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Determinants of Financial Leverage in Non-Financial Firms Listed At the Nairobi Securities Exchange, Kenya

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Abstract

The determinants of financial leverage are of significant importance to every single company. Non-financial firms are in particular sensitive to variations in leverage level because of the complexity of their capital structure composition, which must be adequate in order to provide an advantage in the financial performance. Presently most of the non-financial firms listed at the Nairobi securities exchange have undertaken growth strategies which necessitate enormous sum of funds. In many cases non-financial firms listed at the Nairobi securities exchange are taking debt as a major source of funding. For that reason, the objective of the research was to analyze the determinants of financial leverage level of non-financial firms listed at the Nairobi securities exchange, which consisted of finding out the impact of the firm size, tangibility of assets, profitability, taxes and non-debt tax benefits on financial leverage level of non-financial companies listed at the Nairobi securities exchange. The study used a quantitative research design with secondary data from audited and published annual reports of 12 non-financial firms randomly selected from a population of 44 non-financial listed at the Nairobi security exchange. The study covered a time period of 11 years (2008-2018) in order to get an accurate examination of the relationship between independent and dependent variables. After diagnostic tests and correlation tests, the research used a descriptive statistics and a panel least squares regression analysis with the help of E-views to measure the effect of the independent variables on the dependent variable. The results of the research confirmed a positive and significant relationship between firm size and leverage level, the results additionally revealed a significant and positive relationship between tangibility and leverage of non-financial firms quoted in Nairobi securities exchange, the growth opportunity was found with a positive relationship with the leverage of non-financial firms quoted in Nairobi securities exchange. However, the results of the research confirmed a significant negative relationship between profitability and financial leverage and a significant negative relationship between taxes and financial leverage of non-financial firms

quoted in Nairobi securities exchange. The non-debt tax benefits were found insignificantly and negatively correlated with the financial leverage level of non-financial companies listed at the Nairobi securities exchange. The research concluded that the firm size, tangibility of assets, profitability and taxes affect the financial leverage of non-financial firms quoted in Nairobi securities exchange. However, the non-debt tax benefit did not affect financial leverage of non-financial firms quoted in Nairobi securities exchange. The study also concluded the non-financial firms with a better financial performance; prefer self-finance than debt in order to invest in new project. The research recommended that the non-financial companies should not emphasize in contracting more debt as the primary source of finance, they should use the debt on a certain level which is advantageous for the future growth of the company.

Keywords: *Determinants, Financial, Leverage, Non-financial, Nairobi Security Exchange, Kenya, Tangibility, Firm Size*

1.1 Background of the Study

According to Schoubben and Van-hulle (2004), the financial leverage is a self-financing technique that consists in increasing the profitability of the company by using debt instead of equity. The profits obtained because of the debt become more important than the cost of the debt. For Afza and Hussain (2011), leverage is represented by the difference between the efficiency of equity and economic profitability. In the case where this difference is greater than the cost of the debt contracted, then the leverage is said to be positive, otherwise it is negative. Leverage helps multiply the profitability of the company by using the money obtained from debt, on investments or projects that do not earn necessarily more return (Degryse & DeJong, 2006). The use of financial leverage has value when the assets that are purchased with the debt capital earn more than the cost of the debt that was used to finance them. The cost of the loan is low and the economic profitability of the investment is significant (Xu, Ou & Chen, 2016). The determinants of leverage level of a firm have been the subject of much research for almost half a century. According to Richardson (2006) the financial Leverage is due to the fact that the company is getting into debt to acquire the assets necessary for its growth. As a result, additional financial costs arise and must be paid regardless of the profitability of the business from the operation of these new assets. For Vithessonthi and Tongurai (2015) if the return from debt-financed assets is greater than the average cost of borrowing, then the leverage effect is "commonsense". However, in the opposite case, it reduces the return on equity and becomes a bad source of financing.

For Ward and Price (2006) the advantage of the leverage effect is to highlight the origin of return on equity; to know if it is a favorable financial construction or a real operational or economic performance born of a judicious exploitation of the productive tool. For Abdussalam (2010) if debt can be a source of improvement in the return on equity, it can just as well be a source of weakening the solvency of the Company, or even negatively affect the continuity of the company's operation. According to Dittmar (2004) when a company undertakes an investment project and borrows to finance this investment, it expects that the operating result generated by the new activity will be greater than the financial charges induced by the debt. The decision to purchase equipment then results in the expectation of a gain greater than the cost of financing. It is on this condition that the current result (operating result - financial expenses) increases and

improves the remuneration of the stockholders. If the forecast of equipment efficiency is done and the forecasted rate of return come to be higher than the cost of the loan. The company is therefore encouraged to borrow (to go into debt) to increase financial profitability. For Rajkumar (2014), the leverage level determines the maximum amount of acceptable debt, without putting at risk the equity. It can increase the return on equity relative to economic profitability, but it can also reduce it (deteriorate). Leverage level guides the company's choice of debt, based on growth and profitability considerations. It analyzes the relationships between the economic rate of return, the interest rate, the debt level and the financial rate of return (Huyghebaert, 2011). Leverage is therefore a positive or negative consequence of debt on the financial profitability of the company. It measures the favorable or unfavorable effect that debt can have on the return on equity.

Debt is considered an important leverage of development of any firm. It is also a strategic variable to manage and control. In financial terms, debt consists of a debtor taking on monetary or financial securities and paying them over time to a third party who is the creditor (Zahoor, Bader & Muhammad, 2015). As a result, debt is always followed by a repayment schedule determined by contract. The repayment covers both the principal and the interest that constitutes the remuneration of the lenders, or the cost of the borrower agreed in advance regardless of the year-end results (Shahid-Akmal & Mehmood, 2016). With regard to the company, the financial cost of the debt consists of all the gross financial charges that include the interest rate stipulated in the contract plus all the costs charged to the company. This cost varies, depending on the financing conditions negotiated with the lender (creditors). It also varies, at a given moment, depending on the type and maturity of the loan. There are multiple forms of debt. it should be in form of leases, convertible loans, loan capital, bank loans and overdraft, and notes and bills; should be short or long term and whether debt should be secured, unsecured or subordinated (Pandey, 2008). Despite the remarkable evolution of the literature on the determinants of the financial structure of enterprises since the precursory work of Modigliani and Miller (1958), it is still difficult to understand what guides firm's decision on funding.

Following an assessment of empirical literatures on leverage determinants, it is obvious to discover that there is a huge number of determinants of financial leverage. This study will focus primarily on firm-specific factors which majority of researcher tend to focus on more often. The determinants selected in this study are as follows: In a context of informational asymmetry, contradictory conclusions can be reached regarding firm size. On the one hand, Kovars (2005), confirm that big companies are better known by financial agents, this reduces the information asymmetry between "insiders" and "outsiders" and therefore they will have easier access to debt. On the other hand, Haan and Hinloopen (2003) have shown a positive relationship between size and informational asymmetry, which induces a negative relationship between size and level of debt, and a contradictory assumption has been tested.

