



DETERMINANTS OF CAPITAL STRUCTURE OF INTERNET SERVICE PROVIDERS IN KENYA

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Abstract

Due to this fast-paced development, a lot of opportunities for growth in terms of market share and improved efficiency exist in this industry. This has led to a rush of many new entrants into this market in Kenya that has increased the competitiveness of this industry. One of the ways that firms can enhance their competitiveness is by adopting an optimal capital structure that will help the firm reduce the cost of capital and maximize the shareholders wealth. Capital structure decision is one of the most critical decisions that any firm has to make to maximize its shareholders wealth and sustain its competitiveness. The objective of this study was to establish the major determinants of capital structures for Internet Service Providers in Kenya. It aimed at determining the effect of profitability, growth and liquidity on the capital structure of Internet Service Providers in Kenya. The target population consisted of all internet service providers in Kenya. The study sampled a few firms based on the quarterly CCK reports for September 2014 which revealed that eleven firms controlled 99.5% of the total market share. Secondary data of the financial statements of the sample population for the period between 2009 and 2013 was used for this study. Regression analysis was used to analyze the data that was collected. The factors which were tested are profitability, liquidity, assets tangibility, growth and size of the firm. The study found that all these factors influenced the capital structure of the ISPs in Kenya. The study established that profitability, asset tangibility and growth positively influence the capital structure decision whereas liquidity and size of the firm negatively affects the capital structure. The study concluded that profitability, size of the firm, assets tangibility and liquidity significantly influence the leverage levels. Assets tangibility, profitability and growth have a positive relationship with debt. Liquidity and size of the firm have a negative relationship with leverage. The study further recommended that firms should consider profitability in choosing their capital structure as they will gain much from the tax shield. Firm should also consider their assets structure in making their financing decisions.

Keywords: Firms growth, firms liquidity, firms profitability and firms Capital structure

1. INTRODUCTION

Capital structure is one of the areas in financial management that has aroused a lot of debate since the seminal work of Modigliani and Miller in 1958. The question whether there exists a unique combination of equity and debt that maximizes the value of the firm and the factors that influence an optimal capital structure has raised a lot of debate and controversy in corporate finance literature (Myers, 1984). The capital structure is very critical for the success of any organization as it influences the shareholders wealth hence affecting the market value of the shares and also affects financial risk and the tax advantage that a company gains from use of debt in its capital structure. Capital structure depicts the manner in which a firm finances its operations and growth by using different sources of funds majorly sources debt and equity (Brigham, 2004) Debt can be in the form of long-term loans, bonds and long-term notes payable whereas equity is in the form of retained earnings, preferred stock and common stock. Each of these sources of finance is associated with different levels of risk, return and control. A firm can use either debt, equity or both to finance its operations (Brigham, 2004).

In reference to Modigliani and Miller (1958) proposed that financing decisions of any

firm are irrelevant and do not affect the value of the firm in a perfect corporate world where there are no corporate taxes, no transaction costs and symmetric information, many studies have been many studies have been carried out after this after this irrelevance theory which created an area of interest. Different factors affect the capital structure of a firm. Firms attempt to establish an optimal capital structure which is the best mix of financing that maximizes the shareholders' wealth. There is no predefined procedure on how to arrive at the optimal mix of finance for a firm (Marsh, 1982). To arrive at this mix a firm has to analyse various factors that affect the capital structure to arrive at an optimal capital structure (Brigham, 2004).

Capital structure decision is important because it affects the financial performance of the firm (Abor, 2005). Firms can choose among many alternative capital structures. For example, firms can issue a large amount of debt or very little debt. Firms have options of arranging lease financing, use warrants, issue convertible bonds, sign forward contracts or trade bond swaps. They can also issue securities in different combinations to raise capital (Abor, 2006).

Some factors such as asset tangibility, company size, information asymmetry, profitability, growth, asset structure,

management attitude towards risk, lenders attitude towards the company and liquidity affect capital structure of firms in various industries.

Most firms experiencing growth are likely to use debt, as the internal funds may not be sufficient. Investors and outsiders also view that the borrowing firm is growing therefore unlikely to have bankruptcy problems hence potential of debt financing is high. Growth can be defined in various forms such as increase in sales and increase in asset level. The telecommunication sector, which includes data communication, is experiencing massive growth and expansion all over the world. This rapid expansion is due to the rapid technological advancement and adoption of technology in many functions both at the corporate and individual level. Due to this many opportunities have risen in this industry leading to increased competition and the need for improved efficiency to remain competitive in the industry (Wanyama and Baryamureeba, 2007). One of the ways that a firm can enhance its competitive advantage is by adopting an optimal capital structure. There was therefore need to research on the determinants of capital structure of this sector.

