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Organizational Determinants, Capital Structure and Financial Performance of Firms Registered in Rwanda Development Board

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Abstract:

The trade-off theory suggests an optimal mix of debt and equity for a firm to achieve the minimum cost of capital structure. There are reasonable empirical researches on the capital structure. The studies implied that certain organization factors influence the capital structure that led to the minimum cost of capital. Clearly, financial managers should devote their time and effort to those determinants. However, there are no researches to show whether the expected minimum cost of capital reflects the maximum financial performance and maximum welfare of shareholders. As a result, there is lack of empirical research to investigate whether the organizational determinants directly affect the capital structure and capital structure affect the financial performance and shareholders' wealth. This is important for financial management in that, if the organizational determinants do not lead to the increase of a firm's performance and consequently the shareholders' welfare, there is no need for financial managers to search for those determinants. This research attempted to investigate the link between the organizational determinants and firm's financial performance in the Rwandan context, and whether capital structure plays a mediating role in such a relationship. The study was based on capital structure theory. Asset tangibility, profitability, firm risk, growth opportunities, firm age, firm size, firm liquidity and non-debt tax shield were found to be the key organizational determinants of firms in Rwanda. The study used an explanatory survey research design. Data were collected from the Rwanda Development Board's website from which all audited financial statements of firms in Rwanda were published. The target population of the study was 2,000 representing all firms registered in Rwanda Development Board by the time of research. During the research size determination 500 firms were selected as best performers firms from 2005-2013 in RDB and their financial statements were published. The sample size of the study was 51 firms selected using the stratified sampling technique. The time scope of the study is 9 years covering (2005-2013). Data were analyzed by using the E-Views 7 as statistical analysis tool. The study used multiple regression model represented by Panel Least squares (PLS) as a technique to examine the organizational determinants, capital structure and firm's financial performance. The findings showed that firm size had a negative and significant effect ($\beta = -1.854$, $p = 0.0000$) on firm financial performance, while growth opportunities ($\beta = 0.348$, $p = 0.001$), firm Assets tangibility ($\beta = -0.661$, $p = 0.0405$), profitability ($\beta = 2.120$, $p = 0.0000$) and firm liquidity ($\beta = -0.499$, $p = 0.0000$) and Capital structure was positively and significant effect on firm financial performance ($\beta = -0.498$, $p = 0.025$). The research showed a partial mediation of capital structure on the relationship between organizational determinants and firm's financial performance. This study recommends government to encourage firms to be listed in order to be externally financed at lower cost of capital.

Keywords: Capital structure, organizational determinant, returns on equity

1. Introduction

The capital structure of a firm describes the way in which a firm raised capital needed to establish and expand its business activities. It is a mixture of various types of equity and debt capital a firm maintained resulting from the firm's financing decisions. In one way or another, business activity must be financed. Without finance to support their fixed assets and working capital requirements, business could not exist. In all aspects of capital investment decision, the capital structure decision is the vital one since the profitability of an enterprise is directly affected by such decision. Therefore, proper care and attention need to be given while determining capital structure decision. Capital structure decisions are among the most significant finance decisions companies encounter. It has been long debated whether capital structures are influential on costs of capital and firm values. The theory of capital structure and its relationship with a firm's value and performance has been a puzzling issue in corporate finance and accounting literature since the Modigliani and Miller (1958) argue that under the perfect capital market assumption that, if there is no bankrupt cost and capital markets are frictionless, if without taxes, the firm's value is independent with the structure of the capital. Debt can reduce the tax to pay, so the best capital structure of enterprise should be one hundred percent of the debt. Since then, several theories have been developed to explain the capital of a firm including the Pecking order theory, Static Trade-off theory and agency cost theory. The firm's decision about its source of capital will affect its competitiveness among its peers. Therefore, firm should use the appropriate mix of debt and equity that will maximize its profitability.

The lack of consensus among the theories that try to explain the capital structure of a firm has led to many empirical studies in capital structure of the firm. These studies were trying to reach a conclusion about the impact of capital structure on firm's performance. In connection to this, financing the firm's needs, the amount of debt to be undertaken is affected by several factors. Capital structure theory, specifically the trade-off model suggests that firms with high business risks should use less debt than lower risk firms. This because the higher the risk the higher probability that firm face financial distress.

Furthermore, firms that has tangible asset should use more debt than firms that have more intangible assets since only tangible assets can be used as collateral. Besides, when financial distress occurs, intangible assets will most likely to lose value. It also stated that firms that are paying taxes at higher rates should take more debt since its bankruptcy risks is lesser than the lower taxpayer firms Brigham et al., (1999).

Pecking order theory that has been introduced by Myers (1977) is also relevant to deviation of capital structure. It states that firms have a preferred hierarchy for financing decisions. The highest preference is to use internal financing before resorting to any form of external fund.

The Agency cost theory states that an optimal capital structure is attainable by reducing the costs resulting from the conflicting between the managers and the owners. Jensen and Meckling (1976) argued that capital structure can be used to monitor the managers to pursue the overall firm's objectives and theirs. By doing so, cost is reduced leading to efficiency which shall eventually enhance firm performance Buferna et al., (2005).

Because the mix of debt & equity of finance is employed to ensure the performance and the survival of the business enterprise may be seriously, this study wants to contribute to the debate on the relationship between capital structure and firm performance from capital structure theory perspective. Financing decision facilitates the survival and growth of a business enterprise, which calls for the need to channel efforts of businesses towards realizing efficient financing decision, which will protect the shareholders interest. This implies effective planning and financial management through combination of an optimum capital structure by managers so as to maximize the shareholder's wealth. A firm can finance investment decision by debts, equity or both. Financial managers are facing difficulties in precisely determining the optimal capital structure. Optimal capital structure means with a minimum weighted average cost of capital and maximize the value of the organization.

Furthermore, capital structure and its impact on performance have been investigated for many years, but researchers have found different results with different contexts. Accordingly, there is no specific result, which can be generalized on the extent of the relationship between capital structure and firm performance, thus there is a constant for new research in different context for achieving a more complete understanding for the dynamics of the capital structure and firm performance interchange.

Berger & di Patti, (2006) concluded that more efficient firms will be more likely to earn a higher return from a given capital structure, and that higher returns can act as a cushion against portfolio risk so that more efficient firms are in a better position to substitute equity for debt in their capital structure. This is an incidental of the trade-off theory of capital structure where differences in efficiency enable firms to alter their optimal capital structure either upward or downwards.

In addition, Singh Hamid, (1992) in their research, used data on the largest companies in selected developing countries and found that firms in developing countries used more of debt finance in financing their growth than will be the case in industrialized countries. According to Abor, (2005a) also found a positive relationship between total assets and return on equity and profitable firms in Ghana depended more on debt as a main financing option due to a perceived low financial risk.

The continued poor performance coupled with closure of firms registered in Rwanda Development Board since 1995 has raised more questions than answers to researchers and practitioners (RDB annual report 2007). The performances of such firms have been deteriorating and even some companies have been forced into receivership. There was an increase from 2.7% to 10.4% in December 2007 in commercial institutions' non-performing assets was attributed to firms' failure to service their loans due to insufficient financial resources (Rwanda Development, Annual Report 2008/2009)

Based on Ebaid (2009) research, capital structure has weak-to-no influence on the financial performance of listed firms in Egypt. By using three accounting-based measurement of financial performance which is Return On Asset (ROA), Return On Equity (ROE), and Gross Margin (GM), the empirical results indicated that ROE have a negative impact on an organization's financial performance, capital structure has no significant impact on an organization's financial performance.

Arising from the findings of Berger (2006), the capital structure could be a reason influencing their financial performance trends an issue that has not been given attention. It is on this basis that the study was to investigate the most important organizational determinants in the Rwandese firms, to determine the relationship between capital structure and a firm's financial performance in Rwandese firms and to establish any mediating role for the relationship between the organizational determinants and a firm's financial performance in the Rwandese firms.

In Rwanda, investors and stakeholders do not look in detail the effect of capital structure in measuring their firms' performance as they may assume that attributions of capital structure are no related to their firms' value. Indeed, a good attribution of capital structure will lead to the success of firms (Welch, I 2004).

The relationship between capital structure and firm's performance is an important unsolved issue in the finance field. Reasonable theoretical as well as empirical researches try to define the organizational determinants, but research investigating the relationship between capital structure and firm's financial performance as well as the important role of these organizational determinants on financial performance is limited. In Rwanda there is no previous studies investigated the mediating role of capital structure in this relationship due to the uniqueness context as a developing country. As a result, also, there is no previous studies investigate the mediating role of capital structure in this relationship.

1.1. Research Objectives

The research objectives were:

1.2. General Objective

To investigate the effect of the organizational determinants and firm's financial performance in the Rwandan context, and examine the mediating role of capital structure in such a relationship.

1.3. Specific Objectives

- To establish the effect of firm size on firm financial performance
 - To examine the effect of Assets tangibility on firm financial performance
 - To assess the effect of growth opportunities on firm financial performance
 - To establish the effect of firm liquidity on firm financial performance
 - To analyse the effect of Capital structure on firm financial performance
- a. To determine the mediating effect of Capital structure on the relationship between firm size and firm financial performance.
 - b. To assess the mediating effect of Capital structure on the relationship between firm Assets tangibility and firm financial performance.
 - c. To evaluate the mediating effect of Capital structure on the relationship between growth opportunities and firm financial performance
 - d. To determine the mediating effect of Capital structure on the relationship between profitability and firm financial performance
 - e. To examine the mediating effect of Capital structure on the relationship between firm liquidity and firm financial performance

1.4. Research Hypotheses

The following research hypotheses were tested

- Ho₁ There is no significant effect of Firm size on the level of financial performance
- Ho₂ There is no significant effect of Assets tangibility on the level of financial performance
- Ho₃ There is no significant effect of Growth opportunities on the level of financial performance
- Ho₄ There is no significant effect of Firm liquidity on the level of financial performance.
- Ho₅ There is no significant effect of Capital structure on the level of financial performance.

Ho_{6(a)} Capital structure does not significantly mediate the relationship between firm size and financial performance.

Ho_{6(b)} Capital structure does not significantly mediate the relationship between Assets tangibility and financial performance.

Ho_{6(c)} Capital structure does not significantly mediate the relationship between growth opportunities and financial performance.

Ho_{6(d)} Capital structure does not significantly mediate the relationship between profitability and financial performance.

Ho_{6(e)} Capital structure does not significantly mediate the relationship between firm liquidity and financial performance.

2. Literature Review

The overall purpose of a firm is to maximize its value and create value for shareholders. Firm value is calculated by the present value of its expected future cash flows, discounted by the weighted average cost of capital. In order to maximize the value of the firm, management needs to make investments in order to generate cash flows. These investments require funds and companies to decide whether they want to use debt or equity. The optimal mix of debt and equity can minimize the weighted average cost of capital and increase shareholder value, and consequently the value of the firm (Berk and DeMarzo, 2013). Capital Structure is an expression of how a company is financing its total assets and is a decision that poses a lot of challenges for firms. Determining an appropriate mix of equity and debt is a strategic decision that companies are confronted with (Modugu, 2013, p. 14). A firm has three main sources of financing at their disposal to fund their investments. This includes the use of retained earnings, issuing new shares and borrowing money.

In 1958 Miller and Modigliani stated that capital structure was irrelevant as the value of the company would be the same regardless of how a company is financed. Based on this, discussions and theories have been developed in the literature aiming to explain if an optimal capital structure exists and what factors are determining the choice of capital structure.

According to Myers (2003), there is no a universal theory of capital structure, only the choice differs in the factors that affect the choice of capital structure. Although the Rwandan economy is described as a socialist-oriented economy, several attempts have been taken by the state recently to allow individuals to take part in the national economy and to privatize the state owned (public) business organizations in an attempt to gradually move the Rwanda economy towards a market economy. In 2008 the government passed Act number 27 of 2008 to enhance and regulate the private sector activities in the nation. The act permits the establishment of private business activities owned and managed by families and individual entrepreneurs. The act also allows the selling of publicly held companies to private investors which has resulted in the emergence of some private companies. In addition, there was a move to encourage foreign investments in the Rwandan market as evidenced by Act number 12 of 2008.

The overall aim of these measures, as stated by Saleh (2001), was to reduce public spending and gradually withdraw government subsidies, and to encourage private sector initiatives in different sectors.

Keister (2000) argues that during economic transition, the capital structure of companies might be affected due to the shortage of financing from the state.

There is a large amount of possible organizational determinants. This makes it challenging to decide which are the most important and how to establish a good model to measure the different variables and their degree of significance (Harris & Raviv, 1991). However, there is still some consensus amongst researchers that there exist some common factors.

