DO FIRMS' SIZE, OWNED CAPITAL AND CHANGE IN RETAINED EARNINGS AFFECT PERFORMANCE?

EVIDENCE FROM ETHIOPIAN PRIVATE COMPANIES

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DECLARATION

I, Fesseha Haile Abebe, declare the thesis entitled: Do firms' size, Owned Capital and Change in Retained Earnings Affect the performance? Evidence from Ethiopian Private Companies, is my original work, prepared under the guidance of Dr. Alem Hagos(PHD). All sources of materials used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

_____

Signature and Date.

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LIST OF ABBREVIATIONS:

PPA: Prior Period Adjustment

RE: Retained Earnings

SME: Small and Medium-Sized Enterprises

MM: Modigliani and Miller.

NBE: National Bank of Ethiopia

ROA: Return on Assets

ROE: Return on Equity.

GDP: Gross Domestic Products

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ABSTRACT

This research studies the effect of firm size and owned capital structure such as equity to total assets, cash to current liabilities, change in the retained earnings, asset turnover and GDP on the business' performance of 10 selected manufacturing companies in Addis Ababa region, Ethiopia during the years 2011 to 2015. The study used Return on Equity (ROE) as dependant performance variable whereas, change in the retained earnings, firm size, equity to total assets, cash to current liabilities, asset turnover ratio and GDP are used as independent variables. The panel data random effect estimation model was applied for the data analysis through EViews 8.1 statistical package. In this study it was observed that that R-squared= 48.4% of the firms' performance that is ROE in the period under study was explained by these explanatory variables while the rest 51.6 % of the dependant variable is explained by other factors.Change in the retained earnings has strong significant relationship as (p-value= 0.0020) and had positive relation with the performance-ROE because its p-value is less than 5%. Firm size had insignificant relationship with (p-value =0.1671), had positive relation with performance- ROE; since it's P-value is greater than 5%. As a result the Null hypothesis: Ceteris paribus, there is no significant association between firm size and firm performance in Ethiopia is to be accepted. Equity as described owned capital in this study shows a strong relationship with the firm's performance when it is measured as equity to total assets ratio since the (p-value= 0.0074) that is less than 5% as the result the null hypothesis was rejected but it is positively related to ROE.

Key Words: (Performance-ROE, Owned Capital, Change in the Retained Earnings, Firm Size, Panel Data).

CHAPTER ONE
INTRODUCTION

1.1. Background of the Study

There continues to be strong interest in the behavior of earnings of firms. The firm manager, shareholder and the corporate lender all stand to gain by a better understanding of the mechanisms by which earnings are generated and of the patterns of earnings associated with particular circumstances. This knowledge could be used to make more profitable strategy decisions in the firm and to forecast more accurately future earnings. For example, a better understanding of the patterns of earnings would lead to more accurate forecasts of future earnings and to more accurate valuation of firm and allow the investor to more accurately estimation of owned capital. This paper examines the measure of business that factors firms' success and profitability that is return on equity (ROE). In addition to this, the study is conducted with the same purpose to investigate the impact of the explanatory factors namely firm size, capital structure (Both equity and cash ratio), change in retained earnings and Asset turnover ratio as firms' specific factor on accounting performance and external factor such as GDP.

Firm Size

The firm size explanation is suggested by several pieces of research in the literature of earnings behavior. Larger firms tend to have higher levels of profitability and smaller variations in profitability. The relationship between the relative market share of a business unit and the return on equity has been studied. The general conclusion of that work is that there is a strong, positive association between the level of profitability and the market share of the business within an industry.

Classical works are also concerned with such a relationship. Penrose (1959) theorized that firm size is basically a signal of resource capacity and capability. It means that larger firms usually have more organizational resources, permitting that they have better equipment to achieve their goals. Wu (2006) argued that larger firms have stronger competitive capability than the smaller ones as a result of their superior access to resources. Wincent (2005) highlighted a framework that firm size can foster in strategic Small Medium Enterprises (SME) network. Larger firms are suggested to have advantages for behavior and performance compared to the smaller ones. They improve performance simultaneously as they bind firms together in the SME networks.

The relationship between firm size and performance becomes a classical issue. Gibrat (1931) described that firm's growth rate is independent of its size. This finding is subsequently referred to as the "Law of Proportionate Effect" (Bhattacharyya, 2009). According to the law, growth is unrelated to firm size. Large and small firms therefore have equal probabilities of attaining a particular growth rate. Some possible explanations of this result have been suggested by Buzzell, Gale and Sultan (1995) as follows.

Economies of scale.

The larger firms are able to produce the same goods more cheaply because they have achieved more learning and greater cumulative experience and they are able to spread their fixed costs over a greater amount of production.

Market power.

Larger firms can extract premium profits because of their influence upon the industry. They are better able to bargain for more favorable factor costs and can more easily influence the price and quality standards for their goods.

Quality of management.

Similar to the argument advanced by- Bowman (1977) is this explanation which suggests that quality management is able to achieve the dual goals of higher market share and higher profitability.

There is also evidence that the relationship between profitability and firm size is negative, not positive. Samuels and Smyth (1968) have reported on their study of the operating results of 186 large British companies. They measured profitability as the return on net assets, after depreciation but before taxes, and obtained the result that profit rates and firm size were inversely related. Larger firms tended to have lower rates of profits. This result may have been caused by a number of factors peculiar to their measure of profitability. Large firms tend to be more highly leveraged than smaller firms and thus pay higher interest expenses, which can justifiably be viewed as a return to capital. Hence, their measure distorts the true return of assets in favor of smaller firms. Larger firms are also generally more capital intensive, having higher relative depreciation expenses, which can again be viewed as a return to capital. Finally, investments for which there are important tax advantages tend to be made by larger firms and so the return on net assets after taxation would yield more favorable to larger firms.

Capital structure and Retained Earnings

Capital structure not only influences the return a company earns for its shareholders, but also whether the firm survives less fortunate economic shocks. Hence, capital structure is imperative for a firm's survival and growth, as it plays a primary role in its financial performance in order to achieve its long-term goals and objectives. Hence, in this study mainly focus on the equity ratio, cash ratio, and asset turnover ratio as these factors are determined by the elements of asset, liability and capital account.

Accounting theory defines capital, simultaneously as a net worth which equals the cumulative value of liability and represents ownership interests in a firm. Capital is referred to as those funds contributed by the shareholders consisting principally of component of capital structure. The firms' capital structure in this study is aimed to indicate the effect of equity ratio and cash holding ratio. These factors will be discussed in the next chapter as determinant factors of equity finance. Capital structure has been the subject of many extant studies, in which researchers aim to document the link between capital structure and firm performance. From a firm's perspective, finding and operating at the optimum capital structure could be beneficial. Capital structure significantly affects the cost and availability of capital, which in turn will also affect a firm's performance.

This study includes variables on the composition of shareholdings and on the holding company structure in the agency cost equation explaining profit efficiency. In addition to solving some potential bias problems, the effects of these variables on firm performance are interesting on their own. The Empirical Model it is tested the agency costs hypothesis that increasing leverage or decreasing the equity/asset ratio is associated with a reduction in the agency costs of outside equity and an improvement in firm performance by regressing profit efficiency on the equity capital ratio among the enormous company specific factors. Earnings reflect companies' actual profitability. These are mostly referred to as company's revenues net of expenses. These affects share price movements as pointed out by Bhole(1980), Sen and Ray (2003), Zahir (1992) and Bapat and Raithatha (2009). Companies with increasing trend of earnings are an apple in eye of investors as they perceive these companies having sound financial position and thus suitable for investment.

Dividends refer to the money distributed to the equity investors/shareholders out of either the profits earned or retained earnings. Every rational investor pools money in equity investment mainly for two reasons. First one is for capital appreciation through increase in the value of shares and the second one is for receiving dividends on these shares. Dividend

payments give signals to both the existing investors as well to the intended investors about the company's financial position.

Most previous researches investigated company's growth factor, but this study aimed to find a convenient and effective relationship between factors such as firm size, owned capital and change in retained earnings influencing firm performance. Companies with a few major investment opportunities would limit paying out a larger percentage of their earnings. For this reason, higher dividends are paid in stable, low-growth industries. By contrast, high-growth companies with lots of investment opportunities are likely to pay low dividends because they have profitable uses for the capital. So, growth is likely to place a greater demand on internally generated funds. The main research question of the research is that whether these performance parameters have a significant relationship with the book value of owned capital and changes in the retained earnings.

The firms need finances to support their operations. Although one of the main sources of finances include debt financing, the paper limited to owned capital as equity financing which relies on use of the underlying investment instruments to generate the capital. There is ongoing debate in the existing literature with regard to use of the alternatives modes of financing available to a firm. In this context, numerous studies have been conducted discussing the factors or determinants affecting a firm's capital structure. The pioneering work on capital structure can be traced to the Modigliani & Miller (1958) which further laid foundation for further academic discussion.

How an organization is financed is of paramount importance to both the managers of firms and providers of funds or shareholders. This is because to maintain the right mix of equity finance to be employed so that the performance and survival of the business enterprises may not be seriously affected. Hence, the paper seeks to identify the significant relational effect of owned capital structure (Retained Earnings, reserves and paid up capital) and firm size on

firms' performance and suggest in the literature as a result of limited studies that have been conducted so far in this area using Ethiopian context.

Retained earnings constitute a major source of finance for companies. Payment of earnings as dividend is associated with agency cost and an opportunity for existing shareholders is lost to reinvest their earnings for growth of the company. The level of internal funds conveys information about growth prospects of companies, Gilchrist. S. Charles.P and Himmelberg (1995). It has been predominantly supported by the empirical studies that internally generated funds have enormously contributed to financing growth of corporations in recent times Thirumalaisamy. R. (2013). Retained earnings refer to the part of company's profit left after netting the expenses and payment of dividends to the shareholders. It is also known as unappropriated profit. As per Kumar and Hundal(1986), share prices are positively related with retained earnings in which investors' perceive companies with reasonable retained earnings as potentially sound.

1.2. Overview equity Finance

Equity finance refers to the composition of firms' internal financial resources. These funds are required for carrying on the business and are a major determinant on how the business operates hence their availability and quantity is critical to the firm. Debt and equity are two major classes of financing for a business.

