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**ADDIS ABABA UNIVERSITY
COLLEGE OF BUSINESS AND ECONOMICS
DEPARTMENT OF EMBA PROGRAM**

**EFFECTS OF FIRM-SPECIFIC FACTORS ON
CAPITAL STRUCTURE: THE CASE OF SOME
SELECTED PRIVATE INSURANCE COMPANIES OF
ETHIOPIA**

**THE THESIS SUBMITTED IN PARTIAL FULFILLMENT OF
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Abbreviations

LEV: Firm Leverage

LQ : liquidity of the firm

MM : Modigliani and Miller

PRO : Profitability

SIZE: firm size

SOA: Speed of adjustment

TANG Tangibility of fixed asset

VIF: Variance inflation factor

Abstract

The purpose of this study was to examine the effects of firm specific factors on leverage in private insurance companies of Ethiopia. Major concepts used in this study like leverage, tangibility, profitability, liquidity, firm size were operationally defined and some theories of capital structure like trade-off theory, pecking order theory and agency theory were reviewed. Quantitative research method mainly descriptive design was employed for this study. Secondary data were collected from nine private insurance companies of Ethiopia which were selected purposely as a sample and quantitative data were generated. Then to analyze the data, appropriate methods of data analysis were employed. The main findings of the study indicated that there was a statistically significant correlation between leverage and tangibility, leverage and profitability as well as leverage and size of the firm. In addition, using multiple linear regression analysis, this study also indicated that four firm specific factors (tangibility, profitability, liquidity and firm size) explained 24.5% of the variance in the dependent variable (Leverage). Based on the findings, important recommendations like private insurance companies of Ethiopia should choose their capital structure by balancing the advantages of borrowing were made for improving the effectiveness, success and decision of the best capital structure of insurance companies in Ethiopia.

Key Words: Effect, Factors, Capital Structure, Insurance

CHAPTER ONE: INTRODUCTION

This section includes background of the study, statement of the problem, objectives of the study, research hypotheses, significance of the study, delimitation of the study, operational definition of terms and organization of the thesis.

1.1 Background of the Study

The term capital structure refers to the firm mixture of debt and equity (Brigham & Ehrhardt, 2008). Capital structure is one of the most crucial decision makings of firms and thus important issues in corporate finance studies. The fundamental components in capital structure are debt and equity. It is to mean that debt and equity choices are one of the major financial decisions for every company which may affect its value. Many scholars studied capital structure for the last five decades, which result development of some theories and various finding in this area of corporate financial (Abbasi & Delghandi, 2016).

The importance of making a decision relating to the capital structure decision was first introduced by the article published by Modigliani and Miller (MM) in 1958 where they proved that, in a world of no taxes, the firm's value is unaffected by the debt to equity ratio. In their article, Modigliani and Miller (1958) proposed two approaches of capital structures under certain assumptions. Based on Modigliani and Miler (1958) it does not matter to employ either debt or equity financing under perfect market assumptions and so capital structure decision is irrelevance. On the other hand Modigliani and Miler (1963) considerate corporate tax and proposed debt financing will increase firm's value.

One of the limitations of MM theory is that it does not crystallize the definition on how a company should finance its assets to enjoy the benefits of optimal capital structure and also it does not explain the empirical findings on capital structure very well. This resulted to review their capital structure theory and included corporate tax factor and excluded dividends from the model and published the new article in 1963 (Modigliani & Miller, 1963). Then, in 1977, Miller published another article and included corporate tax and individual income tax in their models. According to MM theory, an optimum capital structure is subject to tax advantages of debt and that is why firms should have a capital structure almost totally composed of debt.

But in the real world, firms generally assume to use moderate amounts of debt due to its high bankruptcy costs (Modigliani & Miller, 1963).

Following the innovative works of Modigliani and Miller's work, a lot of scholars have studied the subject of capital structure and new theories have been developed. For instance, according to Jensen and Meckling (1976), several researchers studied potential capital structure's determinant and introduced new theories such as trade of theory and pecking order theory based on different models including agency cost model at the end of 1990. Their findings indicated that in addition to debt tax shield other factors including earning, uniqueness, free cash flow, growth, profitability, research and development, non-debt tax shield, fixed assets, bankruptcy and volatility may affect portion of debt and equity (Jensen & Meckling, 1976).

Trade-off Theory (TOT) which emerged from the work of Modigliani and Miller by adding the costs of bankruptcy and effect of tax minimizing procedures on firm value (Robichek & Myers, 1965). This theory assumes that there is a trade-off to be made. Trade-off theory obtains optimal leverage level by balancing the benefits and costs of debt. According to trade-off model, the optimal capital structure does not exist. A company determines the level of its aimed debt and then gradually moves in its direction. According to this theory, the use of leverage in a company is dependent on three factors: (i) taxes, (ii) bankruptcy costs, and (iii) agency costs (Kraus & Litzenberger, 1973; Jensen & Meckling, 1976; Miller, 1977)

Another thoroughly tested theory is the Pecking Order Theory (POT). Pecking order is based on the fact of adverse selection cost, presenting a priority from internal funds to external financing. This theory does not hold optimal capital structure and proposed firms should finance with internal over external fund and debt over equity whenever external financing is required. According to this theory, firms with more tangible assets have a higher amount of debt compared to firms with lower amount of tangible since tangible assets can be used as collateral and so increase accessibility to debt market (Myers, 1984; Tong & Green, 2005). In addition, Tong and Green (2005) further stated that, firms with higher growth opportunity should have higher amount of debt as they need more cash for investment in new projects. On the other hand, profitable and highly liquid firm have lower amount of debt since they have more available cash which can be used as internal source of fund for satisfying firm's

financial requirements, also firms with higher business risk should have lower amount of debt (Tong & Green, 2005). This theory differentiates between internal and external sources of finance and states that due to information asymmetries firms prefer internally generated finances followed by external ones being debt and equity in that particular order (Myers, 1984).

Several researchers found different factors that affect a firm's capital structure. For instance, in Kenya a study conducted by Kiogora as cited in Wahome Memba and Muturi (2015) found a negative relationship between returns of firms quoted on the Nairobi Stock Exchange and their level of leverage which is consistent with the pecking order prediction. Rajan and Zingales (1995) also found a negative relation between profitability and leverage. Titman and Wessels (1988) found a positive association between growth opportunities and leverage. In addition, it has been found that there was a negative relationship between tangibility of assets and leverage (Sheikh & Wang, 2010). However, the trade-off theory predicts a positive relationship between measures of leverage and the proportion of tangible assets.

Regarding relationship between size and capital structure, some studies by Rajan and Zingales (1995) and Gued et al. (2003) found that there was a positive relationship between leverage and company size. On the other hand, other studies conducted by Ozkan (2001) found no significant relationship between firm size and total debt ratio. Concerning the correlation between liquidity and capital structure/leverage, Friend and Lang (1988) and Deesomsak, et al. (2004) found liquidity was negatively and significantly correlated to leverage. On the other hand, trade-off theory suggests a positive relationship between leverage and liquidity because higher liquidity ratio reflects the greater ability of a firm to meet short-term obligation on time.

In general, firm specific determinants of capital structure are argued to be varying across countries. For example, a research conducted in Nepal stock exchange companies analyzed the determinants of capital structure, such as: size of company, business risk, growth of company, payment of dividends. This study showed that the size, growth rate and profit rate are statistically important determinants of capital structure of the listed companies (Keshar & Baral, 2004 as cited in Shala, 2014). A study conducted in Kenya by Omondias cited in

Wahome Memba and Muturi (2015) found that firms with high return on investment use relatively high debt.

Relatively a recent study by Mohammed (2014) investigated the impact of firm specific factors such as, firm leverage, growth opportunities, size, risk, tangibility and liquidity on performance in Ethiopian insurance industry. His findings indicated that firm leverage, Size, tangibility and business risk had significant impact on performance of Ethiopian insurance companies. While firm growth and liquidity were not clear and statistical proved relationship are obtained from the regression analysis (Mohammed, 2014). Since, firm specific determinants of capital structure are varying across countries, more studies needed to be done locally to test the influence of firm specific factors on capital structure. However, local studies have given little emphasis in testing of the influence of determinants of capital structure specifically, in the private insurance companies in Ethiopia. Therefore, it is this gap that the study intended to fill.

1.2 Statement of the Problem

Capital structure decision is a crucial decision in corporate finance for insurance companies. This is because insurance companies work to maximize returns to shareholders. Capital structure of insurance companies is mainly consisted of debt and equities with proportions differ between firms based on many factors and variables. Similarly, financial leverage is a term used interchangeably with capital structure and refers to the usage of debt to finance activities and acquire additional assets in order to increase the expected return on equity. It is measured by dividing total debt by equity. Highly leveraged firms are those using more debt than equity.

Several researches have been done in various corporate finances to determine the influence of firm-specific factors on capital structure. This is because financial managers and stakeholders of all firms usually want to know the proper mix of debt and equity (capital structure) that maximizes the firms' performance. Moreover, they may also need to know the factors that influence the capital structure of their firms. Specially, they may be interested in measuring the influence of changing the capital structure of the firm on the profitability or the financial performance of their firm. In fact this may vary from country to country, from company to company and from time to time.

As a result, internationally, several studies have been conducted to determine the influence of firm-specific factors on capital structure. Their results were contradictory and mixed. Negative relation between profitability and leverage (Rajan & Zingales, 1995), a positive association between growth opportunities and leverage (Titman & Wessels, 1988). A negative relationship between tangibility of assets and leverage (Sheikh & Wang, 2010). A negative relationship between returns of firms quoted on the Nairobi Stock Exchange and their level of leverage (Kiogora as cited in Wahome Memba & Muturi, 2015).

Similarly, some local studies have been conducted to assess the determinants of capital structure on various companies in Ethiopia. For instance, Bayeh (2011) conducted an empirical study to explore determinants of capital structure on insurance industry. In addition, Amanuel (2011) studied the determinants of capital structure on manufacturing share companies of Addis Ababa. Moreover, Kebede (2011) investigated the determinants of capital structure in Ethiopia small scale manufacturing co-operatives. Although those local studies have been conducted to explore the determinants of capital structure on different companies and corporate in Ethiopia, important issues remain about exploring the influence of firm specific factors on capital structure of private insurances.

More specifically, although studies that have been done locally, (Mohammed, 2014 and Guruswamy & Adugnaw, 2016), to investigate the influence of firm specific factors such as, firm leverage, growth opportunities, size, risk, tangibility and liquidity on performance in Ethiopian, they still gave little emphasis to the concept of capital structure or leverage. Therefore, this study explored the effect/influence of firm specific factors on capital structures of some selected private insurance companies of Ethiopia.

1.3 Objectives of the Study

1.3.1 General Objective of the Study

The major objective of this study was to assess the effect of firm-specific factors on capital structure in Private Insurance companies of Ethiopia for the fiscal period of ten years from 2007/8 to 2016/17.

1.3.2 Specific Objectives of the Study

Based on the above general objective, the study elucidates the following specific objectives:

1. To assess the effect of liquidity on leverage in private insurance companies of Ethiopia.
2. To assess the effect of tangibility on leverage in private insurance companies of Ethiopia.
3. To assess the effect of profitability on leverage in private insurance companies of Ethiopia.
4. To assess the effect of firm size on leverage in private insurance companies of Ethiopia.
5. To assess the relative effect of firm specific factors (tangibility, liquidity, profitability and size) on capital structure (leverage) in private insurance companies of Ethiopia.

1.4 Research Hypotheses

To achieve the above stated objective of the study the researcher develops and tested the following null hypotheses:-

Liquidity: A company with high liquidity can rely on debt as a great contributor to capital structure because it can easily pay that debt (Fama and French, 2005). This implies that the higher the liquidity of a company the better is company able to pay the debt interests. A company may use liquid assets to finance its activities and investments when the external financing is not available or is expensive. Fama and French (2005) found that there was a positive correlation between the company's liquidity and company's capital structure. However, Naser & Krassimir (2011) found a significant negative relationship between liquidity and the Debt Ratio. Similarly, Lim (2012) also found that there was also a negative and statistically significant relationship between liquidity and leverage. In line with this empirical evidence, the first hypothesis was stated as:-

1. HO1: liquidity has no statistically significant effect on capital structure in private insurance companies of Ethiopia.