This section presents a brief discussion on the determinants that different theories of capital structure suggest may affect the amount of capital structure in firms. These determinants are profitability, size, Assets tangibility, growth, liquidity and non-debt tax shield, firm risk, firm age. These determinants, their relationship to capital structure and their link to established theories were discussed individually below.

2.1. Firm Profitability

Profitability has been the most significant determinant in previous studies regarding capital structure. It indicates how well, management is able to utilize total assets to generate earnings. According to the trade-off theory, the higher the profitability of the firm, the more likely the company is to issue debt as it is reducing its tax liability. In addition, firms with a high profitability ratio have less risk of bankruptcy and financial distress. Moreover, debt providers were willing to lend to profitable firms because the probability of default is lower. Therefore, the theory predicts a positive relationship between capital structure and probability. In comparison, the pecking order theory predicts a negative relationship, as companies prefer to finance themselves through retained earnings. A profitable firm will retain more earnings and as a result, the capital structure needed should decrease. Nunkoo and Boateng (2009) studied the capital structure in Canadian firms and discovered a significant positive relationship between profitability and debt. However most of the previous empirical research shows that profitability has a negative effect on capital structure (Shah k, et al., 2012)

2.2. Firm Size

According to (Orser, Hogarth-Scott, & Riding 2000), using Canadian firms using changes in gross revenue to reflect performance. They find a positive effect of firm size and capital structure. This effect is due to greater diversification, economies of scale, production, greater access to new technology and cheaper sources of funds. Besides of those, (Shergill&Sarkaria 1999) using data of Indian firm also confirm a positive relationship between a firm's size and financial performance.

Trading-off theory assumes that firms are more diversified, more to use economies of scale production, have greater access to new technology and cheaper sources of funds, and investors believe that firms are less risky. This suggests a positive relationship between size and performance.

Nunkoo and Boateng (2009) studied the capital structure in Canadian firms and discovered a significant positive relationship between profitability and debt.

2.3. Firm Assets Tangibility

Tangible assets include fixed assets, such as machinery and buildings, and current assets, such as inventory. Compared to intangible, nonphysical assets, tangible assets are easier to collateralize so they will suffer a smaller loss if the company goes into financial distress. Tangible assets are associated with a higher capital structure ratio as they can serve as better collateral for debt (Rajan & Zingales, 1995). Moreover, a high Assets tangibility ratio will lower expected agency costs and problems.

According to Shergill and Sarkaria, (1999) investigates the impacts industry and firm characteristics on the firm- level financial performance for the period 1980-1990 and cover 171 Indian firms in twenty-one industry groups. They are using the difference between the firm's performance rates and the market average, ROE, ROA and others. They find that asset Assets tangibility is positively related to the financial performance. They use two sets of measures to reflect the financial performance: Return On Equity and Return On Assets as indicators for a firm's performance.

2.4. Growth Opportunities

According to Brush, Bromiley, &Hendricks, (2000) in the light of free cash flow hypothesis, they conducted in Maryland-USA found a strong positive relationship between growth opportunities and a firm's financial performance in terms of stockholders' returns and return on assets. In addition of this Hutchinson and Gul, (2006) they found that firms with high investment opportunities are associated with lower agency costs and better return on equity. According to Amidu, (2007), using return on equity and return on assets for Ghana, finds support for the fact that growing firms have a prospect of generating more returns for the owners.

2.5. Firm Liquidity

According to the researcher knowledge apart from (Wang, 2002) there is no studies addressed this relationship. But, (Wang, 2002) and, who addresses the liquidity management. Wang investigated the liquidity management and its relationship with performance and corporate value using data of Taiwan and Japan. Furthermore, he observed that the cash conversion cycle (CCC) has a negative relationship with the financial performance measured by returns on assets (ROA) or returns on equity (ROE) and this relationship is sensitive to industry factors. Furthermore, he finds that aggressive liquidity management enhances financial performance.

2.6. Non-Debt Tax Shield

According to Ali *et al.*, (2013) debt financing is less attractive if non-debt related corporate tax shields exist, such as investments or depreciation. Companies can use these non-interest items to reduce their tax bills. In other words, according to the trade-off theory, companies with higher non-debt tax shield are likely to perform (Titman & Wessels, 1988). This is supported by studies conducted by Heshmati (2001) and Ozkan (2001). However, Shah & Khan (2007) found non-debt tax shield to be insignificant to firm financial performance. The pecking order theory does not predict anything obvious with regards to non-debt tax shields and firm financial performance.

2.7. Firm Age

As a firm continues in business, it establishes itself as a going concern thereby increasing its capacity to performance more. This therefore makes age positively related to firm performance. Age of the firm is a standard measure of reputation in capital structure models because as a firm continues longer in business, it establishes itself as a going concern and therefore increases its capacity to increase its financial performance. Hall *et al.*, (2004) concurred to the above aspect of capital structure noting that age is positively related to financial performance. Esperanca *et al.*, (2003), however, found that age is negatively related to both operational and financial performance of firms. This is explained by the fact that firms with good capacity and good reputation do not innovate their products and operate in routine businesses.

2.8. Firm Risk

Risk levels are one of the primary determinants of a firm's capital structure, Kale *et al.*, (1991).

If a firm's operating risk is more volatile than the firm's earnings stream, the chance of the firm defaulting and being exposed to bankruptcy and agency costs is high. According to Johnson (1997), firms with more volatile earnings growth may experience more situations in which cash flows are too low for debt service.

Inspire of the above studies advanced, many studies investigate the relationship between risk and financial performance. Among others (Shergill&Sarkaria 1999) using the data of Indian firms, they confirm the positive relationship between a firm's risk and financial Performance, (Dewan, Shi, &Gurbaxani 2007).

2.8.1. The Concept of Firm Financial Performance

The issue concerning the relationship between capital structure and corporate performance is an issue that has been considered as very important to both academics and experts in the business world San and Heng, (2011), while there is a scarcity of evidence about the impact of capital structure on corporate performance. Majority of the past research on capital structure have always been from the determinants of capital structure on corporate performance. The capital structure has always been considered as one of the major components that could have an impact on corporate performance. According to study made by Tia &Zeitun (2007), financial performance measures like maximizing the profit on assets, as well as maximizing the benefits that accrue to shareholders are at the Centre of effectiveness of the firm. While the study of Hoffer and Sandberg (1987) who wrote that measure like the growth in sales and market share were operational performance measures that give a wide explanation of performance as they emphasize the variables that eventually lead to financial performance.

According to San and Heng, (2011), the use of financial measurement helps to indicate a firm's financial strengths, weaknesses, opportunities and threats and they listed the return on investment (ROI), residual income (RI), dividend yield, earning per share (EPS), price earnings ratio, growth in sales, as tools that help in performance measurement.

In connection to this, Raviv (1991) argued that there is a suitable capital structure for firms, and that going beyond this capital structure could create increases in the cost of bankruptcy, which would exceed the extra-tax-sheltering advantages connected with an increasing substitution of debt for equity. Therefore, most firms are ready to maximize their performance and reduce their cost of financing by balancing the debt and equity mix.

The study conducted by Harris &Raviv, (1991) also argued that underrating the joint interest of both managers and shareholders as well as the bankruptcy costs of liquidation and reorganization had a tendency to make firms have additional debt in their capital structure thus affecting the firm's performance. In addition of those, different studies have been carried out to examine the impact, which capital structure can have on corporate performance.

Abor (2005) carried out a study to examine the influence which capital structure had on the profitability of quoted companies on stock exchange of Ghana over a five-year period and discovered that there exists a significant positive relationship between short term debt to assets and Return on equity (ROE). This suggests that most firms in the country that earned high profits also use more short-term debt to finance the running of the firm. However, the study showed a negative relationship between long term debt to asset and return to equity (ROE). The overall result of the study showed a positive relationship between debt to asset and ROE, which shows the relationship between total debt and profitability, thus indicating that firms that earn high profits also depend on debt as a major funding option Sanand Heng, (2011).

Another research done by Gleason *et al.*, (2000) on the interrelationship between culture, capital structure and performance based on data collected from 14 European retailers, showed that there exists a significant negative relationship between the capital structures of these retailers and their return on assets (ROA), growth in sales (Gsales), and pre-tax income (ptax).

The study also showed that while capital structure varied by the cultural classification of retailers, the performance of these retailers was in no way dependent on cultural influence overall, the corporate performance.

The study conducted by Wessel (1988) and Barton *et al.*, (1989) agree that firms with high profit rates would maintain relatively lower debt ratios since they can generate such funds from internal sources.

2.8.2. Capital Structure and Firm's Financial Performance

The issue concerning the relationship between capital structure and firm performance is an issue that has been considered as very important to both academics and experts in the business world San and Heng, (2011). While there is a scarcity of statically evidence about the impact of capital structure on corporate performance in advanced and developing economics, majority of the past research on capital structure have always been from the determinants on corporate capital structure. The capital structure has always been considered as one of the major components that could have an impact on corporate performance. In explaining what the concept of performance entail Tian and Zeitun, (2007) said that the concept is a disputatious one in finance mainly because of its multi-dimensional meanings. They also describe performance measures as measures that include either financial or organizational or operational.

Hoffer and Sandberg (1987) revealed that measure like the growth in sales and market share were operational performance measures that give a wide explanation of performance as they emphasize the variables that eventually lead to financial performance.

Capital structure refers to the firm's financial framework which consists of the debt and equity used to finance the firm. Capital structure is one of the popular topics among the scholars in finance field. The ability of companies to carry out their stakeholders' needs is tightly related to capital structure. Therefore, this derivation is an important fact that we cannot omit. Capital structure in financial term means the way a firm finances their assets through the combination of equity, debt, or hybrid securities (Saad, 2010). In short, capital structure is a mixture of a company's debts (long-term and short-term), common equity and preferred equity. Capital structure is essential on how a firm finances its overall operations and growth by using different sources of funds. Modigliani-Miller (MM) theorem is the broadly accepted capital structure theory because is it the origin theory of capital structure theory which had been used by many researchers. According to MM Theorem, these capital structure theories operate under perfect market. Various assumptions of perfect market such as no taxes, rational investors, perfect competition, absence of bankruptcy costs and efficient market. MM Theorem states that capital structure or finances of a firm is not related to its value in perfect market. In reality, capital structure of a firm is difficult to determine. Financial managers are difficult to exactly determine the optimal capital structure. A firm has to issue various securities in a countless mixture to come across particular combinations that can maximum its overall value which means optimal capital structure. Optimal capital structure means with a minimum weighted-average cost of capital and thereby maximize the value of firms. Although optimal capital structure is a topic that had widely done in many researches, we cannot find any formula or theory that decisively provides optimal capital structure for a firm. If irrelevant of capital structure to firm value in perfect market, then imperfections that exist in reality may cause of its relevancy. Capital structure is closed link with corporate performance (Tian and Zeitun, 2007).

Firm performance can be measured by variables which involve productivity, profitability, growth or, even, customers' satisfaction. These measures are related among each other. Financial measurement is one of the tools which indicate the financial strengths, weaknesses, opportunities and threats. Those measurements are return on investment (ROI), residual income (RI), earning per share (EPS), dividend yield, price earnings ratio, growth in sales, market capitalization etc (Barbosa & Louri, 2005).

2.8.3. Agency Costs and the Capital Structure

A significant amount of research during the last two decades has been dedicated to models in which capital structure is determined by agency costs, costs due to conflict of interest (Harris and Raviv, 1991). Firstly, conflicts of interest between shareholders and managers begin because managers are not allowed to 100% of the residual claims. Consequently, the managers do not capture the entire gain from the profit enhancement activities, but they do accept the entire costs of these activities. The managers may hence put in less efforts in value enhancement activities and may also undertake to maximize their private gains by lavish perquisites, plush offices, empire building through sub-optimal investments, etc (Jensen, 1986). While the managers would have the entire costs of refraining from such inefficiencies, they are entitled to only a portion of the gains. The increase in the manager's stake in the firm decreases these inefficiencies.