Brockington (1990) describes equity as the finance provided by the owners of the business. Equity finance holders a portion of the firm denominated in shares and they are entitled to a part of the profit of a business, referred to as dividend. It is however, not mandatory to pay a dividend all the time as the company may retain the profits for financing expansion of its operations. Equity owners also share in the risks of the business and are the last to benefit when a business is wound up after debt holders have been paid. It is the combination of share capital, retained Earnings and reserves. Debt finance, on the other hand, is finance

generated through borrowing from external sources such as banks or from issues of bonds, all of which attract a fixed return. Debt may be short term, repayable over periods shorter than one year, or long term, repayable over periods longer than one year. The lender does not gain a control of the business but is paid a specified cost for the use of his funds, called interest. The borrower has a contractual obligation to pay the interest and to repay the principle when due, regardless of the performance or profitability of the business, Brockington, (1990). Debt holders exert lesser control over the company, and do not determine how the business is run; they earn a fixed rate of return to be paid as interest when it is due whilst equity holders are the residual claimants of all the firms' return, bearing most of the risk and having greater control over decisions. Kochhar, (1997).Practically, firms in Ethiopia furnish their balance sheets in layers, indicating with shareholders equity comprising of paid up/share capital, retained earnings/accumulated profit/losses and then legal reserves.

1.3. Overview of financial performance measure-ROE

Return on equity (ROE)

It measures accounting profitability from shareholders perspective. It also illustrates the rate of return flowing to the shareholders. It approximates the net benefit that the stockholders have received from investing their capital (Rose and Hudgins, 2006). The return on equity is an inevitable measure of profitability, Zeynep Ugur (2006). Finally supporting evidence to Zeynep Ugur (2006) can be found in Befekadu B. Kereta's (2007) study that stating, MFIs (Micro Finance Institutions) performance is measured by return on equity and the industry's profit performance is improving over time.

ROE tells what percentage of profit the company makes for every monetary unit of equity invested in the company. ROE doesn't specify how much cash will be returned to the shareholders, since that depends on the company's decision about dividend payments and

on how much the share price appreciates. However, it's a good indication of whether the company is even capable of generating a return that is worth whatever risk the investment may entail (Berman, Knight and Case, 2013).

Profitability ratios show the ability of the company to generate profit, and these ratios are used by the company, financing institutions, etc. to determine the performance of the company. Therefore it is crucial to evaluate the ratio, which is very important for company shareholders – the return on equity (ROE). For example, Warren Buffet encourages the use of ROE, and in his annual letter to shareholders, he mentions ROE 32 times over the past 20 years (Price, 2012). The 8th International Days of Statistics and Economics, Prague, September 11-13, 2014 95 The aim of the paper is to analyze the relationship between return on equity and other explanatory variables such as firm size, owned capital and change in the retained earnings and, based on the empirical results, to make conclusions and recommendations.

1.4. Effect of Equity Financing on firms' Performance-Theoretical overview

The study applied theories and past studies founded on Modigliani and Miller, (1958). Of his four conflicting theories, the most important in this study were: the Static Trade-off, the Pecking Order, and the Signaling Theories. Myers (op. cit.) divided the contemporary thinking on financing strategy into the first two theoretical currents; the Static Trade-off and the Pecking Order.

Under the Static Trade-off of Financing Strategy (also referred to as the Tax Based Theory), Baxter, (1967) and Altman, (2002), noted that optimal financing strategy is obtained where the net tax advantage of debt financing balances leverage related costs such as financial distress and bankruptcy, holding the firm's assets and investment decisions constant. In view of this theory, issuing equity finance means moving away from the optimum and should

therefore be considered as not good. Myers (op. cit.) had found that firms adopting Static Trade-off were regarded as setting a target debt-to-value ratio with a gradual attempt to achieve it. He however, suggested that managers will be reluctant to issue equity finance if they feel it is undervalued in the market. The consequence is that investors perceive equity issues to occur only if equity is either fairly priced or overpriced. As a result investors tend to react negatively to an equity issue and management is reluctant to issue equity.

The Pecking Order Theory (also referred to as the Information Asymmetry Theory) was proposed by Myers (op. cit.), and Myers and Majluf op. cit. It states that firms prefer to finance new investment first internally with retained earnings, then with debt, and finally with issue of new equity. He argues that an optimal Financing Strategy is difficult to define as equity appears at the top and the bottom of the 'pecking order'. Internal funds incur no flotation costs and require no disclosure of the firm's proprietary financial information that may include the firm's potential investment opportunities and gains that are expected to accrue from undertaking investments. They pointed out that under pricing would be the best result of less information held by potential investor as well as managers with respect to the expected cash flows from the firm's assets, both current and future. Considering this information asymmetry, investors would infer that the management would issue equity only when it is overpriced. Thus the newly issued equity might be sold at a discount. This would be regarded as a wealth transfer from existing investors to the new ones. This problem could be avoided if the firms use internally generated resources, such as retained earnings.

The impact of the signaling theory factor as already discussed in the Pecking Order Theory is the problem of the under pricing of equity. If a firm issues equity instead of debt for financing its new projects, investors will interpret the signal negatively. Since managers have superior information about the firm than investors, they might issue equity when it is overpriced.

1.5. Statement of The problem

Banz (1981) reports that as firms grow up, it become more difficult for them to sustain impressive performance. Therefore, smaller firms are more creative, innovative and change more readily to enhance their values (Hannan & Freeman, 1989). In consistent with these arguments, Hudaib and Haniffa (2006) empirically document a significant negative association between firm size and firm performance. On the other hand, it is indicated that large firms have a direct effect on firm performance (Aljifri & Moustafa, 2007). Kumar (2004) reports that large firms are more efficient than small firms because of economies of scale, skilled employees and market power (Kumar, 2004). In the same line Kumar (2004), Ghosh (1998) indicates that larger firms are better performers than smaller firms due to their ability to diversify their risk. Haniffa and Hudaib (2006), report that large firms have more analysts who concern about firms' performance and as such they will be under more pressure to perform well. In consistent with this debate, Aljifri and Moustafa (2007) empirically report a positive association between firm size and the firm performance.

However, based on the aforementioned various arguments the expected sign for the effect of firm size on firm performance in the context of Ethiopian firms, as sampled in this study, has a positive relationship but insignificant. The testable hypothesis of firm performance is stated in a direct form.

A high amount of cash in the hands of managers may cause a problem of over-investment, which will negatively influence firm performance. However, in this study it is argued that the effect of cash ratio, which is measured as total cash holdings over the current liabilities according to Dursun, Cemil and Uyar (2013), has a positive relationship although the P-value is insignificant which is greater than 0.05.

An appropriate capital structure is a critical decision for any business organization. This decision is important not only because of the need to maximize returns to various organizational entities, but also it indicates firm's ability to deal with its competitive

environment. A firm's performance is apparently affected by numerous factors including the capital structure which could be considered as one of the prominent factors among them. Numerous studies have been conducted to explore the type of the relationships between a firm's performance and capital structure. Studies produced varied or mixed results as, for example, some found a positive, others a negative, or that no relationship exists between capital structure and the performance of the firm in order to ascertain if capital structure determines the firms' ROE-Return on Equity.

However this study is argued here to indicate that firms' performance is affected, despite GDP in Ethiopia is either projected to rise or firms' are emerging following this economic opportunities, mainly by the change in retained earnings. Many researchers have been conducted on retained earnings but it still untapped area in Ethiopia, in effect firms' performance is inconsistent and drastically declining in the year 2011 up to 2015 as shown in the sample study for 10 companies. As part of owned capital structure, the change in retained earnings have impacted and statistically supported in this study as it has a positive significance relationship with and explained the dependant variable such as return on equity.

The influence of asset turnover ratio on firm value indicated by the path coefficients (P-Value) -0.026, it's means asset turnover ratio negatively affect firm value, then the HA: rejected. Since t count p value (0.05) it means that negative effects are statistically insignificant. These means asset turnover ratio have negative effect on firm value but not significant. The results of this study support Ulupui (2007) that the asset turnover is affect negative but not significant on returns that is return on equity. But not in line with the results of Kennedy (2003) which showed a variable asset turnover significantly influence returns.

The above problem is due to the variability of asset turnover significantly influence the firm performance, but in this study it showed as positively related but insignificant due to the probability of the t- statistic is 30.6% that is greater than the null hypothesis is appropriately considered as less than 5% and in other word we accept the alternative or reject the null hypothesis.

1.6. Research Question

The research questions for this study are:

Do retained earnings affect the performance of the sampled manufacturing companies?

Is there the relation between firm size and performance of sampled manufacturing companies?

Do equity ratio, cash ratio and asset turnover affect the performance? Is there a link between external factors such as GDP and the performance of these manufacturing companies?

1.7. Objectives of the study

The main objective of the study is critically examining the effect of firm size, owned equity capital structure, the variability of asset turn over on the performance of business' in Ethiopia. The specific objectives are to:

- Evaluate linkage between the value of retained earnings, return on equity and firm size.
- Determine the association between the book value of owned equity capital and return on equity.
- Evaluate the total capital structure and firm's performance in Ethiopia.
- To enhance the relevant literature to provide further base for future research.

1.8. Hypothesis Development

In order to see the effect of firm size, capital structure (Both equity and cash ratio) and change in retained earnings in Ethiopia, researcher adopts mixed research approach. The rationale of using such a mixed approach is to gather data that could not be obtained by adopting a single method and for triangulation (Creswell, 2003).

Therefore, the study will develop the following hypotheses

H_o1: Ceteris paribus, there is no significant association between firm size and firm performance in Ethiopia.

H_o2: There is no significant relationship between cash ratio and firm performance in Ethiopia.

H_o3: There is no significant relationship between change in retained earnings and firm performance in Ethiopia.

H_o4: There is no significant effect of equity to total assets ratio on firm performance in Ethiopia.

1.9. Significance of the study

There have been few studies on the effect of firm size, capital structure and change in the retained earnings on the return on equity-ROE in developing countries, even fewer studies that focus on Africa and sub-Sahara Africa countries. The situation is also the same in our country; hence this study will shed some light on the effect of firm size, capital structure and change in the retained earnings on firms' performance in Ethiopia particularly manufacturing firms and attract other researchers to study for aggregate industries in a broaden way.