Tangibility: Mohamed and Mahmoud (2013) found a positive significance relationship between tangibility and leverage. However, Lim (2012) indicated tangibility has insignificant relationship with leverage. According to trade off theory tangible assets, such as property, plant, and equipment are easier for outsiders to value than intangibles such as the value of goodwill from an acquisition – this lowers expected distress costs the lower expected costs of distress and fewer debt-related agency problems predict a positive relation between tangibility and leverage (Frank & Goyal, 2009). Naser and Krassimir (2011) found a significant relationship between tangibility and leverage. In line with this:-

2. HO2: tangibility has no statistically significant effect on capital structure in private insurance companies of Ethiopia.

Profitability: Lim (2012) found that there was also a negative and statistically significant relationship between profitability and leverage. However, Mahmoud (2014) found a positive significance relationship between profitability and leverage. Pecking order theory predicts profitability has negative impact since the firm should use internal funds firstly (Frank & Goyal, 2007). In relation with this, the third hypothesis was:-

3. HO3: profitability has no statistically significant effect on capital structure in private insurance companies of Ethiopia.

Size of company: A large number of studies show that the size of company and the capital structure decisions are correlated. Naveed et al. (2010) found that there is a positive and statistically significant relationship between size and risk with leverage. The trade-off theory predicts larger, more mature firms to have relatively more debt (Frank and Goyal, 2009). Large companies that are more diversified have smaller chances for bankruptcy (Titman and Wessels, 1988). Based on these studies, the fourth hypothesis was:-

4. HO4: firm size has no statistically significant effect on capital structure in private insurance companies of Ethiopia.

1.5 Significance of the study

After completing, the finding of this study is expected to;

- Assist insurance managers to understand the motives behind various financing decisions made by insurance firms.
- Benefit to private insurances through provision of information on the competitive market environment.
- Provide useful information to investors when they are making critical investment decisions.
- Assist policy makers to design policies and rules that will help protect the interests of groups like the clients and the investors.
- Basis for further research by interested scholars in the field.

1.6 Delimitation of the Study

Due to financial and time constraints, the scope of this study was delimited to cover four firm specific concepts and/or factors (tangibility, liquidity, profitability and size) and quantitatively using exploratory design assessed the influence of these factors on capital structure of private insurance companies which were only found in Addis Ababa, Ethiopia. In order to obtain recent secondary data, this study took ten years data from 2007/08 to 2016/17 from nine private insurance companies. Financial statement presentation of the studied insurance companies were different each other, even in a single company different financial statement format used over the year. It makes difficult to take the intended data but the researcher unravel this difficulties by contacting respective insurance companies department which is responsible for issuing financial statement.

1.7 Operational Definition of Terms

Tangibility measured as Net Fixed Assets / Total Asset

Size: The proxy of size of firm is log of total asset

Profitability: profit margin of the firm or Profitability (ROA= return on assets) measured as Profit after tax/total asset

Liquidity: the proportion of current assets to current liabilities is chosen as a proxy for liquidity- $\text{Current Assets/Current Liability}$

Leverage - $\text{Total debt/Total asset}$

1.8 Organization of the Thesis

The thesis is organized as follows. The first chapter discusses background of the study, statement of the problem, objectives of the study, research hypotheses, significant of the study, delimitation and operational definition of the study. Chapter two, it presents the previous studies and/or literature revised, theoretical framework, conceptual framework and empirical evidence of the study and conceptual model of the study. Chapter three, is all about research methodology and design of the study. Chapter four, deals results and discussion of the result data plus analyses are made for testing the hypotheses stated. Finally, Chapter five presents summary, recommendation, limitation and implication for future research.

CHAPTER TWO: LITERATURE REVIEW

This chapter deals with reviewing relevant related literatures on the topic at hand. This section includes theoretical framework of the study (trade-off theory, pecking order theory, and agency theory), conceptual framework of the study (capital structure, liquidity, profitability, tangibility and firm size) and empirical evidence of the study.

2.1 Theoretical Framework of the Study

2.1.1 Trade-off theory

Trade-off theory of capital structure proposes that firms choose their capital structure by balancing the advantages of borrowing, mainly tax savings, with the costs associated with borrowing including bankruptcy costs (Baxter, 1967). This trade-off implies the existence of a target leverage that maximizes the value of the firm. The existence of a target, which is at the heart of the theory, requires that any deviation from that target leverage should be adjusted. With the relaxation of assumptions of the ideal capital market, the presence of bankruptcy cost and favorable tax treatment of interest payment led to the development of static trade off framework. Firms will seek to maintain an optimal capital structure by balancing the value of tax shields on interests and the cost of bankruptcy or financial distress, which is traditional trade-off theory (Baxter, 1967). However, Miller (1977) developed other alternative offsetting factor, personal taxes, to take full advantage of interest deductibility and yielded an equilibrium involving corporate and personal tax rates in corporate debt.

Myers (1984) describes that as bankruptcy and agency costs are greater for firms with high expectations of growth opportunities, firms can be reluctant to use high amounts of debt so as not to increase their likelihood of bankruptcy. Bankruptcy cost is a cost directly incurred when the perceived probability that the firm will default on financing is greater than zero. One of the bankruptcy costs is liquidation cost, which represents the loss of value as a result of liquidating the net assets of the firm. Another bankruptcy cost is distress cost, which is the cost a firm incurs if stakeholders believe that the firm will discontinue. As a result, firms with high growth opportunities may not use debt as the first financing option. According to the Trade-Off Theory, firms with greater growth opportunities have a lower level of debt, given

that greater investment opportunities increase the possibility of agency problems between managers/owners and creditors, because the former have a great incentive to underinvest (Myers, 1977).

Beside interest tax shield advantage, debt also has several advantages to the firms. First, debt is a valuable device for signaling by firms. It was suggested that leverage will increase firm's value, because enhancing leverage is coinciding with the market's realization of value (Jensen, 1986). Second, agency costs related to equity will be reduced by debt. These agency costs are such as free cash flow problem or also called over investment problem (Jensen, 1986). Third, debt will reduce the agency cost of management so that it disciplines managers. While, details of disadvantages of debt are as follows (besides the costs of financial distress (bankruptcy): i. Managers acting in shareholders' interest may shift investment to riskier assets and the costs are incurred by the debt holders. ii. Managers may borrow still more and pay out to the shareholders, hence the debt holders suffer. iii. Excessive debt leads to the underinvestment problem or 'debt overhang' problem. This means that many good projects may be passed on because more debt cannot be issued at the right time due to the existing debt (Mostafa & Boregowda, 2014).

According to Myers (1984), the static trade-off theory states that the optimal debt ratio of a firm is determined by a trade-off between cost and benefits of borrowing, holding the firm's assets and investment plans constant. Firms balance debt and equity positions by making trade-off between the value of interest tax shields and the cost of bankruptcy or financial distress. Provided there are no adjustment costs attached to capital structure changes, the observed capital structure should be optimal in the sense that it maximizes the firm value (Myers, 1984). Interest being a tax deductible expense, decreases the tax liability and increases the after tax cash flows. This increases profitability and liquidity which this study wishes to consider as among the determinants of capital structure. Firms in their attempt to increase cash flows and market value will embark on higher level of debt if the tax rate is higher. Thus, tax rate and leverage have positive relationship (Myers, 1984). The possibility of default on debts increases with the increase in level of debt beyond the optimal point. Should the firm default on repayment of loan; the control of the firm will be shifted from shareholders to bondholders who will try to repossess their investment through the process of

bankruptcy. This implies that the potential benefits from employing leverage are shadowed by the potential costs of bankruptcy (Myers, 1984).

According to Fischer et al. (1989) the dynamic version of the trade-off theory explicitly accounts for the adjustment behavior of the leverage ratio where adjustments take place when the cost of deviation from the target exceeds the cost of adjustment towards that target. One advantage of the dynamic feature is that since the adjustment towards the target is a characteristic of trade-off theory, it can be used to validate the trade-off theory against other theories of capital structure that do not presume the existence of target leverage, i.e. pecking order theory (Myers & Majluf, 1984). The two features of trade-off theory, namely the existence of the target and the adjustment toward that target, can be jointly tested by estimating the speed of adjustment (SOA) to the target. The SOA is the percentage of the deviation from the target that the firm removes each period. In estimating the SOA, the implicit assumption is that the SOA is homogenous across firms (Fama & French, 2002; Flannery & Rangan, 2006). This assumption is however inconsistent with the argument of the dynamic trade-off theory which posits that different costs of deviation and different costs of adjustments should result in different estimations for the SOA.

Few recent papers indicate that no single estimated SOA can fit all firms. A more reasonable approach is to acknowledge multiple SOAs to understand the true dynamic behavior of the firms (Flannery & Hankins 2007). The heterogeneity of the SOA does not only give support to the trade-off theory; it may also explain possible conditions under which other theories may prevail. In cases where the adjustment speed is slow, the adjustment behavior may not be the priority such that other considerations, for instance, the mispricing of equity or the adverse selection costs may drive the capital structure decisions. Nonetheless, if the SOA is high, it is likely that the adjustment to the target will dominate other considerations in which the trade-off theory is likely to appear as the first order determinant (Flannery & Hankins 2007).

2.1.2 Pecking Order Theory

Up to the present time pecking order theory remains essential part of corporate fiancé. It is considered as one of the most influential theories in capital structure. In 1958 Modigliani and

Miller (1958) presented their theory of investment and held that capital structure decision has no impact on a firm's value, it becomes irrelevant how it is financed given that under perfect market conditions exist and in absence of bankruptcy, tax and other associated costs. The pecking order theory is more towards the behavioral consideration on the continuum of economic – behavioral thesis of financing organizational activities probably to meet the behavioral aspect of agency theory. The primary aim was not of capital structure construction but description of how managers select and make use of the different sources of funds to finance their operations. This makes pecking order more meaningful to existing firms. Although at the end of the exercise a capital structure emerges which is altered as new investment opportunities emerge (Julius, 2012).

The pecking order theory was developed by Myers et al (1984). According to this theory firms prefer internal funding over external funding. In case firms require external funding they would prefer debt over equity and equity is generated as last resort. So the firms don't have predetermined or optimum debt to equity ratio due to information asymmetry. The firms adopt conservative approach when it comes to dividends and use debt financing to maximize the value of firm. The pecking order theory assumes that there is no target capital structure. The firms choose capitals according to the following preference order: internal finance, debt, equity. Myers and Majluf (1984) argued the existence of information asymmetry between managers (insiders) and investors (outsiders). They argued that managers have more inside information than investors and act in favor of old shareholders.

In addition, as to Myers and Majluf (1984) pecking order theory suggests that firms have a particular preference order for capital used to finance their businesses. The firm will prefer retained earnings to debt, short-term debt over long-term debt and debt over equity. Myers and Majluf (1984) argued that if firms issue no new security but only use its retained earnings to support the investment opportunities, the information asymmetric can be resolved. That implies that issuing equity becomes more expensive as asymmetric information insiders and outsiders increase. Firms which information asymmetry is large should issue debt to avoid selling under-priced securities. The capital structure decreasing events such as new stock offering leads to a firm's stock price decline (Myers & Majluf, 1984).

Similarly, Myers and Majluf (1984) and Myers (1984) stated that managers know more about the true value of the firm and the firm's riskiness than less informed shareholders and outside investors, according to asymmetric information. Firms may be forced to forgo projects with positive net present value if it is costly for express the true value. To avoid the underinvestment problem, managers prefer to finance the new project by those who are not undervalued by the market, such as internal funds or riskless debt (Myers & Majluf, 1984; Myers, 1984). Therefore, this affects the choice between internal and external financing. Based on the idea of asymmetric information between managers and investors, he pointed out that managers prefer internal financing (i.e., equity financing via retained earnings) over external financing (i.e., funds raised via debt or equity). Second, if company has to finance externally, it would issue the security with the least risk. It ranks internal equity at the top of the pecking order, followed by debt and then hybrids of debt-equity, with external finance at the bottom of the pecking order (Myers & Majluf, 1984; Myers, 1984).