Secondly, conflicts also come up between the interests of debt holders and equity holders (Jensen and Meckling, 1976). If an investment financed with debt yields high returns (higher than the cost of debt), equity holders are allowed to the gains. On the other hand, if the investment fails, the debt holders experience the losses due to limited liability of the equity holders. As a consequence, equity holders may gain from investing in very risky projects even if they are value decreasing. Such investments result in a decline in the value of debt. The loss in the value of equity from regrettable investments can be more than compensated by the gains in equity value at the cost of the lenders. The lenders to the firm protect themselves against expropriation by impressive certain conditions on the firm. These circumstances are called as protective covenants and stay in strong point till the debt is repaid. These conditions may relate to limitations on further borrowings by the firm, cap on payment of dividends, managerial payment, sale of assets, limitations on new investment, etc. These conditions may guide to sub-optimal operations resulting in inefficiencies. Additionally, the lenders put in place tough monitoring and corrective mechanisms to implement the debt covenants. The monitoring and enforcement costs are approved on to the firms in the kind of higher cost of debt. These expenses together with the cost of inefficiencies are called agency costs (Jensen and Meckling, 1976).

As residual owners, the shareholders have an incentive to make sure that agency costs are minimized. The existence of agency costs works as a disincentive to the issuance of debt. The agency cost may be practically non-existent at low levels of capital structure.

Nevertheless, after the entry point, the lenders initiate perceiving the firm to be increasingly risky. This may result in an unequal increase in the agency costs due to the necessity for widespread monitoring.

2.9. Theories of Capital Structure

Capital structure theory, as known today, originates from the work of Modigliani and Miller, hereafter named M&M, who published their famous article in 1958. Many, if not all business and finance academics have heard and know about M&M's capital structure irrelevance proposition and several textbooks within corporate finance begin their explanations of capital structure and cost of capital with the work of M&M.

In addition, M&M Myers (2002) indicated that the capital structure theories and empirical evidences focus mainly on financing strategy as well as the selection of an optimal debt ratio for a certain type of firm that operates in a distinct institutional environment.

According to Myers (2002), these theories are credible not because they do a perfect job highlighting the differences in total debt ratios, but because the costs and benefits that drive the theories at work in financing strategies can be observed. While there is no universal theory of capital structure, there are however, some relevant conditional theories and these theories can be distinguished in their relative focus on the factors that could significantly impact the right mix of debt and equity.

These factors comprise taxes, agency costs, and differences in information, institutional or regulatory constraints and a whole lot more (Myers, 2002). The same author stressed that each of these factors could be very significant for some firms and for other firms they could be highly unimportant. The majority of theories overlap and a blend of these theories help in explaining capital structure.

2.10. The Modigliani-Miller theory

As previously mentioned, the irrelevance theory of capital structure, which has been introduced by Merton Miller and Franco Modigliani (1958)-denoted by M&M throughout the researcher paper-was the first break through in relation to the subject of capital structure and its effects on financial performance. They first hypothesized that if markets are perfectly competitive, firm performance will not be related to capital structure, there by suggesting no significant relationship between a firm's capital structure and its performance. The value of the firm is similarly unaffected by its financial structure. Their assumptions of a perfectly competitive market exclude the impacts tax, inflation and transaction costs associated with raising money or going bankrupt.

In addition, they also assume that disclosure of all information is credible, thus there is no information asymmetry (Hamada, 1969 and Hatfield et.al, 1994). There were various criticisms, which encouraged M&M to issue an alteration to their first theory, which refers to as MM2. In their revised proposition they incorporated tax benefits as organizational determinants. The vital characteristic of taxation is the acknowledgement of the interest as a tax deductible expenditure.

According to M&M a company that respects its tax obligations, benefit from partially offsetting interest, namely the tax shield, in the form of paying lower taxes. Thus M&M indicate that companies can maximize their value by employing more debt due to tax shield benefits allied with the use of debt. Hence, firms benefit from taking on more capital structure. M&M show that firm value and firm performance is an increasing function of capital structure due to the tax deductibility of the interest payments at the corporate level (Modigliani & Miller, 1963).

In reality, markets are inefficient, due to taxes, information asymmetry, transaction costs, bankruptcy costs, agency conflicts and any other imperfect elements. When taking these elements into consideration, the M&M theorem tends to lose the majority of its explaining power. Even though M&M theory was heavily criticized of some weaknesses and its irrelevant assumptions of the real world, this theory still provides the foundation for many other theories suggested by other researches.

2.10.1. Static trade-off Theory

Myers, (2001) in his research on capital structure noted that the trade-off theory justifies moderate debt ratios. The purpose of the trade-off theory of capital structure is to explain the strategy a firm uses to finance investments which may be by equity and sometimes by debt. Tradeoff theory predicts that a weak firm will rely exclusively on a bank for debt capital. Whose underlying claim is that firms set a target debt ratio which they attempt to reach? According to the theory, there is a positive relationship between the firm's capital structure and performance That is, for weak firms, bank debt dominates any mix of market and bank debt regardless of the priority structure. This result contradicts the notion that firms avoid public debt because they lack access to such markets or face prohibitive costs (Hackbarth, & Leland, 2007).

Myers, (2001) noted that the firm would borrow up to the point where the marginal value of tax shields on additional debt is offset by the increase in the present value of possible costs of financial distress. According to Modigliani & Miller, (1958), the attractiveness of debt decreases with the personal tax on the interest income. A firm experiences financial distress when the firm is unable to cope with the debt holders' obligations. If the firm continues to fail in making payments to the debt holders, the firm can even be insolvent. The theory can be explained by costs of financial distress and agency costs (Pandey, 2005)

According to the tradeoff theory, capital structure is determined by a tradeoff between the benefits of debt and the costs of debt. The benefits and costs can be obtained in a variety of ways. The "tax-bankruptcy tradeoff" perspective is that firms balance the tax benefits of debt against the deadweight costs of bankruptcy. The "agency" perspective is that debt disciplines managers and mitigates agency problems of free cash flow since debt must be repaid to avoid bankruptcy (Jensen and Meckling (1976) and Jensen (1986)). Although debt mitigates shareholder-manager conflicts, it exacerbates shareholder-debt holder conflicts (Stulz (1990)). Product and factor market interactions suggest that in some firms, efficiency requires a firm's stakeholders to make significant firm-specific investments.

Murinde, et al., (2002) stated that tax policy has an important effect on capital structure decisions of a firm. This is in the sense that corporate tax allows firms to deduct interest on debt when computing taxable profits. This suggests that tax advantages derived from

debt would lead firms to be entirely financed through debt because interest payments associated with debt are tax deductible whereas payments associated with equity such as dividends aren't tax allowable deductions. This means that the effect of more or less debt in a firm may either reduce or increase firm value depending on the nature of one's business. It is concluded that trade-off theory couldn't account for the correlation between high profitability and low debt ratios.

Rajan *et al* (1995) also confirmed a negative correlation between profitability and capital structure for the United States, Japan and Canada although no significant correlations will be found for France, Germany, Italy and Britain.

A Study made by Wipperfurth (1966) investigated the relationship between capital structure and firm performance. In his study he used debt to equity ratio as capital structure indicator and earning to market value of common stock as performance indicator. His results indicated that capital structure has positive effects on firm performance.

Capon *et al.*, (1990) conducted a meta- analysis from 320 published studies related financial performance, and found a positive relationship between usage of capital structure and financial performance. In 1995 Roden and Lewellen analyzed the impact of capital structure on performance for 48 US based firms with a capital structure buyout during the period 1981 through 1990, using multinomial logit models. Their results indicated a positive relationship between firm performance and its capital structure policy based on tax considerations. Their findings were consistent with the trade-off theory.

According to Abor (2005), he carried out regression, analyzed the impact of debt level ratio on firm performance between Ghanaian listed firms over the period 1998 to 2002. Throughout his analysis, he compared the capital structure of publicly quoted firms, unquoted firms and small and medium enterprises. He based his model on three measures of capital structure, namely, short-term debt over total assets, long-term debt over total assets and total debt over total assets, on performance, measured by the Return on Equity. His results indicate that there exists a significantly positive relationship between the short-term and total debt and Return on Equity.

In addition, the study made by Arbiya and safari (2009) also documented similar results, after analyzing the impact of capital structure ratios of 100 Iranian publicly listed firms on their performance over The period 2001 to 2007. They found that short term and total debts are positively related to profitability measured by ROE, but found a negative relationship between long-term debts and ROE.

According to Umar *et al.*, (2012), also suggested a positive link between firm performance and capital structure, where they measured performance and capital structure by respectively earnings per share and current liabilities to total assets. They used an exponential generalized least squares approach to study the top 100 firms on the Karachi Stock Exchange over the period 2006 to 2009 and they documented consistent findings supporting the trade-off theory.

2.10.2. Pecking order Theory

Unlike the trade-off theory, the pecking order theory does not assume an optimal level of capital structure. As previously indicated Myers and majluf (1984) favor the pecking order theory, which incorporates the assumption of information asymmetries and transaction costs. This pecking order theory therefore suggests that firms should follow a financing hierarchy in order to minimize information asymmetry between the parties. It states that companies prioritize their source of financing, from internal financing to equity financing, according to the principle of the least resistance, preferring to raise equity as a financing means of last resort. So, the pecking order theory claims that internal funds are used first and only when all internal finances have been depleted, firms will optimum for debt. When it is not sensible to issue any more debt, they will eventually turn to equity as a last financing resource.

Summarizing, theory predicts that more profitable firms that generate high cash flows are expected to use less debt capital than those who generate lower cash flows. The pecking order theory argues that businesses adhere to a hierarchy of financing sources and prefer internal financing when available. However, when external financing is required, firms prefer debt over equity. Equity entails the issuance of additional shares of a company, which generally brings a higher level of external ownership into the company. Therefore; the form of debt that a firm chooses can act as a signal for its need of external finance. Thus firms that are profitable and therefore generate high cash flows are expected to use less debt compared to those who do not generate high cash flows. This theory therefore suggests that firms prefer debt to equity (Muritala, 2012).

All of the mentioned mechanisms suggest that the pecking order theory claims a negative relationship between capital structure and firm performance, since more profitable firms opt to use internal financing over debt.

Hitherto, extended literature on the pecking order theory has provided mixed evidence regarding the impact of capital structure on firm performance. Analyzing the data from the network stock exchange covering various sectors over the period 1971 to 1989, shyman-sunder and Myers (1999) find evidence in favor of the pecking order theory. On the other hand, Frank and Goyal (2003) found a little support for the pecking order theory, while they also used American publicly traded firms covering period's 1971 to 1998. They argued that net equity issued as opposed to net debt issued, is more closely correlated with financing deficit. They also highlighted that the pecking order hypothesis seems to be more applicable for data prior to 1990.

Study made by Kester (1986) recorded a negative link between capital structure and firm performance in the U.S and Japan. Similar results, negative relationship between capital structure and financial performance, were reported for US firms by friend and Lang (1988) as by Titman and Wessels (1988). According to the study by Rajan and Zingales (1995) recorded a negative relationship between Capital structure and firm performance.

Also, Wald (1999) found similar results for the developed countries, while Wiwattanakantang (1999) also reported a negative relation between capital structure and firm's financial performance measured by Return on Asset.

According the studies of Fama and French also tested the pecking order and the trade-off theories on more than 3000 firms in their publication of 2002. Their study covered the period 1965 to 1999. Their models were based on both cross-section and time series methods in order to check for robustness of their results. They support the pecking order theory by documenting a negative relationship between a firm's capital structure and its performance.

According to Minton and Wruck (2001) examined domestic financial conservative firms and their capital structure over the period of 1974 to 1998 and they concluded that the performance of low capital structure firms outweighs the performance of high level firms. This thus indicates that there is a negative relationship between capital structure and a firm's performance.

Study made by Wipperfurth (1966) investigated the relationship between financial capital structure and firm performance. In his study he used debt to equity ratio as capital structure indicator and earning to market value of common stock as performance indicator. His results indicated that capital structure has positive effects on firm performance.

Capon *et al.*, (1990) conducted a meta- analysis from 320 published studies related financial performance, and found a positive relationship between usage of capital structures and financial performance. In 1995 Roden and Lewellen analyzed the impact of capital structure on performance for 48 US based firms with a leverage buyout during the period 1981 through 1990, using multinomial logit models. Their results indicate a positive relationship between firm performance and its leverage policy based on tax considerations. Their findings were consistent with the trade-off theory.

2.11. Agency Cost Theory

Jensen and Meckling developed this theory in their 1976 publications. This theory considered debt to be a necessary factor that creates conflict between equity holders and managers. Both scholars used this theory to argue that the probability distribution of cash flows provided by the firm is not independent of its ownership structure and this fact may be used to explain optimal capital structure. Jensen and Meckling recommended that, given increasing agency costs with both the Equity-holders and debt-holders, there would be an optimum combination of outside debt and equity to reduce total agency costs.