As to the knowledge of the researcher a study that shows the effect of firm size, capital structure and change in the retained earnings on firm performance of the manufacturing companies is the first to be conducted in Ethiopia. This study also has its contribution in showing the amount of return significantly and/or positively related to the explanatory variables such as firm size, capital structure, change in retained earnings, and GDP.

The research has a greater significance to shareholders and managers in reviewing their optimal structuring of capital and refocusing on element that changes their earning position which determine the level of return on equity in a good deal.

This study creates the chance for further research in the field of studying accounting performance measure analysis at Addis Ababa University particularly in Accounting and Finance Department.

1.10. Scope and limitation of the study

One of the major limitations experienced was use of secondary data entirely. The researcher was not able to clearly determine what other quantitative and qualitative problems affect return on equity of private companies in Ethiopia other than the retained earnings, capital structure, firm size, and GDP. There are so many qualitative aspects that would have come out better had we used primary data and captured the sentiments directly from the source.

The models applied to analyze the data were so complex and it took a long time to actually work out and interpret the results. The researcher would have projected the model better had I combined the use of primary data as well. This is because some variables in the model required more input other than what was extracted.

Time and confidentiality issues were a major constraint in this study. The researcher would have wanted to analyze more relationships but this was not possible since time to complete the study was highly limited and disclosing of private data was even challenging. There was need to review more studies by other researchers to actually investigate various dimensions on effect of capital structure choice.

There are limited local previous studies on the same research problem. Most studies that were close were looking more at the general capital structures and firm performance evaluation to only insurance and bank industry. The researcher therefore did not review as much of local studies as desired.

The population and sample used was highly summarized. The researcher could have done more with primary data on the dynamics and complexities affecting different sectors as individuals. However, it is recommended that future research may investigate the extent to which the respective findings may be generalized to other sectors as well.

1.11. Organization of the study

The paper is organized in to five chapters. Chapter one is the introductory parts of the paper; it includes the background of study, problem statement, objectives of study, hypothesis formulated, significance of the study, limitation and scope of the study. Chapter two is review of related literature and it has three parts: theoretical literature, empirical literature and literature gap. Chapter three is about research methodology, Data collection, data description and measurement, model specification, data processing and model evaluation. Chapter four presents the empirical analysis; Panel - Random effect model for analyzing the effect of firm size, capital structure and change in retained earnings on firm performance such as return on equity. Chapter five presents major findings, conclusions and gives possible recommendation.

CHAPTER TWO

LITERATURE REVIEW

2.1. Theoretical Review of Capital and Equity Structure.

The study applied theories and past studies founded on Modigliani and Miller, (1958). Of his four conflicting theories, the most important in this study were: the Static Trade-off, the Pecking Order, and the Signaling Theories. Myers (op. cit.) divided the contemporary thinking on financing strategy into the first two theoretical currents; the Static Trade-off and the Pecking Order. Trade-off theory which assumes that firms trade off the benefits and costs of debt and equity financing and find an ―optimal capital structure after accounting for market imperfections such as taxes, bankruptcy costs, information asymmetry cost and agency costs. Modigliani and Miller'(1958) ―irrelevance theory of capital structure‖, the theory of corporate capital structure has been a study of interest to financial economists.

2.1.1. The Static Trade-off Theory

Under the Static Trade-off of Financing Strategy (also referred to as the Tax Based Theory), Baxter, (1967) and Altman, (2002), noted that optimal financing strategy is obtained where the net tax advantage of debt financing balances leverage related costs such as financial distress and bankruptcy, holding the firm's assets and investment decisions constant. In view of this theory, issuing equity finance means moving away from the optimum and should therefore be considered as not good. Myers (op. cit.) had found that firms adopting Static Trade-off were regarded as setting a target debt-to-value ratio with a gradual attempt to achieve it. He however, suggested that managers will be reluctant to issue equity finance if they feel it is undervalued in the market. The consequence is that investors perceive equity issues to occur only if equity is either fairly priced or overpriced. As a result investors tend to react negatively to an equity issue and management is reluctant to issue equity. But there are more cost and benefits involved with the use of debt and equity. One other major cost factor

consists of agency costs. Agency costs stem from conflicts of interest between different stakeholders of the firms and because of ex post asymmetric information (Jensen and Meckling, 1976; Jensen, 1986). Hence, incorporating agency costs into the static trade-off theory means that a firm determines its capital structure by trading off the tax advantage of debt against the costs of financial distress of too much debt and the agency costs of advantage of debt against the costs of equity.

Many other cost factors have been suggested under the trade-off theory, and it would lead to far to discuss them all. Therefore, this discussion ends with the assertion that an important prediction of the static trade off theory is that firms target their capital structures.

2.1.2. The Pecking Order Theory

The Pecking Order Theory (also referred to as the Information Asymmetry Theory) was proposed by Myers (op. cit.), and Myers and Majluf op. cit. It states that firms prefer to finance new investment first internally with retained earnings, then with debt, and finally with issue of new equity. He argues that an optimal Financing Strategy is difficult to define as equity appears at the top and the bottom of the 'pecking order'. Internal funds incur no flotation costs and require no disclosure of the firm's proprietary financial information that may include the firm's potential investment opportunities and gains that are expected to accrue from undertaking investments. They pointed out that under pricing would be the best result of less information held by potential investor and management with respect to the expected cash flows from the firm's assets, both current and future. Considering this information asymmetry, investors would infer that the management would issue equity only when it is overpriced. Thus the newly issued equity might be sold at a discount. This would be regarded as a wealth transfer from existing investors to the new ones. This problem could be avoided if the firms use internally generated resources, such as retained earnings.

2.1.3. Signaling Theory

The impact of the signaling factor as already discussed in the Pecking Order Theory is the problem of the under pricing of equity. If a firm issues equity instead of debt for financing its new projects, investors will interpret the signal negatively. Since managers have superior information about the firm than investors, they might issue equity when it is overpriced.

2.1.4. Modigliani-Miller Theorem

Modigliani and Miller start by assuming that the firm has a particular set of expected cash flows. When a firm chooses a certain proportion of debt and equity to finance its assets, all that it does is to divide up the cash flows among investors. Investor and firms are assumed to have equal access to financial markets, which allows for homemade leverage. The investor can create any leverage that was wanted but not offered, or the investor can get rid of any leverage that the firm took on but was not wanted. As a result, the leverage of the firm has no effect on the market value of the firm.

Their paper led subsequently to both clarity and controversy. As a matter of theory, capital structure irrelevance can be proved under a range of circumstances. There are two fundamentally different types of capital structure irrelevance propositions. The classic arbitrage-based irrelevance proposition; provide settings in which arbitrage by investors keeps the value of the firm independent of its performance. In addition to the original Modigliani and Miller paper, important contributions include papers by Hirshleifer (1966) and Stiglitz (1969). The second irrelevance proposition concludes that ―given a firm's irrelevance policy, the dividend payout it chooses to follow will affect neither the current price of its shares nor the total return to its shareholders‖ (Miller and Modigliani, 1963). In other words, in perfect markets, neither capital structure choices nor dividend policy decisions matter. Modigliani-Miller theorem has failed under a variety of circumstances.

The most commonly used elements include consideration of taxes, transaction costs, bankruptcy cost, agency conflicts, adverse selection, lack of separation between financing and operations, time, cost of information asymmetry and cost of knowledge gap.

Alternative models use differing elements from this list. Given that so many different ingredients are available, it is not surprising that many different theories have been proposed. Covering all of these would go well beyond the scope of this paper. Haris and Raviv (1991) provided a survey of the development of this theory as of 1991.

Second, as an empirical proposition, the Modigliani-Miller irrelevance proposition is not easy to test. With debt and firm value both plausibly endogenous and driven by other factors such as profits, collateral and growth opportunities, we cannot establish a structural test of the theory by regressing value on debt. A popular defense has been to argue as theory and as follows: —While the Modigliani-Miller theorem does not provide realistic description of how firms finance their operations; it provides a means of finding reasons why financing may matter. This description provides a reasonable interpretation of much of the theory of corporate finance. Accordingly, it influenced the early development of both the trade-off theory and pecking order theory.

Third, bankruptcy costs must be deadweight costs rather than transfers from one claimant to another. The nature of these costs is important too. Fourth transaction costs must take a specific form for the analysis to work. For the adjustment to be gradual rather than abrupt, the marginal cost of adjusting must increase when the adjustment is larger. Leary and Roberts (2005) describe the implications of alternative adjustment such as PPA-Prior Period Adjustments and cost assumptions.

2.1.5. Agency Cost Theory

This is a theory concerning the relationship between the principal (shareholders) and the agent of the principal (company's managers). This suggests that the firm can be viewed as a nexus of contracts (loosely defined) between resource holders. An agency relationship arises whenever one or more individual, called principals, hire one or more other individuals, called agents, to perform some service and then delegate decision- making authority to the agents.

The agency theory concept was initially developed by Berle and Means (1932), who argued that due to a continuous dilution of equity ownership of large corporations, ownership and control become more separated. This situation gives professional managers an opportunity to pursue their interest instead of that of shareholders. Hence, firms which are mostly financed by debt given managers less decision power of those financed mostly by equity, and thus debt can be used as a control mechanism, in which lenders and shareholders becomes the principal parties in the corporate governance structure.

2.2. Determinants of Equity Structure and firm performance

To understand how firms finance their operations, it is necessary to examine the determinants of their equity structure. Both recent and historic studies have tried to find the determinants of capital structure. Titman and Wessels (1988) use the amount of tangible assets, non debt tax shield, growth, uniqueness of the industry, size, volatility of revenue and profitability to explain profitability performance in a latent variable model. With companies having more of uniqueness of the industry based on commercial code of Ethiopia and other statutory regulation to establish their capital, this paper will therefore look at the literature surrounding: Retained Earnings, Equity Ratio, Asset Turnover Ratio and Cash Ratio

2.2.1. Retained Earnings

Cressy and Olofsson (1997b) found that the equity financing ratio for incorporated firms in Sweden employing 5-199 people in 1993 increased with firm size. Retained earnings were the preferred means for financing expansion. Almost half of manufacturing respondents indicated they would sell their enterprise rather than take in an external partner. Owners are often underpaid for their labor input as they seek to conserve funds of the business. This should find its way into retained profits, however, so that it flows into owner's equity (Ang 1991; McMahon et al 1993).