In case of profitability, the trade-off theory argues that there is a positive relationship between debt and profitability for two reasons. On one hand, the most profitable companies should be the most indebted (because the interest is deductible from their fiscal results). On the other hand, if past profitability is a good approximation of future profitability, a highly profitable company will have a higher probability of repaying its debts. These predictions were confirmed by Ozkan (2011); Chen (2004); Delcours (2006); Tang and Jang (2007). However, Frank and Goyal (2009)

found a negative correlation between profitability and leverage level, and due to the information asymmetry between insiders and outsiders, firms will prefer to finance themselves through their surplus cash (internal funds) rather than debt; As the most profitable firms are most likely to generate more internal funds, the financial leverage should decrease with the profitability.

According to Frank and Goyal (2009), who use the reduction of free cash flow as the disciplinary role of debt; argue that when a firm has little tangible assets, it must use more debt because it is more difficult for shareholders to control the excessive expenditure of managers. In case of the trade-off theory (TOT), firms with few tangible assets are the most sensitive to information asymmetries. They rely more on debt, which is an external means of financing that is less sensitive to information asymmetries than equities (Atwi, Mills, & Zhao, 2012). They deduce a negative relationship between the tangibility of asset and the leverage level. This relationship is further confirmed by Kremp (2009) and Hovakimian (2001). However, it is generally accepted that tangible assets provide a guarantee for creditors in the case of bankruptcy. Larger firms or enterprises with more tangible asset would get easily debt from the creditors, because different creditor will believe in the ability of the firm to repay the debt.

According to Biser and Eliza (2015), the non-debt tax benefit increase with higher tax rates, and in order to fully take advantage of the tax shields, companies are willing to get additional debt. Consequently, the trade-off theory envisages a positive relationship between non-debt tax benefit and leverage (Sritharan, 2015). However, when utilizing non-debt tax benefit as one of the significant debt related determinants, some studies provide empirical evidence about the negative relation between non-debt tax benefit and leverage, it is the case of Ruibing (2016); Zeitun and Tian (2007); Felicia (2013); ; Kahle and Shastri (2005). DeAngelo and Masulis (1980) present non-debt tax shields as alternative for the tax benefits of debt. In this manner, investment tax credits, net operating loss carry forwards and depreciation expenses are expected to diminish company's leverage (Frank & Goyal, 2009).

The Nairobi Stock Exchange was created in 1954 as voluntary organization of stockbrokers registered under the Societies Act. It was form to grow the stock market and control the transactions of shares and other financial securities. In 2004, the NSE created a central depository system in response to a higher demand for shares and share transaction. This system was actually an automation of shares transactions and other financial security. In July 2011, the Nairobi Stock Exchange Limited changed its name to the Nairobi Securities Exchange (NSE) Limited in order to undertake strategic plan which lead to a full service securities exchange supporting trade of financial securities, clearing and settlement of equities, debt, derivatives and other associated instruments (Ombaba, 2015). The NSE is constituted by nine main indices used to measure the performance of companies stocks.

The NSE is the leading stock exchange in East Africa and operates under the jurisdiction of the Capital Markets Authority of Kenya, and is governed by an 11-member board of directors. The Exchange offers a world class trading facility for both local and international investors looking to gain exposure to the Kenyan economy (NSE, 2013). The NSE is a member of the African stock exchanges association and Africa's fourth largest stock exchange in terms of trading volumes and fifth in terms of market capitalization as a percentage of GDP (Nyamolo, 2012). The Nairobi Securities Exchange includes 44 listed non-financial firms with a daily trading volume of over USD 4 million and a total market capitalization of approximately KES 2,651.11 billion. The non-

financial are categorized: Agricultural Sector; Automobiles and Accessories; Commercial and Services; Construction and Allied Sector; Energy and Petroleum; Manufacturing and Allied; Telecommunication and Technology, Real Estate Investment Trust.

1.2 Statement of the Problem

Debt is certainly a fundamental, if not inevitable, source of financing. It is often seen as an opportunity but at the same time can be a real burden for the entities that use it (Dube, 2013). In this regard, the determinants of the leverage level of non-financial NSE listed firms in Kenya constitute a research topic that deserves more attention. The utilization of debt as a source of funds to finance investment projects has not been always beneficial for the NSE quoted firms. Despite the fact that few NSE listed organizations have used the cash obtained through debt to accomplish development and expanded productivity; few other NSE listed firms have encounter some financial difficulties due to bad financial choices. Eveready east Africa limited with a debt ratio of 63.27 % but a net income which went down by 58.7 % (Mutegi, 2014); the year ended June 2014, Mumias Sugar Company Limited recorded a loss of 2.7 billion, with a cost of the debt of Ksh 601 million. Kenya Airways, another NSE non-financial listed firm, made a loss of Ksh 25.7 for the year ended March 2015, which can be explain by the level of debt undertook by the company to finance its fixed assets

Many research have been undertaken on the financial leverage issue. Onofras (2012) provides an approach by bringing to light that the most important determinant of leverage was the size of the company. Firm Size frequently is in direct correlation with leverage; according to the theory too big to fail imply that as the size is more significant the company is going to have more leverage since it will be easier for it to have access to a loan. Ku and Yen (2013) declare that if company asks for a loan of more money from its creditors then the company has to reimburse more money in form of cost of debt to the creditors which are called interest rate this leads to a less profitability for the company

On the other hand, Gitira and Nasieku (2015) undertook a research on the Capital Structure determinants among 65 Companies Quoted in Securities Exchange in East Africa. They found a less significant positive correlation between growths, firm size, profitability and the capital structure, but found revealed a significant positive correlation of the tangibility of asset on the capital structure. They also found that Cost of capital have a less significance negative relationship with the capital structure. Many studies in Kenya have been carried out on the leverage issue almost on the same time span, utilizing data gotten from the NSE; Adongo (2012); Nduati (2010); Kale (2014); Mbugua (2012); Kiprop (2014); Kondongo and Maina (2014). However, they were most of the time focusing on effect of financial leverage on financial performance of firms at the NSE in general; few have focused on the real determinants which affect the usage level of debt in the capital structure of the non-financial company listed at the NSE. The boundaries between debt and over-debt are not always clearly defined. Basically, from a financial point of view, over-debt is the result of deterioration in the level of solvency traditionally measured by the company's ability to repay its debts (Charreaux, 2013). As a result, the financial leverage is at the heart of non-financial firm's managers concerns. This raises the question of what are the determinants of leverage level of the non-financial company listed at the NSE. This study will highlight, which determinants impact the most the leverage level, and will help the firm's decision maker of the non-financial company listed at the NSE to monitor the

determinants which have a significant impact on the leverage level in order to have a suitable proportion of debt in the capital structure of their companies. Therefore, this research expects to dissect the influences involving determinants of leverage on the debt level of non-financial companies listed at Nairobi security exchange.

1.3 Objectives of the Study

- i. To determine the impact of the firm size on financial leverage of non-financial companies listed at the NSE.
- ii. To investigate the effect of the tangibility of asset on financial leverage of non-financial companies listed at the NSE.
- iii. To investigate the impact of the taxes on financial leverage of non-financial companies listed at the NSE.
- iv. To find out the influence of the non-debt tax benefits on financial leverage of non-financial companies listed at the NSE.
- v. To determine the impact of the profitability on financial leverage of non-financial companies listed at the NSE.
- vi. To find out the effect of the growth opportunity on financial leverage of non-financial companies listed at the NSE

1.4 Research Hypotheses

H₀₁: Firm size does not affect financial leverage of non-financial companies listed at the NSE.