A research made by Fama, Miller, Jensen (1976), it is observed capital structure is determined by its agency cost. They found two types of problems created by the agency theory. Those are conflict between firm managers and shareholders as well as conflict between debt holders and shareholders

Conflict between firm managers and shareholders: According to the Brealey and Myers (2003), firm manager directly deal with the agent on behalf of major shareholder interest. Most of the firm manager wants to run large with high probability of risk. This tends to undertake negative NPV projects. However, without a reward firm manager does not involve large and risky project even if they expect the project give positive NPV. This problem creates a conflict of interest between managers and shareholders. As a consequence, the agency cost problem arises. Sometime manager consumes firm valuable resources used their power (Jensen and Meckling, 1976).

The conflict also places in the corporation because shareholders and managers always disagree when modifying company business policy. They want to set business policy in a way that will meet their own interest. So, this problem crucial and emerged every corporation.

Conflict between debt holders and shareholders: Managers are working for shareholders and they want to give priority shareholders interest. Manager invests risky project that will benefit for major shareholder not better for the bondholder. According to the empirical study of paper found three kinds of problem arise between bondholders and shareholders. These are: asset substitution problem, managers invest risky project that increases firm value, but they don't like engaged appropriate mature bond that increases bondholders return and under investment problem. Bondholders also expect the manager invest safe and low return project that probability of risk is very low. Thus, firm can be paid their debt on time. But firm manager chooses risky projects that indicated a high probability of losing capital. If they lose, no cash available to paid their loan.

Most of the cases, shareholders prefer a firm manager invest risky project with high probability of success that they repaid their loan quickly and keep their ownership safe. If the risky project gave negative NPV, then shareholder has possibility of defaulter. They can't repay their loan on time. As a result, shareholders lost their control of ownership and they simply transfer their firm to the bondholder and creditor like bank in case of China (Megginson and Smart, 2006).

Solution of agency problem: After empirical study this paper found two important paths that reduce agency problems. These areas as follow: Shareholders can monitor manager activity that may reduce the problem. It can reduce agency cost (Brealey and Myers, 2003). Monitor is done by the board of the firm, auditors and the lender (Bank) and Shareholder concern about firm managers benefits not think about their own interest.

2.11.1. Market Timing Theory

Market timing, a relatively old idea (see Myers (1984)), is having a renewed surge of popularity in the academic literature.

In surveys, such as those by Graham and Harvey (2001), managers continue to offer at least some support for the idea. Consistent with market timing behavior, firms tend to issue equity following a stock price run-up. In addition, studies that analyze long-run stock returns following corporate financing events find evidence consistent with market timing.

Lucas and McDonald (1990) analyzed a dynamic adverse selection model that of the pecking order with the market timing idea, which can explain pressure run-up's but not post-issue underperformance.

Baker and Wurgler (2002) argue that capital structure is best understood as the cumulative effect of past attempts to time the market.

The basic idea is that managers look at current conditions in both debt and equity markets. If they need financing, they use whichever market currently looks more favorable. If neither market looks favorable, they may defer issuances. Alternatively, if current conditions look unusually favorable, funds may be raised even if the firm has no need for funds currently.

However, it does suggest that stock returns and debt market conditions will play an important role in capital structure decisions.

3. Empirical Review

Meanwhile (Krishnan & Moyer 1997), (Phillips & Sipahioglu 2004), and (Murphy 1968) find no significant relationship between capital structure and firm's performance; (Singh & Faircloth 2005), (Forbes 2002), (Gleason, Mathur, & Mathur 2000), (Chang Aik Leng 2004), (Omran, Atrill, & Pointon 2002), and (Carleton & Silberman 1977) find a negative relationship between capital structure and firm's performance. On the other hand, (Berger & Bonaccorsi di Patti 2006) and (Dessi & Robertson 2003) find a positive and significant relationship. However, (Thompson, Wright, & Robbie 1992), (Campello 2006), (Welch 2004) find conflict results. Therefore, the researcher hypothesizes that capital structure influence the firm's financial performance.

Moreover, firm's size as a control variable may affect the relationship between the capital structure and the firm's financial performance. This is supported by (Gleason, Mathur, & Mathur 2000), (Simerly & Mingfang 2000), (Omran, Atrill, & Pointon 2002), (Chang Aik Leng 2004), (Berger & Bonaccorsi di Patti 2006), (Dessi & Robertson 2003), (Krishnan & Moyer 1997), and (McKean & Kania 1978).

To the researcher knowledge, there is no comprehensive study investigated the organizational determinants and the firm's financial performance for the Rwandese firms in the perspective of capital structure theory. Previous studies investigated the relationship between firm's size and firm's risk in one hand and the firm's performance in the other hand in UK. This study considered the organizational determinants and its direct relationships with the firm's financial performance.

First, apart from (Shergill & Sarkaria 1999) who find a positive relationship between assets tangibility and firm's performance, there are no studies targeted this relationship empirically. Therefore, it is worthy to investigate this relationship because of the important role of assets intensity on determining the firm's financial performance as it results in this research. Second, (Brush et al., 2007) found a positive relationship between growth opportunities and firm's financial performance.

Third, as mentioned before, many studies investigated the relationship between firm's size and performance. According to the capital structure theory, firm's size reflects greater diversification, economies of scale, greater access to new technology and cheaper sources of funds. Those who found a positive relationship between firm's size and firm's performance include (Orser, Hogarth-Scott, & Riding 2000), (Shergill & Sarkaria 1999). On the other hand, (Goodman, Peavy III, & Cox 1986), (Forbes 2002) find an inverse relationship.

Fourth, theoretical prediction of the risk-return trade-off relationship is positive, and the standard relationship between risk and return in the CAPM model is positive, that the higher the risk, the higher the return. Many studies support this relationship Shi, & Gurbaxani (2007). Fifth, to the researcher knowledge, no studies investigate the relationship between non-debt tax shields and performance apart from (Forbes 2002) who uses firms from 42 countries and finds that in the year after depreciations, firms have significantly higher growth in market capitalization.

Sixth, to the researcher knowledge, no studies addressed the relationship between firm's liquidity and firm's performance. However, (Wang 2002) addressed the liquidity management. The researcher investigated the liquidity management and its relationship with performance and corporate value using Taiwan and Japan data.

In addition to the above, empirically, there is no comprehensive study between organizational determinants and financial performance according to the knowledge of the researcher. However, size-performance and risk-performance is well investigated in previous studies. Few studies have highlighted the relationship between firm's characteristics and its profitability.

Previous empirical research regarding capital structure provided no general model on the organizational determinants. After considering the available data, the most common determinants based on previous research and theory was decided upon. As a result, the final set of independent variables includes eight factors; Profitability, non-debt tax shield, Assets tangibility, firm size, liquidity and growth opportunities, firm age, firm risk.

Antoniou et al., (2002) researched the organizational determinants of French, British and German companies using panel data from 1969-2000. They chose to examine these countries together as they are characterized by different financial systems and traditions, something that may affect the amount of capital structure in a company. Surprisingly enough, their findings suggested that factors affect the three countries in the same way despite of this. Further they got a positive relationship between capital structure and size, while the opposite is the case for growth and capital structure. For fixed assets, profitability and effective tax rates, they discover that the factors vary in the direction and degree of influence on capital structure across the sample countries. This shows that capital structure decisions do not only depend on firm-specific factors, but also the environment the company operates in.

Nunkoo & Boateng (2009) researched non-financial Canadian companies between 1996 and 2004 using panel data and a dynamic regression model. Their result suggested that firms have long-term target debt ratios, but with a slow adjustment ratio. Furthermore, they find that profitability and Assets tangibility have a positive effect on the amount of capital structure a company has, while there was a negative effect based own size and growth opportunities.

Titman & Wessels (1988) researched the explanatory power of different factors from theories of optimal capital structure. Their data is collected from American industrial companies from 1974-1982. They did not find any significant relationship between capital structure and volatility, Assets tangibility, growth and non-debt tax shield. However, they discovered a negative relationship between debt and profitability and a negative correlation between size and short-term debt. The most surprising discovery in their study is that the level of debt is negatively correlated with the uniqueness of the company.

Frank & Goyal (2004) did a similar study but on publicly traded U.S firms from 1950 to 2000. They discovered that firms tend to have lower levels of debt, the more profitable they are. Furthermore, their results suggested that firm Assets tangibility is significant and causes firms to have more debt, the more collateral they have. In addition, they concluded that firms tend to have more capital structure compared to smaller firms. Finally, they found that dividend-paying firms have less capital structure and that capital structure

tends to be higher when the US inflation rate is high. Overall they find that the pecking order theory does a poor job in explaining capital structure.

Frydenberg (2004) has conducted one of the few empirical studies that have been done on capital structure of Norwegian firms. He focused on firms in the Norwegian manufacturing sector between 1990 and 2000. He discovered that the pecking order theory finds significant support in the results of the study. His findings suggested that profitable firms tend to have less debt and those firms with a large amount of fixed assets tended to increase long-term debt and decrease short-term debt. The effect of the non-debt tax shield is significant and negative in his study. This indicates that firms substitute debt for such tax shields.

Bancel and Mittoo (2004) surveyed managers in sixteen European countries on the organizational determinants. They discovered that financial flexibility is the most important factor when issuing debt, while an earning per share dilution is the primary concern when issuing common stock. In their survey, 91% of managers' rank financial flexibility as important compared to only 59% of US CFO's in a survey conducted by Graham and Harvey (2001). This difference may suggest that European companies would try to preserve financial flexibility by keeping a lower level of debt. Bancel and Mittoo (2004)'s results suggested that the differences in firms' financial decisions across countries are the most significant between Scandinavian and Non-Scandinavian firms.

Levine *et al.*, (1999) stated that Norway can be considered a country with a bank-based financial system. This suggested that most companies finance themselves through bank loans, in contrast to market based financial systems, like the US, where firms mostly fund themselves through the capital markets. It is often assumed that companies in bank-based countries have higher capital structure and more short-term debt. His results however indicated that there is no cross-country empirical evidence for the superiority of either the bank-based or the market-based financial system. As a conclusion he suggested that specific laws and enforcement mechanisms that govern debt and equity transactions are more useful in describing cross-country capital structure.

Homaifar *et al.*, (1994) examined the effect of profitability, firm size, and future growth, non-debt tax shield, operating risk, dividend policy and uniqueness on the firm's capital structure ratios. Their results showed a positive effect of firm size and future growth of earnings on the capital structure decision.

According to Gropp and Heider (2010), who analyzed the factors determining the financial structure of U.S and European banks by collecting data for 14 years from 1991 to 2004 on 200 U.S and European banks, the main intention of this research was to identify the effect of variables such as collateral, profitability, market-to-book ratio, size, risk and dividend on banks. The empirical estimation of fixed effects regression model indicated that risk, profitability and dividend have negative impact on capital structure of the bank while collateral and size have a direct relation with debt ratio and the separate analysis of US and European banks also reports the same results.

Furthermore, they suggested that regulatory capital requirements are of second order importance.

According to Krenusz (2004), conducted empirical studies on the organizational determinants in the United States, Germany and Hungary. Among the ratio examined was liquidity ratio, which is given by the ratio of current over current liabilities. The result indicated a strong negative relation between capital structure and liquidity.

The issues of organizational determinants in developing countries, however, received little attention. Lately, there were only few studies on the organizational determinants conducted in the developing countries. Singh and Hamid (1992) and Singh (1995) pioneered research into corporate capital structure in developing countries. Rajan and Zingales focused to explaining the cross-sectional differences within countries. Four factors; Assets tangibility of assets, the market to book ratio (as proxy of growth), firm size and profitability were tested to see its influences on capital structure.

A cross-sectional basic regression model of capital structure was developed with four of the factors mentioned above as independent variables. The analysis showed that a one standard deviation increases in assets tangibility, the market to book ratio, log of sales and profitability changed book capital structure by 23%, -37%, 23% and -11% respectively. They were that the assets tangibility was positively correlated with capital structure for all the countries as theory supported the notion that firms having more fixed assets in their assets mix will use that as collateral to get more loans or debt. The market to book ratio seemed to be negatively correlated with capital structure except for Italy. Having high market value of the stocks would enable firms to issue more stocks and not seeking debt. Size of firm was positively correlated while profitability was negatively correlated with capital structure in all countries except Germany.

According to Liu (1999), he conducted a study on determinants of corporate capital structure from listed companies in China between the period 1992 and 1997. Using the OLS regression, the long-term debt ratio was examined to see whether there was any relationship with industry classifications, firm size, and proportion of tangible assets, profitability, and growth rate of assets and ownership concentration. The results indicated that debt ratio are positively related to firm size, asset Assets tangibility and growth rate and negatively related to ownership structure.