Retained earnings is an accounting term that is of abiding interest to share investors because it identifies accumulated net income of a company that is not distributed to that company's shareholders as dividends. The corporation retains these net earnings, with the cumulative balance reported in the stockholder's equity area of the company's balance sheet, and on the statement of retained earnings. The total value of stockholder equity is calculated by subtracting the corporation's liabilities from its total assets. Retained earnings contribute to stockholders' ownership of the organization's net assets. It represents all net profits, since the corporation's inception, that have not been paid to stockholders as dividends. Should the corporation experience any net losses over the years, these will be subtracted from the cumulative retained earnings balance in the accounting records. Hence, in this study it is calculated the ratio of change in the retained earnings to the total book value of equity.

Ravi Thirumalaisamy,(2013). in their study examined the Firm Growth and Retained Earnings Behavior – A Study on Indian Firms ,The results suggest that across the classifications of sample companies cash flow and dividend are found to be the most influencing variables on retained earnings. Companies with low investment opportunities for growth and expansion prefer to distribute much of their earnings as dividend. The potential investment opportunities are likely to arise far off in the future for these companies. So profit, if retained, remains unutilized for long time or utilized in short-term investment opportunities which would yield low return on investment. Such companies prefer to pay

out the earnings and raise capital whenever needed. Thus, the level of earnings retained is very much influenced by the growth rate of the companies.

The existing literature on the relationship between retained earnings and financial performance in the case of manufacturing companies is scarce. However, based on the pecking order theory, it may be inferred that retained earnings being internal source of funds may be used before the debt financing. When the firms has low balance in the retention reserve, or when there is strain on the same, then to finance the investment projects, financial leverage may be used.

2.2.2. Equity Ratio

The ratio, expressed as a percentage, is calculated by dividing total shareholders' equity by total assets of the firm, and it represents the amount of assets on which shareholders have a residual claim. The figures used to calculate the ratio are taken from the company balance sheet. The balance sheet is based on a formula: assets less liabilities equal equity. If, for example, a company sold all of its assets for cash and used the cash to pay off all liabilities, any remaining cash equals the firm's equity. A company's shareholders' equity is the sum of common stock, additional paid in capital and retained earnings, and the balance is considered to be the true value of the firm. The formula is following as: Equity Ratio = Total Equity / Total Assets.

Cosh and Hughes (1994) found that small enterprises had lower equity financing ratios than large enterprises in both manufacturing (36%) and non-manufacturing (27%) industry from 1987 to 1989. The equity financing ratio initially increased and then declined as firm size increased. Internal equity from partners and working shareholders was the main source of equity finance for the small enterprises. Small enterprises also displayed lower dividend payout ratios enhancing the use of internal funding.

Walker (1989, p291) reports, using composite USA data from the second half of the 1980s, that equity financed almost 40% of the assets of firms with assets below $1 million declining to 32-33% for firms with assets between $1-10 million. This compares with an average ratio of

29% for all firms. Retained earnings comprised more than half of the capital of firms with assets of less than $10 million compared with only 37% for all firms. Capital contributions of the owners were the other major source of equity finance for small firms.

2.2.3. Total asset turnover ratio

The total asset turnover ratio measures the ability of a company to use its assets to generate sales.(Kieso, Weygandt, Warfield ,2001).It considers all assets including property ,plant and equipment, capital working in process, investment –long term, inventories, trade debtors, advances, deposit and prepayment, investment in market securities, short term loan, cash and cash equivalents etc. In these criteria a high ratio means the company is achieving more profit. The formula is following as: Total asset turnover = Sales / Total asset

2.2.4. Cash Ratio

The cash ratio is estimate to current liabilities into cash. It betoken the company can pay off it current liabilities given year from its operation.(Kieso, Weygandt,Warfield ,2001).It is the most famous ratio for realize the liquidity position of any company. Generally we know that current ratio and quick ratio is not good way to analysis the liquidity position for a company because it correspond of account receivable and inventory, which take time to convert to cash..Finally we can express that the cash ratio gives a better result. The formula of current ratio is below as; Cash Ratio = Cash / Current Liabilities

2.2.5. Profitability –ROE

Making profit is one of the ultimate goals of any economic activity. Profit can be measured by return on equity (ROE), which is calculated by dividing net profit by shareholders' equity. Shareholder equity represents share capital and proportions of profit retained in the company fund which is called 'retained earnings'. Although there are other profit measures available, it is preferred to use return on equity (ROE) as this is the most common measure of profitability in finance. Profitability and return on equity (ROE) determine the long-term growth prospects of a company. A high return on equity (ROE) creates a scope to invest and good investments lead to accelerated growth. Although it is not necessary for a firm to

reinvest all of its profits, we assume that all firms will at least reinvest a minimum proportion of their profits. Some firms may choose to retain a proportion in the company funds and allocate some of the profit to the shareholders in the form of dividends. We take it for granted that an increase in investment budget will be conformed to the profitability. In what follows, different previous works are quoted to see whether the concept of conformity in investment budgets is working for the relationship between profitability and firm growth. Surprisingly, the theoretical relationship between firm growth and profitability is unclear and has not been the subject of uniformity in empirical research (Coad & Hölzl, 2010). According to Friedman (1953), the relationship between profitability and growth is explained by theoretical models which approve the above mentioned concept of conformity in investment budgets. Profitable firms will be more motivated to grow, because they will not only have the financial means to expand, but their ongoing profit creation will also make it possible to sustain growth (Nelson & Winter, 1982). 4 Goddard, Molyneux & Wilson (2004) are of the opinion that the theoretical belief of firm performance and growth is not observed in reality. According to their findings, firm profitability and growth are not necessarily linked to each other. Additionally, some recent studies confirm the concerns of Goddard and his co-writers (Coad, 2007).

Over time it has become clear that improving the ROE may not necessarily improve shareholder value. Although ROE has some appeal because it links the income statement (earnings) to the balance sheet (equity), it has some serious flaws as a measure of performance. The first and most obvious flaw is that the earnings can be (and is) manipulated legally within the framework of Generally Accepted Accounting Practice (GAAP) via changes in accounting policy.

The second flaw is that ROE is calculated after the cost of debt, but before taking into account the cost of own capital. ROE increases with more financial gearing, as long as the returns earned on the borrowed funds exceed the cost of the borrowings. The danger inherent in increasing the financial gearing beyond a certain level is that the increased financial risk may cause the value of the company and the share price to fall. Pursuing a higher ROE may lead

to wealth destruction, which is not in line with the economic principles of shareholder value creation.

Rappaport (1986:43) has pointed out that the second component of ROE, namely asset turnover, is affected by inflation in such a way that it may increase even when assets are not utilized better. He reasons that sales immediately reflect the impact of inflation, whereas the book value of assets, which is a mixture of new and older assets, does not adapt as quickly to the effects of inflation. Rappaport's (1986:43) studies in the 1970's revealed that although the earnings of Standard & Poor's 400 companies decreased dramatically during the 1970's, their ROEs actually increased through increased levels of asset turnover and gearing.

The markets, however, were not misled by this apparent 'better performance'. Consequently the market returns during this period were generally very poor, or 'dismal', according to Rappaport. Around 1989 when Reimann (1989:3) published his work, ROE was used extensively for measuring whether value was being created for shareholders. The reason behind the adoption of ROE as a measure was that it gave more reliable results than earnings per share (EPS) (Reimann, 1989:18)

2.2.6. GDP

Gross domestic product (GDP) is the monetary value of all the finished goods and services produced within a country's borders in a specific time period. GDP is usually calculated on an annual basis. Gross Domestic Product (GDP) includes all private and public consumption, government outlays, investments and exports minus imports that occur within a defined territory. One out of several key factors as determinant of FDI is host country's market growth rate. The overall contribution of Ethiopian Industrial Manufacturing to the national GDP is, about 7%, which is seven times less than the share of agriculture and is 12% that of total industry to GDP, EEA [2003/04,PP.154-59]

Countries can be measured by GDP growth rate. Investors, especially foreign investors, will be more captivated in countries with larger market growth rate, as indicated by GDP growth rate which reflects the level of potential growth in demand. Definition of GDP growth as

(World Bank, World Development Indicators, 2012) clarified is the annual percentage growth rate of GDP at market prices based on constant local currency where the aggregates are based on constant 2000 U.S. dollars. Penman (1990) investigated the properties of the rate of return on equity (ROE). He concluded that ROE is primarily at profitability measure but also concluded that: "ROE is not sufficient for distinguishing future profitability and thus is not a satisfactory summary measure for financial statement analysis. A further research question is whether (and how) a decomposition of ROE might improve the assessment of future profitability." (penman, 1990, p. 253)

2.2.7. Firm Size

The size of the firm affects its financial performance in many ways. Large firms can exploit economies of scale and scope and thus being more efficient compared to small firms. In addition, small firms may have less power than large firms; hence they may find it difficult to firms become large, they might suffer from inefficiencies, leading to inferior financial performance. Theory, therefore, is equivocal on the precise relationship between size and performance (Majumdar, 1997).

Size has significant statistical impact on financial performance of firms. This is supported by Liargavas and Skandalis, 2008; Tarawneh, 2006, Kakani, Saha and Reddy (2001). Chen and Wong, (2004), stated that the larger firms are more profitable. Hence, large firms have more resources, more accounting staff and sophisticated information systems that result in high performance. Furthermore, large companies tend to be followed by a relatively large number of financial analysts who usually rely on timely release of annual reports to confirm and revise their expectations of companies' present and future economic prospects.

2.3. Empirical Evidence on Firm's Performance

Over the past several decades' corporate finance researchers have devoted considerable efforts to transform rationalism of capital structure into empiricism. The problem of developing a conclusive theory of capital structure and designing empirical tests those are

powerful enough to provide a basis for choosing among the various theories is still unresolved. The literature on the relationship between firm performance and capital structure has produced mixed results (Taani, 2013). Hence, the relationship between capital structure and firm value has been the subject of considerable debate. Apart from the seminal work of Modigliani and Miller (1958) emphasizing on the irrelevance theory of capital structure and their subsequent revision taking in to account the tax benefit of debt financing Modigliani and Miller (1963), as well as succeeding arguments and researches such as Static Trade-off Theory of Myers (1984) and pecking order theory of Myers & Majluf (1984) which argues in the contrary of static trade-off theory, there are empirical studies that emphasis on the relationships between capital structure and profitability/performance of firms.