Furthermore, the basic assumption in the pecking order theory as stated by Myers and Majluf (1984) is that; (i) new shares must be issued to outsiders. The assumption is that a placing takes place directly to outsiders or that if a rights issue is used the existing shareholders sell their rights. A corollary is that the model's force may be reduced to the extent that shares are issued using the rights issue mechanism and shareholders elect to take up their rights. The model collapses if all rights are taken up by existing shareholders. (ii) Even where rights issue is employed, the firm will incur costs which do not have the same treatment as costs on debt source. In the same vein, equity is more subject to undervaluation than debt. (iii) Under (i) and (ii) above, the assumption is that at the end of new issues, ownership structure is altered. (iv) Managers know more about the true value of the company's existing assets than shareholders (information asymmetry). (v) Managers know more about the true value of the company's potential investment project (Julius, 2012).

2.1.3 Agency Theory

The agency theory is based on the assumption that managers will not always act in the best interest of the shareholders. Jensen and Meckling (1976) explain this concept by identifying two main conflicts between parties to a company; 1) between the managers and shareholders, and 2) between the shareholders and the creditors. In the first case, managers are tempted to

pursue the profits of the firms they manage to their own personal gain at the expense of the shareholders. In the second case, debt provides shareholders with the incentive to invest sub-optimally. In addition, Jensen and Meckling (1976) identified the possible conflict between shareholders and managers interests because of the manager's share of less than 100 percent in the firm. The managers' given role has many implications for the capital structure of a firm. Managers make investment decisions based on imperfect markets and incur agency costs of different types, thus influencing firm's value (Jensen & Meckling, 1976).

In addition, Jensen and Meckling (1976) explained that managers do not always run the firm to maximize returns to the shareholders. Their agency theory was developed from this explanation and the principal-agent problem was taken into consideration as a key factor to determine the performance of the firm. Jensen and Meckling (1976, p. 308) states that "An agency relationship is a contract under which one or more persons (the principal[s]) engage another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent". The problem is that the interest of managers and shareholders is not always the same and in this case, the manager who is responsible of running the firm tends to achieve his personal goals rather than maximizing returns to the shareholders. This means that managers will use the excess free cash flow available to fulfill his personal interests instead of increasing returns to the shareholders (Jensen & Ruback, 1983). Hence, the main problem that shareholders face is to make sure that managers do not use up the free cash flow by investing in unprofitable or negative net present value (NPV) projects. Instead these cash flows should be returned to the shareholders, for example through dividend payouts (Jensen, 1986).

However, Berle and Means (1932) argued that there is an increase in the gap between ownership and control of large organizations arising from a decrease in equity ownership. This particular situation provides a platform for managers to pursue their own interest instead of maximizing returns to the shareholders. In theory, shareholders of a company are the only owners and the duty of top management should be solely to ensure that shareholders interests' are met. In other words, the duty of top managers is to manage the company in such a way that returns to shareholders are maximized thereby increasing the profit figures and cash flows (Berle & Means, 1932).

Managers may try to use the free cash flows sub-optimally or use them to their own advantage rather than to increase value of the firm. Jensen (1986) proposes that this problem can be somehow controlled by increasing the stake of managers in the business or by increasing debt in the capital structure, thereby reducing the amount of 'free' cash available to managers (Jensen (1986)). Thus, debt serves as a mechanism to discipline the managers from engaging in self-serving activities, e.g. perquisite consumption, empire building etc. Grossman and Hart (1982) argue that short-term debt can serve as a mechanism to align managerial incentive with that of shareholders since bankruptcy is costly for management. An agency cost of managers consuming high perquisites is higher for firms with lower levels of assets that can be used as collateral.

Harris and Raviv (1991) claim that if an investment yields returns higher than the face value of the debt, the benefits accrue to the shareholders. Conversely, if the investment fails, the shareholders enjoy limited liability by exercising their right to walk away. This leaves the debt holders with a firm whose market value is less than the face value of the outstanding debt. Another potential agency cost of debt is pointed out by Myers (1977). He notes that when firms are on the verge of bankruptcy, there is no incentive for shareholders to invest more equity capital, even if positive NPV projects are available. This is because the value derived from the projects will accrue mainly to the debt holders. The implication is that high debt levels may result in the rejection of value increasing projects (Myers, 1977).

Pinegar and Wilbricht (1989) discovered that principal-agent problem can be dealt with to some extent through the capital structure by increasing the debt level and without causing any radical increase in agency costs. Similarly, Lubatkin and Chatterjee (1994) argue that increasing the debt to equity ratio will help firms ensure that managers are running the business more efficiently. Hence, managers will return excess cash flow to the shareholders rather than investing in negative NPV projects since the managers will have to make sure that the debt obligations of the firm are repaid. Hence, with an increase in debt level, the lenders and shareholders become the main parties in the corporate governance structure. Thus, managers that are not able to meet the debt obligations can be replaced by more efficient managers who can better serve the shareholders. This means that leveraged firms are better for shareholders as debt level can be used for monitoring the managers. In this case, it can be

said that debt financed firms are more appropriate for investors but with a high debt levels increases the cost of capital as well as bankruptcy costs. Moreover, there are more risks in investing in firms with high debt levels as these firms tend to have bad or low rating by rating agencies. Obviously a low rating will in most cases not attract investors.

2.2 Conceptual Framework and Empirical Evidence of the Study

2.2.1 Capital Structure

Capital structure is defined as the mix of debt and equity securities used to finance real investment. It is mainly consisted of debt and equities with proportions differ between firms based on many factors and variables. Capital structure reflects the firm's financing strategy, for example, its overall target debt-equity ratio or total debt-total asset ratio, and also financing tactics, for example, the design and timing of a particular debt issue (Myers, 2000). Capital structure decision is a significant decision in financial management. It is a crucial decision in corporate finance for almost all enterprises in the world. This decision in a private enterprise is directed towards the achievement of maximization of the shareholders' wealth or value of the firm. The value of an enterprise depends on expected earnings and cost of capital. Capital structure influences the value of the firm by operating on either expected earnings or the cost of capital or both (Modigliani & Miller, 1958).

According to Fama and Miller (1972) capital structure is the balancing of finance within a firm by using either debt or equity or both in a particular ratio. Miller and Modigliani (1958) also stated that the cost of capital is equal to the rate of interest in bonds, regardless of whether the funds are acquired through debt instruments or through new issues of common stock. The concept of how firms implement their capital structure policies may send useful information to the investors of the company and this will finally have a bearing on the value of the firm (Miller & Modigliani, 1958).

Several theories have come up and that is mainly the genesis of most of these studies, the static trade off theory pecking order theory and the agency theory, the questions they try to answer range from what is the cost of capital and does it matter if one uses debt and equity or whether it matters if one uses debt alone or equity alone (Wahome, Memba, & Muturi, 2015). According to Miller and Modigliani (1958) the capital structure composition does not

change the value of the firm, and thus the firm can either use debt or equity in any proportions, i.e. 'the average cost of capital to any firm is completely independent of its capital structure and is equal to the capitalization rate of a pure equity stream of its class' Miller and Modigliani (1958).

Both types of financing carry costs though they have their own benefits. Advantages to using debt vary; it provides tax shield as the interest rate paid as a cost of debt is normally tax deductible; it is not weak from shareholders standpoint; the cost of debt is generally less than that of equity to the firm (Mohammad, Gharaibeh, & Sarea, 2015). Due to tax deductibility of interest payments, recourse to debt financing generally reduces the firm's tax liability, but increases the financial risk.

However, using debt financing increases the companies risk level (financing risk). Also, the borrowing firm has to meet loan covenants. In addition, assets may be taken as collateral and agency cost between creditors and shareholders may increase. The risk to shareholders is generally more than that to lenders as payment of debt is required by law irrespective of a company's profitability (Mohammad, Gharaibeh & Sarea, 2015). The management, therefore, has to choose that pattern of capital structure in which the level of debt minimizes the overall cost of capital, maximizes earnings available to owners and thus maximizes the total value of the firm (Modigliani & Miller, 1958).

Financial leverage is a term used to refer to the usage of debt to finance activities and acquire additional assets in order to increase the expected return on equity. It is measured by dividing total debt by total assets or total debt by equity. Highly leveraged firms are those using more debt than equity. However, the presence of fixed cost of fund pertinent to financial leverage may add to the volatility of cash flows and, thus, net income especially when operating income is falling. Hence, leverage, increases the company's risk of bankruptcy (Mohammad, Gharaibeh, & Sarea, 2015).

Therefore, financial managers as well as some other stakeholders (investors and policy makers) of all firms around the world should choose pattern of capital structure as well as should know the proper mix of debt and equity (capital structure) that the level of debt minimizes the overall cost of capital, maximizes the firms' performance (Modigliani &

Miller, 1958). In other words, they are expected to know the factors that influence the capital structure of their firms. In addition, they are also expected to measure the influence of changing the capital structure of the firm on the profitability or the financial performance of their firm. More specifically, they are expected to identify the relationships between financing decisions and the company performance. In fact, this may vary by country, by business environment, by sector, by company, or even by time.

2.2.2 Determinants of Capital Structure

Previous studies on the capital structure of firms, have attempted to identify firm-specific determinants of capital structure choices as function of the factors that support the theories such as trade off theory and pecking order theory. Several researchers have identified few firm-specific determinants of capital structure, based on the most accepted theoretical models of capital structure: the static trade off theory, the agency theory and the pecking order theory.

Consequently, a number of factors, as suggested by various theoretical and empirical literatures, may influence the capital structure of given companies. Capital structures or leverage will be used as the dependent variable in this study and measured as the ratio of interest-bearing debt to total assets. The following factors shall be considered as independent variables for this study: liquidity, profitability, firm size, and tangibility of assets. Some factors may have positive, some negative and others have interactive and complex relationship with capital structure.

2.2.2.1 Liquidity

Liquidity refers to the company's ability to meet its short-term obligations. In other way of expression liquidity is also defined as current asset divided by current liabilities. In this study, Liquidity will be measured as the ratio of current assets to current liabilities. There are two opposite views relating the relationship between liquidity and leverage.

Pecking order theory, suggests that firms with high liquidity will borrow less. According to Deesomsak, Paudyal and Pescetoo (2004) as managers can manipulate liquid assets in favor of shareholders against the interest of debt holders, increasing the agency cost of debt. A highly liquid company has a better ability to meet short-term liabilities which implies a

positive relationship between liquidity and debt level. In addition, Oztekin and Flannery (2012) found that firms with more liquid assets can use them as another internal source of funds instead of debt, leading to lower levels of debt. This implies that a negative relationship between liquidity and leverage is anticipated.

Pecking order theory assumes that the more liquid firm could use first its internal funds and would decrease level of external financing, resulting in negative relationship between liquidity and leverage. In other words, according to the pecking order theory, firms prefer internal to external financing. High liquidity firms can create liquid reserves from retained earnings and consequently have the choice to finance their projects with internal funds instead of debt. Hence, liquidity is expected to be negatively related to leverage (Oztekin & Flannery, 2012).

Similarly, according to the theory of agency costs, high liquidity of assets could increase agency costs for owners because managers might take advantage of the benefits of liquid assets (Adams & Buckle, 2000). In addition, liquid assets imply high reinvestment risk since the proceeds from liquid assets would have to be reinvested after a relatively short period of time. Definitely, reinvestment risk would put a tension on the performance of a company. In this case, it is probable that insurance companies with less liquid assets overtake those with more liquid assets (Adams & Buckle, 2000). Moreover, in regards to agency theory, liquidity of the company's assets can be used to show the extent to which these assets can be manipulated by shareholders at the expense of bondholders. This implies a negative relationship between liquidity and capital structure. Most studies have found the negative relationship (Mazur, 2007).

