DETERMINANTS OF DEBT AND EQUITY IN THE REAL ESTATE INDUSTRY IN KENYA

BY

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DECLARATION

I declare that this research project is my original work and has not been submitted for a degree or any other academic qualification in any University.

AMUKASA SAMMY OTIENO

Signature…… Date……

This research project has been submitted for examination with my approval as the University Supervisor.

Signature…… Date……

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DEDICATION

I wish to dedicate this project to my parents who have taught me the value of education. I also dedicate it to my siblings who stood by me, prayed for me and loved me unconditionally as long as I can remember. They hold a dear place in my heart and I thank God for their love and support throughout the course.

ACKNOWLEDGEMENT

I wish to acknowledge our sincere appreciation to the following people without whom this research work would not have been successful. It may not be possible to mention all by name but the following were singled out for their exceptional contribution. My profound gratitude goes to my supervisor Dr. Sifunjo Kisaka for his commitment and personal interest in the progress of this study. His wise counsel, encouragement, patience and constructive and innumerable suggestions that made this work come to completion. Finally and most importantly, I wish to thank God for bringing me this far.

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ABBREVIATIONS AND ACRONYMS

GDP	Gross Domestic Product
KSE	Kuwaiti Stock Exchange
MM	Miller-Modigliani
ROA	Return on Asset
ROE	Return on Equity and
SET	Stock Exchange of Thailand
SPSS	Statistical Package for Social Sciences

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ABSTRACT

This study sought to analyze the determinants of debt-equity decisions among real estate firms in Kenya. The study used primary data collected using semi structured questionnaires. The study administered a total of 30 questionnaires to real estate firms in Nairobi Kenya and obtained 25 filled questionnaires constituting a response rate of 83.3%. A t-test was applied to determine the statistical strength. The questionnaires contained questions that addressed the objectives of between the dependent and independent variables. The results indicate that there were more male that female respondents. Flats and Apartments constituted the largest type followed by the firms operating in the Homes sector. Only a few were operating in the commercial Buildings and Shopping Malls sector each. This indicates that the respondents had adequate working experience to understand the issues sought by the researchers. Capital structure decisions were influenced by opportunities for growth, firm risk, management control, profitability, asset tangibility and firm size. These factors were found to affect decision making in a statistically significant way. The findings of this study support both existing theories and empirical literature. The findings were similar to those of Tongkong (2012), Saddam (2014) and Gharaibeh (2015) who investigated various factors influencing capital structure decision making. The study also confirmed the tradeoff and pecking order theories.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

The proportion of long-term debt and equity in the total financing of a company assets is called capital structure. The firms' debt-equity ratio is an important determinant of how the firm operates. Ross *et al.* (2009) also suggest that the way a firm combines its debt and equity, will define its market value. Thus capital structure of any firm should be well managed.

This study is anchored on the Capital structure irrelevance and relevance theory, Pecking Order Theory, and Trade-off theory. Capital structure irrelevance and relevance theory dwells on the perfections and imperfections in the market. The capital irrelevance theory states that firm value is not affected by the amount of debt or equity it has. However, in the presence of imperfections in the market, the value of the firm rises to with debt-equity ratio up to the optimal capital structure. Thereafter, it starts to decline with increasing debt-equity ratio (Modiglian & Miller, 1963).

Real estate companies are an interesting area of study because have unique characteristics such as safety of investments, with very high asset backing. In Kenya, the property market is still ripe and there is room for development (World Bank 2014 - 2015 Trends). World Bank farther suggested that with a growing appetite for luxury housing, and an expanding middle class, the property market is expected to remain robust. The young and productive population will further drive the development of the country's economy, encouraging more companies to put down roots, and attracting an increasing number of investors which is expected to further boost the demand for both residential and commercial properties in the market (World Bank, 2015).

Studies such as Tongkong (2012) examined the same issue in Thailand and established that capital structure decision influences firm value. Ukaegbu and Oino (2013) established that regulatory capital and GDP determine the debt-equity ratio. Also Gathogo and Ragui (2014) analyzed reported a positive effect on the debt-equity ratio of a firm.

1.1.1 Capital Structure

The financing decision (use of debt or equity) is one of the most important managerial decisions. It enables firm to run profitably and beat the competition. This decision also increases the equity through reduction in the cost of borrowing and exposure to bankruptcy. There are two financing sources, internal financing and external financing.