H₀₂: Tangibility of assets does not affect financial leverage of non-financial companies listed at the NSE.

H₀₃: Profitability does not affect financial leverage of non-financial companies listed at the NSE.

H₀₄: Taxes do not affect financial leverage of non-financial companies listed at the NSE.

H₀₅: Non-debt tax benefits do not affect financial leverage of non-financial companies listed at the NSE.

H₀₆: Growth opportunity does not affect financial leverage of non-financial companies listed at the NSE.

1.5 Conceptual Framework

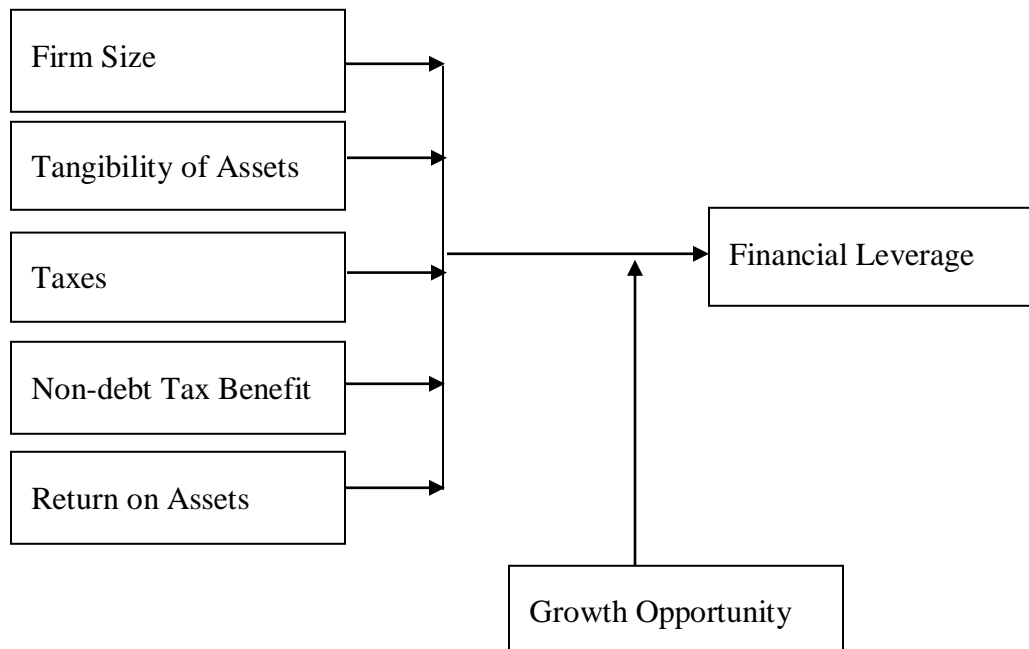


Figure 1: Conceptual Framework

Source: Niyomuhoza Edgard (2020)

2.0 Literature Review

2.1 Theoretical Review on leverage

2.1.1. The trade-off theory or the Static Trade-Off Theory

The theory of the static trade-off (trade-off) arises from the work of Modigliani and Miller (1963) who took into account the role played by taxation and the costs of bankruptcy in explaining the financial structure of companies. The trade-off theory recommends that a company mostly finances his activity by the use of debt when it possess a large number of tangible asset; and uses equity financing when it possess a large amount of intangible asset; which means a company should keep up with a perfect proportion of debt and equity (Altally, 2014). The theory of trade-off suggest also that the perfect leverage level is established when the benefits acquired from the use of the debt are greater than the cost incurred by the contraction of the debt (Aliu, 2010). According to Bontempi and Golinelli (2001), the trade-off theory consist of companies seeking the equilibrium between the tax advantage on the use of debt against the costs associated with utilization of debt as a financing means of investments or operations in a company.

The purpose of the trade-off theory is to explain how to achieve an optimal capital structure that maximizes the value of the business. The theory argues that the optimal level of debt is achieved when the marginal tax-based economy is offset by the corresponding increase in potential agency and bankruptcy costs (Cotei, 2011). Then, taking into account taxation and bankruptcy costs

suggests the existence of an optimal debt ratio (Target ratio). This equilibrium point is reached when the marginal gain of an additional unit of debt is equal to its marginal cost. As part of this analysis, several researchers presented arguments in favor of static trade-off theory and the existence of an optimal capital structure. Schwartz and Aronson (1967) show the existence of significant industrial effects of debt ratios, which they interpret as obvious in favor of optimal debt ratios. In his article "The Capital Structure Puzzle" Myers (1984) points out that the optimal debt ratio of the firm is often determined by a compromise between costs and leverage profits, leaving the firm's assets and investment plans fixed. According to Myers, the firm is supposed to substitute debt for equity or equity for debt until the value of the firm is maximized. The trade-off theory will help to explain all the variables of this study: firm size, tangibility of asset, effective taxes, non-debt tax benefit and profitability because the theory is related to the financial leverage.

2.1.2 Pecking Order Theory

The hierarchical financing theory originally developed by Myers (1984) and Myers and Majluf (1984) is based on Information asymmetries and signaling problems that affect the demand for external financing lead to a prioritization of funding, which is expressed by companies' preference for internal financing (self-financing) to the detriment of external financing. According to Donaldson (1961), the financial behavior of firms, and concludes that firms usually abstain from issuing shares and only borrow if the investment requires funds greater than existing cash flows. For Donald firms are primarily financed by self-financing then by borrowing and last resort by capital increase. This hierarchical funding behavior was modeled by Myers and Majluf (1984). Several empirical studies have tested the ability of the pecking order theory to explain the financial structure of firms. In fact, Fama and French (2002) validate the pecking order theory by showing the existence of a negative relationship between profitability and debt. They add that this result is not valid for small businesses with high growth potential that mainly finance themselves by issuing shares despite their low debt ratio. For Chakraborty (2010), who examines the determinants of the financial structure of 1169 Indian non-financial companies listed on the National Stock Exchange and the Bombay Stock Exchange between the period of 1995 and 2008? He argues that low-profit firms have ratios of debt and that the pecking order theory largely explains the capital structure in India, especially after the financial reforms undertaken in this country. Similarly Yang, Chen and Huang (2009) obtain the same result and find a negative correlation between the profitability of Taiwanese companies and their debt ratio measured in market value.

The authors Leary and Roberts (2010) question the pecking order theory's ability to explain firm financing policy using a new empirical model. They argue that the hierarchical order of funding stems from conflicts of interest and not information asymmetries as predicted by the pecking order theory. Indeed, in the case of companies facing significant conflicts of interest, more than half of the changes in debt and equity are explained by the pecking order theory. The authors conclude that the pecking order theory does not provide sufficient explanations for funding decisions for two reasons. On the one hand, the pecking order theory ignores the determining factors, stemming from the other theoretical models, in the explanation of the financial structure of the firms. On the other hand, the hierarchical order of funding observed seems more motivated by conflicts of interest and not by asymmetries of information. The theory of pecking order will

be helpful to explain all the variables such as leverage, firm size, and tangibility of asset, effective taxes and non-debt tax benefit.

