given the values of the determinants of capital structure for profitability, growth, size, liquidity and asset structure, using the constant 0.372, you should be able to determine the leverage ratio of that hospital.

In terms of the determinants of capital structure, we uncover a number of interesting findings. For profitability, we find out that there is a negative correlation between profitability and leverage. The traditional theories of capital structure suggest a positive

dependence between profitability and leverage. The trade-off theory predicts that more profitable organizations will use more debt because they have a lower probability of bankruptcy and because they receive more favorable repayment terms.

As far as growth is concerned, we also found out that growth does not affect the leverage. This is contrary to the pecking order theory which suggests that high-growth organizations will use more debt because they are unable to fund all of their investment opportunities with internal sources.

For hospital size, we find out that it is negatively related to leverage. The results suggest that the larger the hospital, the lower the leverage. The traditional theories of capital structure suggest a positive dependence between size and leverage. Smith (1977) and Titman and Wessels (1988) suggest that it is less expensive for larger organizations to issue long-term debt. To the extent that financial distress costs and bankruptcy risk are inversely related to size or that debt is less expensive for larger organizations, the trade-off theory suggests that larger organizations will use more debt than smaller organizations do.

As for liquidity, we find study that it is negatively related with leverage. The expected relationship is a positive one. This is because the ability to meet obligations as they fall due increases the firm's debt capacity. Private hospitals utilize all the funds they have for operations until when these funds are fully exhausted is when they start seeking for external funds.

Asset structure is the only variable we find from this study that determines capital structure in private hospitals. This is in agreement with the existing theory of capital structure because organizations with a greater share of tangible assets are expected to benefit from more favourable financing terms than others are able to. Because of this, the trade-off theory suggests that there is a positive relation between debt and the proportion of the organization's assets that are tangible. Tangible assets can also mitigate concerns

over insider resource expropriation. This also suggests that there is a positive relation between debt and asset tangibility from the agency cost point of view.

5.2 Conclusions and Recommendations

In conclusion therefore, it has become apparent from the study that private hospitals basically depend on internal funds for their operations. A possible explanation to this not related to this study could be that in addition to the operational funds, some private hospitals get capital injections from donors who have a stake to undertake specific projects. Another possible explanation could be touching on the hospital decision makers who may want to avoid debt in light of personal risk aversion, entrenchment, and reputational and career concerns.

5.2.1 Recommendations

In this study, only quantitative factors of capital structure were used. It is recommended that other qualitative factors such as characteristics of the management and strategic reasons for setting up of the hospitals in addition to ownership structure should also be used. In addition, similar studies need to be done in other non-governmental organisations in Kenya and the results be compared so as to establish whether the models are consistent among the various groups. The study was only carried out on only three hospitals out of the possible thirteen largely because of data. There is need to encourage sharing of data from private hospitals so that a further study to be carried out on all the private hospitals in Nairobi to evaluate if there will be a substantial change of the findings.

5.3 Limitations of the Study

Availability of the Data: This was a major limitation. There is a problem of book keeping in most private hospitals. In some cases, some hospitals could not share this information as it had been classified confidential. As a matter of fact, only three hospitals out of the possible thirteen met the criteria for the period under study.

The variables under study were limited: Other qualitative factors such as characteristics of the management and strategic reasons for setting up of the hospitals in addition to ownership structure were not studied.

Time Frame: The period under study was from 2006 to 2010. It could be interesting to find out any effects on the results as brought about by the high inflation and exchange rates experienced in the better part of year 2011.

5.4 Suggestion for further research

This study concentrated on private hospitals. There are however so many non-governmental organisations (NGOs) and religious organizations in Kenya. A similar study targeting these organizations should be undertaken. The government of Kenya has in the recent past advocated for enhancement of small and medium sized enterprises in the country to spur economic growth. A study on capital structure targeting these enterprises should also be undertaken.