On the other hand, according to trade off theory, the more liquid firm would use external financing due to their ability of paying back liabilities and to get benefit of tax shields, resulting in positive relationship between liquidity and leverage (Mazur, 2007). Similarly, it has been found that companies with more liquid assets are less likely to fail because they can realize cash even in very difficult situations. It is therefore expected that insurance companies with more liquid assets will outperform those with less liquid assets. In line with this notion, more empirical findings have confirmed that there is a positive relationship between liquidity and financial performance of insurers. For instance, Browne et al. (2001) found evidence

supporting that performance is positively related to the proportion of liquid assets in the asset mix of an insurance company.

2.2.2.2 Profitability

There are two conflicting opinions relating relationship between profitability and leverage. In the pecking order theory (Myers, 1984) assumes negative relationship between leverage and profitability as a consequence of hierarchy of financing due to the adverse selection costs associated with new equity issues in the presence of information asymmetry. Firms that have higher operating profitability have more earnings that they can potentially retain to finance their investments. Thus, profitable firms need less external financing and have lower leverage (Myers, 1984).

In addition, in the pecking order theory Myers (1984) predicts that firms prefer raising capital from retained earnings, then from debt, then from issuing equity. The cost of capital dictates the rank of the pecking order under asymmetric information and market imperfections. If pecking order applies, then, higher profitability will correspond to a lower debt ratio holding other things equal (Myers, 1984).

Similarly, Myers and Majluf (1984) stressed that in the pecking order theory, firms follow a pecking-order in the choice of financing their activities. This theory states that firms prefer internal funds rather than external funds. If external finance is required, the first choice is to issue debt, then possibly with hybrid securities such as convertible bonds, then eventually equity as a last resort (Brealey & Myers, 1991). This behavior may be due all things being equal, the more profitable the firms are, the more internal financing they will have, and therefore we should expect a negative relationship between leverage and profitability (Wahome, Memba, & Muturi, 2015).

Moreover, in the pecking order model, higher earnings should result in less book leverage. Firms prefer raising capital, first from retained earnings, second from debt, and third from issuing new equity. This behavior is due to the costs associated with new equity issues in the presence of information asymmetries. Debt typically grows when investment exceeds retained earnings and fall when investment is less than retained earnings (Wahome, Memba, & Muturi, 2015). Accordingly, the pecking order model predicts a negative relationship

between book leverage and profitability. The pecking order theory predicts that firms with a lot of profits and few investments have little debt. Since the market value increases with profitability, the negative relationship between book leverage and profitability also holds for market leverage (Wahome, Memba, & Muturi, 2015).

Empirical evidence from previous studies examining on capital structure is consistent with pecking order arguments with leverage being found to be negatively related to profitability. Myers and Majluf (1984) found a negative relationship according to the pecking order theory. Jensen (1986) predicted a positive relationship. Following the pecking order theory, profitable firms, which have access to retained profits, can use these for firm financing rather than accessing outside sources. Studies conducted by Harris and Raviv (1991) also empirically proved negative relation between leverage and profitability. Naveed et al. (2010) found negative relationship between leverage and profitability and predicts that, in Pakistan, profitable life insurance companies preferred to utilize small portion of debt.

On the other hand, in the trade-off theory, agency costs, taxes and bankruptcy costs push more profitable firms toward higher book leverage. First, expected bankruptcy costs decline when profitability increases. Secondly, the deductibility of corporate interest payments induces more profitable firms to finance with debt. Finally, higher leverage helps to control agency problem of free cash flow by forcing managers to pay out more of the excess cash instead of spending it inefficiently (Jensen, 1986; Jensen & Meckling, 1976).

In a trade-off theory framework, when firms are profitable, they prefer debt to benefit from the tax shield. In addition, if past profitability is a good proxy for future profitability, profitable firms can borrow more as the likelihood of paying back the loans is greater. From the trade-off theory point of view more profitable firms are exposed to lower risks of bankruptcy and have greater incentive to employ debt to exploit interest tax shields. Accordingly, the trade-off theory predicts a positive relationship between profitability and leverage (Meckling, 1976; Jensen, 1986; Jensen & Meckling, 1976).

2.2.2.3 Tangibility

Tangible assets are assets that a company owns which can serve as collateral in the case a bankruptcy. The tangible assets of a firm can be considered as the representatives of the real

guarantees to its creditors. Usually, tangible assets on a balance sheet are physical assets as plants, properties and equipment (Wagenvoort, 2016). The importance of those assets among total assets influences its level of debt. This implies that tangible assets are likely to have an impact on the borrowing decisions of a firm because they are less subject to informational asymmetries and they have a greater value than intangible assets in case of bankruptcy (Gaud et al. 2005). In addition, the moral hazard risks are reduced when the firm offers tangible assets as collateral, because this constitutes a positive signal to the creditors who can request the selling of these assets in the case of default (Gaud et al. 2005).

Unless the moral hazard risks are reduced, there will be conflict between lenders and shareholders. This conflict creates incentives for shareholders to invest in a suboptimal way and lenders require tangible assets as collateral to protect them. The agency cost of debt increase when firms cannot collateralize their debt (Jensen & Meckling, 1976 as cited in Beshir, 2015). On the other hand, firms with higher proportion of tangible assets are more likely belong to an industry with lower risks, where they can afford higher financial leverages and higher proportions of tangible assets. Hence, the greater the proportion of tangible assets on the balance sheet (fixed assets divided by total assets), the more willing lenders should be to supply loans, and leverage should be higher (Rajan & Zingales, 1995).

Regarding the relationship between tangibility and leverage is concerned; Trade-off theory and Pecking order theory stated that there is a positive correlation between tangibility and leverage of a given firm. This implies that a reduction in financial distress costs for those firms with more tangible assets because of a better chance to get debt financing (Modigliani & Miller, 1963). Similarly, Frank and Goyal (2005) also claimed that high amounts of tangible assets account for lower costs of financial distress. This would allow for increased lending that as a consequence increases firm value.

In a similar manner, most empirical findings indicated a positive relationship between the tangibility and leverage (Korajczyk & Levy, 2003; Degryse et al., 2012; Frank & Goyal, 2009, Wagenvoort, 2016) found positive relationship between tangibility and leverage of firms in insurance sectors. According to Frank and Goyal (2009) lower expected costs of distress and fewer debt-related agency problems predict a positive relation between tangibility and leverage. In addition, Frank and Goyal (2003) stressed that high amount of tangible assets

account for lower costs of financial distress. This would allow for increased lending that as a consequence increases firm value. In line with international study results, Mohamed and Mahmoud (2013), Dereje (2014), Guruswamy and Adugnaw (2016) found positive significant relationship between tangibility of assets and leverage of selected insurance companies in Ethiopia.

2.2.2.4 Firm size

According to Chandrapala and Knápková (2013) size of the firm determines the level of economics of scale enjoyed by a firm. Firm size is usually measured using the natural logarithms of sales or natural logarithm of total assets. When a firm becomes larger it enjoys economics to scale and its average cost of production is lower and operational activities are more efficient. Hence, larger firms generate larger returns on assets. In relation to managing the firm, larger firms can be less efficient if the top management lose their control over strategic and operational activities within the firm (Chandrapala & Knápková, 2013). Obviously, larger firms have tall organizational structures with more number of managerial levels in the hierarchy of the firm. This extensive hierarchy can reduce the incentive for managers to be efficient. Smaller firms do not enjoy economics to scale and the average cost of production is higher than that of the larger firms. However, less hierarchical and flat structure of the small firms can be more flexible in adapting changes in environment and their rapid decision making may allow them to obtain larger than average profits (Chandrapala & Knápková, 2013).

In a similar manner, static trade off theory states that for large companies the risk of bankruptcy is minimized due to economy of scale, the assets of that company would be financed in debt more. Subsequently static trade off theory argues that if the firm has large size optimality of capital structure can be reached by balancing the benefits and costs of debt (Modigliani & Miller, 1984). The notion behind static trade off theory is that firm size has an inverse proxy for the probability of bankruptcy. This is due to the fact that larger firms are more likely to be more diversified and fail less often and have more likely to issue debt at lower costs than smaller firms.

Frank and Goyal (2005) stated that according to major theories of capital structure as well as respective empirical studies, firm's size is, therefore, one of the few powerful internal factors

that can determine capital structure of firms. For example, as far as the idea of theories of capital structure in relation to the relationship between firm's size and leverage is concerned, trade-off theory predicts a direct relation of leverage and firm size. This direct relationship between firms' size and leverage indicates that larger firms are typically more mature firms with a reputation in debt markets and consequently face lower agency costs of debt (Frank & Goyal, 2005). In addition, large firms will have more debt than small firms since larger firms are more diversified and have lower risk of default (Frank & Goyal, 2005). This implies that large firms are employed more debt because these are less risky and diversified in nature and are usually preferred to issue more debt because it reduces direct bankruptcy costs due to market confidence.

On the other hand, according to the pecking order theory firm size and leverage is negatively related implying that large firms will have easy access to financial markets and can raise cheaper equity. According to pecking order theory, informational asymmetry for large firms is smaller and as a result they would prefer to be financed by equity instead of debt because this reduces the chances of undervaluation of the new issued equity and thus encourage the large firms to use equity financing (Modigliani & Miller, 1984; Myers & Majluf, 1984). The implication of pecking order theory is that larger firms suffer less from the problem of information asymmetric and have better access to capital markets; hence they would deploy more equity and less debt. Smaller firms suffer higher from the information asymmetric problem; therefore tend to use more debt than equity (Rajan & Zingales, 1995).

As far as empirical findings regarding the relationship between firms size and leverage is concerned, some empirical findings found positive relationship between firm size and financial leverage with reasons that larger firms are more likely to be more diversified causes more stable or less volatile cash flows, less often failure, and more utilization of the economies of scale in issuing securities. In fact, larger firms may issue debt at lower costs than smaller firms. In this circumstance therefore, we may find size to be positively related to leverage. For example, local empirical studies, such as Solomon (2012), Woldemikael (2012), Usman (2013), Mohammedamin (2014), Dereje (2014), and Guruswamy and Adugnaw (2016) found a positive relationship between size and leverage of insurance companies in Ethiopia. Similarly, some international researchers like Rajan and Zingales

(1995), Leng (2004), Kuntluru, Muppani and Kan (2008), Chandrapala and Knápková (2013), Mohammad, Gharaibeh, and Sarea (2015), Ahmed (2016) found positive relationship between firm size and leverage of firms. On the other hand, some of the studies (Kester, 1986; Kim & Sorensen, 1986; Titman & Wessels, 1988; Booth et al., 2001) found negative relationship between firm size and leverage.

Table 2.1: Measurement of Independent Variables and their theoretical relationship with leverage

Variable	Measurement	Theories	Theoretical relationship with leverage
Tangibility	Net Fixed Assets / Total Asset	Static-Trade Off theory	Positive
		Agency Cost theory	Negative
Profitability	Profit after tax/total asset	Pecking Order theory	Negative
		Static-Trade off theory	Positive
Liquidity	Current Assets/Current Liability	Pecking Order theory	Negative
		Static-Trade off theory	Positive
Firm size	Log of total asset	Static-Trade off theory	Positive
		Pecking Order theory	Negative

2.3 Conceptual Model of the Study

In order to show the relationship between leverage and determinants of capital structure in selected private insurance companies in Ethiopia, the following conceptual model was hypothesized.

This conceptual model hypothesize that predictor variables such as tangibility, profitability, liquidity and firm size have relationship among each other and in turn each predictor variable predict/influence the dependent variable, leverage.