2.1.3 The Market Timing Theory

The Market Timing theory refers to the financial market climate to explain the financial structure of firms. The market timing theory was developed mainly in the Becker and Wurgler (2002) study. Since the appearance of the article by Becker and Wurgler (2002), several studies have tried to empirically verify the theory of Market Timing. Hovakimian (2004) admits that Market Timing considerations seem to be important in determining securities issues. Alti and Sulaeman (2008) show that in times of high market valuations, companies only adopt timing behavior when demand for securities is primarily from institutional investors. Another study of Bougatef and Chichti (2010) tested the "debt market timing" hypothesis from a panel of 30 Tunisian companies listed on the Tunis Stock Exchange and 100 French firms listed on the Paris Stock Exchange. The results show that firms tend to issue debt when interest rates are low and prefer to issue shares when they perceive that the equity market conditions are favorable. They add that the behavior of market timing positively affects the value of Tunisian firms. By introducing information asymmetry costs on equity, Doukas, Guo and Zhou (2011) show that when credit market conditions are favorable some companies emit more debt during hot debt markets than in periods of cold debt markets. It should be noted, however, that Frank and Goyal (2005) reversed the Market Timing theory by showing, on the basis of a sample of US firms, that changes in the Market-to-Book ratio do not explain those of own funds. Thus, over the period 1952-2000, the authors note the existence of a long-term relationship between debt and equity, and that adjustments to the deviations of this relationship are done through debt and not through debt or issue of shares. This result is entirely compatible with the theory of compromise.

Similarly, Flannery and Rangan (2006) also reached the same result by showing that more than half of the changes in debt level are due to the desire to reach a target debt ratio. They add that less than 10% of these changes can be explained by the theory of Market timing and the theory of prioritized financing. The Market Timing theory also explains the deterioration in the long-term stock market performance of equity issuers. Indeed, executives would choose to introduce the company when the economic performance is abnormally high, therefore, after the issue of shares, the value of the company's title deeds decreases. This theory will help to explain the leverage level of non-financial firms quoted in the NSE.

2.1.4 The Signal Theory

The researcher Ross (1977) is the one who for the first time applied the signal theory in the study of the financial structure; he argues that the debt of successful firms is higher than that of poor quality firms. This means that the value of the company is positively correlated with its degree of debt. Ross's model (1977) converges on Modigliani and Miller's thesis (1963) which means for both authors the maximum debt means a greatest value of the company. While Modigliani and Miller (1963) justify the positive correlation between the value of the company and its leverage level by the presence of tax savings related to the deductibility of financial charges, Ross (1977) leads to this correlation also, by focusing his theory on the hypothesis of information asymmetry between managers and external investors. Then, unlike the compromise theory that high debt can lead to bankruptcy, Ross (1977) concludes that the debt volume is negatively correlated with the

possibility of bankruptcy of the company. Only the best performing companies with low bankruptcy risk can support a high level of debt

Several recent studies have empirically verified the predictions of the Ross model (1977). Then, Eldomiaty (2004) verifies the signal theory in the Egyptian context. By focusing on different level of the systematic risk, the author examined the dynamic relationships between changes in the financial structure and the market value of firms. Then, he classifies companies into three categories according to their systematic risk coefficient. He finds that the signal theory explains the observed changes in securities prices, especially those of companies with a high systematic risk factor. Other studies have been based on the Ross model (1977) to highlight the importance of signals in the financing relationships of firms with their different partners. For example, Campbell (1979) suggests that companies with sensitive internal information which are not to be revealed to the market; should reveal those information to banks without revealing it to competitors through privileged customer relationships.

2.1.5 Agency Theory

According to Jensen and Meckling (1976), the agency relationship is defined as a contract by which one or more persons use the services of another person to perform on their behalf any task, which implies a delegation of authority. In the firm there are agency relationships between shareholders and managers, lenders and shareholders, etc. The shareholders delegate some of their powers to the managers who are supposed to act in order to maximize the wealth of the firm. Leaders, however, are trying to look after their own interests first. The firm is perceived as a diversity of agents, each acting to maximize its own utility function (Donaldson, 2000). This relationship is also reflected in non-optimal and unobservable decisions made by shareholders, the problem of contractual commitment and the delegation of decision comes in when every stakeholder of the firm start to take decision for their own interest (Rungtusanatham, 2007). In 1982, Grossman and Hart reached the same conclusion about debt. They argue that bankruptcy is expensive for the manager because it can lead to loss of power and reputation. Leverage increases the likelihood of bankruptcy and at the same time encourages managers to double their efforts further with the aim of enriching shareholders with fewer possible withdrawals from free financial flows.

The authors, Harris and Raviv (1990) stated that the conflict of interest stems from the fact that shareholders decide to liquidate the firm because managers will always prefer the business to keep going. Debt reduces this conflict by giving creditors the right to liquidate if cash flow is insufficient to meet repayment. These authors conclude that the optimal capital structure is the result of a judicious combination of agency benefits and costs associated with debt. In Stulz's (1985) study, the optimal capital structure is obtained by arbitrage between these benefits of the debt (avoid over-investment) and its costs (insufficient liquidity to seize investment opportunities). According to Myers (1977) a high level of debt leads to the rejection of profitable projects. A firm whose value depends on future investment opportunities but whose liabilities include a significant portion of risky debt will have to reject projects even at positive NPV. Faced with this situation, any additional investment should be financed by equity because of the saturation of the debt capacity. Since shareholders will benefit from net gains, creditors will be reluctant to fund any new project even at positive NPV. The agency theory will therefore help to explain the variable such as tangibility of asset and taxes in this study.

2.2 Empirical Review

2.2.1 Extent of Leverage Usage among Non-Financial Firms

The existing literature on determinants of leverage has focused on the same firm-specific variables that explain also the capital structure. In fact, Ojah and Gwatidzo (2009) studied Corporate Capital Structure Determinants with evidence from listed firms from Five African Countries (Ghana, Kenya, Nigeria, South Africa and Zimbabwe), by measuring the leverage by the ratio of the total debt to total asset; the authors concluded that the factors correlated with the leverage of African firms are the same for companies in developing countries. Moreover, the level of the debt of the various companies of these African countries seems similar, which finally leads them to conclude that institutional differences do not seem to play an important role in the determination of the capital structure. They found a strong relationship between variables such as profitability, firm size and asset tangibility with the leverage level of most of the companies in those African countries; which rely mostly on internal finance than external source of finance.

On the other hand, Kumar (2008) made a critical review of determinants of firm's financial leverage and found that various theories like leverage irrelevance, static trade off, pecking order, asymmetric information signaling framework have partly helped in understanding the underlying factors determining the firm's financial leverage, he found that there is no consensus and there is no universal factor determining financial leverage. For Penelope and Li (2010) who examined the determinants of Firm Leverage with evidence from China's firms, found that different theories explain well the private firm financing where the amount of leverage is negatively related to profits, liquidity, and age; but positively correlated to the firm size. The authors found also that different ownership types and firms located in different market environments do not have the same determinants of leverage, and their financing behavior is not well explained by the pecking-order theory.