The study conducted by Huang and Song (2006) examined the organizational determinants in Chinese listed companies in order to investigate whether firms in the largest developing and transition economy of the world entertain any unique characteristics in their capital structure choice. The paper employed a new database containing both market and accounting data of 1,216 Chinese quoted companies from 1994 to 2003. Six measures of capital structure are used in the study such as book long term debt (LD) ratio, book total debt (TD) ratio, book total liabilities (TL) ratio, market long term debt (MLD) ratio, market total debt (MTD) ratio and market total liabilities (MTL) ratio together with expressed capital structure determinants such as ROA, Size, Assets tangibility, tax, growth, ownership structure and volatility. The data were analyzed using the Ordinary Least Square (OLS) regression method and the Tobit model. The empirical results showed that as in other countries, capital structure in Chinese listed firms increase with firm size and fixed assets and decreases with profitability, non-debt tax shields, and growth opportunity manager's shareholdings. The study also revealed that state ownership or institutional ownership has no significant impact on capital structure of Chinese companies.

However, Chinese firms tend to have much lower long-term debt as compared to those in developed economies.

A study conducted by Naveed Ahmed *et al.*, (2011) investigated the impact of firm level characteristics on performance of the life insurance sector of Pakistan over the period of seven years. For this purpose, size, profitability, age, risk, growth and Assets tangibility are selected as explanatory variables while ROE is taken as dependent variable. The results of Ordinary Least Square (OLS) regression analysis revealed that capital structure, size and risk are most important determinant of performance of life insurance sector whereas ROA has statistically more of insignificant relationship with, Assets tangibility of assets.

According to the study of Velnampy and Nireesh (2012) examined the relationship between capital structure and profitability of ten (10) listed Srilanka banks for the period (2002 -2009). The results showed that there is a negative association between capital structure and profitability. The study conducted by Eriotis *et al.*, (2002) investigated the association between debts to equity ratio and entity's profitability. They also discovered that those entities that prefer to finance their investment activities using equity capital are more profitable than firms who finance by using borrowed funds.

A study conducted by Pratomo & Ismail (2006) investigating the performance and capital structure of 15 Malaysian Islamic banks in the period (1997 to 2004) found out that the higher capital structure or a lower equity capital ratio is associated with higher profit efficiency. Their findings were consistent with the hypothesis which proposed that, a high capital structure tends to have an optimal capital structure and therefore it led in producing a good performance.

According to Saeed (2013) who assessed the impact of capital structure on the performance of banks in Pakistan for the period 2007 to 2011 found a positive relationship between organizational determinants and performance of banking industry. The performance was measured by Return on assets (ROA), Return on equity (ROE) and earnings per share (EPS). Capital structure included long term debt to capital ratio, short term debt to capital ratio and total debt to capital ratio.

In the Rwandan context, very few studies have been conducted pertaining to capital structure according to Bayeh (2011). This study investigated important firm-level on organizational determinants. The study employed panel regression model. The results showed that growth, profitability and age of the firm were found to have a significant influence on firm's value in Rwanda. Liquidity and business risk were also significant for long term debt and total debt ratio respectively. However, among the hypothesized capital structure determinants asset Assets tangibility and size of the firm were found to have statistically insignificant contribution on capital structure of firms in Rwanda.

Amanuel (2011) examined the organizational determinants evidence from manufacturing share companies. The researcher used seven explanatory variables; Assets tangibility, non-tax shields, growth, earning volatility, profitability, age and size of the firm were regressed against the dependent variables of total debt ratio, short term ratio and long term debt ratio. In connection of this, a sample of 12 companies were taken and secondary data was collected from audited financial statements of selected companies for the period of five years (1996- 2002).

Stratified sampling design was employed and companies were selected based on simple random to represent different industry sectors (strata) within manufacturing share companies. The results showed that Assets tangibility, non-debt tax shields, earning volatility, profitability, and size of the firm variables are the significant organizational determinants of share companies at least one out of the three models for capital structure employed in the study. While no clear and statistical proved relation are obtained for the variables growth of the firm and age of the firm in any of the capital structure models.

Yuvaraj and *et al.*, (2013) examined the effects of firm specific factors (age of company, size of company, volume of capital, capital structure ratio, liquidity ratio, growth and Assets tangibility of assets) on profitability proxies by Return on Assets. Profitability is dependent variable while age of company, size of company, volume of capital, capital structure, liquidity ratio, growth and Assets tangibility of assets are independent variables. The sample in this study included nine of the listed insurance companies for nine years (2003-2011). Secondary data obtained from the financial statements (Balance sheet and Profit/Loss account) of insurance companies, financial publications of National Bank of Ethiopia were analyzed. From the regression results; growth, capital structure, volume of capital, size, and liquidity are identified as most important determinant factors of profitability hence growth, size, and volume of capita are positively related. In contrast, liquidity ratio and capital structure ratio are negatively but significantly related with profitability. The age of companies and Assets tangibility of assets are not significantly related with profitability.

Shibru (2012) investigated the relationship between capital structure and specific determinants of capital structure decision, and the theories of capital structure that can explain the capital structure of banks in Ethiopia. In order to investigate these issues a mixed method research approach (quantitative and qualitative) is utilized, by combining documentary analysis and in-depth interviews. More specifically, the study uses twelve years (2000 - 2011) data for eight banks in Ethiopia. The findings show that profitability, size, Assets tangibility and liquidity of the banks are important organizational determinants of banks in Ethiopia. However, growth and risk of banks are found to have no statistically significant impact on the capital structure of banks in Ethiopia. In addition, the results of the analysis indicated that pecking order theory is relevant theory in Ethiopian banking industry, whereas there is little evidence to support static trade-off theory and the agency cost theory. Therefore, banks should consider profitability, size, liquidity and Assets tangibility when they determine their optimum capital structure. However, the relationship between capital structure and performance has not been extensively tested in researches for firms in Rwanda. Furthermore, in developed and developing countries were conducted the capital structure and the impact on performance have been investigated for many years, but researchers have found different results with different contexts. Accordingly, there is no specific result, which can be generalized on the extent of the relationship between capital structure and firm financial performance, thus, there is a constant for new research in different context for achieving a more complete understanding for the dynamics of the capital structure and firm financial performance interplay. Therefore, it is very interesting to see the impacts of capital structure on profitability of firms in Rwanda.

Overall the results from previous empirical research showed that in general, the same characteristics affect the choice of capital structure across countries; however institutional factors may lead to differences in the sensitivity of these factors. Previous empirical papers were reaching contradictory results in their investigation of the relationship between capital structure and company specific factors. There are differences both across industries and geographic areas, as well as considerable variation within individual industries. Even though the effect of the capital structure determinants differs, there are still indications that the same factors are evident across several studies.

3.1. Mediating Effect of Capital Structure on Financial Performance

Study made by Wipperm (1966) investigated the role of capital structure on firm financial performance. In his study he used total debt to total capital (book value) ratio as capital structure. His results indicated that capital structure has positive effects on firm performance.

Capon *et al.*, (1990) conducted a meta- analysis from 320 published studies related financial performance, and found a positive relationship between capital structure and financial performance.

In 1995 Roden and Lewellen analyzed the impact of capital structure on performance; their results indicate a positive relationship between firm performance and its capital structure policy based on tax considerations.

According to Abor (2005) throughout his analysis, he indicated that there exists a significantly positive relationship between the total debt and total capital on financial performance and long term loan to total capital positively related to firm financial performance of listed firms in Ghana in 1998 to 2002.

Kyereboah-Coleman (2007) examined the relationship between capital structure and performance of microfinance institutions in sub-Saharan Africa showing that high capital structure is positively related with performance (i.e. ROA and ROE). Zeitun and Tian (2007) examined the relationship between capital structure and performance of Jordan firms showing that capital structure is negatively related with performance (both the accounting and market measures). Finally, Abor (2007) examines the relationship between debt policy (capital structure) and performance of small and medium-sized enterprises in Ghana and South Africa showing that capital structure, especially long-term and total capital structure, is negatively related with performance (Berger and Bonaccorsi, 2006).

The pecking order theory of capital structure shows that if a firm is profitable, then it is more likely that financing would be from internal sources rather than external sources. In other words, firms tend to use internally generated funds first and then resort to external financing. This implies that profitable firms will have less amount of capital structure (Myers and Majluf, 1984). By this profitable firms that have access to retained profits can rely on them as opposed to depending on outside sources (debt). In developing countries most of studies like, Antoniou *et al.*, (2002) and Bevan and Dan bolt (2002), Booth *et al.*, (2001), Pandey (2001), all found a negative relationship between capital structure ratios and performance. Therefore, it is expected that there are negative impacts between Capital structure and performance.

It is expected for the capital structure to have a mediating role between organizational determinants and the firm's financial performance. Testing the mediating role of a variable (M) between an independent variable (X) and dependent variable (Y) is tested following the criteria suggested by (Baron & Kenny 1986) and (Miles & Shevlin 2001). Following these procedures, a series of analyses were conducted to test if whether or not capital structure mediates the relationship between organizational determinants and firm's financial performance:

Three conditions should be met in testing the mediating role of capital structure (M) for the direct relationship between organizational determinants as independent variables (X) and firm's financial performance as a dependent variable (Y). First relationship is between the (X) and (M) should be significant. Second relationship is between (M) and (Y) should be significant. Third relationship between (X) and (Y) directly also should be significant. However, in case of a complete mediating role, the effect of organizational determinants (X) on firm's financial performance (Y), when controlled for capital structure (M) should be zero. However, in the case of partial mediator, the relationship between (X) and (Y) will be reduced.

3.2. The Conceptual Framework Model

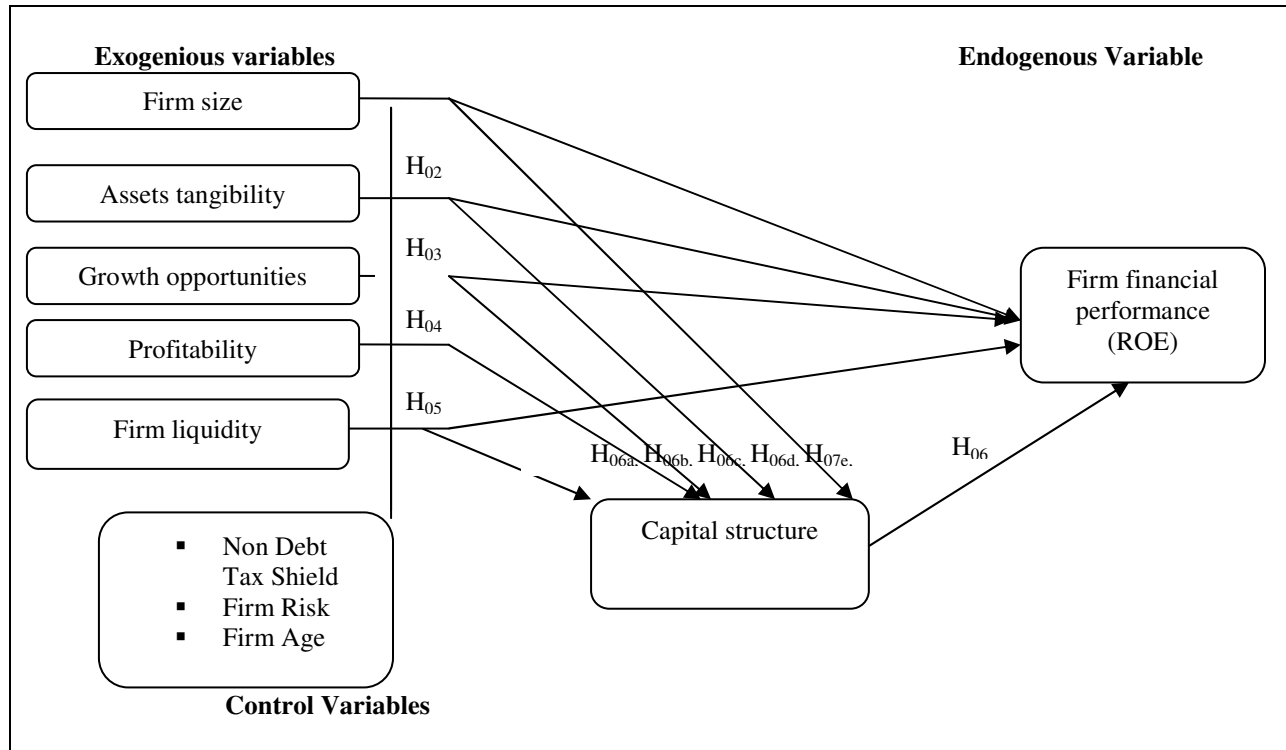


Figure 1

4. Research Methodology

This study was quantitative in nature and employed an explanatory and longitudinal research design. Explanatory research design was chosen as the most suitable method for this study because of the need to gain an understanding of the broader contexts of the relationships among the research variables. Explanatory research is used for understanding phenomenon in terms of likely causes.