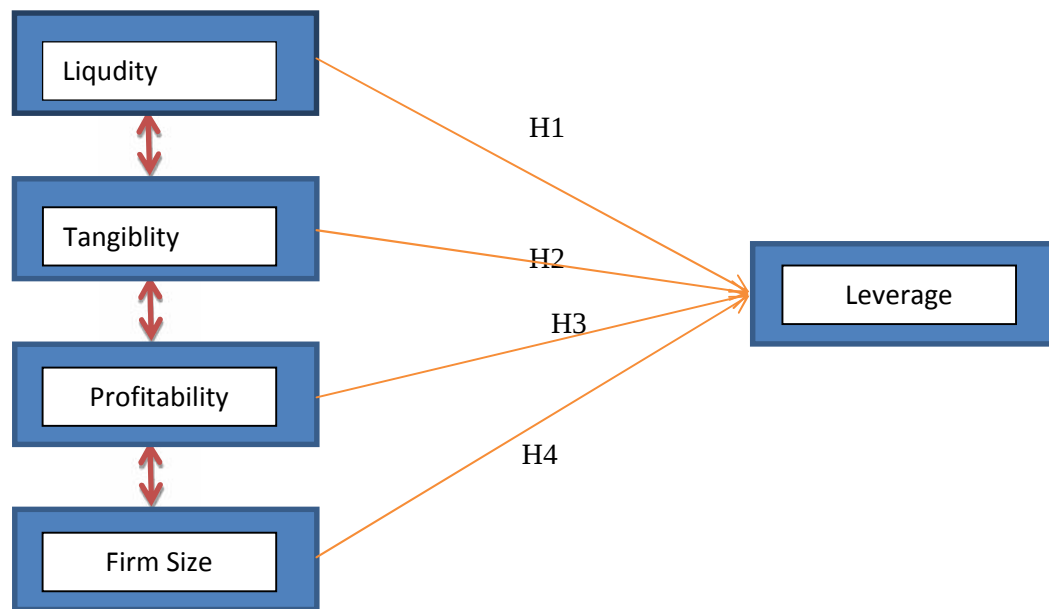


Figure 2.1: Conceptual model of the study

Source: Adapted from Previous Researches

CHAPTER THREE: RESEARCH METHODOLOGY

This chapter presents the methodology that has been used for the research. The methodology of carrying out this research is based on the objectives of the paper i.e. to assess the effect of firm-specific factors on capital structure in Private Insurance companies of Ethiopia for the fiscal period of ten years from 2007/8 to 2016/17 and the availability of relevant information to comply with the objective of this research paper. It described the research purpose, research design, data type and source, credibility/reliability of the data, target population and sampling techniques, ethical issue, data analysis procedure, the research model, dependent variable, independent variables and assumptions.

3.1 Research Design

The purpose of this research was to assess the effect between firm specific factors (tangibility, liquidity, profitability and size) and capital structure in insurance companies using secondary data. Therefore, quantitative research method was appropriate method for this study. More specifically, the study employed an exploratory research design.

3.2 Data Type and Source

This study used a quantitative type of data specifically secondary panel data. The study used panel data of private insurance companies in Ethiopia. Panel data was used the advantage that it address a broader range of issues and tackle more complex problems than would be possible with pure time series or pure cross-sectional data alone (Chris Brookes, 2008 cited in Beshir, D. 2015). In addition using panel data also addresses the problem of multicollinearity, increases the number of degrees of freedom, and thus the power of the test (Chris Brookes, 2008 cited in Beshir, D., 2015).

The secondary data were collected from the annual reports of individual private insurance companies in Ethiopia. The secondary data included relevant statistical data like income statements and balance sheet statements obtain from National Bank of Ethiopia. The advantage of using secondary data includes the higher quality data compared with primary data collected by researchers themselves (Stewart & Kamins, 1993 as cited by Daniel B.2015)

3.2.1 Credibility/Reliability of the Data

In order to ensure the credibility of the data, data which were published and publicly released by each insurance company obtained from National Bank of Ethiopia and from each insurance companies were used.

3.3 Target Population and Sampling Technique

According to National Bank of Ethiopia, currently there were a total of 17 insurance companies functioning in Ethiopia. The target population of this study comprised all the 17 insurance companies in Ethiopia. Among the 17 insurance companies, 9 private insurance companies, which were established more 10 years age, were selected purposely as a sample because their year of service greater than ten years. From theses private insurance companies, this study used secondary data for ten years financial periods (2007/08-2016/17).

Therefore, $9 \times 10 = 100$ observations were used to empirically analyze the effect of firm-specific factors on capital structure of the insurance industry in Ethiopia.

3.4 Ethical Issue

Before collecting the secondary data obtained from each insurance company, the permission of managers to use their income and balance sheet statements for research purpose was asked. In addition the results will be introduced only in general form by using statistical procedures and no single insurance company results are published

3.5 Data Analysis Procedure

In order to analyze the data, SPSS computer program was used to analyze the data. Using this statistical package, verities of descriptive and inferential statistics were employed. Means and standard deviations were used to describe data. In addition correlations and regression were used to assess the relationship among variables.

3.6 The Research Model

In order to test the influence of firm specific factors on capital structure of insurance firms the researcher adopted a modified model. The modified model was expressed as follows:

$$Y_{it} = \beta_0 + \beta X_{it} + \mu$$

Where:

Y_{it} is dependent variable,

β_0 is the intercept (constant variable),

X_{it} is independent variable,

μ are the error terms

i is the number of firms and

t is the number of time period.

$$LEV_{it} = \beta_0 + \beta_1 TANG_{it} + \beta_2 LQ_{it} + \beta_3 SIZE_{it} + \beta_4 PRO_{it} + U$$

Where: LEV = Firm Leverage

β_0 = Constant coefficient

$\beta_1, \beta_2, \beta_3$ and β_4 = Regression coefficients for measuring independent variables,

SIZE = firm size,

TANG = tangibility of fixed asset,

PRO = Profitability

LQ = liquidity of the firm,

i = no of insurance companies

t = time period

U = Error term

The selection criteria of this model was due to the expectation that firm specific factors such as tangibility, profitability, liquidity and firm size have influence on capital structure of insurance companies.

3.7 Dependent variable

Leverage - Leverage measures describe the financial structure of the organization and include such measures as debt to equity, debt to total assets, and times interest earned. Financial leverage can be defined as the degree to which operating assets are financed with debt versus equity (Penman, 2001). Leverage measures deal with the financial structure of the organization.

3.8 Independent Variables

Liquidity - Liquidity is the ability of company to meet its short-term obligations. Liquidity refers to the ability of a firm to meet its financial obligations in a timely manner. In principle, the assets owned by a company are liquid if they can quickly and cheaply be converted to cash (Brealey et al., 2001). Liquidity measures describe the ability of the organization to convert assets into cash and include such measures as current ratio, quick ratio, and the interval measure. It can be argued that changes in liquidity measures represent one aspect of organizational financial performance, since accounting-based liquidity measures ignore the organization's ready access to capital through established financing agreements, it can also be argued that accounting-based liquidity measures do not fully represent the organization's ability to meet its financial obligations in a timely manner (Caron, 2004).

Profitability - from a theory viewpoint, profitability is a determinant of leverage that is subject to contradicting predictions. Profitability can be described by measures of the returns to all resource providers such as return on invested capital, return on equity, and return to shareholders. Profitability measures include values and ratios that incorporate net income or a component of net income such as operating income or earnings before taxes (Caron, 2004). It is through the generation of a profit that an organization is able to provide a return to providers of equity capital, once the profits have been converted into liquid assets. Profitability measures include values and ratios that incorporate net income or a component of net income such as operating income or earnings before taxes. Accordingly, measures of profitability are among the most commonly used to represent organizational performance (Caron, 2004).

Firm size- In most previous studies, firm size is expressed by the logarithm of total assets. This indicator is the most suitable measure of a firm's size. Total assets are defined as the sum of net fixed assets, total intangibles, total investments, net current assets, and other assets. (Titman & Wessels 1988), state that there is a high correlation between the logarithm of total assets and the logarithm of sales (about 0.98), and therefore choosing any of them is a substitute to the other.

Tangibility -Tangibility is defined as the ratio of fixed assets to total assets and different studies have proven that the type of assets owned by a firm influence firm's capital decision (Myers, 1977; Drobetz & Fix, 2003). In order to prove the existence or not of a positive relation between fixed assets and firm's capital structure decision, the ratio of fixed assets over total asset as a measure of tangibility will be used.

3.9 Assumptions

Multicollinearity - the assumption of multicollinearity can be assessed using SPSS as part of multiple regression procedure using Tolerance and VIF. In the collinearity statistics section, Tolerance and VIF (Variance inflation factor) values are given. Tolerance is an indicator of how much of the variability of the specified independent is not explained by the other independent variables in the model and is calculated using the formula $(1 - R^2)$ for each variable. Small value of tolerance (less than 0.10) indicates that the multiple correlation with other variables is high, suggesting the possibility of multicollinearity. VIF is just the inverse of the Tolerance value. VIF values above 10 would indicate multicollinearity.

Homoscedasticity - "homogeneity of variance" assumption or homoscedasticity. Parametric technique also makes the assumption that samples are obtained from populations of equal variances. In other words, the variability of scores for each of the groups must be similar. In regression analysis, this assumption states that the variances of the Y s, for each X , will be equal. Homoscedasticity can be tested using scatterplot as SPSS out-put.

Outliers, normality, linearity, independence of residuals

These assumptions can be checked by inspecting the Normal Probability Plot (P-P) of the Regression Standardized Residual and the Scatterplot shown as part of the analysis. If points lie in a reasonably straight diagonal line from bottom left to top right in the Normal P-P plot, no major deviation from normality can be suggested. In the Scatterplot of the standardized residuals, the residuals must be roughly rectangular with most of the scores concentrated in the center, along the line zero. Outliers can also be detected from the Scatter plot.

CHAPTER FOUR: RESULTS AND DISCUSSION

This chapter presents results and discussion part of the study. In the first sub-section of this chapter, the results or findings are presented using table and statistical analysis techniques. The second sub-section of this chapter presents discussion of major findings of the study.

4.1 Results

4.1.1 Descriptive Statistics of Dependent and Independent Variables

Table 4.1: *Descriptive Statistics of Dependent Variables*

	N	Minimum	Maximum	Mean	Std. Deviation
Leverage	90	0.0033	3.02	0.7214	0.60537

Table 4.1 shows mean, minimum, maximum and standard deviation values of firms leverage, tangibility, profitability, liquidity and size of the firm in table 4.2. As indicated in table 4.1, the result showed that the mean distribution of leverage (total debt divided by total assets) of selected insurance companies in the sample was 0.7214. This implies that on average those sample insurance companies generated nearly three fourth of their financing needs for operation from debt sources of finance over the last ten years. The minimum and maximum leverage ratios, as measured by total debt ratio for a sample was 0.0033 and 3.02 respectively with standard deviation of 0.60537. This implies that the maximum and minimum debt amount used by the sample insurance companies over the last ten years was 0.33 and 302 cents respectively.

Table 4.2: *Descriptive Statistics of Independent Variables*

	N	Minimum	Maximum	Mean	Std. Deviation
Tangibility	90	0.04	0.71	0.2296	0.15196
Profitability	90	-0.28	0.38	0.0958	0.07835
Liquidity	90	0.03	8.78	1.9679	1.53791
Size	90	17.22	20.61	19.1987	0.82744

Table 4.2 shows descriptive statistics results of independent variables. The total observation of this study was 90. As can be seen from table 4.2 the mean value of tangibility of assets was 0.2296. The maximum and the minimum value of tangibility of assets was 0.71 and 0.04 respectively with standard deviation of 0.15196 which shows the existence of relatively small variation of tangibility of assets from the mean over the last ten years. The mean value or the average value of profitability was 0.0958. The maximum and the minimum value of profitability was 0.38 and -0.28 respectively. The standard deviation of profitability was 0.07835, which shows that there were no much significant variations among the values of profitability.

Regarding liquidity, the result shows that the mean value was 1.9679. The maximum and the minimum value of liquidity was 8.78 and 0.03 respectively with standard deviation of 1.53791 which implies that there was high variation among liquidity scores over the last ten years. Finally, the mean insurance company size value was 19.1987. The maximum value of insurance size distribution was 20.61 while the minimum value of insurance company size was 17.22. The standard deviation of insurances size was 0.82744 which indicates that there was negligible variation among insurance company size for the last ten years.