1.1.2 Capital Structure and Its Determinants

Empirical and theoretical studies suggest several determinants the debt-equity ratio of the firm. These are opportunities for growth, asset tangibility, profitability, tax, firm size and macroeconomic volatility (Bhabra, Lui and Tirtiroglu, 2008). In general studies report positive, negative, and positive relationships between tangibility, profitability, firm size and capital structure, respectively.

1.1.3Real Estate Sector in Kenya

The growth of urbanization characterized by the rural-urban migration has led to the demand for housing far outstripping supply in Kenya (Nuri, Erbas& Frank Nothaft, 2002). Therefore, Kenya is property developer in East African Community. The growth in the real estate sector is an indicator of economic boom.

GDP in Kenya is the larger compared to other countries in East Africa. It also has a growing real estate and property market. The financial and economic liberalization in the 1990shave led to greater economic stability and an investment attraction). The real estate sector is dominated by private developers with the Government through the National Housing Corporation accounting for a small percentage.

It was the fourth largest sector with a contribution of 10.6% of the total GDP in 2014.This study focused its scope on the real estate only, because of its importance contribution to the country's GDP.

1.2 Research Problem

Modigliani and Miller (1958) study put forward the modern theory of capital structure. Some progress has been made in trying to understand the determinants of the debt-equity ratio. At the moment it is common knowledge that there are specific departures from their theory that make capital structure an important financial decision to firms. However, very few empirical studies have analyzed the factors that determine the debt equity ratio in different economic contexts.

International literature review shows that the macroeconomic conditions, proportion of tangible assets, industry conditions, research and development expenditures, profitability, probability of bankruptcy, innovative products, size, R&D and opportunities for growth determine the debt-equity ratio of firms (Harris and Raviv, 1991; Bhabra, Lui &Tirtiroglu, 2008; Goyal, 2009).

There are several local studies that examined the key factors influencing capital structure decision (Tarus, Chenuos and Biwott, 2014; Mwangi, Makau and Kosimbeu, 2014; Yabs, 2015).Tarus, Chenuos and Biwott (2014) found that profitability, firm size and liquidity

negatively influence capital structure while firm size is positively influences capital structure. Mwangi, Makau and Kosimbeu (2014) reported that capital structure had a statistically significant negative association with profitability. Similar findings were reported by Yabs (2015).

Due to lack of consensus on what factors affect debt equity ratio of a firm, it is necessary to revisit the issue of determinants of debt-equity ratio of the real estate industry. In Kenya, although there are many empirical studies done on capital structure of firms, most are based on different industries other than real estate industries. Motivated by this gap, this study therefore seeks to analyze the determinants of debt-equity ratio of real estate firms. The study attempts to answer this question; what are the determinants of debt-equity ratio of real estate firms in Kenya?

1.3 Objective of the Study

The objective of this study is to analyze the determinants of the debt-equity ratio in the real estate industry in Kenya

1.4 Value of the Study

The results of this study are of value to different parties: regulators and policy makers, shareholders, real estate firms and other corporations and study and academicians. To the regulators the findings of the study are useful to with regard to advising and formulation of policies. The policies not only guide behavior in the real estate industry but also encourage growth and expansion of the industry. This study is also beneficial to shareholders. Current and prospective shareholders in real estate firms was able to understand better the determinants the debt-equity ratio of the firm they have invested in or seek to invest in and how the factors affect

their decisions on the capital decision the should adopt. This study is also important to firms in the real estate industry since it enables them to understand the factors that they need to consider when making capital structure decisions. The study also forms a basis for future research on the factors affecting capital structure decisions of real estate firms.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter reviews the literature that forms the basis of this study. The theories that underpin thus study are in Section 2.2. Empirical studies are in Section 2.3. The determinants of the debt-equity ratio are found in section 2.4. Section 2.5 is the summary. Section 2.6 presents the conceptual model.

2.2 Theories Underpinnings Study

This section reviews three theories of capital structure. These are the Capital Structure Irrelevance Theory, the Trade-off Theory and the Pecking Order Theory.

2.2.1 Capital Structure Irrelevance Theory

Modigliani and Miller (1958) came up with the modern theory of capital structure. He argued that under perfect capital market conditions the value of the levered firm is equal to the value of the unlevered firm. This implies that the value of the firm is not determined by the debt to equity ratio. It depends only on its real asset. Therefore, capital structure does not matter.

But capital structure matters in the imperfect markets with corporate taxes. The reason is that taxes are levied twice on dividends, at the firm and individual levels. However, the interest on debt is tax-allowable. Therefore, in the real world a value-maximizing company can push up its value by judicious use of capital structure.