In this situation financial modeling comprised both time series and cross-sectional elements, and such a dataset known as panel data or longitudinal data embodied information across both time and space. Importantly, a panel keeps the same individuals or objects (henceforth we will call these ‘entities’) and measures some quantity about them over time. This type of research was used to measure what impact specific organizational determinants capital structure and how capital structure affects the firm financial performance. Explanatory research implies that the research in question is intended to explain, rather than simply to describe, the phenomena studied (Maxwell and Mittapalli, 2008). Most social scientists seek causal explanations that reflect tests of hypotheses. Causal effect occurs when variation in one phenomenon, an independent variable, leads to or results, on average, in variation in another phenomenon, the dependent variable (Somekh and Lewin, 2005).

Target population consists of all members of a real or hypothetical set of people, events or objects from which a researcher wishes to generalize the results of their research while accessible population consists of all the individuals who realistically could be included in the sample (Borg and Gall, 2007). The target population was 2,000 registered firms in RDB for the period under study. All firms that were operational and have borrowed or used the internal source in financing their operations. During that time the total firms that borrowed and have used the internal source of finance were 2,000.

A sampling frame is a list of a population from which a sample is drawn (Leary, 2001). It is the source material or device from which a list of all elements within a population that can be sampled is drawn (Särndal et al., 1992), and may include individuals, households or institutions. It is a published list in which or a set of directions for identifying a population (Gall et al., 2007). For the purpose of this study, the sampling frame for the target population was the list of firms that participated in the Rwanda development Board and Rwanda Revenue authority survey to identify the country’s “Top 500 firms” in the last 9 years (2005-2013) and made it to the “Top 500” each year. This sample was chosen due the fact that during the period of research, not all firms have presented their financial statements to the RBD. Only firms that participated in the best performance reward each year were selected. Because of the availability of the financial information that was needed by the researcher.

Kombo and Tromp (2009) and Kothari (2004) describe a sample as a collection of units chosen from the universe to represent it. Marczyk et al., (2005) and Yang (2008) defined a sample as a subset of the population to be studied. Sampling is the selection of a subset of individuals from within a population to yield some knowledge about the whole population, especially for the purposes of making predictions based on statistical inference (Scott and Wild, 2001; Black, 2004). Its main advantages are cost, speed, accuracy and quality of the data. The sampling process comprises of defining the population, sampling frame, sampling method, sample size and sampling plan (Lavrakas, 2008). The sample size for this study was calculated as follows: the total number of top 500 firms from 2005-2013 as indicated by the Rwanda Development Board and Rwanda Revenue Authority were 500. These companies were

selected due to the fact that they prepare financial statements every year and these statements were published on their respective website. However, selected firms included in the study were those that were trading and still registered in 2014 with the Rwanda Development Board (RDB), and therefore firms that were still not registered after 2014 and those that were suspended or delisted from the period were excluded from this study.

For the purpose of this study, companies were also excluded if relevant information on ongoing concern were unavailable either in the annual report or on their corporate websites. As such, the sample comprised of 59 firms which meet the criteria, however 8 firms were eliminated because data on organizational determinants, financial capital structure and financial performance was not available giving a total of 51 firms, hence 459 firm-year observations was used.

The society of study contains manufactured, agriculture, chemicals, food and beverage and services firms that registered in RDB for the period (2005-20013). Financial data extracted from two main sources: annual financial reports that issued by the firms at end of each year, and annual reports that were analyzed by RDB published on the website. The sample of study consists by 51 firms from the total of 459 firms as shown in table (1). This sample comprised only by top firms that published their financial statements for the period under the study.

4.1. Research Variables and Measurement

Variable	Measurement
Non debt tax shield	Ratio of total annual depreciation /Total Asset
Financial Performance	Return On Equity (EBIT/Equity)
Assets tangibility	Net fixed asset to total asset
Capital structure	Total debts/total capital, Long term loans/total capital
Growth opportunities	Tobin’s Q. Market value of equity plus book value of debt divided by book value of equity and debt
Firm Risk	standard deviation of the annual % change in EBIT/TA
Firm Size	Natural logarithm of total assets
Firm Age	Number of years since incorporation
Profitability	Net profit margin: net income available for common stockholders over sales*100 %
Firm liquidity	Total current Assets/Total current liabilities

Table 1
Source: The Researcher, 2015

4.2. Econometric Model Specification

General model $y_{it} = \beta_0 + \beta_{it} C_{it} + \beta_{it} X_{it} + \beta_{it} M_{it} + \epsilon_{it}$

$$y_{it} = \beta_0 + \beta_1 C_{i1} + \beta_2 C_{i2} + \beta_3 C_{i3} + \beta_1 x_{i1} + \beta_2 x_{i2} + \beta_3 x_{i3} + \beta_4 x_{i4} + \epsilon_{it} \dots \dots \dots (1)$$

$$M_{it} = \beta_0 + \beta_1 C_{i1} + \beta_2 C_{i2} + \beta_3 C_{i3} + \beta_1 x_{i1} + \beta_2 x_{i2} + \beta_3 x_{i3} + \beta_4 x_{i4} + \beta_i y_{i1} + \epsilon_{it} \dots \dots \dots (2)$$

$$y_{it} = \beta_0 + \beta_1 C_{i1} + \beta_2 C_{i2} + \beta_3 C_{i3} + \beta_1 x_{i1} + \beta_2 x_{i2} + \beta_3 x_{i3} + \beta_4 x_{i4} + \beta_i M_{i1} + \epsilon_{it} \dots \dots \dots (3)$$

Where; i=1, N firms, t=1... T time periods.

Where: Y_{it} dependent variable such as firm financial performance, X_{it} are independent variables as well as, X_{i1} is the firm liquidity, X_{i2} is the growth opportunities, X_{i3} is the firm Assets tangibility, X_{i4} is profitability, M_{i1} represents the capital structure. C_{i1} is Non debt tax shield, C_{i2} is firm risk and C_{i3} is firm size and ϵ_{it} is the error term and β are coefficients.

4.3. Summary of Findings

The purpose of the study was to examine mediating role of Capital structure on the relationship between firm size, asset Assets tangibility, growth opportunities, profitability, firm liquidity and performance. The hypothesized were examined by regressing performance against firm size, assets Assets tangibility, growth opportunities, profitability, firm liquidity and performance and their intervention terms. The study was conducted using all firms that were registered in Rwanda Development Board (top ones) for the period 2005 to 2013 and in Rwanda Revenue Authority. To understand the performance process four theories underpinned the study namely; market timing theory, pecking order theory, agency theory and trade off theory. The results of the study acknowledge on the importance of Capital structure on the organizational determinants with justified the firm’s firm financing tendencies given the capital structure conditions.

4.3.1. Effect of Firm Size on Firm Financial Performance

The results indicated that there exist a negative and significant effect on firm financial performance ($\beta=-1.854475$; $p<0.0000$). The significance of firm size on firm financial performance indicates that firms can earn higher returns compared to smaller firms, most probably as a result of diversification of investment and economies of scale. It is very important for a company to be large in order to have superior performance. This result is consistent with previous findings such as Tian and Zeitun (2007) and Gleason et al., (2000). Earlier studies support that firm’s size may have an effect on its performance. Firms enjoy number of capabilities such as economies of scale which may influence financial performance such as Frank &Goyal, (2003). The result shows that greater value of total assets enhances the firm financial performance and is also evident from earlier researches. Those who find a positive relationship between firm’s size and profitability support the arguments of trade-off theory that size reflects greater diversification, economics of scale

production, greater access to new technology and cheaper sources of funds. These studies include Orser, et al., (2000), who investigate the effect of firm size on performance, and found a positive relationship.

4.3.2. Effect of Asset Assets Tangibility on Firm Financial Performance

The results found a negative and significant effect on firm financial performance ($\beta=-0.661675$; $p<0.0405$). Which suggested that as asset Assets tangibility increases, the level of performance is expected to increase. This means that a high ratio of fixed assets to total asset leads higher performance of the firms in Rwanda, because in Rwanda lending financial institutions require fixed assets as collateral to provide debt to those of companies. The other reason is the fixed asset of firms in Rwanda is efficiently used and able to generate revenue. However, the negative relationship between firm's asset Assets tangibility and performance is consistent with similar findings of previous researchers Osuji & Odita, A (2012). According to the researcher knowledge there is a positive the relationship between firm's asset Assets tangibility and profitability.

Assets are considered a capital intensive, i.e., those companies who they rely mainly on their fixed assets to make their products and services. Song (2005) found that Assets tangibility is positively related to total debt ratio at the 0.1% significance level. Noulas & Genimakis (2011) and Nunkoo & Boateng (200) also found a significantly positive effect of Assets tangibility on capital structure.

The result is supported by both theories, which expects a positive relationship between Assets tangibility and capital structure. The pecking order theory explains that information asymmetry will be lower for firms with more tangible assets, resulting in more debt. However, Harris and Raviv (1991) argue that the pecking order theory indicates a negative relationship between Assets tangibility and debt. They state that firms with few tangible assets will have greater asymmetry problems, and as a result, the coefficient should not be significantly different from zero. The tradeoff theory expects a positive relationship between Assets tangibility and debt because a higher degree of asset Assets tangibility leads to lower bankruptcy costs.

4.3.3. Effect of Growth Opportunities on Firm Financial Performance

The results showed a positive and significant effect of growth opportunities on the level of firm financial performance ($\beta=0.348553$; $p<0.0011$). These results suggested that a high a high level of growth opportunities may result in a high level of performance. This finding was consistent with past studies showing that growth opportunities influence positively the level of performance. Firms with good sales opportunities have a good reputation in getting funds, easier access to the finance markets and reflected in better performance for these firms. According to the agency theory perspective, firms with high growth opportunities have lower agency costs. These firms might have lower debt ratios due to the fear of debt holders those firms may forgo valuable investment opportunities and expropriate wealth to their benefit, and this outcome would be reflected in lower agency costs (Hutchinson & Gul 2006).

Another reason according to the agency theory is that the growth opportunities enlarge manager's use power. This can be treated as an advantage for the company in that these managers use this power to enlarge the firm's performance, although they increase their own wealth at the same time. Additionally, high-growth firms have easier access to the finance market, and this can be translated in higher performance, because companies are more likely to lend to companies presenting a superior growth rate or having future valuable growth opportunities (Chen, 2004).

4.3.4. Effect of Profitability on Firm Financial Performance

The results of the regression analysis found a positive and significant effect of profitability on performance of firms ($\beta=2.120240$; $p<0.0002$). This result contradicted prior studies Mathur and Mathur (2000) and Ofek, 1993), who found a negative relationship between firm profitability and return on asset. This can be attributed to the fact that, when firms were received profit before depreciation income and tax, they are able to use the assets and generate profit. A study done by (Akintoye, 2008) confirmed a positive relationship between profitability and return on asset (firm financial performance).

4.3.5. Effect of Firm Liquidity on Firm Financial Performance

The results found that capital structure is negative and significant related to the performance ($\beta=-0.708140$; $p<0.0251$). This indicate that firms that are financial stable and can meet short term obligation are better performing that those with lack of ability to meet short term obligation. This shows also that the firms are credible, reputable and have sufficient cash to continue their operation without financial distress. This result is consistent with Ozkan (2001) who made the same discovery and suggested that the inverse relationship could be a result of potential conflicts between shareholders and debt holders of the company. Sbeiti (2010) also found the liquidity coefficient to be negative, and significant while Olayinka (2011)'s results suggest a positive and significant relation between firm liquidity and performance.

4.3.6. Mediating Effect of Capital Structure on Firm Financial Performance

The study of intervention effect should be done after the determination of the influence of the mediator variable as a direct effect. In this study, the mediator is deb level. The results of the study, showed a negative and significant effect of Capital structure and firm financial performance ($\beta=-0.498$; $p<0.025$). This result can be interpreted in this way that increase high capital structure in firms in Rwanda would lead to high performance. In other words, capital structure is over then optimized level and in comparison, to advantages of tax shield, incensement of financial distress costs has more significance.

Theoretical prediction yields no conclusion for the relationship between capital structure and performance. Trade off models argues that profitable firms have great needs to shield income from corporate tax and should borrow more than less than profitable firms. While pecking order models theory suggested an inverse relationship between capital structure and performance of the firm.