4.1.2 Relationship between Dependent and Independent Variables

Correlation analysis estimates the extent of the relationship between any pair of variables (Reimann, Filzmoser, Garrett, & Dutter, 2008). The correlation coefficient is a measure of this relationship and depends on the variability of each of the two variables. Because of covariance, correlation coefficient can take a number with + or – sign (Reimann et.al, 2008). One of the widely-used methods to calculate a correlation coefficient is the Pearson product moment correlation. This method result in a number between –1 and +1 that expresses how closely the two variables are related, ± 1 shows a perfect 1:1 relationship (positive or negative) and 0 indicates that no systematic relationship exists between the two variables (Reimann et.al, 2008). In relation to the magnitude of correlation coefficient, Cohen (1988) stated that a correlation coefficient between 0.10 to 0.29 can be considered as small or weak, from 0.30 to 0.49 medium and from 0.50 to 1.0 large or strong.

Table 4.3: *Correlation between Dependent and Independent Variables*

	Leverage	Tangibility	Profitability	Liquidity	Size
Leverage	1	-0.279**	0.202*	-0.005	0.287**
Tangibility		1	0.100	-0.198	0.074
Profitability			1	-0.235*	-0.090
Liquidity				1	0.136
Size					1

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Table 4.3 shows the correlation between dependent variable and independent variables as well as the correlations among independent variables. Regarding the correlation between dependent variable and independent variables, the result shows that there was a statistically significant correlation between leverage and tangibility, leverage and profitability as well as leverage and size of the firm. There was a weak positive correlation between leverage and firm size, $r = 0.287$, $p < 0.01$. This implies that as one variable increases the other variable also increases and vice-versa. Similarly, There was a weak positive correlation between leverage and profitability, $r = 0.202$, $p < 0.05$. This implies that as one variable increases the other variable also increases and vice-versa. However, there was a small/weak negative correlation between leverage and tangibility, $r = -0.279$, $p < 0.01$. This implies that as one dependent variable increases the other dependent variable decreases and vice-versa. The correlation between leverage and liquidity was not statistically significant. This implies that in the current study, there was no significant relationship between leverage and liquidity.

Table 4.3 also shows correlation among independent variables. The correlation between profitability and liquidity was significant, $r = -0.235$, $p < 0.05$. This implies that there was a negative relationship between profitability and liquidity. However, the correlation between tangibility and profitability, tangibility and liquidity, tangibility and firm size, profitability and firm size, liquidity and firm size were not statistically significant.

4.1.3 Multiple Linear Regressions

Tests of assumptions for Multicollinearity, Outliers, normality, linearity, homoscedasticity, independence of residuals

Multicollinearity

The five variables (tangibility, profitability, liquidity, firm size and leverage) have shown relationship with each other and this relationship is not too high (see table 4.3). This shows that it does not violate the assumption of multicollinearity. In addition the assumption of multicollinearity can also be assessed using SPSS as part of multiple regression procedure. In the collinearity statistics section, Tolerance and VIF (Variance inflation factor) values are given. Tolerance is an indicator of how much of the variability of the specified independent is not explained by the other independent variables in the model and is calculated using the formula $(1 - R^2)$ for each variable. If this value is small (less than 0.10) it indicates that the multiple correlation with other variables is high, suggesting the possibility of multicollinearity. In the present study the tolerance value for each independent variable is not less than 0.10 therefore, this also suggests that the assumption of multicollinearity is not violated (see Table 4.4). The other value given is the VIF, which is just the inverse of the Tolerance value. VIF values above 10 would indicate multicollinearity. Again in the present study the VIF value was less than 10 for all independent variables (see table 4.4). This also indicates that the assumption of multicollinearity is not violated.

Table 4.4: *Collinearity Statistics Test of Independent Variables*

Model	Collinearity Statistics	
	Tolerance	VIF
Tangibility	0.947	1.056
Profitability	0.938	1.066
Liquidity	0.897	1.115
Size	0.966	1.035

Homoscedasticity - "homogeneity of variance" assumption or homoscedasticity. It states that the variances of the same variable, selected from independent samples, will be equal. In regression analysis, this assumption states that the variances of the Y_s , for each X , will be

equal. The standard suggestion for examining the assumption of homoscedasticity in regression analysis is to plot the predicted Y values against the residual values. Heteroscedasticity is indicated when these values spread or fan out from left to right or right to left.- we use scatterplot. The scatterplot shows that the points are concentrated around zero which shows that no violation of homoscedasticity (see figure 4.1).

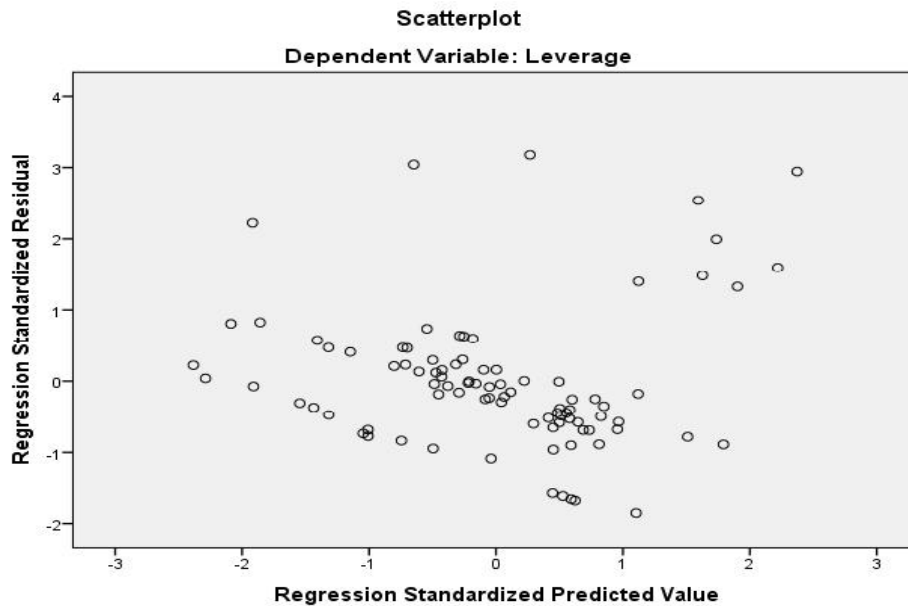


Figure 4.1: Scatterplot of leverage

Outliers, normality, linearity, independence of residuals

These assumptions can be checked by inspecting the Normal Probability Plot (P-P) of the Regression Standardized Residual and the Scatterplot shown as part of the analysis. If points lie in a reasonably straight diagonal line from bottom left to top right in the Normal P-P plot, no major deviation from normality can be suggested. In the present study, we can easily inspect from the Normal P-P plot that points line in a reasonably straight diagonal line from bottom left to top right for all dependent variables (see figure 4.3). This suggests that the assumption of normality is not violated. In the Scatterplot of the standardized residuals, the residuals are roughly rectangular with most of the scores concentrated in the center, along the line zero. This also suggests no violation of the assumption of independence of residuals. Outliers can also be detected from the Scatter plot. From this Scatter plot we can find that there are no major outliers.

A histogram with the normal curve super imposed provides useful representation of the data. The black line superimposed on the below histogram represents the bell-shaped “normal” curve of the data under study (see figure 4.2).

In summary, as we can understand from the above paragraphs, all the essential assumptions, multicollinearity, Outliers, normality, linearity, homoscedasticity, independence of residuals for computing regression analysis were not violated for using linear regression.

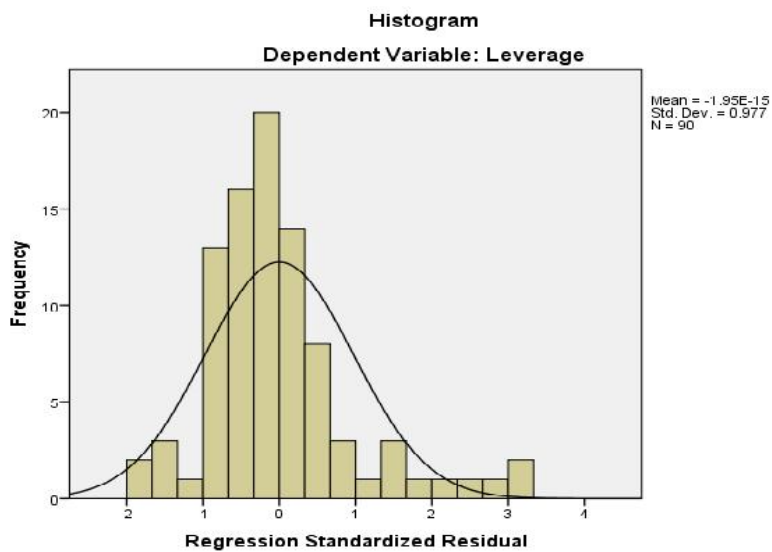


Figure 4.2: Histogram of leverage

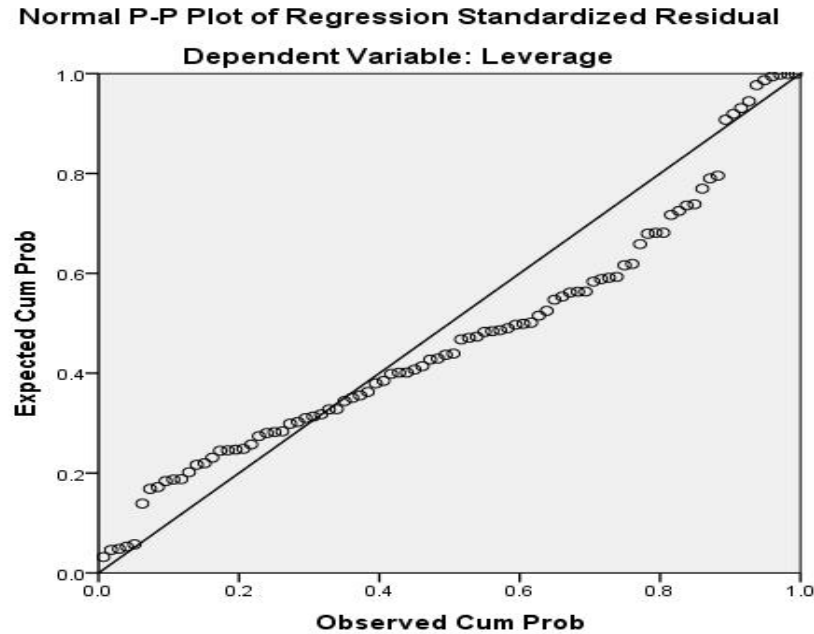


Figure 4.3:P-P plot of leverage

Table 4.5: *The Influence of Independent Variables on the Dependent Variable*

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	0.495 ^a	0.245	0.210	0.53808	0.245	6.912	4	85	.000

a. Predictors: (Constant), firm Size, Tangibility, Profitability, Liquidity

Multiple linear regression analysis was used to assess the effect of firm specific factor on leverage. As shown in table 4.5 the value of R square was 0.245. This value tells how much of the variance in the dependent variable (leverage) is explained by the model (tangibility, profitability, liquidity and firm size). In other words, multiplying R Square value with 100, the model explains 24.5% of the variance in the dependent variable (Leverage).

Table 4.6: *Goodness of Fit – ANOVA Result*

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	8.005	4	2.001	6.912	.000 ^b
Residual	24.610	85	0.290		
Total	32.615	89			

a. Dependent Variable: Leverage

b. Predictors: (Constant), LogOfSize, Tangibility, Profitability, Liquidity

The goodness of fit results of linear multiple regression with leverage as the dependent variable and four determinants (tangibility, profitability, liquidity and firm size) as predictors are reported in Table 4.6. The model reveals a statistically significant relationship between leverage and determinants, $F(4, 85) = 6.91$, $p < 0.001$.