A study conducted by Whittington (1980) even found a negative association between firm size and profitability for U.K. based listed manufacturing companies covering the time period from 1960 to 1974. While no suitable reasoning can be used to explain such a link, organizational theory may perhaps solve part of this quandary. Downs (1967) suggests that larger firms can lead to increased coordination requirements, which in turn, makes the managerial task more difficult leading to organizational inefficiencies and lower profit rates. Further, it has been suggested that increased size tends to be associated with higher bureaucratization (Ahuja & Majumdar, 1998). Larger firms may have overly bureaucratic management structures, thereby inhibiting swift and efficient decision-making process.

It is also possible that with the additional management layers needed to organize an increasingly large and diverse workforce, management may be affected by the agency problems. Another plausible argument to justify the possibility of a negative firm size-profitability relationship can be found in the concept of X-inefficiency. X-inefficiency, or organizational slack, is a measure of the degree to which costs are higher than they need be. Whilst diseconomies of scale refers more to the inadequacy in matching resource requirements to produce more, X-inefficiency reasons that general managerial or technological inefficiency in larger firms cause higher production costs which end up in reductions in the bottom line i.e. profit rates decline. Based on previous literature, it is

difficult to make a clear, let alone a final prediction of the overall effects of the firm size-profitability relationship. From the studies carried out, the association appears to differ depending on the industry under analysis. Given this ambiguity, it seems prudent to empirically resolve, independently, the association between firm size and profitability on a case-by-case basis and avoid the tendency to generalize.

In Ethiopia, there is no empirical study directly related with the subject matter of this study, "The impact of capital structure on profitability of Commercial Banks of Ethiopia" with an emphasis on core business operations profitability of banks. However, there are a few studies in some areas of corporate finance. Usman (2013) 23 examined the determinants of capital structure of large taxpayer share companies in Ethiopia. Econometric analysis were performed for a panel of 37 listed companies in Ethiopian Revenue and Customs Authority (ERCA) large taxpayers' branch office in Addis Ababa for the study period of 2006–2010. Nine conventional explanatory variables were adopted in the study, including profitability, size, age, tangibility, liquidity, non-debt tax shield, growth, and dividend payout ratio and earnings volatility.

As a result of the improvement in the existing estimation methods that enables to employ random-effect panel data regression was applied to study the effect of selected independent variables on firm performance.. Based on the sign of these relations the Author also indicated that, Agency cost theory provide more convincing evidence than other capital structure theories in elucidating the capital structure of large taxpayer share companies in Ethiopia.

2.4. Summaries of Literature Gap

With regard to a firm's capital structure, the MM theorem opened a literature on the fundamental nature of debt versus equity. The capital structure of a firm is the result of the transactions with various suppliers of finance. In the perfect capital market world of MM, costs of different forms of finance do not vary independently and therefore there is no extra gain from opportunistically choosing among them.

Various theories of capital structure differ in their interpretation of these factors. Each emphasizes some costs and benefits of alternative financing strategies, so they are not designed to be general. According to the standard pecking order theory, adverse selection accounts for the corporate use of debt. Both theories having weak parts, it is not surprising that there is active research on this matter.

In reference to the study of others, it can be concluded that there may be a difference with regard to performance, change in retained earnings and firm Size. With the results of some studies such as described here is explained per se:

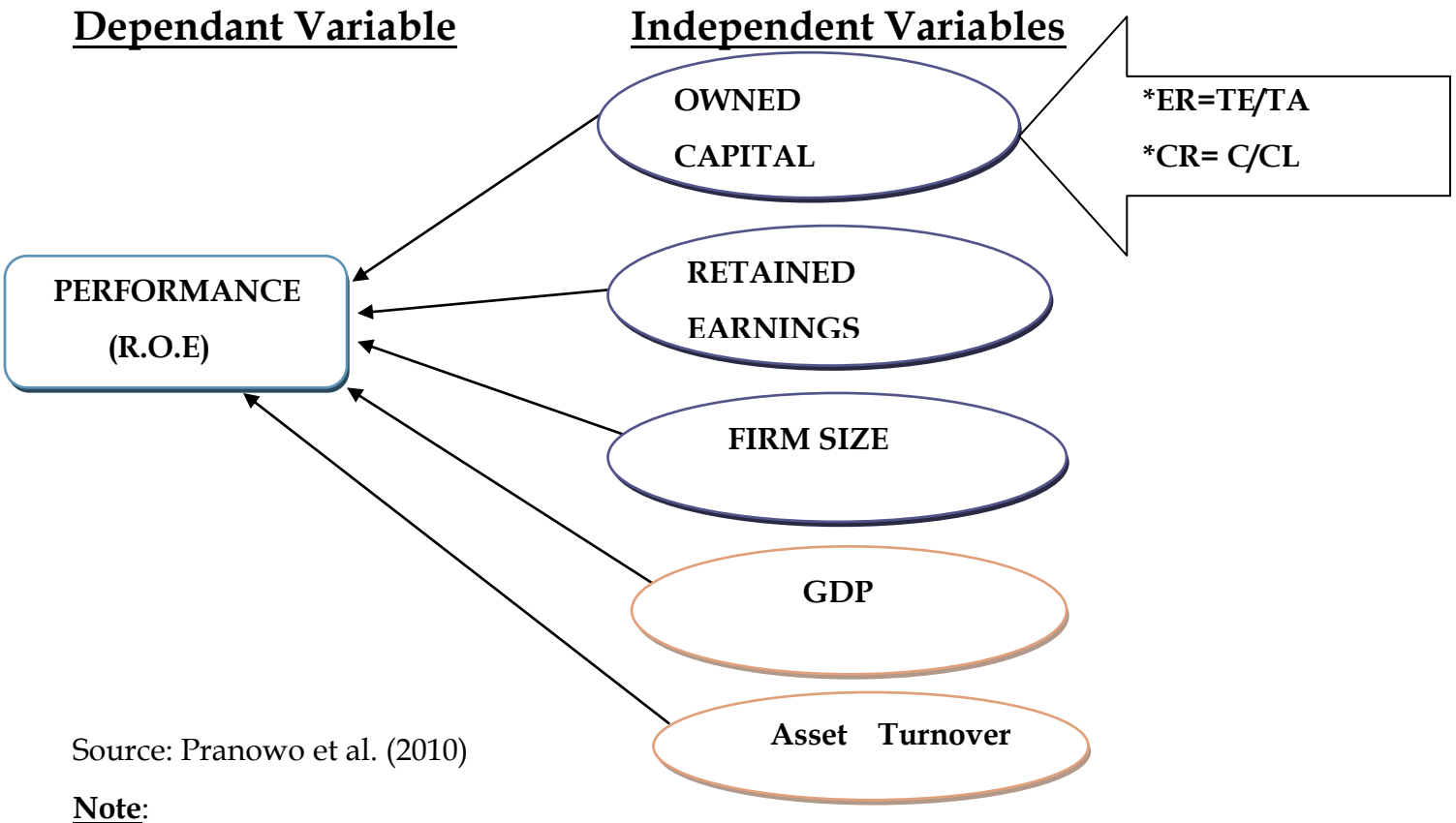
Under the study (ISSN: 2028-9324, Vol.10No.3, 2015, 930) stated that there is significant and direct relationship between company size and the ratio of changes in retained earnings of companies. However, in this study the correlation analysis of the independent variables for the selected firms indicates that there is a difference that the result reflected on change in the retained earnings and firm size.

A vigorous statistical analysis shows no significant relation between corporate performance and shareholder enrichment. In fact, using any of the measurements of corporate performance currently in vogue, share performance remains unrelated to corporate performance. The usual standard is ROE, which is net income divided by the equity on the balance sheet.

From the review above, this study will contribute as a base for the literature and a proxy for developing conceptual framework regarding the efficacy of determining the relationship between the ratio of change in the retained earnings and ROE is directly and significantly related for these manufacturing companies in Ethiopia. Moreover, the study also seeks to investigate further about the discounted retained earnings scenarios in business performance so that could be identified as an index for determining current market value and it will enlighten further research to be considered and made in relation to firms' owned/equity capital structure than a rigorous study made only the debt capital structure as the literature review in this dimension is limited.

In general, the lack of sufficient research on the effect of owned/equity capital, firm size and change in retained earnings on firms' performance, in the context of Ethiopia and the existence of knowledge gap in the area begin this study. Therefore, the objective of this research thesis is to examine the factors that affect the determinants of financial distress, on manufacturing share companies in Addis Ababa-Ethiopia and to fill the knowledge gap that exists in the area by adopting a quantitative method.

2.5. Conceptual Framework



Source: Pranowo et al. (2010)

Note:

Performance (ROE) = Net profit to Total Equity = NP/TE

Equity Ratio = Total Equity to Total Assets= ER= TE/TA

Cash Ratio = Cash/Current Liabilities: Cash holding ratio= CR=C/CL

Retained Earnings = Log of change in the retained earnings=GRE

Firm Size = Log of Total Assets. =FS

GDP = Annual GDP growth rate.

Asset Turnover ratio= Sales/Total Assets=S/TA

CHAPTER THREE

Research Design & Methodology

3.1. Methodology of the study

This part of the study deals with the methodologies applied for undertaking the study. It consists of research approach, study design, data source and type, sample design and method of data analysis

3.2. Research Approach

Depending on the nature of the research problem and the research perspective, a research method could be based on the philosophy of quantitative or qualitative or a combination of these two approaches. As Creswell (2003) noted, quantitative research employs a review of the existing literature to deductively develop theories and hypotheses to be tested i.e., in this approach, the research problem is translated to specific variables and hypotheses. Quantitative research approach tends to assume that there is a cause and effect relationship between known variables of interest. In line with this, quantitative research tests the theoretically established relationship between variables using sample data with the intention of statistically generalizing for the population under investigation and it uses statistical methods in describing patterns of behavior.