This theory helps explain why firms structure their financing according their micro - and macro - economic environment.

2.2.2 The Trade-off Model

In this theory a firm has to consider on the one hand the benefits of using debt and on the other the cost of debt. The benefit of debt is the interest tax shields and the cost is cost of bankruptcy. The theory shows that debt-equity ratio influences the firm's tax rates, asset types, business risk, profitability and bankruptcy costs (Myers, 1984).

The theory asserts that optimal debt-equity ratio is obtained when the advantages of debt financing are equal to disadvantages of financial distress and bankruptcy (Baxter, 1967; Altman, 1984). Therefore, when a firm issues equity only or debt only, it is undertaking a sub-optimal decision.

Myers (1984) argues that managers are reluctant to issue equity if it is underpriced. Therefore, investors believe that equity is either properly valued or overvalued when issued. Consequently, firms do no prefer to finance with equity. This makes firms to use debt always.

There are many studies on the static trade-off theory (De Angelo & Masulis, 1980). The basic question has been whether debt financing has net benefits to the firm.

The theory is criticized on the grounds that debt increases financial risks and make debt – financing choice not cheaper than equity Myers, 1984; Titman and Wesels, 1988; Fama and French, 2002). However, it shows that an optimal capital structure influences the value of the firm. Therefore, the profitability of the firms positively influences the amount of debt.

Thus, the target debt-equity ratio varies as one move from one company to another and one industry to another as a result of the differences in firms' characteristics. Moreover, difference in institutional factors such as financial structure ,taxation, laws and regulations also cause the debt-equity ratio vary from one country to another.

2.2.3 The Pecking Order Theory

This theory was put forward by Myers and Majluf (1984). According to this theory there is a particular way that a firm ranks its sources of financing. When investment opportunities arise the firm utilizes the cheapest source of financing first until it is exhausted. If this source does not meet its financing needs then the firm considers the next source of financing in the ranks. This process continues until all the financing need of the firm are satisfied. Therefore, the rank order from the highest to the lowest: internal, debt then equity.

The main proponent of the pecking order theory Myers (1984).There two bases for the pecking order theory. The first is information asymmetry. The second is the existence of transaction costs. Use of debt or external equity increases monitoring of managers and therefore reduces information asymmetry between managers and the shareholders. Based on transaction costs, internal funds are cheaper compared to debt. Also, debt is cheaper compared to external equity. Therefore, firms prefer internal funds to debt, then debt to external equity (Baskin, 1989).

2.3 Empirical Literature Review

This section reviews international and local studies on the determinants of debt-equity ratio of firms.

Many empirical studies been conducted in developed countries such as the USA, the G7, Japan and Canada. The following studies were done in the USA: Bradley et al. (1984), Kim and Sorensen (1986), Friend& Lang (1988), Titman and Wessels (1988) and Chaplinsky and Niehaus(1993). The study by Kester (1986) is based in the United States and Japan. The G7 were studied by Rajan & Zingales(1995) and Wald (1999). Research from developing countries is only a recent phenomenon (Huang and Song, 2002).

Liufang (2010) analyzed the determinants of the debt-equity ratio of listed real estate firms in China. He found that total assets a positive relationship with capital structure. However, the study also established an inverse relationship between ROA and the debt-equity ratio.

Tongkong (2012) examined the determinants of the debt-equity ratio in Thailand. The results showed that firm size and opportunities for growth have a direct relationship with the debt-equity ratio. Also ROA has a negative with debt-equity ratio.

Saddam (2014) examined the factors that affect capital structure decision in Ethiopian insurance firms between 2007 and 2013. The study found out that business risk, firm size, age, and inflation rate variables were significant factors affecting debt-equity ratio of insurance firms in Ethiopia positively. On the other hand, profitability, liquidity, growth opportunity, GDP growth rate, and interest rate variables found as insignificant to affect the dependent variable. Gharaibeh (2015) examined the determinants of debt-equity ratio of a firm. The results indicated that growth opportunity, firms' age, liquidity, profitability, size, tangibility, and industry type have statistically significant relationship with firm's debt-equity ratio. However, dividends policy and ownership structure of the firm have a negative relationship with the debt-equity ratio.