Table 4.7: *Regression Coefficients of Predictor Variables in Predicting the Dependent Variable, Leverage*

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-3.926	1.341		-2.928	0.004
Tangibility	-1.362	0.386	-0.342	-3.531	0.001
Profitability	1.957	0.752	0.253	2.603	0.011
Liquidity	-0.024	0.039	-0.060	-0.606	0.546
Size	0.251	0.070	0.343	3.580	0.001

a. Dependent Variable: Leverage

Among the predictor variables, variables like tangibility, profitability and firm size made a statistically significant prediction in predicting the dependent variable, Leverage. To evaluate the contribution or influence of each independent variable to the dependent variable, one can see the Beta value. In the table 4.7 above, the Beta value for predictor variable, firm size, was 0.343 which implies that this predictor variable made the first strong positive and statistically significant influence in explaining the dependent variable (Leverage) when the variance explained by all other variables in the model is controlled for. This implies that if we could increase firm size by one standard deviation, the Leverage scores would be like to

increase by 0.343 standard deviation units. In addition, tangibility made a statistically significant negative prediction to the dependent variable with Beta value of -0.342. This implies that tangibility made the second strong influence in predicting the criterion variable Leverage. The implication is that if we could increase tangibility by one standard deviation, the Leverage scores would be like to decrease by -0.342 standard deviation units. Furthermore, profitability made the third strong positive influence/contribution in predicting the dependent variable, leverage with Beta value of 0.253.

In general, the study explored the relationship between leverage and various determinants by hypothesizing that there is no statistically significant relationship between leverage of insurance companies and selected factors or determinants. However, results of this study indicated that the relationship between leverage of insurance companies and selected factors was statistically significant ($p < 0.001$) for four predictor variables (tangibility, profitability, liquidity and firm size). Regression result indicates that tangibility, profitability and firm size were factors that predict/affect the criterion variable leverage. The null hypothesis was rejected and therefore the alternate one was accepted, meaning that there is a significant relationship between leverage of insurance companies and determinants (tangibility, profitability and firm size). The specified model which was:

$$LEV_{it} = \beta_0 + \beta_1 TANG_{it} + \beta_2 LQ_{it} + \beta_3 SIZE_{it} + \beta_4 PRO_{it} + U$$

Is therefore modified as:

$$LEV_{it} = 1.341 + 0.386 TANG + 0.07 SIZE + 0.752 PR$$

Hypotheses Testing

1. The first hypothesis was formulated as “(H1): liquidity has no statistically significant effect on capital structure in private insurance companies of Ethiopia”. The result showed that liquidity had no statistically significant effect on leverage/capital structure in private insurance companies. Therefore this hypothesis was accepted.
2. The second hypothesis was stated as “(H2): tangibility has no statistically significant effect on capital structure in private insurance companies of Ethiopia”. However, multiple linear regression analysis indicated that tangibility had statistically

significant negative effect on leverage. Hence, the null hypothesis was rejected and the alternative hypothesis was accepted.

3. The third hypothesis was formulated as “(H3): profitability has no statistically significant effect on capital structure in private insurance companies of Ethiopia”. However, multiple linear regression analysis showed that profitability had statistically significant positive effect on leverage. Hence, the null hypothesis was rejected and the alternative hypothesis was accepted.
4. The fourth hypothesis was stated as “(H4): firm size has no statistically significant effect on capital structure in private insurance companies of Ethiopia”. But multiple linear regression analysis showed that firm size had statistically significant positive effect on leverage. Hence, the null hypothesis was rejected and the alternative hypothesis was accepted.

4.2. Discussion

4.2.1 Tangibility

In this research it was hypothesized that “there was no statistically significant relationship between tangibility and capital structure in private insurances of Ethiopia”. However, the correlation and regression result showed that there was a statistically significant negative relationship between tangibility and capital structure in selected private insurances of Ethiopia. Therefore the null hypothesis was rejected and the alternative hypothesis was accepted.

The result that tangibility had significant negative relationship with leverage was in agreement with agency cost theory. According to agency cost theory, there is a conflict between lenders and shareholders due to the possibility of moral hazard on the part of borrowers. This conflict creates incentives for shareholders to invest in a suboptimal way and lenders require tangible assets as collateral to protect them. The agency cost of debt increase when firms cannot collateralize their debt. This negative association between tangibility and leverage is also inconsistent with implication of pecking order theory.

In addition the finding that tangibility had significant negative relationship with leverage was also in agreement with the findings by local researchers like Daniel Beshir (2015). International study findings investigated by Gaud et al. (2005), Sayilgan et al. (2006), Sheikh & Wang (2010), De Bie and De Haan (2007) found a negative correlation between leverage and tangibility. Gaud et al. (2005), in favoring of the negative association between tangibility and leverage, stated that the companies with lower level of tangible assets are more subject to information asymmetry problems that lowers price of equity, and consequently, more willing to use debt to finance their assets.

On the other hand the finding that tangibility had significant negative relationship with leverage contradicts with both the predictions of the Trade-off theory and Pecking order theory. In other words, Trade-off theory and Pecking order theory agree on a positive correlation between a firm's tangibility and its leverage. According to the Pecking order theory, this positive relationship between tangibility and leverage is due to the idea that collateral supports debt (Frank & Goyal, 2003). In addition, as to trade off theory, tangible

assets, such as property, plant, and equipment are easier for outsiders to value than intangibles such as the value of goodwill from an acquisition – this lowers expected distress costs.

In addition, in line with the Trade-off theory, Frank and Goyal (2003) stressed that high amount of tangible assets account for lower costs of financial distress. This would allow for increased lending that as a consequence increases firm value. Furthermore, in contradiction with the current finding that tangibility had significant negative relationship with leverage, a local research by Guruswamy and Adugnaw (2016) found positive significant relationship between tangibility of assets and leverage of selected insurance companies in Ethiopia. In the same manner, Dereje (2014) studied determinants of capital structure of Ethiopian private insurance companies and showed that tangibility had significant and a positive influence on leverage. In addition, Mohamed and Mahmoud (2013) found a positive significance relationship between tangibility and leverage. Other local finding by Solomon (2012) found no any significant relationship between tangibility and leverage of firms in Ethiopian insurance sector.

Other international researcher like Wagenvoort (2016) found that tangibility has a positive impact on the leverage of a company in Dutch firms. Wagenvoort (2016) further stated that positive effect becomes even more positive as a result of the financial crisis. Wagenvoort reason out that the pre-crisis period holds a positive coefficient for tangibility. Similarly, studies by Korajczyk and Levy (2003), Degryse et al. (2012) and Frank and Goyal (2009) found positive relationship between tangibility and leverage of firms in insurance sectors. According to Frank and Goyal (2009) lower expected costs of distress and fewer debt-related agency problems predict a positive relation between tangibility and leverage. Other study by Lim (2012) indicated tangibility has insignificant relationship with leverage.

4.2.2 Profitability

This study found that there was a statistically significant positive relationship between profitability and leverage. Regression result also showed that profitability made the third strong positive influence in predicting the dependent variable, leverage. The result that significant positive relationship between profitability and leverage was not in agreement with

the hypothesis stated previously as “there is no statistically significant relationship between profitability and capital structure in private insurances of Ethiopia”. The hypothesis regarding profitability is rejected as a positive significant relationship found between profitability and leverage. This finding is in accordance with the Trade-off theory.

In consistent with the result that profitability had positive influence in predicting the dependent variable leverage as well as significant positive relationship between profitability and leverage, some local researchers found the same .For instance, Dereje (2014) found profitability had significant positive influence on leverage. Solomon (2012) and Mahmoudamin (2014) found a positive significance relationship between profitability and leverage

In addition, the finding that profitability had positive influence in predicting the dependent variable leverage as well as significant positive relationship between profitability and leverage was also in consistent with some international study findings (Titman & Wessels, 1988; Rajan & Zingales, 1995; Frank & Goyal, 2005; Antoniou et al., 2002; Xu, 2012; Wahome, Memba, & Muturi, 2015; Kaya, 2015)who found a positive relation between profitability and leverage.

On the other hand, the finding that profitability had positive influence in predicting the dependent variable leverage as well as significant positive relationship between profitability and leverage was in contradiction with Agency Theory which predicts that profitable firms are avoidable to get loan from inefficient markets due to the disciplinary role of debt. Pecking order theory predicts also profitability has negative impact since the firm should use internal funds firstly (Frank & Goyal, 2007). Pecking order theory suggests that profitable firms will finance their internal resources rather than external ones. Therefore, these profitable firms hold less debt because they are able to produce efficient funds through internal resources for satisfy cost of project and other expenditures that shows the negative relationship between profitability and leverage. Pecking order theory that argues profitable firms with access to retained profits can rely on them as opposed to depending on outside sources (debt). That is firms use retained earnings first and then move to debt and equity (Frank & Goyal, 2007).

In addition, the finding that profitability had positive influence in predicting the dependent variable leverage is in contradiction with local study findings conducted by Woldemikael (2012), Bayeh (2011) and Daniel Beshir (2015). These local researchers found that profitability had a negative relationship with leverage in Ethiopian Insurance industry. Likewise, some international studies like Lim (2012) found that there was also a negative and statistically significant relationship between profitability and leverage. Thomsen and Pedersen (2000), Barbara and Louri (2005) Chandrapala and Knápková (2013) and Ahmed (2016) also found leverage having a negative relationship with the profitability of the firm. This means when the capital structure consists of more debts it cause to decrease profitability of the firm. It seems that the excess debts increase the financial distress costs and decrease the value of the firm (Chandrapala & Knápková, 2013). In addition, in contradiction with the current finding, other empirical evidences by Titman and Wessels (1988), Rajan and Zingales (1995), Frank and Goyal (2009) showed a significant negative relation between the leverage and profitability.

4.2.3 Firm size

In this study it has been found that there was a statistically significant positive relationship between size of the firm and leverage. In addition regression result also confirmed that firm size made the first strong positive influence in predicting the dependent variable, leverage. The result that significant positive relationship between firm size and leverage was not in accordance with the hypothesis stated previously that “there is no statistically significant relationship between firm size and leverage in private insurances of Ethiopia”. Hence, the hypothesis regarding firm size is rejected as a positive significant relationship found between firm size and leverage.

The current finding showed that value of the firm increases as its size increases. This implies that the larger the size of a firm turns into the more debt that insurance companies will use as a source of finance than equity. This implication is supported by trade off theory in that large firms will have more debt than small firms since larger firms are more diversified and have lower risk of default (Frank & Goyal, 2005). The current finding confirmed the notion of static trade- off theory that large firms are employed more debt because these are less risky

and diversified in nature. In addition, larger firms are preferred to issue more debt because it reduces direct bankruptcy costs due to market confidence.

The positive relationship between firm size and leverage was in line with static trade off theory which states that for large companies the risk of bankruptcy is minimized due to economy of scale, the assets of that company would be financed in debt more. Hence this theory argues optimality of capital structure can be reached by balancing the benefits and costs of debt (Modigliani & Miller, 1984). However, according to pecking order theory, informational asymmetry for large firms is smaller and as a result they would prefer to be financed by equity instead of debt (Modigliani & Miller, 1984; Myers and Majluf, 1984). Because, this reduces the chances of undervaluation of the new issued equity and thus encourage the large firms to use equity financing. This implies that pecking order theory contradicts with the finding of the current study and declares negative relationship between the firm size and leverage of the firm.

In agreement with the finding that there was a positive relationship between firm size and leverage, a local researcher, Dereje (2014), studied determinants of capital structure for unlisted private insurance companies of Ethiopia and found that firm size had significant and positive influence on leverage. Similarly, other local studies by Solomon (2012), Woldemikael (2012), Usman (2013), Mohammedamin (2014) and Guruswamy and Adugnaw (2016) found a significant and positive relationship between size and leverage of insurance companies in Ethiopia.