Firms are assumed to prefer internal financing to external financing in a pecking order frame work. This preference leads firms to use retained earning first as investment funds and move to external financing only when retaining earnings are insufficient. This results have been consistent with Jensen (1986) that if Capital structure acts as a bonding device in terms of forcing managers to commit free cash flows to service debt, then higher debt will lead to lower funds available for managers in profitable investments and then high performance (Singh & Faircloth 2005).

Also Shegill & Sarkaria (1999) suggested that the positive relationship between Capital structure and Performance might be due to the large interest income generated by debt, stating that if a firm is highly levered and its rate of return on the company's assets is higher than the cost of debt capital, this will lead to higher performance. However, most of empirical studies confirm the negative relationship between deb level and profitability of the firm such as: Titman & Wessel's (1988), Rajan and Zingales (1999), Wald (1999) etc. in this paper, researcher used return on assets (measures as income after interest and tax over total assets) as a proxy for performance of the firm. This negative relationship suggested that the agency conflicts between managers and shareholders are the main reason for such relationship. Possibly Rwandese firms are employing a less than appropriate level of capital structure in their capital structures thus negatively influencing performance. Higher capital structure ratios lead to higher debt burden, which might then limit the ability of the firm to take on more risky projects which may also be profitable, Chang, and Aikleng (2004). The study results are consistent with the cross-sectional study of (Gleason&Mathur, 2000), who confirm a positive relationship for financial and operational performance measures for European countries. They use total debt, ROA, pre-tax profit margin and growth in sales, justifying this relationship by the agency conflict earlier. The results also support those in the cross-sectional study by Singh & Faircloth (2005) for US manufacturing firms which indicate a strong positive relationship between capital structure (total debt to total assets) and level of R&D expenditure, which then inversely affects the performance. In addition, researcher results are consistent with the panel study of (change AikLeng 2004), who finds that gearing ratio (total debt to total capital) has a negative effect on earnings performance.

On the mediation aspect, the study found that there was significant influence of firm size ($\beta=4.386$; $p<0.025$) given its level of significant and the beta (β) value being non-zero. Further analysis in the effect of Capital structure firms are in the need of financing.

For all models, size is significantly different from zero at the 5% significance level. This implies that size is a factor when firms determine their capital structure in Rwandan companies. This result does not deviate from previous empirical research from Frank and Goyal (2004) who provide results suggesting that size is significant, indicating that firms tend to have higher capital structures and high performance. The significance of this factor stands in contrast to the Trade-off theory that claims that size matters, as firms tend to add more debt because of a lower probability of default. The pecking order theory justifies the expectation of a positive relationship between size and capital structure with a lower degree of information asymmetry, as this will give companies better opportunities and conditions to gain access to credit.

Assets tangibility is the most explanatory factor for both models. The coefficient is significantly different from zero at the 0.1% level and it has a positive relationship with Capital structure. The results indicate that a 1 percentage point increase in the Assets tangibility ratio will result in an increase in firm financial performance. The relationship was stronger at higher levels of the mediator. There was an influence of firm Assets tangibility ($\beta=-0.615$; $p<0.025$).

The result is supported by both theories, which expects a positive relationship between Assets tangibility and capital structure and therefore enhance the performance. The pecking order theory explains that information asymmetry will be lower for firms with more tangible assets, resulting in more debt. However, Harris and Raviv (1991) argue that the pecking order theory indicates a negative relationship between Assets tangibility and debt. They state that firms with few tangible assets will have greater asymmetry problems, and as a result, the coefficient should not be significantly different form zero. The tradeoff theory expects a positive relationship between Assets tangibility and debt because a higher degree of asset Assets tangibility leads to lower bankruptcy costs and tend to the performance.

The results and the views of the theories are supported by a large amount of empirical research. Song (2005) found that Assets tangibility is positively related to total debt ratio Noulas & Genimakis (2011) and Nunkoo & Boateng (200) also found a significantly positive effect of Assets tangibility on capital structure and capital structure on performance.

The examination of the factor growth opportunities showed that there was increased level of positive significant effects on performance ($\beta=0.049606$; $p<0.0208$). Ozkan (2001) achieved a positive effect of capital structure on the relationship between growth opportunities and firm financial performance. He concludes that growing firms often have a large proportion of intangible assets, and may therefore be able to support a high capital structure ratio. Furthermore, firms with growth opportunities tend to have higher capital structures because debt holders don't fear that the firm might pass up on investment opportunities. The results are also consistent with other empirical studies including Frank & Goyal (2007), Rajan & Zingales (1995), Shah & Khan (2007) and Nunkoo & Boateng (2011). In comparison, Noulas & Genimakis (2011) find a negative relationship with growth opportunities and capital structure explaining that firms choose to issue equity when their market performance is high. Song (2005) discovers that growth is not related to total debt ratio and performance.

The results indicated that with the help of capital structure, firm liquidity has a negative and insignificant effect on firm financial performance ($\beta=-1.17528$; $p>0.06590$). The liquid assets were sufficient in financing a firm's investments; the firm would have no incentive to raise funds externally. Ozkan (2001) made the same discovery and suggested that the inverse relationship could be a result

of potential conflicts between shareholders and debt holders of the company. Sbeiti (2010) also found the liquidity coefficient to be negative, while Olayinka (2011)'s results suggested a positive relation between capital structure and liquidity.

4.3.7. Conclusion of the Study

This study successfully extended knowledge by studying and testing whether Capital structure could mediate the various relationships, which was true for influence of firm size, asset Assets tangibility, growth opportunities, profitability and firm liquidity. Campello et al., (2010) identified common variables and among them were capital structure and wondered it could tamper with magnitude of observed relationship between the various organizational determinants and firm financial performance.

Basing on the findings of this study, the following conclusions can be drawn; first impact of Capital structure on firm financial performance cannot be overemphasized given its positive and significant effects on firm financial performance. This finding qualifies Capital structure to be treated as a mediator which resulted in testing factors. The study found that there was a positive and significant influence of firm size, asset Assets tangibility, growth opportunities and profitability on the relationship between Capital structure and firm financial performance.

Therefore, this study confirms a positive relationship between Capital structure and performance of the firm. This result can be interpreted in this way that high capital structure companies would have high performance. In other words, capital structure is over than optimized level and in comparison, to tax shield, incensement of financial distress costs has more significance. There is other reason may be Informational asymmetry and high costs of external resources and lack efficient financial market of the market.

The outcome provides evidence in support pecking order theory. Pecking order theory states that higher performance should enable the company to retain more earnings which is the preferable source of funding, and as such, the amount of capital structure needed by the company should decrease. This negative relationship indicates that the Rwanda firms do use debt to maximize their performance.

The regression result shows positive relationship between a firm's growth opportunities and performance of the firm. The positive relationship might be one of the most alternatives for the firm, because the investors and shareholders, investing in profitable projects.

The result from fixed effect model shows firm size a positive and highly significant relationship for performance of Rwandese firms. The significance of firm size on performance indicates the firms can earn high return compared to smaller firms, most likely as results of diversification of investment and economic scale. Therefore, it is very important for a company to be large in order to have superior performance. This study supported by trade-off theory, it stated that size reflects greater diversification, economics of scale production, greater access to new technology and cheaper sources of funds.

The study against the theoretical expectation, because the results shows a positive and significant relationship between assets Assets tangibility and performance (ROE) of the firm. This implication that the sampled of Rwandese firms were able to utilize the fixed asset composition of their total assets sensibly to impact positively on their performance.

A result from fixed effects models shows against the theoretical expectation, because a negative and insignificant relationship between firm liquidity and performance of Rwanda firm.

4.3.8. Recommendations of the Study

From the findings spring several recommendations which can be broadly grouped into policy recommendations, recommendations to business owners, and finally recommendations for further research.

4.3.9. Policy Maker's Recommendations

- i. The government to encourage investors to list their companies in order to reduce the conflict between shareholders and management. Because to access on long term debts companies present the collateral and in case of default, the collateral that belongs to the firms, to be market based rather than being bank based system in financing their investment. *al*
- ii. The private sector to encourage firms with lower capital structure to take either short term or long term debts in financing their investment.
- iii. The government to sensitize business owners to register their business in the Rwandan stock exchange and be facilitated on the external financing at lower interest rate
- iv. To establish policy on when a company is to use external or internal source of financing, this enables the firms to borrow when there is a need.

4.3.10. Recommendations to the Business Manager

- i. The result proves that with the increase in capital structure positively affects the performance of firm in Rwanda. Therefore, the researcher recommends that managers shall use excessive amount of capital structure in their capital structure, they must try to finance their projects with debt and use retained earnings as a last option. Managers must work hard to insure interest is paid on time and collateral presented recovered to achieve the optimal capital structure level and to maximize the firm's performance
- ii. In generally, the variable that have significant direct relationship between the impacts of capital structure on performance of the firm, the managers should devote their time and efforts on those variables in order to minimize the weighted average cost of capital and consequently maximize the welfare of shareholders.
- iii. The positive relationship between firm risk and profitability the result suggested that Rwanda firms may reduce their risk by increasing and diversified its operation.

4.3.11. Recommendations for Further Research

- i. There is no extensive literature in Rwanda regarding capital structure and financial performance. Future studies can use other indicators for these determinants and reinvestigates their relationships, or using firm governance as a moderating effect on firm financial performance.
- ii. The study has laid some ground work to explore the impact of capital structure on performance of Rwandan industries. Further work is required to develop new hypotheses and design new variables to reflect the firm specific factors to influence on firm financial performance.
- iii. This study investigated only the organizational determinants on firm's performance. Another study can cover either small firm of listed firms in Rwanda.

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Appendix I:

The analysis of data in this study was done using E-views version 7 for establishment of controls, direct effects and initial investigation as to the presence or otherwise of mediation effects. The Appendix I present the list of variables whose data was collected and Rwanda Development Board, it also presents raw results and test from E-views, and Appendix II presents results from the

Model	Variables Entered	Variables Removed	Method
1	Firm risk, firm size, non-debt tax shield, profitability, firm liquidity, Assets tangibility, growth opportunities, capital structure, Return on Equity	.	Enter
a. All requested variables entered			
b. Dependent variable: ROE			

Table 1: List of Variables Entered

Correlated Random Effects - Hausman Test				
Equation: Untitled				
Test cross-section random effects				
Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.	
Cross-section random	34.543938	8	0.0000	
Cross-section random effects test comparisons:				
Variable	Fixed	Random	Var(Diff.)	Prob.
NTS	2.492197	2.035086	0.052096	0.0452
FIRM_RISK	0.504197	0.133578	0.009986	0.0002
FIRM_SIZE	-1.304607	-1.261974	0.011412	0.6898
PROFITABILITY	2.230664	2.755095	0.044146	0.0126
FIRM LIQUIDITY	-0.499381	-0.089906	0.012496	0.0002
SALES_OPPORTUNITI	0.350666	0.248220	0.003288	0.0740
ASSETS TANGIBILITY	-0.708140	-0.541488	0.018535	0.2209
CAPITAL STRUCTURE	-0.498996	-0.566064	0.002256	0.1580
Cross-section random effects test equation: Dependent Variable: RETUN_ON_EQUITY Method: Panel Least Squares Date: 07/11/15 Time: 11:45 Sample (adjusted): 2006 2013 Periods included: 8 Cross-sections included: 51 Total panel (balanced) observations: 408 WARNING: estimated coefficient covariance matrix is of reduced rank				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	4.619679	2.024025	2.282422	0.0231
NTS	2.492197	0.475876	5.237075	0.0000
FIRM_AGE	NA	NA	NA	NA
FIRM_RISK	0.504197	0.165709	3.042659	0.0025
FIRM_SIZE	-1.304607	0.304623	-4.282688	0.0000
PROFITABILITY	2.230664	0.556699	4.006947	0.0001
FIRM LIQUIDITY	-0.499381	0.125549	-3.977587	0.0001
SALES_OPPORTUNIT	0.350666	0.105029	3.338750	0.0009
ASSETS TANGIBILITY	-0.708140	0.320662	-2.208369	0.0279
CAPITAL STRUCTURE	-0.498996	0.221778	-2.249983	0.0251
Effects Specification				
Cross-section fixed (dummy variables)				
R-squared	0.935556	Mean dependent var	2.411263	
Adjusted R-squared	0.924846	S.D. dependent var	1.452640	
S.E. of regression	0.398230	Akaike info criterion	1.129444	
Sum squared resid	55.34679	Schwarz criterion	1.709505	
Log likelihood	-171.4066	Hannan-Quinn criter.	1.358976	
F-statistic	87.35445	Durbin-Watson stat	1.406981	
Prob(F-statistic)	0.000000			