There are several local studies on the determinants of debt-equity ratio (Kaumbuthu, 2011; Nduati and Guandaru, 2014; Kodongo, Mokoteli and Maina, 2014; Nduati and Guandaru, 2014; Mwangi *et al.*, 2014; Mwangi*et al.* (2014). Kaumbuthu (2011) analyzed the relationship between debt-equity and profitability of firms in Kenya. Nduati and Guandaru (2014) examined the determinants of debt-equity among private manufacturing firms in Kenya. Kodongo, Mokoteli and Maina (2014) determined the relationship between debt-equity ratio, ROA and share prices in Kenya.

These studies found that opportunities for growth positively influence the debt-equity. Firm size negatively influences the debt-equity ratio. The local studies on this issue such as and found out that tangibility and firm specific characteristics are important determinants of ROA. Nduati and Guandaru (2014) examined whether opportunities for growth, firm size, ROA and tangibility influence the debt-equity ratio.

These studies found out that firm opportunities for growth and firm size positively and negatively influences the debt-equity ratio, respectively. They also found out that there is a negative relationship between ROA and the debt-equity ratio. There is also positive relationship between tangibility and the debt-equity ratio.

2.4 Factors Affecting Capital Structure of the Firm

Many empirical studies have analyzed the determinants of the debt-equity ratio. The results show that there are different factors that affect the debt-equity ratio in different contexts.

2.4.1 Asset Tangibility

Theory suggests that tangible assets are collateral. Therefore, higher tangibility reduces credit risk. It also increases firm value during bankruptcy. Therefore, tangibility is positively related - equity ratio (Booth et al., 2001). The reason is that tangible assets increase the firm's ability to borrow.

There are empirical studies such as Rajan & Zingales (1995), Friend & Lang (1988) and Titman & Wessels (1988) that report that debt is positively related to tangibility. However, there are also other studies like Huang and Song (2002) report a negative relationship between tangibility and debt-equity ratio.

2.4.2 Volatility

Variability in a firm's income is a measure of risk. Debt increases the risk of the firm. A prudent firm cannot increase debt when its income is volatile. Therefore, firms with volatile income have lower debt-equity ratios. Thus, there is a negative relationship between volatility and the debt-equity ratio.

However, Huang and Song (2002) argue that business risk is expected to be positively related to debt-equity ratio. The reason is that an increase in the volatility of the firm's assets increases the systematic risk of equity decreases.

Studies such as Chaplinsky & Niehaus, (1993) and Booth *et al,* (2001) found that volatility is negatively related with the debt-equity ratio. However, Kim & Sorensen (1986), Huang & Song (2002) and Rafiq *et al.* (2008) found that debt-equity ratio is positively related to volatility. Therefore, the results from empirical studies are mixed.

2.4.3Financial Performance

There is no agreement concerning expected relationship between profitability debt-equity ratio. The trade-off theory and the free cash-flow theory predict that the relationship is positive. But the pecking-order theory predicts that ROA and debt-equity ratio are inversely related.

Several studies such as Huang & Song (2002) have found a negative relationship between debt-equity ratio and ROA.

2.4.4Industry Opportunities for growth

Firms that have better opportunities for growth tend to rely more on issuing new shares. The reason is that a highly leveraged firm has higher risk that increases the cost of financing. This makes many investment projects not viable due to higher required rate of return to breakeven. Investing in such projects moves wealth from shareholders to owner of debt. Consequently, there is a negative relationship between opportunities for growth and debt-equity ratio.

The findings of Rajan & Zingales (1995) support the theoretical prediction. However, Song (2002) found a positive relationship between opportunities for growth and debt-equity ratio.

2.4.5 Firm Size

Theory does not provide clear information about the prediction of firm size and the debt-equity ratio. For example, Rajan and Zingales (1995) argue that larger firms tend to be more diversified and fail less often. Therefore, large firms have a low probability of bankruptcy. Consequently, large firms use more debt than small firms. However, it can also be argued that firm size is an indicator of the information available to investors. Consequently, large firms should prefer using equity more than small firms.

Empirical evidence is also mixed. There are studies that found a positive relationship between size and debt-equity ratio, for example Huang and Song (2002), Rajan and Zingales (1995) and Friend and Lang (1988).There are also researches that report an inverse relation, for example, Kester (1986). These results are also not statistically significant at 5% level.

Thus, the predictions are mixed both at the theoretical and empirical levels.

2.5 Summary

The review of the literature reveals that there are many determinants of the debt-equity ratio of firms for instance ownership structure, tax shield, asset tangibility, opportunities for growth, profitability, management control, firm risk, and firm size. Other studies assert that factors that affect capital structure decisions differ among different industries.