Well-designed and implemented quantitative research has the merit of being able to make generalizations, for a broader population, based on findings from the sample. To enhance the generalization of findings, quantitative research methods follow, at least theoretically, standardized procedures in sample selection, instrument design, implementation and analysis. This standardization in turn increases the replicability of procedures and the reliability of findings and also can mitigate the impact of interviewer and interviewee biases. However, quantitative research is based on the assumption that research procedures, including instrument design, sample selection and implementation, can be standardized and would lead to reliable outcomes.

In reality this may neither be easy nor true since the research problem may require exploration of new ideas, which may not be achieved by following structured procedures (Yesegat 2009). Similarly, Creswell (2003) describes qualitative approach as it uses the philosophical assumption of social constructivism worldview that provides an understanding of social reality based on the subjective interpretation.

Besides, the third approach is mixed research approach that seeks a pragmatic knowledge claim philosophy that consists of both quantitative and qualitative approaches. McKerchar 2008 (cited in Yesegat 2009), in general, the choice among the three research approaches is guided by mainly the research problem apart from the underlying philosophy of each research method. That is, whether the research problem is based on a framework developed deductively through a review of the literature and prefigured information to be collected in advance of the study or to allow it to emerge from participants in the project or both.

Thus, in order to achieve the objectives stated in the preceding section, considering the nature of research problem and the research perspective, this study will be mainly employ quantitative research approach whether firm size, owned capital and change in the retained earnings has effect on firms' performance of manufacturing share companies in Addis Ababa-Ethiopia over the period of 2011-2015. In this study, the empirical methodology is adopted mainly from Naveed et al. (2010) with some modifications.

3.3. Research Design

In order to see the effect of firm size, owned capital, and change in retained earnings on firms' performance in Ethiopia, the researcher adopts quantitative research approach. Hence, this study, in light of the research questions, the quantitative method is predominantly used. The study is basically regression analysis. As a preliminary purpose in this analysis, the method designed to take in to account the stated specific objectives. Hence, to meet the objectives of this study, explanatory research design was adopted. Besides, this study used quantitative research approach to examine a stated objective because quantitative research is a systematic and scientific investigation of quantitative properties and phenomena and their

relationships (Abiy, 2009). Panel data of 10 manufacturing companies for five years (2011 to 2015) was used. This is because of that panel data has the advantage of giving more informative data as it consists of both the cross-sectional information, which captures individual variability, and the time-series information, that captures dynamic natures of the data.

3.4. Research Method

The methodology of carrying out this research is based on the objectives of the paper and the availability of relevant information. To comply with the objective of this research, the paper is primarily based on quantitative research, which constructed an econometric model to identify and measure the effect. Specifically, multiple regression analysis is adopted to measure the effect of determinants on financial distress. The use of panel character of the data collected in this study allows using a panel data model. Panel data is a combination of time-series and cross-section data. According to Mohammed, (2007) the panel regression equation varies from a regular time-series or cross-section regression by the double subscript attached to each variable.

3.5. Source of data and collection methods

Given the research design, secondary data was used to meet the objectives of the study. According to Stewart and Kamins (1993) cited in Li Yuqi (2007), secondary data have its own advantages. Compared to primary data, secondary data gives higher quality data, the feasibility to conduct longitudinal studies and the permanence of data. That is, secondary data generally provide a source of data that is both permanent and available in a form that can be checked relatively easily by others and increases the dependability of the data, hence ensure data quality.

As a result, the data for firms and profitability indicator variables was obtained from audited financial statements of the respective manufacturing firms. Thus, the data were collected from ERCA and from the respective companies. In order to avoid the risk of distortion in the quality of data, the data was the audited financial statements particularly balance sheet and income statement. The study included ten

manufacturing companies. Accordingly, this study used panel data of 10 firms for five years (2011 to 2015) resulted in 50 observations.

3.6. Sampling Design

The researcher applied purposive sampling technique for the selection of manufacturing share companies in Addis Ababa-Ethiopia. The analysis was based on consolidated data from the 2011-2015 financial statements and annual reports ten manufacturing share company in Addis Ababa-Ethiopia. Taking research needs and the compatibility of data into account, the researcher selected the sample data according to the following criteria: excluding those manufacturing share company establish after 2011 because the researcher needs annual report and financial statement of five years.

Thus, there are a total of 25 manufacturing share companies operating in Addis Ababa-Ethiopia. However, there are only ten manufacturing share companies which are able to fulfill the above mentioned criterion i.e., at least five years of work experiences and availability of data. Those manufacturing share companies selected for the study were. Since, they had provided detailed information on the determination of return on equity. In order to test the hypothesis, financial ratios of ten manufacturing share companies are analyzed using panel data regression.

3.7. Method of Data Analysis

To achieve the objectives the study, panel data of ten manufacturing companies for ten years (2011 to 2015) was used. This is because of that panel data has the advantage of giving more informative data as it consists of both the cross-sectional information, which captures individual variability, and the time-series information, that captures dynamic natures of the data. And hence it ensures more variability, more degrees of freedom, more efficiency, and less collinearity among variables (Gujarati, 2004). Using statistical package EViews version 8.1software, the collected panel data was analyzed using the descriptive statistics and multiple regressions. In the analysis of the descriptive statistics, the mean, standard deviation, maximum

and minimum values were used to analyze the trends of the data. Furthermore, diagnostic tests were managed in order to check the validity of the model based on the assumption of the Ordinary Linear Regression Model. Specifically, the assumption tests that were managed in this study include Heteroskedasticity Test, Autocorrelation Test, and test for Multicollinearity and Normality.

Finally, the Hausman specification test was used to choose the appropriate model for this study between the random effect (RE) and fixed effect (FE) model. Thus, based on the result of this test, the random effect model was found to be appropriate and applied for the study. Therefore, the multiple regression result of random effect model used to analyze the effect of firm size, owned capital and change in the retained earnings on firm performance in Ethiopia, and to examine the relationship between the variables used in this study.

The researcher used secondary data for this study. Particular study collection of secondary data allowed the researcher to economize on resources, provide more efficient management of the time needed to collect the information as well as obtaining a greater number of observations. The data for this particular study was retrieved from the business' financial statements such as income statements, balance sheets and annual reports. Other data necessary for the study were extracted from the annual reports of World Bank Data and from the archive of Federal Inland Revenue Authority.

3.8. Model specification and variables description

3.8.1. Variables description

This study used explanatory variables such as firm size, change in the retained earnings, equity to total asset, cash to current liabilities, sales to total assets and GDP while the dependent variable was return on Equity. The variables descriptions are stated below.

3.8.1.1. Dependent Variable

Return on Equity

Profit can be measured by return on equity (ROE), which is calculated by dividing net profit by shareholders' equity. Shareholder's equity represent share capital and proportions of profit retained in the company fund which is called 'retained earnings'. Although there are other profit measures available, it is preferred to use return on equity (ROE) as this is the most common measure of profitability in finance. Profitability and return on equity (ROE) determine the long-term growth prospects of a company and the measurement is treated as the dependant variable.

ROE= Net Profit after Tax/ Total Equity.

3.8.1.2. Independent Variable

Retained Earnings:

Retained earnings is an accounting term that is of abiding interest to share investors because it identifies accumulated net income of a company that is not distributed to that company's shareholders as dividends. The corporation retains these net earnings, with the cumulative balance reported in the stockholder's equity area of the company's balance sheet, and on the statement of retained earnings. The change in the retained earnings was taken as the logarithm of the retained earnings during the period selected.

Change in retained earnings (GRE) = Log of the retained earnings

Firm Size

The size of the firm affects its financial performance in many ways. Large firms can exploit economies of scale and scope and thus being more efficient compared to small firms. In addition, small firms may have less power than large firms; hence they may find it difficult to firms become large, they might suffer from inefficiencies, leading to inferior financial performance. Theory, therefore, is equivocal on the precise relationship between size and performance (Majumdar, 1997).

Firm Size= Log of Total Assets

Equity Ratio

The ratio, expressed as a percentage, is calculated by dividing total shareholders' equity by total assets of the firm, and it represents the amount of assets on which shareholders have a residual claim. The figures used to calculate the ratio are taken from the company balance sheet. The balance sheet is based on a formula: assets less liabilities equal equity.

Equity Ratio= Total Equity/ Total Assets.

Total asset turnover ratio

The total asset turnover ratio measures the ability of a company to use its assets to generate sales.(Kieso, Weygandt, Warfield ,2001).It considers all assets including property ,plant and equipment, capital working in process, investment –long term, inventories, trade debtors, advances, deposit and prepayment, investment in market securities, short term loan, cash and cash equivalents etc. In these criteria a high ratio means the company is achieving more profit. The formula is following as:

Total asset turnover = Sales / Total asset

Cash Ratio

The cash ratio is estimate to current liabilities into cash. It betoken the company can pay off it current liabilities given year from its operation. (Kieso, Weygandt,Warfield ,2001).It is the most famous ratio for realize the liquidity position of any company. Generally we know that current ratio and quick ratio is not good way to analysis the liquidity position for a company because it correspond of account receivable and inventory, which take time to convert to cash..Finally we can express that the cash ratio gives a better result. The formula of current ratio is below as;

Cash Ratio = Cash / Current Liabilities

3.8.2. Model specification

As it is clearly indicated in the previous sections, panel data regression model was adopted for this study. Panel data was generated using both time series and cross-sectional data from the audited financial statements of the banks. It was also ideally used because it helps in the identification of effects that cannot be easily pointed out using purely cross- section or time series data, and other important features. This study used explanatory variables such as firm size, change in retained earnings, equity to total assets, cash to current liabilities, sales to total assets, GDP while the dependent variable was return on equity.

The general model;

$Y_{it} = \alpha + \beta X_{it} + \mu_{it}$ Where,

Y_{it} = is the dependent variable.

B0 = is the intercept.

X_{it} = is the independent variable.

μ_{it} = are the error terms.

i = is the number of firms and

t = is the number of time periods.