2. Statement of the problem

Kinyua, 2005, established that profitability, company size, asset structure and management attitude towards risk and lenders attitude towards the company are key determinants of capital structure for small and medium enterprises in Kenya. Kuria, 2010, conducted a study on the determinants of capital structure of firms listed at the NSE and established that profitability and asset structure are the only determinates of capital structure. Turere, 2012, examined determinants of capital structure in energy and petroleum sector and concluded that company size, age of company, growth rate and ownership structure are the key determinants of capital structure. Previous studies have focused on determinates of capital structure of listed firms. There is therefore need to assess determinates of capital structure for a unique sector that is experiencing rapid technological advancement and growth. The internet service industry is one such unique industry with majority of the population in Kenya embracing technology hence the need to establish the determinants of capital structure in this sector.

3. Objectives of the study

General objective

The general objective of this study was to establish the major determinants of capital structures for Internet Service Providers in Kenya.

Specific objectives

- i. To determine the effect of profitability on the capital structure
- ii. To identify the effect of growth on the capital structure
- iii. To identify the effect of liquidity on the capital structure

4. Research Questions

The study sorted to answer the following questions;

1. What is the effect of profitability in determining the capital structure of Internet service providers in Kenya?
2. What is the effect of growth in determining the capital structure of Internet service providers companies in Kenya?
3. What is the effect of liquidity in determining the capital structure of Internet service providers companies in Kenya?

5. Theoretical Review

This study adopted four theories related to capital structure of a firm. That is, the

irrelevance theory, pecking order theory, agency cost based theory and trade off theory of capital structure and taxes.

The Irrelevance Theory

This initial theory was first proposed by Franco Modigliani and Merton Miller in 1958. This theory proposed that the firm's value is independent of the proportion of debt to equity a firm uses in financing its operations. The study was based on assumptions that there were no taxes, bankruptcy charges, transaction costs and asymmetric information and that the same rate of interest of borrowing by corporations and individuals. This framework is based on the assumption of a perfect competition. Hence this theory assumes that a firm cannot increase its value by using leverage as part of its capital structure.

Pecking Order Theory

Myers (1984) proposed that firms have a certain order of preferences in their choice of sources of finance. This theory is based on the assertion of information asymmetry between the insiders in an organization and the investors. This information asymmetry may lead to mispricing of equity by the market. To avoid this firms create a preference order for their sources of finance; firms prefer internal finance over external finance, safe debt over risky debt and

convertible and finally common stocks (Danaldson, 1961; Myers & Majluf, 1984).

Agency Costs Based Theory

This theory suggests that the capital structure of a firm is influenced by the agency costs, which include the costs of debt and equity. Jensen and Meckling (1976) suggested that a conflict of interest may arise between the management and the shareholders of a company. They considered that manager benefits from the wealth he derives from a firm and the private gains he makes from a firm.

6. Methodology Used to Research

A descriptive research design was applied for this study. The target population for this study was the Internet Service Providers in Kenya. According to the register of Unified Licensing Framework Licensee released by CCK in September, 2014 the total number of registered ISPs in Kenya was one hundred and thirty one firms. The study considered the quarterly statistics report released by

CCK for the quarter for the second quarter of financial year 2014/2015 relating to the market share of the various ISPs in Kenya. The report showed that eleven firms controlled 99.5% of the Kenyan ISPs Market (Appendix 2). This was considered a fair representation of the total population and hence the other 120 firms which represent 0.5% of the total market share were not considered for this study.

Primary data was collected by use of both structured and unstructured questions in the questionnaire. Secondary data was obtained from the audited financial statements of the firms in the sample population. Data for a period of five years between 2009 and 2013 was used for the study. Data collected was analyzed with the help of the Statistical Packages for Social Sciences (SPSS) package. Linear regression model ($Y = \beta_0 + \beta_1X_1 + \beta_2X_2 + \beta_3X_3 + \varepsilon$) was used to establish the relationship between dependent and independent variables.

RESEARCH FINDINGS AND DISCUSSION

Table 1: Descriptive statistics

	Leverage	Liquidity	Profitability	Tangibility of assets	Growth
Mean	0.91	0.93	0.39	1.05	3.83
Median	0.225	0.96	0.23	0.82	
Std Deviation	1.35	0.3	0.38	0.87	2.38
Kurtosis	1.82	1.08	2.84	3.19	0.92
Minimum	0.03	0.44	0.05	0.65	1.2
Maximum	4.72	2.03	2.33	4.25	9.62

The sample size was made up of eleven firms and the data collected is for a period of five years (2009 to 2013). The results have equal number of observations hence there is equal amount of information on all the variables. Leverage is the ratio of total interest bearing debt to total assets and is used to measure the debt capacity of the firms. The average leverage for this sample population was 0.91 with a standard deviation of 1.35. This implies that the firms in this study were mostly financed by debt.

The high standard deviation suggests that there was a large variance in terms of the leverage levels applied by the population of our study. Some firms used high levels of debt finance and others used low levels.