Due to lack of consensus it is necessary to revisit the issue of determinants of the debt-equity ratio the real estate industry. Although there are many empirical studies done on capital structure of firms in Kenya, most are based on different industries other than real estate industries. This study therefore seeks to examine the determinants of the debt-equity ratio of real estate firms.

The study attempts to answer this question: What are the determinants of the debt-equity ratio of the real estate industry in Kenya?

2.6 Conceptual Model

This study is based on the following conceptual model:

CAP = f (ASSETANG, FRISK, FSIZE, GROWTH, FINPF) (1)

Where

CAP = the proportion of debt, equity and retained earnings in the total capital of each firm.

ASSETANG = Asset tangibility, the ratio of fixed assets over total assets.

FRISK = Firm risk, the variability of the firm's revenues.

FSIZE= Firm size, the logarithm of the total assets of the firm.

GROWTH = Industry Growth, the rate of growth of the industry's GDP.

FINPF = Financial performance of the firm, the ROA of the firm.

The expected theoretical relationships between the dependent and the independent variables are positive, negative, positive, positive and positive or negative, respectively.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1Introduction

This chapter presents the research methodology. It discusses the research design, the target population and sample, data and data collection procedures, and the data analysis.

3.2 Research Design

The research design is the plan for collection and analysis of data. It aims at relevance and parsimony in the research process (Kothari, 2008).

This study employed the descriptive survey design. This design enables the study to obtain views from the respondents and gain insight into the problem under study. This design was chosen because many respondents can be easily reached almost simultaneously (Mugenda & Mugenda, 2003).

3.3 The Population and Sample

Kothari (2004) defines a sample as the selected respondents to be researched (Polit and Beck, 2003).

3.3.1 Target Population

In this study the target population is the real estate firms registered by Estate Agents and Valuers Registration Board under Ministry of Land, Housing and Urban Development. According to the Board there were 80 firms that had registered with them operating in Kenya as real estate firms as at 31st December, 2015 (See Appendix I).

3.3.2 Sampling Technique

A sample of 45 real estate firms was selected using simple random sampling. This ensured that each business on the list has equal chance of being chosen. The sample size was calculated using the Yamano Taros formula (Israel, 2012). Thus, 45 companies was randomly selected representing 56 percent of the target population.

3.4 Data and Data Collection Instruments

This study employed primary data obtained using questionnaires (See Appendix II).

Data collection focused on opportunities for growth, firm risk, management control, profitability, asset tangibility and firm size.

3.5 Data Analysis

This section presents the conceptual mode, the analytical model and the diagnostic tests.

3.5.1 Conceptual Model

This takes the form of a mathematical function:

CAP = f (ASSETANG, FRISK, FSIZE, GROWTH, FINPF) (1)

Where

CAP = Capital structure as measured by the proportion of debt, equity and retained earnings in the total capital of each firm.

ASSETANG = Asset tangibility, the ratio of fixed assets over total assets.

FRISK = Firm risk, the variability of the firm's revenues.

FSIZE = Firm size, the logarithm of the total assets of the firm.

GROWTH = Opportunities for growth, the rate of growth of the industry's GDP.

FINPF = Financial performance of the firm, the ROA of the firm.

The expected theoretical relationships between the dependent and the independent variables are positive, negative, positive, positive and positive or negative, respectively.

3.5.2Analytical Model

The analytical model to be applied in this study is given by:

$$Y = \alpha + \beta_1 ASSETANG + \beta_2 FRISK + \beta_3 FSIZE + \beta_4 GROWTH + \varepsilon_t \quad (2)$$

The computation was done at 5% level using the t-test.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.1 Introduction

In this chapter the results are presented and discussed. Section 4.2 discusses summary statistics such as response rate, data validity, data reliability, gender of respondents, age bracket of respondents, real estate sector of operation and factors influencing capital structure decision. Section 4.3 examines the debt-equity ratio while section 4.4 deals with discussion of findings. A summary the study findings are in section 4.5.

4.2 Summary Statistics

This section describes the data that was used in this study.

4.2.1 Response Rate

There were a total of 45 questionnaires to real estate firms in Kenya and obtained 25 filled questionnaires constituting a response rate of 55.6%. This is adequate according to Richardson (2005) who said that 50% response rate was considered adequate when carrying out a research.