The subscript i representing the cross-sectional dimension and t denote the time series dimension. Based on the above general model the effect of capital structure on profitability of core business operation of commercial banks were evaluated using the model outlined below;

$ROE_{it} = \beta 0_{it} + \beta 1GRE_{it} + \beta 2\ FS_{it} + \beta 3\ ETOTA_{it} + \beta 4\ CTOCL_{it} + \beta 5\ GDP_{it} + B6\ ASSTO_{it} + \mu_{it}$ Where,

ROE_{it} = Return on Equity of firm i in year t

GRE_{it} = Change in the retained earnings of the firm i in year t

FS_{it} = Firm size (Log of TA) of firm i in year t

ETOTA $_{it}$ = Equity to Total Assets of the firm i in year t

CTOCL $_{it}$ = Cash to Current Liabilities of the firm i in year t

GDP $_{it}$ = GDP of the firm i in year t

ASSTO $_{it}$ = Asset turnover ratio of the firm i in year t

μ_{it}= error

3.8.3.Hypothesis of the study

H_o1: Ceteris paribus, there is no significant association between firm size and firm performance in Ethiopia.

H_o2: There is no significant relationship between cash ratio and firm performance in Ethiopia.

H_o3: There is no significant relationship between change in retained earnings and firm performance in Ethiopia.

H_o4: There is no significant effect of equity to total assets ratio on firm performance in Ethiopia.

CHAPTER FOUR

Results and Analysis

The previous chapter presented the research methodology applied to meet the objective of the study. This chapter presents the results and analysis of the findings as well as discussion of results. The chapter is organized in to four sections. Section 4.1 presents summary of statistics. Then Section 4.2 and 4.3 presents the Classical Linear Regression Model assumptions tests and results of regression analysis respectively. Finally, section 4.4 presented the summary of findings.

4.1. Descriptive of statistics-

The study examined the determinants of capital structure for eight banks over the time period from 2011-2015. The descriptive statistics of the dependent and explanatory variables for the sample firms were summarized in table 4.1. The total observation for the each dependent and explanatory variable was 50.

Moreover, the table also shows the mean, standard deviation, minimum, median and maximum values for the dependent and independent variables. The mean return equity of firms was -6.56 percent with the standard deviation of 79.9 percent. This means that the selected firms' performance was declining in Ethiopia and shows a high variation.

The mean of change in the retained earnings was 4.8 percent with the standard deviation of 21.6 percent. The mean of firm size was 88.6 percent with the standard deviation of 3.7 percent this shows the existence of great variation in firm size of manufacturing companies in Ethiopia.

The probability of Jarque-Bera indicated less than 5% for the explanatory variables of cash to current liabilities and change in the retained earnings whilst the other explanatory variables such as firm size, equity to total assets ratio, asset turnover and GDP was greater than 5% as this indicate the level of the variation happened between the selected firms in Ethiopia.

Table4.1. Descriptive Statistics

	ROE	EQTOTA	CATOCL	GRE	FS	GDP	ASSTO
Mean	-0.065594	0.461392	0.448748	0.049327	0.886299	0.100320	1.239473
Median	-0.011200	0.452005	0.248285	-0.004905	0.871665	0.102700	0.933445
Maximum	1.111580	0.979920	4.409660	0.786290	0.971820	0.111700	3.163800
Minimum	-3.762150	-0.089990	0.000000	-0.373430	0.830610	0.086400	0.021630
Std. Dev.	0.799528	0.275918	0.738403	0.215994	0.037198	0.008890	0.890710
Skewness	-2.787876	-0.143041	3.722658	1.403884	0.788586	-0.350909	0.747120
Kurtosis	13.32517	1.992501	18.76716	5.568048	2.914250	1.868684	2.241384
Jarque-Bera	286.8710	2.285203	633.4083	30.16340	5.197552	3.692551	5.850523
Probability	0.000000	0.318988	0.000000	0.000000	0.074365	0.157824	0.053651
Sum	-3.279680	23.06958	22.43738	2.466360	44.31496	5.016000	61.97367
Sum Sq. Dev.	31.32303	3.730409	26.71673	2.286010	0.067801	0.003873	38.87488
Observations	50	50	50	50	50	50	50

Source: Structured review of financial statements and own computations

4.2. Correlation analysis

Table 4.2, shows the correlation between the explanatory variables in this study. As noted in Brooks (2008), Correlation between two variables measures the degree of linear association between them. To find the association of the independent variables with the leverage, Pearson product moment of correlation coefficient was used. Values of the correlation coefficient are always ranged between positive one and negative one. A correlation coefficient of positive one indicates that a perfect positive association between the two variables; while a correlation coefficient of negative one indicates that a perfect negative association between the two variables.

A correlation coefficient of zero, on the other hand, indicates that there is no linear relationship between the two variables. The correlation matrix in Table 4.2 shows that EQTOTA (independent variable) was negatively correlated with firm size, Change in the retained earnings has a negative correlation with firm size and GDP which indicates that firm with higher change in retained earnings has negatively related with the firm size. The dependant variable that is ROE has a negative correlation with the firm size but it indicates this variable has positively correlated with other explanatory variables in the study.

Table 4.2. Correlation

	ROE	EQTOTA	CATOCL	GRE	FS	GDP	ASSTO
ROE	1.000000						
EQTOTA	0.517540	1.000000					
CATOCL	0.004823	0.001882	1.000000				
GRE	0.620777	0.444177	-0.028512	1.000000			
FS	-0.139553	-0.501540	-0.059308	-0.170527	1.000000		
GDP	0.131577	0.029952	-0.026996	0.255021	-0.059647	1.000000	
ASSTO	0.189241	0.122780	0.103830	0.231910	-0.485598	0.005207	1.000000

Source: Structured review of financial statements and own computations

4.3. Tests for the Classical Linear Regression Model (CLRM) Assumptions

Different tests were run to make the data ready for analysis and to get reliable output from the research. These tests were intended to check whether the CLRM assumptions, i.e. the OLS assumptions, are fulfilled when the explanatory variables are regressed against the dependent variables. Accordingly, the following sub-section presents tests of CLRM.

Test of Normality

The normality tests for this study as shown in figure 4.1 the kurtosis is close to 3, and the Bera-Jarque statistic has a P-value of 0.151 which was greater than 0.05 implying that the data were consistent with a normal distribution assumption

Normality test for LRESID

Mean	-1.38782
Median	-1.19042
Maximum	0.038203
Minimum	-4.05117
Std. Deviation	1.085231
Skewness	-0.85309
Kurtosis	2.916507
Jarque Bera	3.769063
Probability	**0.1519**

4.4. Test of multicollinearity

In order to examine the possible degree of multicollinearity among the explanatory variables, correlation matrixes of the selected explanatory variables were presented in table 4.3. Usually the multicollinearity exists if the correlation between two independent variables is more than 0.75 (Malhotra, 2007). As it appears in the correlation matrix table 4.3, there were no such high correlation between the explanatory variables. Thus, there is no problem of multicollinearity for this study as the maximum absolute value is 0.485.

Table 4.3. Correlation analysis between explanatory variables

	EQTOTA	CATOCL	GRE	FS	GDP	ASSTO
EQTOTA	1.000000					
CATOCL	0.001882	1.000000				
GRE	0.444177	-0.028512	1.000000			
FS	-0.501540	-0.059308	-0.170527	1.000000		
GDP	0.029952	-0.026996	0.255021	-0.059647	1.000000	
ASSTO	0.122780	0.103830	0.231910	-0.485598	0.005207	1.000000

Source: Structured review of financial statements and own computations

4.5. Test of Heteroscedasticity

Table 4.4 presents three different types of tests for heteroscedasticity and then the auxiliary regression in the first results table displayed. The test statistics give us the information we need to determine whether the assumption of homoscedasticity is valid or not, but seeing the actual auxiliary regression in the second table can provide useful additional information on the source of the heteroscedasticity if any is found. In this case, both the F- and $\chi 2$ versions of the test statistic give the same conclusion that there is no evidence for the presence of heteroscedasticity, since the

p-values are considerably in excess of 0.05. The third version of the test statistic, 'Scaled explained SS', which as the name suggests is based on a normalized version of the explained sum of squares from the auxiliary regression, similarly suggests in this case that there is no evidence of heteroscedasticity problem.

Table. 4.4. Heteroskedasticity Test: White

Heteroskedasticity Test: White

F-statistic	0.303487	Prob. F(27,22)	0.9981
Obs*R-squared	13.56912	Prob. Chi-Square(27)	0.9851
Scaled explained SS	53.46858	Prob. Chi-Square(27)	0.0018

Source: Structured review of financial statements and own computations

4.6. Test for Assumption of Autocorrelation

This is an assumption that the errors are linearly independent of one another (uncorrelated with one another). If the errors are correlated with one another, it would be stated that they are auto correlated. According to Brooks (2008), the null hypothesis is rejected and the existence of positive autocorrelation presumed if DW is less than the lower critical value; the null hypothesis is rejected and the existence of negative autocorrelation presumed if DW is greater than 4 minus the lower critical value; the null hypothesis is not rejected and no significant residual autocorrelation is presumed if DW is between the upper and 4 minus the upper limits; the null hypothesis is neither rejected nor not rejected if DW is between the lower and the upper limits, and between 4 minus the upper and 4 minus the lower limits.

The DW test statistic value of the regression result of this study was 1.715844. There are 50 observations in the regression and 6 repressors excluding the intercept. As per the DW statistics significance table, at 5% significance level the relevant critical values for the test were dL = 1.535 and dU = 1.802, and the related calculated figures of 4 − dU = 2.198 and 4 − dL = 2.465. The test statistic (2.018) fall between the upper

(dU = 1.802) and 4 minus the upper limits (4 − dU = 2.198). Therefore, the null hypothesis is not rejected and no significant residual autocorrelation is presumed. In addition, another test called Serial Correlation LM Test also managed to validate the result of the DW test result.

Table 4.4.Breusch-Godfrey Serial Correlation LM Test:

Breusch-Godfrey Serial Correlation LM Test:

F-statistic	3.144703	Prob. F(2,41)	0.0536
Obs*R-squared	6.649911	Prob. Chi-Square(2)	0.0360

Durbin-Watson stat	1.715844

Source: Structured review of financial statements and own computations

4.7. Results of the regression analysis

As stated in Brooks (2008), in financial research, there are two major classes of panel estimator approaches that can be employed. Namely, the fixed effects model and random effects model. In order to select the appropriate model which provide consistent estimates for this study, Hausman test was employed. Table 4.5, presents the Hausman specification test which suggests the random effects model was better than fixed effects model as the p-value (0.3756), is in excess of 0.05 for dependent variables which imply that the random effects model should not be rejected and thus, the analysis is based on the random effects estimates.