On average the firms had lower level of current assets compared to current liabilities based on the average liquidity of 0.93 and a standard deviation of 0.3 implying that there was no great variance in the liquidity levels of the population of study.

Table 2: Coefficients of the Model

Coefficients	B	Standard error	beta	t	Sig
Constant	0.91	0.93	0.39	1.05	3.83
Profitability	0.97	0.44	0.426	2.19	0.048
Assets Tangibility	0.29	0.15	0.352	5.11	0.004
Size of the firm	(0.03)	0.06	(0.09)	(0.42)	0.024
Liquidity	(0.47)	0.32	(0.695)	1.95	0.015
Growth	0.32	0.06	0.765	1.49	0.080

The standardized coefficients show the change in leverage due to a unit change in the respective explanatory variable. T statistic is the ratio of the respective coefficient and the corresponding standard error.

Profitability has a positive correlation with leverage with a correlation coefficient of 0.97 which is statistically significant. This implies that as profitability increases the use

of debt rises. This supports the trade-off theory. As the profitability increases the costs of financial distress decreases and the firm can use more debt (Ooi, 1999). A firm that has high profitability is motivated to use more debt to benefit from the tax shield benefits that arise due to use of more debt (Myers, 2001).

Assets tangibility has a positive correlation of 0.29 with leverage which is statistically

significant at a significance level of 0.004. This implies that the higher the level of tangible assets the more debt the firm uses in its finance structure. This supports the trade-off theory. A firm with high level of tangible assets can use them as collateral hence reducing the financial distress costs and attracting debt from investors. This confirms the study by Rajan and Zingales in 1995 which established a positive relationship between assets tangibility and leverage.

Size of the firm has a negative correlation with leverage of 0.03 at a significance level of 0.024. This signifies that large firms use less debts and small/medium firm use higher leverage. This supports the study by Titman and Wessels (1988) which proposes that large firms prefer raising their finance internally due to information asymmetry and to avoid neutralizing the ownership. This also supports the pecking order theory as firms prefer exploiting the internal resources before using debt.

Liquidity has a negative relationship with leverage which is statistically significant at 0.015. This implies that firms with high liquidity use less debt. This supports the pecking order theory. Firms that are liquid borrow less as they first exploit the internal funds before considering use of debt and other external sources of finance (Drobtetz & Fix, 2003).

Growth has a positive correlation of 0.32 which is statistically insignificant at 0.080. This suggests that firms that with percentage increase of total sales the firms borrow more. This is line with the pecking order theory as the firm is experiencing growth it requires a lot of funds to finance the growth. It hence exploits the internal resources and thus has to seek debt to finance the growth expenses.

7. Summary of the findings

The objective of the study was to establish the determinants of capital structure decision for internet service providers in Kenya. The study analyzed the secondary data of the financial statements for the target population between 2009 and 2013 using descriptive statistics and regression analysis. The variables of the study were five independent variables and a dependent variable. The independent variables were tangibility of assets, liquidity, profitability, growth of the firm and the firm's size. The dependent variable was leverage. Hence a regression analysis was used to establish the relationship each of the independent variables has with the dependent variable.

The study reviewed the pecking order, trade off and agency cost theory to examine how they explain the various factors that determine the capital structure decision.

The findings of this study reveal that profitability, tangibility of assets and growth of the firm have a positive relationship whereas size and liquidity have a negative relationship with leverage. Growth is the only factor that was found to be insignificantly correlated with leverage.

Growth had a positive relationship with leverage. This supports the pecking order theory which suggests that firms first utilize internally available resources before using external sources. A firm that is growing hence has limited internal sources of funds and therefore uses more leverage. Size of the firm has a negative relationship with leverage. This confirms the agency theory which proposes that large firms prefer internal financing to debt to avoid agency costs and avoid diluting the ownership. For assets tangibility, the study obtained a positive relationship. This supports the trade-off theory and agency cost theories. The negative relationship between liquidity and leverage is in line with the pecking order theory which proposes that firms exploit internal funds before considering external sources of financing.

8. Conclusion

Based on the findings of the study and that all the independent variables in this study had a correlation with leverage, the study

concluded that Profitability, size of the firm, assets tangibility and liquidity significantly influence the leverage levels. Assets tangibility, profitability and growth have a positive relationship with debt. Liquidity and size of the firm have a negative relationship with leverage.

9. Recommendation

The study recommends that firms should consider profitability in choosing their capital structure as they will gain much from the tax shield. Firm should also consider their assets structure in making their financing decisions. The findings of this study can be used by the financial consultants in advising their clients in this industry on the factors they should consider before the capital structure of their organizations. This study can guide the firms on the factors they should analyze in arriving at an optimum capital structure.

10. Area for further research

Further research should be done entailing more independent variables. This is because the factors that were considered for this particular study do not fully explain leverage meaning that there are some more factors that influence the financing decision. A research should be done including more independent variables.

A study should be carried out providing an explanatory model that can be used at arriving at an optimal capital structure.

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