2.2.2. The fFrm Size and Leverage Level

The firm size is one of the determinants that has been most studied in the issue of leverage level and it is perhaps the determinant on which the different authors are the most on the same level in terms of significance since all agree to say that the size as a determinant has a strong impact on leverage level. In fact, Akinlo (2011) studied the determinants of capital structure in Nigeria using panel data. He used Secondary data from 66 firms listed on the Nigerian stock Exchange during the period 1999-2007; and a multiple regression analysis was used to check the relationship between variables, the study analyzed six potential determinants of capital structure namely size, profitability, growth, tangibility, business environment, and liquidity. The study found a positive relationship between leverage (dependent variable) and firm size. In fact larger firms would have a more diluted shareholding and therefore less control over the management team which would push the latter to influence upward the debt ratios in order to protect their personal investments within the company.

Similarly, Serghiescu and Văidean (2014) examined the determinant factors of the capital structure of a firm with an empirical analysis of Romanian firms listed at the Bucharest stock exchange and operating in the construction sector of the industry. The study focused on panel data estimations on a sample of twenty companies, for a period of three years (2009-2011). They used the ordinary least squares method and the fixed effects model, simple and multiple linear

regressions as research method, they found a positive correlation between the size of a company and leverage. For the authors, larger firms should tend to be more diversified and therefore less exposed to the risk of financial problems. In addition, larger firms should be able to hold more debt since they have better access to the credit market compared to smaller firms, which explain the positive relationship between firm size and leverage level.

In China, Chen (2004) studied the determinants of capital structure of Chinese-listed companies, and used a sample of 88 Chinese public-listed companies for the time period of 5 years (1995-2000). The data were analyzed by a correlation and regression analysis. The findings of the study showed a negative relationship between firm's size and the leverage ratio. The author used size as a tool to measure the risk of bankruptcy or the probability of default of a firm. He found that larger firms have easier access to the capital market than their smaller counterparts. As a result, it will be easier to attract equity and these firms will thus have less debt. In this study the main strength was the methodology used but the period of the study was too short which constitute its main weaknesses. In Canada, Nunkoo and Boateng (2010) studied empirical determinants of capital structure of Canadian firms listed on the Toronto stock exchange during the period from 1996 to 2004. The results showed a significant and negative influence of firm size on the leverage of Canadian firms. He found also larger firms have easier access to the Canadian capital market and the cost of equity is less than the cost of debt; which explain the use of more equity than debt in their capital financing.

2.2.3. The Tangibility of the Asset and Leverage Level

The tangible nature of the assets necessarily plays an important role in determining the financial leverage of a company since it is a form of collateral that will be available to guarantee the debt. The presence of non-specific property, plant and equipment in the company's balance sheet has a significant impact on its level of financial structure (Demirgüç & Maksimovic, 2006). Frank and Goyal (2009), in their study of capital structure decisions, analyzed greater set of factors that the potential to affect capital structure decision of publicly traded American firms between the period of 1950 to 2003, including profitability, firm size, growth, industry conditions, nature of assets, taxes, risk, supply-side factors, stock market conditions, debt market conditions, and macroeconomic conditions. They find a positive correlation between tangibility and leverage level; In fact a firm that will have a greater proportion of tangible assets will have a better capacity to issue secured debt and debt agency costs will be lower, which will result in the firm taking more debt. The main strength of the study is the time period covered by the study, however the fact that the study focused on a developed country (United State) for which the findings could not easily be applicable in an African developing country like Kenya.

In the same way, Krahe (2015) who examined the determinants and evolution of leverage Ratios, used a sample of over 1,500 companies listed in the United States and covered 37 years with a regression analysis of data; found that larger and more tangible firms use more leverage and adjust slower towards the industry target. He points out that the firm's ability to increase its liabilities and therefore its financial leverage goes hand in hand with its proportion of tangible assets on its balance sheet. He also found that companies using tangible assets as collateral provide a certain guarantee to creditors in case of financial distress and will eventually have the ability to borrow more. The strength of the study is sample size and the time period covered by the study, however the author focused on firms and industries in general and did not focus on a

particular industry, as per the literature the level of leverage can differ from one particular industry to another.

In contrast Sayilgan, Karabacak and Küçükkocaoğlu (2018) examined the firm-specific determinants of corporate capital structure with evidence from Turkish Panel Data. they used a sample of 123 Turkish manufacturing firms listed on the Istanbul Stock Exchange (ISE) and the analysis is based on a period of 10 years (1993-2002) and a the panel data methodology .the authors found that the variable of tangibility of asset reveal inverse relation with debt level, Which means a negative relationship between tangibility of asset and leverage level. The main strength of the study is the time period that the study covered; however the study focus on the determinant of both equity and debt, and did not focus deeply in the debt side of capital structure, also the study was done for the Turkish economy (Euro-Asian country) which findings could not necessarily be applicable in an African economy like Kenya.

2.2.4. Taxes and Leverage Level

In order to measure the impact of taxes on firms' financial leverage, many authors used the effective tax rate as a determinant. It should be noted, however, that the expected relationship between the effective tax rate and the level of debt differs from one author to another. Handoo and Sharma (2014) identified the most important determinants of capital structure of 870 listed Indian firms comprising both private sector companies and government companies for the period 2001-2010. This study used multiple regression analysis to test the impact of each independent variable (profitability, growth, asset tangibility, size, cost of debt, liquidity, financial distress, tax rate, debt serving capacity and age) on each dependent variable (short term debt ratio, long term debt ratio and total debt ratio). It has been concluded that tax rate have significant impact on the leverage chosen by firms in the Indian context; they found that higher tax rate would result in greater tax benefits of debt; which explain the positive correlation between tax rate and debt level of listed Indian firms.

The Vietnamese authors Biger, Nguyen and Hoang (2008) used data from 3778 mostly unlisted firms for a period from 2002 to 2003 to study the capital structure of Vietnamese firms. Through correlation analysis, they found that financial leverage in Vietnamese firms has income tax has a negative effect on firm's financial leverage. They found that a higher tax rate would define a more profitable company that would rather prefer self-financing to debt. The strength of this study is the sample size used, but the time period covered by the study which was only one year constitutes its main weakness. On the other hand, Kaupelytė and Mscichauskas (2016) analyzed the factors influencing financial leverage in Lithuanian listed companies from 2008-2012 year financial statements of thirty firms listed on the NASDAQ OMX Vilnius stock exchange. The methods used in the study consist of econometric and regression analysis. The authors found that financial constraints push companies to have higher financial leverage, and firms in the same industry are predisposed to change their financial leverage accordingly. The authors found that financial leverage in Lithuanian listed companies was not confirmed to be affected by taxes, but it can be considered that higher taxes influence financial constraints which seem to push companies to have higher financial leverage, and firms in the same industry seem to be predisposed to change their financial leverage in the same direction.