Table 4.2.1: Response Rate

Response Rate	Frequency	Percentage
Filled and Returned	25	55.6
Not Returned	20	44.4
Total	45	100.00

Source: Author's Computation

4.2.1 Data Reliability and Validity

The study pre-tested the research instrument by issuing three questionnaires. The purpose of the pre-test was to assure that the data collected was of high quality. This was done by ensuring that all the respondents interpreted the questions the same way. Wording and grammar of the research questionnaire was clarified so as to avoid ambiguous questions and misinterpretations.

4.2.2 Data Reliability

This was tested using Cronbach's Alpha. The results are shown in Table 4.2.2.

Table 4.2.2: Results of Reliability Analysis

Cronbach's Alpha	Cronbach's Alpha (Standardized)	N of Items
.723	.798	6

Source: Author's Computation

The study reliability analysis established a Cronbach's Alpha co-efficient of 0.723 indicating that the research instrument had internal consistency. Therefore, the Likert scale is reliable.

4.2.3 Gender of Respondents

The responses obtained were analyzed and the results are as shown below.

Table 4.2.3: Results of Gender Analysis

Gender	**Frequency**	**Percentage**
Male	20	80.0
Female	5	20.0
Total	25	100.0

Source: Author's Computation

The results show that80% of the respondents was male.

4.2.4 Age Bracket of Respondents

The responses were analyzed and the findings by age are as shown in Table 4.2.4.

Table 4.2.4: Results of Analysis of Age

Age Bracket	Number	Percent
40-49 years	14	56.0
30-39 years	4	16.0
50 and above	3	16.0
Less than 30 years	4	12.0
Total	25	100.0

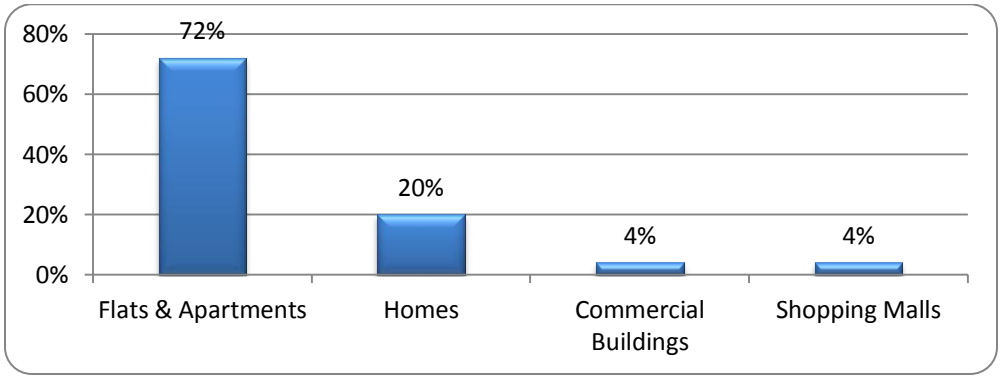
Source: Author's Computation

The findings are that 56% of the respondents were aged between 40-49 years followed by those aged between 30-39 years at 16%. Those aged less than 30 years were the least at 12%. This implies that the study sourced responses from people of diverse age brackets.

4.2.5 Real Estate Sector of Operation

The study further sought to establish the sector in which the real estate firms operated in. The obtained data was analyzed as shown in Figure 4.2.5.

Figure 4.2.5: Real Estate Sector of Operation



Source: Author's Computation

The results indicate that 72% of the respondents had been operating in Flats and Apartments sector while20% of the firms operating in the Homes sector. Only 4% were operating in the commercial Buildings and Shopping Malls sector each. This indicates that the respondents had adequate working experience to understand the issues sought by the study.

4.2.6 Determinants of Capital Structure

The respondents rated the determinants on a Likert scale of 1-5. The findings are as shown in Table 4.2.6.

Table 4.2.6: Descriptive Statistics of Factors Influencing Capital Structure Decision

Factor	Mean	Stdev	Findings in percentage (%)				
			I Strongly Disagree 1	I Disagree 2	I am Not sure 3	I Agree 4	I Strongly Agree 5
Opportunities for growth	4.68	0.476	0	0	0	68	32
Firm Risk	4.20	0.764	0	4	8	52	36
Management Control	4.04	0.841	0	4	20	44	32
Profitability	3.96	0.735	0	4	16	60	20
Asset Tangibility	3.84	0.746	0	8	12	68	12
Firm Size	3.72	0.678	0	4	28	60	8
Aggregate Mean	**4.07**	**0.710**					