Table 2: Hausman Test

Ramsey RESET Test:				
Dependent Variable: ROE				
Method: Least Squares				
Included observations: 459				
Coefficient	Std. Error	t-Statistic	Prob.	
C -	0.531288	1.35968	-0.39074	0.6963
NTS	1.63966	0.197469	8.303368	0.0000
FIRM AGE	0.487139	0.452025	1.077681	0.2823
FIRM RISK	-5.99E-05	0.000144	-0.414772	0.6787
PROFITABILITY	5.030282	2.683906	1.874239	0.0621
FIRM LIQUIDITY	-1.413747	0.643937	-2.195475	0.0291
GROWTH OPPORTUNIT	8.488655	12.21231	0.695090	0.4877
ASSETS TANGIBILITY	6.692483	2.994476	2.234943	0.0263
CAPITAL STRUCTURE	-94.39106	23.62309	-3.995712	0.0001
R-squared	0.363199	Mean dependent var	-0.4208	
Adjusted R-squared	0.336776	S.D. dependent var	15.41135	
S.E. of regression	12.55078	Akaike info criterion	7.940113	
Sum squared resid	37962.85	Schwarz criterion	8.094175	
Log likelihood	-989.4542	Hannan-Quinn criter.	8.002104	
F-statistic	13.74543	Durbin-Watson stat	2.090304	
Probability	0.000000			

Table 3: Test of linearity (Ramsey RESET Test)

Heteroskedasticity Test: White					
Dependent Variable: RESIDΛ2					
Method: Least Squares					
Included observations: 459					
	Coefficient	Std. Error	t-Statistic	Prob.	
C	259.9542	65.85955	3.947099	0.0001	
ROEΛ2	-0.130762	0.826291	-0.158252	0.8744	
FIRM RISKΛ2	-7.465850	7.461475	-1.000586	0.3180	
FIRM SIZEΛ2	-1.65E	-07 3.72E	-07 -0.443367	0.6579	
PROFITABILITYΛ2	-137.6317	227.2283	-0.605698	0.5453	
FIRM LIQUIDITYΛ2	12.79797	13.66363	0.936645	0.3499	
GROWTH_OPPOΛ2	-650.6570	3144.176	-0.20694	0.8362	
ASSETS TANGIBILITYΛ2	-491.0652	418.2860	-1.173994	0.241	
CAPITAL STRUCTUREΛ2	-234.8568	213.467	-1.234679	0.345	
R-squared	0.017663	Mean dependent var	188.415		
Adjusted R-squared	-0.010519	S.D. dependent var	612.8558		
S.E. of regression	616.0706	Akaike info criterion	15.71583		
Sum squared resid	92608485	Schwarz criterion	15.82788		
Log likelihood	-1972.195	Hannan-Quinn criter.	15.76092		
F-statistic	0.626761	Durbin-Watson stat	2.068099		

Table 4: Homoscedasticity Test

Panel unit root test: Summary
 Series: RETURN_ON_EQUITY
 Date: 07/11/15 Time: 11:50
 Sample: 2005 2013
 Exogenous variables: Individual effects
 User-specified lags: 1
 Newey-West automatic bandwidth selection and Bartlett kernel
 Balanced observations for each test

Method	Statistic	Prob.**	Cross-sections	Obs
Null: Unit root (assumes common unit root process)				
Levin, Lin & Chu t*	-18.4925	0.0000	51	357
Null: Unit root (assumes individual unit root process)				
Im, Pesaran and Shin W-stat	-1.97762	0.0240	51	357
ADF - Fisher Chi-square	132.176	0.0239	51	357
PP - Fisher Chi-square	116.005	0.1623	51	408

** Probabilities for Fisher tests are computed using an asymptotic Chi-square distribution. All other tests assume asymptotic normality.

Table 5: Direct effect of organizational determinants and firm financial performance

	ROE	F.A	F.R	NTS	NPM	E.F	FS	TANG	G.O	DLEV
Mean	0.710817	20.25490	0.540666	8.950013	9.472892	0.668367	21.16192	9.044998	9.481841	17.65306
Median	0.591856	19.00000	0.560000	9.005405	9.528284	0.520000	21.15299	9.040282	9.655835	17.67726
Maximum	4.524976	32.00000	0.990000	9.382868	9.905746	6.000000	23.63872	10.26003	10.56806	19.90816
Minimum	-3.288398	14.00000	0.080000	6.214066	6.736945	0.040000	19.72645	8.037282	7.790770	14.89855
Std. Dev.	0.926628	4.409987	0.198067	0.310746	0.310746	0.880789	0.551007	0.298379	0.528592	0.564395
Skewness	-0.016741	1.201294	-0.238277	-2.079944	-2.079944	4.705166	0.638557	0.413609	-1.205862	0.015404
Kurtosis	6.315697	3.441880	2.650118	15.74446	15.74446	25.19323	4.324278	3.814522	3.960074	4.810687
Jarque-Bera	163.5501	114.1320	6.684590	3437.258	3437.258	11113.42	64.73299	25.77545	128.8673	62.72114
Probability	0.000000	0.000000	0.035356	0.000000	0.000000	0.000000	0.000000	0.000003	0.000000	0.000000
Sum	253.7615	9297.000	248.1656	4108.056	4348.057	306.7806	9713.322	4151.654	4352.165	8102.755
Sum Sq. Dev.	305.6757	8907.176	17.96751	44.22592	44.22592	355.3111	139.0528	40.77588	127.9694	145.8922
Observations	357	459	459	459	459	459	459	459	459	459

Table 6: Stationarity/ unit Root test

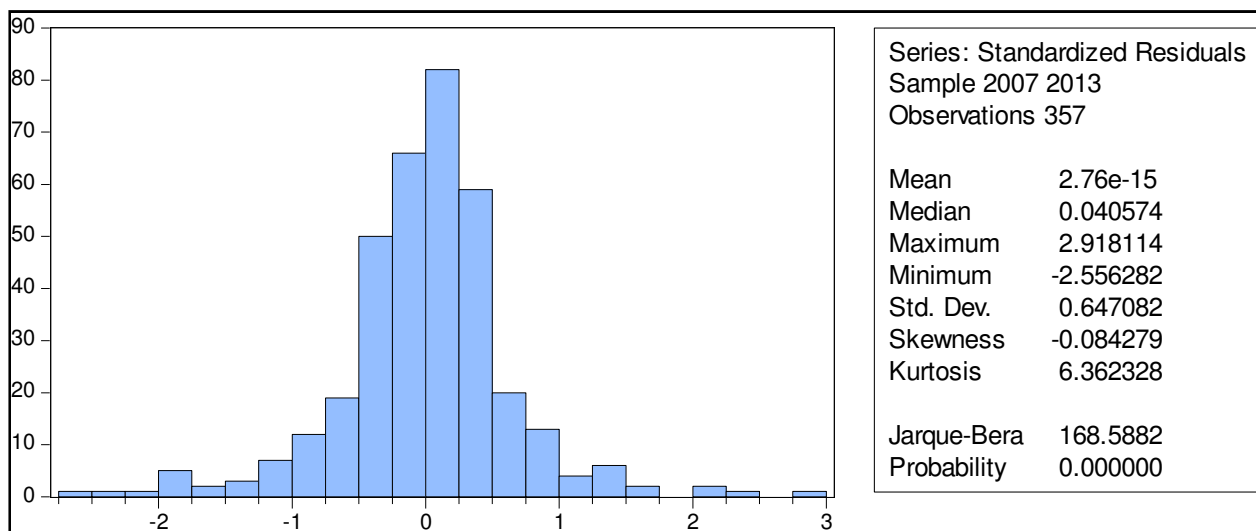


Figure 1: Normality test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FIRM_RISK	0.029887	0.088067	0.339368	0.0245
FIRM_AGE	-2.239370	0.081005	-27.64486	0.0000
NON-DEBT-TAX SHIELD	4.894573	0.358165	13.66568	0.0000
Constant	2.577294	1.463389	1.761183	0.0091
R-squared	0.865710	Mean dependent var		1.067713
Adjusted R-squared	0.842490	S.D. dependent var		0.954623
S.E. of regression	0.378866	Akaike info criterion		1.033809
Sum squared resid	49.80822	Schwarz criterion		1.633533
Log likelihood	-149.8971	Hannan-Quinn criter.		1.271122
F-statistic	37.28280	Durbin-Watson stat		2.274237
Prob(F-statistic)	0.000000			

Table 7: Descriptive Statistics of Independent Variables
Source: Research data (2015)

Variable	Coefficient	Std. Error	t-Statistic	Prob.
NON_DEBT_TAX SHIELD	2.606623	0.475888	5.477382	0.0000
FIRM_AGE	2.382356	0.236758	3.672897	0.0000
FIRM_SIZE	-1.854475	0.182904	-10.13906	0.0000
FIRM_RISK	0.496335	0.166631	2.978643	0.0031
PROFITABILITY	2.120240	0.557741	3.801481	0.0002
LIQUIDITY	-0.499896	0.126275	-3.958785	0.0001
SALES_OPPORTUNITIES	0.348553	0.105633	3.299678	0.0011
ASSETS TANGIBILITY	-0.661675	0.321848	-2.055864	0.0405
C	6.770891	1.794292	3.773572	0.0002
R-squared	0.934621	Mean dependent var		2.411263
Adjusted R-squared	0.923974	S.D. dependent var		1.452640
S.E. of regression	0.400534	Akaike info criterion		1.138944
Sum squared resid	56.14962	Schwarz criterion		1.709173
Log likelihood	-174.3445	Hannan-Quinn criter.		1.364585
F-statistic	87.77932	Durbin-Watson stat		2.363286
Prob(F-statistic)	0.000000			

Table 8: Regression analysis for direct effect of control variables on the ROE

Variable	Coefficient	Std. Error	t-Statistic	Prob.
NON_DEBT_TAX_SH	2.492197	0.475876	5.237075	0.0000
ILD				
FIRM_AGE	-1.304607	0.304623	-4.282688	0.0000
FIRM_RISK	0.504197	0.165709	3.042659	0.0025
FIRM-SIZE	2.365782	0.165489	3.368784	0.0023
PROFITABILITY	2.230664	0.556699	4.006947	0.0001
FIRM LIQUIDITY	-0.579381	0.125549	-3.977587	0.0001
SALES_OPPORTUNIT	0.350666	0.105029	3.338750	0.0009
IES				
ASSETS	-0.708140	0.320662	-2.208369	0.0279
TANGIBILITY				
CAPITAL	-0.498996	0.221778	-2.249983	0.0251
STRUCTURE				
C	4.619679	2.024025	2.282422	0.0231
R-squared	0.935556	Mean dependent var		2.411263
Adjusted R-squared	0.924846	S.D. dependent var		1.452640
S.E. of regression	0.398230	Akaike info criterion		1.129444
Sum squared resid	55.34679	Schwarz criterion		1.709505
Log likelihood	-171.4066	Hannan-Quinn criter.		1.358976
F-statistic	87.35445	Durbin-Watson stat		1.406981
Prob(F-statistic)	0.000000			

Table 9: Regression Results of Capital structure on organizational determinants

Variable	Coefficient	Std. Error	t-Statistic	Prob.
FIRM_AGE	-1.061718	1.068643	-0.993520	0.0213
FIRM_RISK	0.104940	0.117873	0.890282	0.0040
NON TAX SHIELD	4.486399	0.888609	5.048786	0.0000
FIRM_SIZE	4.389037	0.748038	4.049482	0.0000
CAPITAL STRUCTURE	0.427125	0.525091	0.813430	0.0166
PROFITABILITY	0.423070	0.675104	0.626674	0.0014
FIRM LIQUIDITY	-0.117528	0.103910	-1.131063	0.0659
ASSETS TANGIBILITY	-0.615883	0.356773	-1.726261	0.0254
SALES_OPPORTUNITIES	0.049606	0.109485	0.453082	0.0208
Constant	2.985161	2.547194	1.171941	0.0022
R-squared	0.844707	Mean dependent var		0.710817
Adjusted R-squared	0.810020	S.D. dependent var		0.926628
S.E. of regression	0.403886	Akaike info criterion		1.189970
Sum squared resid	47.46917	Schwarz criterion		1.906862
Log likelihood	-146.4096	Hannan-Quinn criter.		1.475109
F-statistic	24.35203	Durbin-Watson stat		2.706279
Prob(F-statistic)	0.000000			

Table 10: relationship between Capital structure and firm financial performance (MODEL III)

Source: Research data (2015)