2.2.5. Non-Debt Tax Benefits and Leverage Level

The non-debt tax benefits were first studied by DeAngelo and Masulis (1980) who presented an optimal capital structure model including the impact of corporate taxes, personal taxes and non-debt tax benefits. In fact, they demonstrate that tax deductible items such as depreciation charges or investment loans could be substitutes for the tax benefits of the debt. Then, companies with large non-debt tax benefits would include less debt in their capital structures. In fact, Ruibing (2016) studied the impact of Non-Debt Tax Shield on the Choice of Corporate Debt Levels of A-share listed corporations of China for the time period of 5 years (2008 to 2013), the author attempts to analyze also if the impact of the non-debt tax shields is not the same in different nature of company ownership or different industries. The research found a significant negative correlation between non-debt tax shield and corporate debt levels, which is dependable with the non-debt tax shield's effect theory of capital structure.

For Chen (2004) who studied the determinants of capital structure of Chinese-listed companies, and used a sample of 88 Chinese public-listed companies for the time period of 5 years (1995-2000). The data were analyzed by a correlation and regression analysis. The authors examined the relationship between six main factors of profitability, growth opportunities, size, asset structure, cost of financial distress, and non-debt tax benefits with the financial leverage. The data were subjected to correlation and regression analysis. The results of the study revealed a positive relationship was found with non-debt tax benefits which reflect the guaranty aspect of assets. Then, more non-debt tax benefits are synonymous with a greater proportion of assets that can play the role of collateral and then a greater ability to borrow. The strength of the study is the six determinant used in this study but the time period covered by the study is very short which could affect the accuracy of the study findings.

On the other hand Biger, Nguyen and Hoang (2008) examined the determinants of capital structure with evidence from Vietnam Asia-Pacific financial markets and used data from 3778 mostly unlisted firms for a period from 2002 to 2003; with the correlation analysis, they found that financial leverage in Vietnamese firms has a negative relationship with non-debt tax shield. The negative association suggests that the use of debt for tax-benefit purposes becomes less necessary when firms have other alternatives. The strength of the study is the sample size used; however, the time period covered by the study was very short (1 year) which affect the accuracy of the findings. In the same way Sayılğan, Karabacak and Küçükkocaoğlu (2018) examined the firm-specific determinants of corporate capital structure with evidence from Turkish Panel data. They used a sample of 123 Turkish manufacturing firms listed on the Istanbul Stock Exchange (ISE) and the analysis is based on a period of 10 years (1993-2002) and a the panel data methodology. They found that variables of non-debt tax shields reveal inverse relation with debt level. The non-dept tax benefits were calculated by the ratio of depreciation and amortization of all assets.

2.2.6. Profitability and Leverage Level

The various studies on capital structure differ as to the meaning of the relationship expected between the level of debt and financial performance of the firm. This study will focus on the profitability as a measure of financial performance of a firm. In fact, Frank and Goyal (2009), examined the capital structure decisions ,by analyzing greater set of factors that the potential to

affect capital structure decision of publicly traded American firms between the period of 1950 to 2003, including profitability, firm size, growth, industry conditions, nature of assets, taxes, risk, supply-side factors, stock market conditions, debt market conditions, and macroeconomic conditions. Using the multiple regression analysis, they found a negative correlation between profitability and leverage level. The authors found that, due to the information asymmetry between insiders and outsiders, firms will prefer to finance themselves through their surplus cash (internal funds) rather than debt.

Also Serghiescu and Văidean (2014) examined the determinant Factors of the Capital Structure of a Firm with an Empirical Analysis of Romanian firms listed at the Bucharest Stock Exchange and operating in the construction sector of the industry. The study focused on panel data estimations on a sample of 20 companies, for a period of three years (2009-2011). They used the ordinary least squares method and multiple linear regressions as research method; they found that profitability is negatively affecting the total debt ratio of Romanian companies. They added that the amount of debt should increase when investment needs outweigh the retained earnings.

Similarly, Nunkoo and Boateng (2010) studied empirical determinants of capital structure of Canadian firms listed on the Toronto stock exchange during the period from 1996 to 2004. The results showed a significant and positive impact of profitability on the leverage of Canadian firms. They demonstrate that the most profitable firms will use more debt. In fact, companies would have a better ability to hold more debt, in particular because of a lower risk of bankruptcy. In addition, they would need a larger proportion of debt in order to enjoy the tax benefits of it. The main strength is the fact that the study used a multiple regression analysis to examine the relationship between variables; however author focused on larger firms in china economy which cannot be easily applicable for Kenya small and medium enterprises like hospitality firms. Similarly the same result was found by Krahe (2015) who studied determinants and evolution of leverage ratios, the author used a sample of over 1,500 companies listed in the united states and covers 37 years with a regression analysis of data; and found a positive relationship between the level of debt and profitability of the firm since the significant presence of surplus cash forces shareholders to incur more debt for its disciplinary role and then reduce agency costs of equity funds.

3.0 Research Methodology

The study used a quantitative research design in order to get a strong analysis and examination of the variables in order to apprehend the relationship between various determinants of leverage level of non-financial firms quoted in NSE over a particular period of time. The target population for this study was 44 firms quoted in the Nairobi Securities Exchange in the non-financial sectors as per the 2018 Nairobi security exchange annual report (Source: NSE's annual report 2018). Since the target population is about 44 non-financial firms quoted in NSE, a sample of 12 companies (20% of the population) was used to ensure that the desired representation of population and unbiased result to be achieved. This study used the stratified sampling method to ensure that the desired representation from all the categories in the population is achieved. The study used secondary data from audited financial statements of the sampled non-financial firm listed in NSE, which were obtained through the firm's websites. The data collected were organized with the help Microsoft Office Excel which was also used in the production of tables. The descriptive statistics, the correlation analysis, the panel regression equation, diagnostic and

specification tests were carried out with the use of E-views software in order to obtain an accurate analysis.

Mathematically the panel regression line is expressed using the following equation:

Financial leverage level =f (firm size, tangibility of assets, taxes, non-debt tax benefit, profitability)

$$LEV_{it} = \beta_0 + \beta_1 SIZE_{it} + \beta_2 TAN_{it} + \beta_3 ROA_{it} + \beta_4 TAXES_{it} + \beta_5 TAXBEN_{it} + \beta_6 GR_{it} + \varepsilon_{it}$$

Where:

LEV_{it} is Yearly financial leverage (LEV) of a non-financial firm i for time t

β_0 : intercept or a constant

$\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6$: Coefficients of the various independent variables.

$SIZE_{it}$ = the size of the firm (SIZE) of a non-financial firm i for time t .

TAN_{it} = Tangibility of assets (TAN) of a non-financial firm i for time t .

ROA_{it} = the profitability (ROA) of a non-financial firm i for time t .

$TAXES_{it}$ = the taxes (TAXES) of a non-financial firm i for time t .

$TAXBEN_{it}$ = the non-debt tax benefits (TAX BEN) of a non-financial firm i for time t .

GR_{it} = Growth opportunities (GR) of a non-financial firm i for time t .