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APPENDIX I

PHP Consortium Members

The Aga Khan University Hospital

The Nairobi Hospital

Gertrude's Children's Hospital

The Mater Hospital

Guru Nanak Hospital

The Karen Hospital

Mp Shah Hospital

Nairobi Women's Hospital

Metropolitan Hospital

Avenue Healthcare

Coptic Mission Hospital

Nairobi Equator Hospital

Mariakani Cottage Hospital

APPENDIX II
Private Hospitals Studied

The Nairobi Hospital

Gertrude's Children's Hospital

The Mater Hospital

APPENDIX III Secondary Data

GERTRUDE'S CHILDREN'S HOSPITAL

BALANCE SHEET

	2006	2007	2008	2009	2010
LIABILITIES					
EQUITY	474,776,710.00	566,101,979.00	613,956,347.00	654,003,341.00	742,531,363.00
DEBT	80,652,682.00	103,718,743.00	93,843,093.00	73,730,225.00	76,124,845.00
CURRENT LIABILITIES	91,807,464.00	176,915,667.00	191,219,881.00	189,177,816.00	233,828,151.00
ASSETS					
FIXED ASSETS	542,941,226.00	623,771,372.00	651,477,851.00	614,660,791.00	716,530,898.00
CURRENT ASSETS	104,295,630.00	222,965,017.00	247,541,470.00	302,250,591.00	335,953,461.00
Total	647,236,856.00	846,736,389.00	899,019,321.00	916,911,382.00	1,052,484,359.00

INCOME STATEMENT

SALES	563,209,251.00	748,190,299.00	862,773,798.00	1,106,679,549.00	1,273,024,696.00
EBIT	41,427,306.00	45,153,599.00	51,500,536.00	64,110,699.00	64,726,699.00
INTEREST	1,998,667.00	12,123,930.00	13,429,288.00	14,744,082.00	12,920,348.00
DEPRECIATION	21,995,303.00	31,212,822.00	34,283,667.00	47,353,764.00	66,882,873.00

THE NAIROBI HOSPITAL

BALANCE SHEET

	2006	2007	2008	2009	2010
LIABILITIES					
EQUITY	1,012,573,000.00	1,426,715,000.00	1,991,353,000.00	2,823,581,000.00	3,837,278,000.00
DEBT	489,305,000.00	304,846,000.00	89,383,000.00	-	-
CURRENT LIABILITIES	407,389,000.00	730,275,000.00	717,885,000.00	549,568,000.00	527,185,000.00
ASSETS					
FIXED ASSETS	1,238,647,000.00	1,729,222,000.00	1,762,635,000.00	1,996,328,000.00	2,324,442,000.00
CURRENT ASSETS	670,620,000.00	732,614,000.00	1,035,986,000.00	1,376,821,000.00	2,040,021,000.00
Total	1,909,267,000.00	2,461,836,000.00	2,798,621,000.00	3,373,149,000.00	4,364,463,000.00

INCOME STATEMENT

SALES	2,428,314,000.00	2,974,051,000.00	3,443,809,000.00	4,174,905,000.00	4,826,946,000.00
EBIT	266,616,000.00	451,666,000.00	604,130,000.00	854,205,000.00	1,016,084,000.00
INTEREST	-	37,463,000.00	39,492,000.00	21,977,000.00	2,387,000.00
DEPRECIATION	81,884,000.00	140,733,000.00	147,028,000.00	175,445,000.00	181,488,000.00

THE MATER HOSPITAL

BALANCE SHEET

	2006	2007	2008	2009	2010
LIABILITIES					
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EQUITY	415,904,526.32	438,631,678.78	780,364,216.96	823,163,146.75	872,352,159.96
DEBT	170,621,607.60	200,021,115.70	135,704,527.87	52,768,775.88	42,088,970.88
CURRENT LIABILITIES	274,454,244.94	276,055,902.89	323,799,907.98	359,836,097.49	423,933,421.98
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FIXED ASSETS	504,449,193.02	487,582,020.21	760,326,846.34	800,351,258.26	857,141,087
CURRENT ASSETS	356,531,185.84	427,126,677.16	479,541,806.47	435,416,761.86	481,233,465.50
Total	860,980,378.86	914,708,697.37	1,239,868,652.81	1,235,768,020.12	1,338,374,552.81

INCOME STATEMENT

SALES	935,502,228.25	991,251,494.87	1,162,688,931.71	1,357,638,710.79	1,445,015,583.49
EBIT	29,171,326.22	22,727,152.46	20,872,757.07	42,798,929.79	49,189,013.21
INTEREST	-	-	-	-	-
DEPRECIATION	35,311,443.51	36,568,651.52	38,016,342.32	65,747,765.61	72,442,071.73