In addition, in consistent with the current finding that there was a positive relationship between firm size and leverage, Mohammad, Gharaibeh, and Sarea (2015) found positive and significant relationship between leverage and Size of the firm measured by the natural logarithm of total assets. Ahmed (2016) found a positive relationship between the leverage and size of life insurance sector over seven years in Pakistan. Ahmed showed that large size life insurance companies in Pakistan are preferred to utilize more debt in formation of capital. Moreover, Leng (2004), Kuntluru, Muppani and Kan (2008), Chandrapala and Knápková (2013) were some international researchers who found statistically significant positive relationship between firm size and leverage of firms. This means that these empirical

findings further confirm the notion that when the firm becomes larger and larger its ability to generate returns is seems to be gradually improving.

However, in contradiction with the current result that there was a positive relationship between firm size and leverage, some studies (Kester, 1986; Kim & Sorensen, 1986; Titman & Weasels, 1988; Booth et al., 2001) found negative relationship between firm size and leverage. Daniel Beshir (2015) found insignificant relationship between leverage and firm size in Ethiopian insurance companies.

4.2.4 Liquidity

In the current study the correlation result showed that there was no statistically significant relationship between liquidity and leverage. Even though it was not significant, the relationship was negative. The regression result also showed that the independent variable liquidity did not make a statistically significant influence/effect on the dependent variable leverage. This insignificant relationship implies that liquidity is not considered as a powerful firm specific factor that affect the debt ratio of selected sample insurance companies in Ethiopia over the last ten years. This insignificant relationship between liquidity and leverage was in agreement with the hypothesis formulated as “there is no statistically significant relationship between liquidity and leverage in Ethiopian private insurance companies” by this study. Hence, the null hypothesis was accepted.

In consistent with the current result that there was no statistically significant relationship between liquidity and leverage, local study by Mohammedamin (2014) found negative and highly insignificant relationship between liquidity and the dependent variable of leverage of insurance companies in Ethiopia. His regression fining also showed that liquidity variable had no any significant influence on financing choice of insurance companies in Ethiopia. Similarly, other local studies by Amanuel (2011) and Solomon (2012) found negative and insignificant relationship between liquidity and leverage in Ethiopian insurance companies. Moreover, Guruswamy and Adugnaw (2016)found weak and statistically insignificant relationship between liquidity and leverage.

In addition, the insignificant relationship between liquidity and leverage was also in consistent with previous studies conducted in various countries. For instance, Kaya (2015) found insignificant relationship between liquidity and leverage in Turkey insurance companies. In a similar manner, an insignificant result was also observed by Naser & Krassimir, (2011) Naveed et al., (2010), Harrison and Widjaja (2013) in both pre-crisis and crisis period and by Deesomsak et al. (2004) in the pre-crisis period.

On the other hand, this insignificant negative relationship between leverage and liquidity was in contradiction with the trade-off theory which argues that firms with more liquidity (more current assets) tend to use more external borrowing, because of their ability in paying off their liabilities. Moreover, in contradiction with the finding of this study, insignificant relationship between liquidity and leverage, Bayeh (2011) found liquidity have a significant positive impact on long term debt and debt to equity ratios in insurance sector of Ethiopia from the period 2004-2010. Furthermore, in terms of significance, the current finding (negative insignificant relationship between liquidity and leverage) was also in contradiction with other local study conducted by Daniel Beshir (2015) who found a negative significant relationship between liquidity and leverage in Ethiopian insurance companies. Similarly, Ahmed (2016) found inverse relationship between the liquidity and debt ratio in Pakistani life insurance companies. Other empirical finding by Zhang and Mirza (2015) found a positive relationship between liquidity and leverage which is in line with predictions by the Trade-off theory.

CHAPTERFIVE: SUMMARY, CONCLUSION AND RECOMMENDATIONS

This chapter is the last parts of the paper and it presents summary of major findings, conclusion and lastly forwards some recommendation and limitation plus implication for future research.

5.1 Summary of Major Findings

In this study, the following effects of firm specific factors on leverage were found:-

1. Tangibility had statistically significant negative effect on leverage/capital structure in selected private insurances of Ethiopia.
2. Profitability had statistically significant positive effect on leverage in private insurances of Ethiopia.
3. Liquidity had no statistically significant effect on leverage in private insurances of Ethiopia.
4. Liquidity had no statistically significant effect on leverage in private insurances of Ethiopia.

5.2 Conclusion

Capital structure refers to the mix of debt and equity securities used to finance real investment and firms use to make up their assets. Capital structure as represented in this study by leverage measure of total debt ratio; is a composition of debt and equity. Capital structure decision is a significant decision in financial management. This decision in a private enterprise is directed towards the achievement of maximization of the shareholders' wealth or value of the firm. Capital structure influences the value of the firm by operating on either expected earnings or the cost of capital or both (Modigliani, & Miller, 1958).

Several theories have come with the questions they try to answer which range from what is

the cost of capital and does it matter if one uses debt and equity or whether it matters if one uses debt alone or equity alone (Wahome, Memba, & Muturi, 2015). Fortunately, this question has been addressed by Miller and Modigliani (1958) that capital structure composition does not change the value of the firm, and thus the firm can either use debt or equity in any proportions.

After the prominent work of Modigliani and Miller (1958), several theories related to capital structure have been developed and these theories have been trying to identify determinant factors of capital structure of firms. However, the results of those theoretical works were almost contrary to each other in terms of identifying the relationship among the determinant factors of capital structure of firms. In addition, several previous empirical studies on the capital structure of firms, have attempted to identify firm-specific determinants of capital structure choices as function of the factors that support the theories such as trade off theory and pecking order theory. Several researchers have identified few firm-specific determinants of capital structure, based on the most accepted theoretical models of capital structure: the static trade off theory, the agency theory and the pecking order theory.

In general, a number of factors, as suggested by various theoretical and empirical literatures, may influence the capital structure of given companies. Therefore, the general objective of this study was to identify firm specific factors that affect the capital structure of some selected private insurance companies of Ethiopia. In this study leverage will be used as the dependent variable and measured as the ratio of debt to total assets. Based on pecking order and tradeoff theories as well as from results of previous empirical studies, independent variables (liquidity, profitability, firm size, and tangibility of assets) were selected as firm specific factors or determinants of capital structure.

In order to achieve this objective, the researcher used quantitative research design and collect data from nine private insurance companies selected purposively as a sample. The nature of data used by this study was a panel data mainly composed of financial statements of sample insurance companies over the last ten years which was collected through document review method. Using SPSS computer program descriptive statistics like means and standard deviations were used to describe the data. In addition correlations and regression analysis

were used to assess the relationship among variables. Prior to data analysis, the researcher hypothesized no statically significant relationship of determinant factors (liquidity, profitability, firm size, and tangibility of assets) with leverage. In order to test the hypotheses, correlation and linear regression analysis were employed using leverage as dependent and variables like liquidity, profitability, firm size, and tangibility of assets as independent or predictor variables. Then, in this study, the following relationships of firm specific factors with the dependent variable (leverage) were exists;

- Tangibility had statistically significant negative effect on leverage/capital structure in selected private insurances of Ethiopia. In other words, the agency cost of debt increase when firms cannot collateralize their debt. This negative relationship/effect between tangibility and leverage was in consistent with agency cost theory, which suggests that, there is a conflict between lenders and shareholders due to the possibility of moral hazard on the part of borrowers. This conflict creates incentives for shareholders to invest in a suboptimal way and lenders require tangible assets as collateral to protect them.
- Profitability measured by Profit after tax/total asset was found to have a statistically significant positive relationship with leverage in private insurances of Ethiopia. Meaning that profitability had statistically significant positive effect on leverage in private insurances of Ethiopia. This positive relationship/effect between profitability and leverage was in agreement with the Trade-off theory which states that more profitable firms are exposed to lower risks of bankruptcy and have greater incentive to employ debt to exploit interest tax shields.
- Firm size measured by the proxy of size of firm is log of total asset was found to have a statistically significant positive relationship with leverage in private insurances of Ethiopia. This implies that the value of the firm increases as its size increases. This positive relationship between fir size and leverage was in agreement with trade off theory which suggests that large firms will have more debt than small firms since larger firms are more diversified and have lower risk of default.

- Liquidity measured by the proportion of current assets to current liabilities was found to have no statistically significant relationship with leverage in private insurances of Ethiopia. This insignificant negative relationship between leverage and liquidity was in contradiction with the trade-off theory which argues that firms with more liquidity (more current assets) tend to use more external borrowing, because of their ability in paying off their liabilities.

In conclusion, the current study showed that variables such as tangibility, profitability and firm size were found to be important firm specific factors that affect capital structure decision (as represented by total leverage and measured by total debt/total asset) in private insurance companies of Ethiopia. These important firm specific factors (tangibility, profitability and firm size) and the relationships between these firm specific factors and leverage confirms both Trade-off theory and agency cost theory as the most important theories for private insurance companies in Ethiopia. Specially, Trade-off theory was found to be the most important theory for private insurance companies in Ethiopia.

5.3. Recommendations

Based on the major findings of this study, the following recommendations were forwarded;

- Among four variables such as tangibility, profitability, liquidity and firm size that were used as determinant or predictors of leverage, three variables like tangibility, profitability and firm size were found to be important firm specific factors that affect capital structure decision in private insurance companies of Ethiopia. Therefore, in order to make their firm more successful and decide the best capital structure of their firm, insurance managers should give greater emphasis to these important firm specific factors.
- This study showed that both Trade-off theory and agency cost theory as the most important theories for private insurance companies in Ethiopia. Hence, private insurance companies of Ethiopia should choose their capital structure by balancing the advantages of borrowing, mainly tax savings, with the costs associated with borrowing including bankruptcy costs. In other words, private insurance companies of Ethiopia can obtain optimal capital structure by trading off between net tax benefit of

debt financing and bankruptcy costs. To this end, private insurance companies of Ethiopia should raise more debts through strengthen their relationships with banks and other financial institutions.

- In addition, based on agency cost theory this study recommends that increasing the debt to equity ratio will help private insurance companies of Ethiopia ensure that managers are running the business more efficiently. Therefore, managers of insurance companies of Ethiopia will return excess cash flow to the shareholders rather than investing in negative NPV projects.
- The negative relation between tangibility of assets and leverage suggests that private insurance companies of Ethiopia may not be strong enough in owning assets which can serve as collateral in the case a bankruptcy and/or a negative relationship between tangibility and leverage in this study is in conformance with agency cost theory. According to agency cost theory, there is a conflict between lenders and shareholders due to the possibility of moral hazard on the part of borrowers. This conflict creates incentives for shareholders to invest in a suboptimal way and lenders require tangible assets as collateral to protect them. The agency cost of debt increase when firms cannot collateralize their debt. Outsized proportion of a firm's assets can be used as collateral to fulfill lenders requirements. Therefore, managers of insurance companies should enhance the borrowing decisions of their firm by enhancing the proportion of tangible assets as collateral.

5.4. Limitation and Implication for Future Research

- a. In the current study only nine private insurance companies of Ethiopia were included as a sample. Therefore, the findings of the study might not be generalized to all insurance companies found in Ethiopia or to other locations or populations. One possible implication for future research might be confirmation of the results through replication of the study with other demographically different insurance companies like government insurance companies of Ethiopia or involving a larger and nationally representative sample would allow for generalizations.

- b.** This study investigated the influence of only four determinant factors (liquidity, profitability, firm size, and tangibility of assets) on leverage of insurance companies of Ethiopia. Therefore, implication for future research will be to add other firm specific factors like business risk, growth opportunity, age, dividend payout ratio, non-debt tax shields, etc. and macro-economic factors (like inflation, GDP, interest rate).
- c.** This study examined the influence of firm specific factors (liquidity, profitability, firm size, and tangibility of assets) on leverage of insurance companies of Ethiopia only quantitatively. This study did not support or triangulate its findings using a qualitative paradigm and did not investigate ‘why’, ‘what’, and ‘how’ these firm specific factors affect leverage. Thus, implication or recommendation for future research will be to conduct a mixed approach of quantitative and qualitative study or only qualitative study to address how and why firm specific factors have influence on leverage.

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