ε_{it} is the error term which is assumed to be normally distributed. For the panel data $\varepsilon_{it} = \mu_i + \lambda_t + v_{it}$, where μ_i represent the error term related to the firms specific factors, λ_t represent the error term related to the time specific factors. v_{it} represent the error term related to residual of both time and firms specific factors.

4.0 Data Analysis and Discussion

4.1 Descriptive Statistics

Table 1: Group descriptive Statistics (At 5% significance level)

	LEV	TAN	SIZE	ROA	TAXES	TAX_BEN	GR
Mean	0.459789	0.356518	10.06655	0.166996	0.193131	0.039200	0.005465
Median	0.434978	0.282668	10.05471	0.101971	0.297553	0.030496	0.003130
Maximum	1.307334	0.776382	11.26021	0.659032	2.891643	0.205545	0.056538
Minimum	0.008314	0.000509	7.761740	-0.167640	0.00490	0.000296	-0.009508
Std. Dev.	0.205871	0.241329	0.752523	0.128658	0.462009	0.043804	0.009539
Skewness	1.087194	0.199505	-0.702882	0.971637	0.874361	2.158641	2.311370
Kurtosis	5.705872	1.726290	3.539157	5.092169	17.7303	7.397208	10.38626
Jarque-Bera	66.27339	9.798506	12.46773	44.84416	1210.219	208.859	417.5958
Probability	0.00000	0.007452	0.001962	0.00000	0.0000	0.00000	0.00000
Observation	132	132	132	132	132	132	132

The null hypothesis of normality was tested by the Jarque-Bera test, against the alternate of non-normality. Considering the Table 3 the probability values of all the variables (leverage, firm size,

tangibility of asset, taxes, non-debt tax benefit, return on asset and growth opportunity) are less than 0.05 (5% significance level) showing that the Jarque- Bera values are significant at 5% level of significance; For that reason, the study failed to accept the null hypotheses and we can say that all these variables are not normally distributed. In order to improve the normality, the data variables were transformed into a logarithm form. In addition, the skewness values of leverage, Tangibility of asset, return on asset, non-debt tax benefit, taxes and growth opportunity show that they are positively skewed while the skewness values of firm size show that it is negatively skewed.

4.2 Correlation Analysis

Table 2: Correlation test results

Correlation Probability	LEV	TAN	SIZE	ROA	TAXES	TAX BEN	GR
LEV	1.000000 -----						
TAN	0.172541 0.0479	1.000000 -----					
SIZE	0.349527 0.0000	0.365476 0.0000	1.000000 -----				
ROA	-0.422289 0.0000	0.211916 0.0147	-0.092890 0.2894	1.000000 -----			
TAXES	0.100154 0.2532	0.031639 0.7187	-0.030366 0.7296	-0.111265 0.2040	1.000000 -----		
TAX_BEN	0.015630 0.8588	0.682442 0.0000	0.431881 0.0000	0.184365 0.0343	0.053603 0.5416	1.000000 -----	
GR	-0.039788 0.6506	-0.159947 0.0670	-0.129629 0.1385	0.117850 0.1784	-0.065738 0.4539	-0.171701 0.0490	1.000000 -----

According to the table above, the absolute correlation value r between leverage and firm size (SIZE) was 0.349527, which signify a positive moderate relationship between leverage and size. However the probability value of 0.0000 ($p < 0.05$) means that the relationship is statistically significant. The absolute correlation value r between leverage and tangibility of assets (TAN) was 0.172541, which signify a positive weak relationship between leverage and size tangibility of assets. However the probability value of 0.0479 ($p < 0.05$) means that the relationship is statistically significant. The absolute correlation value r between leverage and return on asset (ROA) was -0.422289, which signify a negative moderate relationship between leverage and return on asset. However the probability value of 0.0000 ($p < 0.05$) means that the relationship is statistically significant.

According to the table 4, the absolute correlation value r between leverage and taxes (TAXES) was 0.100154, which signify a positive weak relationship between leverage and taxes. However the probability value of 0.2532 ($p > 0.05$) means that the relationship is statistically insignificant. The absolute correlation value r between leverage and non-debt tax benefit (TAX_BEN) was

0.015630, which signify a positive weak relationship between leverage and non-debt tax benefit. However the probability value of 0.8588 ($p > 0.05$) means that the relationship is statistically insignificant. The absolute correlation value r between leverage and growth opportunity (GR) was -0.03978, which signify a positive weak relationship between leverage and growth opportunity. However the probability value of 0.6506 ($p > 0.05$) means that the relationship is statistically insignificant.

4.3 Regression Analysis

Table 3: Panel Least Equation Output

Variables	Coefficient	t-statistic	probability
C	-3.354323	-2.116614	0.0365
LOG(SIZE)	0.660971	2.018313	0.0459
LOG(TAN)	0.379402	0.169411	0.0358
LOG(ROA)	-0.053379	-2.916428	0.0043
LOG(TAXES)	-0.052526	-3.220106	0.0017
LOG(TAX_BEN)	-0.010371	-0.509121	0.6117
LOG(GR)	0.047968	3.229132	0.0016
Weighted Statistics			
R-square	0.842352		
Adjusted R-square	0.832499		
F-statistic	85.49180		
Prob(F-statistic)	0.00000	Durbin-watson stat	2.222561

The first target of this research was to examine the effect of firm size, measured by logarithm of the total asset, on leverage level of non-financial companies listed in the NSE. According to the table 16, it is shown that a unit increase in firm size would lead to an increase in leverage level of non-financial companies by factor 0.660971, which signifies a positive relationship between firm size and leverage level. The t-value is 2.018313 with a p-value of 0.0459 ($p < 0.05$) shows that this relationship is statistically significant. We therefore reject the null hypothesis. The second goal of this research was to examine the effect of tangibility of asset, measured by the ratio of fixed asset on total asset, on leverage level of non-financial companies listed in the NSE. In the table 16, it is shown that a unit increase in fixed asset to total asset ratio would lead to a decrease in leverage level of non-financial companies by factor of 0.379402, which signify a positive relationship between firm size and leverage level. Nevertheless, the t-value is 0.169411 with a p-value of 0.0358 ($p < 0.05$) shows that this relationship is statistically significant. We therefore reject the null hypothesis.

The third goal of this research was to examine the effect of profitability, proxied by return on asset, on leverage level of non-financial companies listed in the NSE. In table above, it is shown that a unit increase in return on assets would lead to a decrease in leverage level of non-financial companies by factor 0.053379, which signify a negative relationship between profitability and leverage level. The t-value is -2.916428 with a p-value of 0.0043 ($p < 0.05$) shows that this relationship is statistically significant. We therefore reject the null hypothesis. The fourth goal of this research was to examine the effect of the tax paid on leverage level of non-financial companies listed in the NSE. According to the table 16, it is shown that a unit increase in tax paid would lead to a decrease in leverage level of non-financial companies by factor 0.052526, which signify a negative relationship between taxes paid and leverage level. However, the t-value is -3.220106 with a p-value of 0.0017 ($p < 0.05$) shows that this relationship is statistically significant. We therefore reject the null hypothesis.