Source: Author's Computation

An aggregate mean of (*M*=4.07, *SD*= 0.0.710) was recorded indicating that on average, all the respondents agreed that the factors do influence choice of financing structure. The most rated factor was Opportunities for growth with a mean of (M= 4.68, SD= 0.476). This indicates that the respondents do strongly agree on the factor influences capital structure decision of real estate firms. Further 68% of the respondents do agree while 32% of the respondents do strongly agree that Opportunities for growth do influence choice of financing capital structure decision. Firm Risk influences the debt-equity ratio. Other factors influencing the debt equity ratio include: company taxes, financial flexibility, lenders attitudes, market conditions, market performance, the industry, willingness of lenders, operational debt-equity ratio and position of the firm in the industry.

4.3 Determinants of the Debt-Equity Ratio

Table 4.3: Results of the Analysis of the Determinants of the Debt-Equity Ratio in Kenya

Test value = 3			
	Mean Difference	T	Sig. (p-value)
			95% Confidence Interval
Opportunities for growth	1.68	17.644	0.001
Firm Risk	1.20	7.856	0.001
Management Control	1.04	6.186	0.001
Profitability	0.96	6.532	0.001
Asset Tangibility	0.84	5.629	0.001
Firm Size	0.72	5.308	0.001

Source: Author's Computation

From Table 4.3 above, a test value of 3 (three) was used to the measure the extent to which various factors affects the capital structure decisions of the real estate firms in Kenya. Test value 3

was used because on the Likert scale, it indicated not being sure. Therefore, any mean difference value above zero (0) indicates that the respondents do agree that the factors do influence capital structure decisions. All the factors (opportunities for growth, firm risk, management control, profitability, asset tangibility and firm size) were found to influences capital structure decisions at 1% level. The null hypothesis is accepted.

4.4 Discussion

The mean scores of the factors opportunities for growth, firm risk, management control, profitability, asset tangibility and firm size were compared in relation to value (3). Table 4.3shows that all the factors (opportunities for growth, firm risk, management control, profitability, asset tangibility and firm size) influences capital structure decisions at 1% level. The null hypothesis was therefore accepted.

For the mean differences to be plausible at 95% confidence level, they had to lie between the lower and the upper limits. Therefore, the factors opportunities for growth, firm risk, management control, profitability, asset tangibility and firm size influence capital structure decisions of the real estate firms in a statistically significant manner.

4.5 Summary

The study established that opportunities for growth, firm risk, management control, profitability, tangibility and size do influence the debt equity ratio of firms. This implies that when real estate firms are making capital structure decisions of whether to use retained earnings, equity and debt, they must consider factors such as opportunities for growth, firm risk, management control, profitability, asset tangibility and firm size. The findings of this study support both existing theories and empirical literature.

CHAPTER FIVE

SUMMARY AND CONCLUSION

5.1 Introduction

In this chapter there are five sections. Section 5.1 is the introduction. The summary of findings is in Section 5.2. The conclusions are in section 5.3. Limitations of the study presented in section 5.4. The study then presents the suggestions for further research in section 5.5.

5.2 Summary of the Study

The objective of this study was to analyze the determinants of the debt-equity decisions of real estate firms in Kenya. The study used primary data.

The majority of the interviewees were male. Most of the respondents had been operating in Flats and Apartments sector followed by the firms operating in the Homes sector. Only a few were operating in the commercial Buildings and Shopping Malls sector each. The results also show that debt-equity ratios were influenced by opportunities for growth, firm risk, management control, profitability, asset tangibility and firm size.

5.3 Conclusion

The study sought to evaluate determinants of the debt-equity ratio of real estate firms in Kenya. From the research findings, the study concludes that following factors: opportunities for growth, firm risk, management control, profitability, asset tangibility and firm size significantly affects the debt-equity ratio of real estate firms in Kenya. The most influential factors were opportunities for growth, firm risk and management control.

5.4 Limitations of the Study

There was reluctance by the respondents to fill the questionnaires. Further, the study was mainly dependent on the data provided by the respondents. This means that respondents had busy working schedules which derailed the data collection process.

5.5 Recommendations for Further Research

The following directions should be followed by future study with regard to the determinants of the debt-equity ratio of firms in Kenya. In future, a similar study should be conducted considering non-real estate firms. This will serve the purpose of comparing how firms in different sectors are affected by various factors when making capital structure decisions.