The fifth goal of this research was to examine the effect of the non-debt tax benefit on leverage level of non-financial companies listed in the NSE. According to the table 4.18, it is shown that a unit increase in non-debt tax benefit would lead to an decrease in leverage level of non-financial companies by factor 0.010371, which signify a negative relationship between non-debt tax benefit and leverage level. However, the t-value is -0.509121 with a p-value of 0.6117 ($p > 0.05$) shows that this relationship is statistically insignificant. We therefore accept the null hypothesis. The sixth objective of this research was to examine the effect of the growth opportunity on leverage level of non-financial companies listed in the NSE. According to the table 4.18, it is shown that a unit increase in growth opportunity would lead to an increase in leverage level of non-financial companies by factor 0.047968, which signify a positive relationship between growth opportunity and leverage level. The t-value is 3.229132 with a p-value of 0.0016 ($p < 0.05$) shows that this relationship is statistically significant. We therefore reject the null hypothesis.

The adjusted R-squared provides the level in percentage of variation enlightened by only the independent variables which in fact affect the dependent variable. The model had an adjusted R-squared of 0.832499 meaning that 83.2499% of variations in leverage of non-financial firms listed in the NSE can be explained by the variations of the independent variables under the research. The rest of the variation can only be explained by other factors. Actually, the adjusted R-squared value of 83.2499% shows that the model had a good predictive power in utilizing the independent variables to explain the dependent variable under this study **Testing the validity of the model**

H_0 : The panel model is statistically significant H_1 : The panel model is not statistically significant According to the table 4.18, the utilized data in the study had a significant level of 85.4918 with a p (F-statistic) of 0.0000 (less than 0.05) this shows that the data was ideal for making a conclusion as the value of significance is less than 0.05. The Durbin-watson statistic test was corrected, with a value of 2.222561 which is within the range of 1.7-2.3 indicating that the data and model did not suffer from the issues of serial correlation or autocorrelation.

The results of the research confirm a positive and significant correlation between firm size and financial leverage level of non-financial firms quoted in NSE. The results are in line with the expected relationship (positive) which was based on the trade-off theory, signal theory and the market timing theory. The findings confirm that big companies are known by financial

institutions, due to the reduction of information asymmetry between the firms and lenders, will allow the firm to have access to the debt easily. The positive correlation between firm size and financial leverage was also found by Korvas (2005), Akinlo (2011) and Serghiescu & Vaidean (2014). The results of the research confirm also a positive and significant correlation between tangibility of asset and the financial leverage level of non-financial firms quoted in NSE. The results are in line with the expected relationship (positive) which was based to trade-off theory, the signal theory and finding of author like Frank and Goyal (2009) and Krahe (2015). The companies actually use tangible assets as collateral provide a certain guarantee to creditors in case of financial distress and will eventually have the ability to borrow more.

The results of the research confirm a negative and significant correlation between profitability (ROA) and the financial leverage level of non-financial firms quoted in NSE. The results were in line with the expected relationship (negative) which was based to the pecking order theory and the market timing theory. The findings were also the same as authors like Serghiescu and Vaidean (2014), Aivazian and Demirguc (2001). The taxes were also found negatively correlated to the financial leverage of non-financial firms quoted in NSE. The results are in the line with the expected relationship (negative) which was based to the pecking order theory. The same result was also found by Biger, Nguyen and Hoang (2008). The findings could be explained by the fact that a higher tax rate would define a more profitable company that would rather prefer self-financing to debt.

The results of the research confirm a negative and insignificant correlation between non-debt tax benefits and financial leverage level of non-financial firms quoted in NSE. The results were not in line with the expected relationship which was based on the pecking order theory. The findings could be explained by the fact that non-finance firms listed in NSE do not emphasize more in taking advantages of depreciation and amortization as debt interest in the tax payment. The growth opportunity constituted the moderating variable which replaces all other variable affecting the financial leverage. The growth opportunity was found positively correlated to the financial leverage of non-financial firms quoted in NSE. The results are in the line with the expected relationship (positive) which was based to the trade-off theory and agency theory.

5.0 Conclusions

The research found that the profitability have a significant negative correlated with the financial leverage of non-financial companies quoted in the NSE. The research established a conclusion that the non-financial companies, by contracting long term debt, find themselves in an obligation to pay significant amount of money in interest rate expenses which reduce their profitability, the research found also that non-financial firm with high profitability (high return on asset) are taking few amount of debt and prefer self-finance to invest in new project. The research investigated the effect of the tangibility of asset on the financial leverage of non-financial companies listed in the NSE and established that the tangibility of asset has a significant positive relationship with the financial leverage. The findings indicate that the level of debt of non-financial companies listed at the NSE depends on the tangibility of asset the companies possess. In fact, non-financial companies listed in the NSE with more tangible assets have easy access and are able to request significant amount of loans and credits from lenders. The tangibility of their assets constitutes a form of guarantee for lenders. The research established that firm size have a significant positive correlation with the financial leverage of non-financial companies

quoted at the Nairobi securities exchange. The study showed that the large non-financial companies with a considerable firm size are taking more debt than the smaller firms. It can be explained also by the fact that most of the lenders trust and provide loans more to large companies than smaller firms.

The study showed also that taxes have a significant negative relationship with the financial leverage of non-financial companies quoted in the NSE. Actually firms which pay the required tax on a perfect manner (on due date or in advance) are the ones which have a better financial performance. However, more debt reduces the profitability and liquidity due to more interest rate expense. When the profitability reduces, the taxes paid also reduce. Lastly, the non-debt tax benefits have an insignificant negative relationship with the financial leverage of non-financial companies listed in the NSE. In fact, tax saving on interest expenses does not impact significantly the leverage level in the case of the non-financial companies listed in the NSE.

6.0 Recommendations of the Study

The research found that the profitability is negatively correlated with the financial leverage of non-financial companies quoted in the NSE. For that reason, the research recommends that the non-financial companies should not emphasize in contracting more debt as the primary source of finance, they should use the debt on a certain level which is advantageous for a better financial performance of the company. The research investigated the effect of the tangibility of asset on the financial leverage of non-financial companies listed at the NSE and established that the tangibility of asset has a significant positive relationship with the financial leverage. This study recommends that non-financial companies listed at the NSE should invest in projects that will improve the tangibility of their assets like properties and equipments. However, we recommend also for the non-financial firms to make a boost in their net asset value by raising their total assets and decreasing some elements of their current liability by a better liquidity and working capital management.

The study showed also that taxes have a significant negative relationship with the financial leverage of non-financial companies listed in the NSE. The study recommends that non-financial companies should utilize short term debt in order to benefit low interest rates which lead to an increase in profitability. The research established the relationship between non-debt tax benefits and the financial leverage of non-financial companies listed in the NSE, to find out the existence of an insignificant negative relationship. However, the study recommends that non-financial companies should manage well their debt level; in order to create significant tax savings on interest expenses which will have an impact on the companies' profitability. Lastly, the research established that firm size is positively correlated with the financial leverage of non-financial companies quoted at the Nairobi securities exchange. For that reason, the study recommends that executives of the non-financial companies quoted at the Nairobi securities exchange should emphasize more on expanding the firm size in order to reduce the cost of production and implement policies which will lead to a better management of the debt so that the debt should not grow as the company expands.

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