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APPENDIX I: LIST OF REAL ESTATEFIRMS

1. VillaCare Kenya
2. Hass Consult
3. Lynex Holdings
4. East gate apartments Ltd
5. LlyodMasika Ltd
6.JamiaValuers& Estate Agent Management
7. Urban Bliss Realstore
8. Knight Frank Ltd
9. Milligan International Ltd
10. Regent Management Ltd
11. Neema Management Ltd
12. CB Richard Ellis Ltd
13. Alliance Realtors Ltd
14. Paragan Property Ltd
15. Lowanjo Properties Ltd
16. Urban Properties Consultants Ltd.
17. Tysons Ltd
18. Norkan Investments Ltd
19. Masterways Properties Ltd
20. Cornerstone International Ltd
21. Dunhill Consulting Ltd
22. Home Afrika Ltd
23. Wesco Property Consultations Ltd
24. Acorn Properties Ltd
25. Canaan Properties Ltd
26. Pinnacle Properties Ltd
27. SEB Estate Ltd
28. Liberty Real Estate Ltd
29. Bluehills Real Estate Ltd
30. Guardian Properties Ltd
31. Sundown Valuers &Realters Ltd
32. Axis Real Estate
33. Homelands Holdings Ltd
34. Mudas Properties Services Ltd
35. Legend Valuers& Estate Agents
36. Diversity Property Ltd
37. Kimly Properties Ltd
38. Easy Properties Ltd (K)
39. Eackelberg& Co. Ltd
40. Silverrock Properties Ltd
41. Gampr Investments Ltd
42. Colburne Holdings Ltd
43. Saannah Consulting Ltd
44. Joskinyagat Ltd
45. Ryden International Ltd
46. Real Appraisal Ltd
47. Jeankins Investments Ltd
48. Realken International Ltd
49. Heri Properties Ltd
50. Valentine First Venture (K) Ltd
51. Frank Valuers & Properties Mgt Ltd
52. Wakama Estate Agency Ltd
53. Terestam Properties Management Ltd
54. Paradise Properties Ltd
55. Chapter Consultants Ltd
56. Perscale Properties Ltd
57. Property Point Ltd
58. ENA Properties Ltd

59. Menga Management Ltd
60. Nile Real Appraisee Ltd
61. Maestro Properties Ltd
62. Town House Agencies
63. Etion Property Consultants
64. Add Property Consultants
65. Tuco Properties Ltd
66. Sortmaster Properties Ltd
67. Heritage Property Consultants
68. Value Build Management Ltd
69. Konaken Investment Ltd
70. Ngumo Properties Ltd
71. Elegant Investments Ltd
72. Arkpoint Properties Ltd
73. Karen Link Ltd
74. Vera Property Ltd
75. Beryt Properties Investments Ltd
76. Opus Property Ltd
77. Nairobi Homes Ltd
78. Rank Global Ltd
79. Landmark Realtors Ltd
80. Property Ins Ltd

APPENDIX II- QUESTIONNAIRE

TO BE FILLED BY MANAGERS AND STUDENTS

Dear Respondent:

I ama postgraduate student from University of Nairobi Business School conducting a study on determinants of Capital Structure Decisions of Real Estate Firms in Kenya. It is purely academic and the information obtained shall not be used for any other purpose other than for its intended use and was treated with utmost confidentiality. Your assistance in this research shall be highly appreciated.

Thanking you for your co-operation and invaluable contribution(s)

Section A: Back ground information

Please tick answers as applicable to you

1. Gender: Male ☐ Female ☐
2. Age of respondents:
Less than 30 years ☐ 30-39years ☐ 40-49 years ☐ 50 and above ☐

Section B: Real Estate Firm details

Please tick answers as applicable to you

1. What is the major source of financing in real estate in Kenya?
   Equity ☐ Debt ☐ Retained Earnings ☐ All ☐
2. In what sector do real estate firms operate in?

   Commercial Buildings ☐ Flats & Apartments ☐ Homes ☐ Shopping Malls ☐

GUIDELINES TO THIS SECTION:

Please tick the appropriate answer using the following scale;

1= Strongly Disagree 2= Disagree 3= Not sure 4= Agree 5= Strongly Agree:

The following factors affect the choice between Retained Earnings, Equity and Debt for real estate firms in Kenya.

Factors	1	2	3	4	5
Firm Size					
Firm Risk					
Management Control					
Profitability					
Opportunities for growth					
Asset Tangibility					

Suggest any other factor that affects capital structure decisions

……

……

……

Are there any other ways in which the real estate sector is being financed

……

……