Table 4.5. Correlated Random Effects - Hausman Test

Correlated Random Effects - Hausman Test

Equation: Untitled

Test cross-section random effects

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	6.440997	6	0.3756

Source: Structured review of financial statements and own computations

Table 4.6. Random effect model estimates

Dependent Variable: ROE

Method: Panel Least Squares

Date: 07/03/16 Time: 23:16

Sample: 2011 2015

Periods included: 5

Cross-sections included: 10

Total panel (balanced) observations: 50

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-5.040203	3.326497	-1.515169	0.1370
EQTOTA	1.191378	0.423381	2.813961	0.0074**
CATOCL	0.016489	0.119490	0.137993	0.8909
GRE	1.619141	0.493088	3.283679	0.0020**
FS	4.518211	3.214681	1.405493	0.1671
GDP	1.793731	10.32862	0.173666	0.8629
ASSTO	0.123614	0.119519	1.034270	0.3068

R-squared	0.483744	Mean dependent var	-0.065594
Adjusted R-squared	0.411708	S.D. dependent var	0.799528
S.E. of regression	0.613240	Akaike info criterion	1.989055
Sum squared resid	16.17070	Schwarz criterion	2.256738
Log likelihood	-42.72637	Hannan-Quinn criter.	2.090990
F-statistic	6.715336	Durbin-Watson stat	1.715844
Prob(F-statistic)	0.000046		

*** Significant at 1% and ** significant at 5%**

$ROE_{it} = -5.040203 + 1.191378GRE_{it} + 0.016489 FS_{it} + 1.619141 ETOTA_{it} + 1.518211 CTOCL_{it} + 1.793731GDP_{it} + 0.123614ASSTO_{it}$

The random effect result in table 4.6 indicates that equity to total assets as measured by total Equity to total assets was statistically significant (p- value = 0.0074) at 5% level and had positive relation with profitability. Whereas, the change in the retained earnings was strongly statistically significant (p-value =0.0020) at 5% level and had positive relation with performance, ROE.

Moreover, the result shows in the random effect model that the adjusted R square was 0.411708 which indicates that about 41.17 % of the variability in performance-ROE is explained by the selected explanatory variables (Equity to Total Assets, Firm size, cash to current liability, change in the retained earnings, GDP and asset turnover ratio). In addition, the Prob (F-statistic) 0.000046 indicates that the explanatory variables jointly have significant impact on performance of core business operations of manufacturing companies in Ethiopia.

4.8. Summary of findings

The previous sections of the chapter presented the overall results of the study. Hence, this section presents the discussion of the detail analyses of the results for each explanatory variable and their impact on profitability of banks. Moreover, the discussion evaluates the statistical findings of the study in relation to the previous empirical evidences. Thus, the following discussions findings present the relationship and impact of explanatory variables on profitability.

Firm Size:

Firm size shown as statistically insignificant (p-value =0.1671) but had positive relation with performance, ROE which is less than 5%. As a result the Null hypothesis: Ceteris paribus, there is no significant association between firm size and firm performance in Ethiopia was accepted. Since the coefficient of this variable is 4.51812, it also implies that for every 1 unit change in the firm size, ceteris paribus, there is a resultant change of 4.518 (Coeff. = 4.518211) on the probability to the positive direction.

Cash ratio-

Cash Ratio shown as significantly weak with the (p-value =0.8909) at 5% level but had positive relation with performance, ROE. As a result the Null hypothesis: There is no significant relationship between cash ratio and firm performance in Ethiopia was accepted. Since the coefficient of this variable is 0.016489 and it also implies that for every 1 unit change birr in cash ratio, ceteris paribus, there is a resultant change of 1.6 cents on the probability to the positive direction.

Change in the retained earnings:-

Change in the retained earnings has strong significant relationship as (p-value =0.0020) and had positive relation with performance, ROE because its p-value was greater than 5%. As a result the Null hypothesis: There is no significant relationship between change in retained earnings and firm performance in Ethiopia was rejected. Since the coefficient of this variable is 1.619141 to the positive direction and it also implies that for every 1 unit change birr in the change in retained earnings, ceteris paribus, there is a resultant change of 16.2 birr on the probability to the positive direction.

Equity to Total Asset ratio:-

Equity to total assets ratio had strong statistical significant relationship as (p-value=0.0074) because its p-value was less than 5% and had positive relation with performance, ROE. As a result the Null hypothesis: There is no significant effect of equity to total assets ratio on performance in Ethiopia was rejected because the P-value indicated less than 5%. Since the coefficient of this variable is 1.191378 and it also implies that for every 1 unit change birr in the equity to total assets, ceteris paribus, there is a resultant change of 119 birr on the probability to the positive direction.

CHAPTER FOUR

Conclusion and Recommendation

The earlier chapter presented the results and discussion, whereas this chapter deals with the conclusions and recommendations based on the findings of the study. Accordingly this chapter is organized into two sub-sections. Section 5.1 presents the conclusions and section 5.2 presents the recommendations in line with findings of the study.

5.1. Conclusion

The choice of capital structure is one of the most important strategic financial decisions of firms. Since the seminal work of Modigliani and Miller (1958), the issue of capital structure and profitability or the value of a firm has been debatable in the field of corporate finance. The basic question is whether there exists an optimal capital structure that optimizes profitability and hence maximizes the value of a firm. Extensive research attempted to identify factors affecting profitability and capital structure as well as the impact of capital structure on profitability of firms. However, the findings of prior empirical studies have provided varying and in some cases contradicting evidence related to the impact of capital structure on profitability.

Furthermore, the majority of these studies have been conducted in developed countries that have many institutional similarities. In addition, the existing studies in Ethiopia were not emphasized on the impact of capital structure on performance of manufacturing sector in the country and moreover, didn't taken into account the important variables which have great impact on the performance of core business of the manufacturing industry. In light of the above, the main objective of this study was to examine the impact of capital structure on profitability of core business operation of firms in Ethiopia, and the relationship between change in the retained earnings, firm size, owned capital and performance ROE of manufacturing firms in Ethiopian.

To achieve the intended objectives the study used quantitative approaches panel data analysis methodology. The panel data were collected from audited financial

statements particularly balance sheets and income statements of a sample of eight banks over the time period from 2011-2015. The collected data were analyzed by employing a random effect model using statistical package 'EVIEW 8.1

In order to conduct the empirical analysis, one dependent variable and six independent variables were selected from prominent previous research works on the impact of change in the retained earnings, firm size, and owned capital on performance and by taking in to account the nature of firms. ROE was taken as dependent variable, while the independent variables were firm size, cash to current liability, equity to total assets, asset turnover ratio, change in the retained earnings and GDP. It was observed that 48.4% of the profitability performance of -ROE in Ethiopia in the period under study was explained by these explanatory variables. As this result has been reaffirmed the fact that 51.6 % of the observed dependant variable is explained by other factors.

5.2. Recommendations

Based on the findings obtained from the results, the following recommendations were made. In line with the results of this study firms management should pay greater attention to those significant variables in determining their optimal capital structure and optimize level of profitability of their core business operations and hence, wealth of shareholders. The managements of firms should also place greater emphasis on rising equity capital through retain earnings and /or issuing shares of stocks in order to obtain sufficient capital in financing their core business operations and to expand.

Finally, this study examined the impact of capital structure that is particularly owned capital on profitability of business operations of firms in Ethiopia. Thus, future researcher may address limitations by including internal variables such as debt to equity ratio and total debt ratio as well as external variable like inflation as control variables, so that to demonstrate the impact of other measure of capital structure and capital adequacy as well as external variables on the profitability of firms. Furthermore, future researcher may assess the impact of capital structure on the overall performance of manufacturing industry and other sectors of the economy too.

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APPENDICES

Appendix 1: Private Companies in Ethiopia

NATIONAL CEMENT SH.CO

ADDIS BLOCK PRODUCTION SH.CO

LICA PLC

ATMT.COMTECH

ALVIMA IMPORT & EXPORT PLC

TENSAE INTERNATIONAL

ETHIOPIAN PULP & PAPER SH.CO

SABA ENGINEERING SH.CO

ECLIPSE PLC

ETHIOPIAN STEEL PLC -SAFAL GROUP

Appendix 2. Data collection of the selected firms

Company Name	Year	ROE	EQTOTA	CATOCL	GRE	FS	gdp	ASSTO
NATIONAL CEMENT SH.CO	2011	0.22283	0.38737	0.12077	0.08632	0.95526	0.11170	0.29790
	2012	-0.12864	0.25021	0.02291	-0.03101	0.96586	0.08640	0.15780
	2013	-0.26515	0.19428	0.14613	-0.05049	0.97182	0.10580	0.12490
	2014	-0.54253	0.11841	0.10575	-0.08815	0.97058	0.10270	0.48378
	2015	-0.15360	0.09995	0.07162	-0.01663	0.97090	0.09500	0.56793
ADDIS BLOCK PRODUCTION SH.CO	2011	-0.37461	0.72926	0.12889	-0.27319	0.86696	0.11170	0.78826
	2012	-0.05061	0.81267	0.09666	-0.04223	0.86283	0.08640	0.51002
	2013	0.06466	0.77155	0.03933	0.04823	0.86594	0.10580	0.76994
	2014	-0.01232	0.66072	0.00847	-0.00819	0.86962	0.10270	0.54973
	2015	-0.09715	0.65623	0.01730	-0.06702	0.86730	0.09500	0.53907
LICA PLC	2011	0.47081	0.69843	0.16393	0.32883	0.85985	0.11170	0.84651
	2012	0.22253	0.75824	0.40000	0.14417	0.86662	0.08640	1.05849
	2013	-0.01251	0.62445	0.47619	-0.00771	0.87226	0.10580	0.93688
	2014	-0.15486	0.47236	0.16393	-0.07719	0.87665	0.10270	0.78335
	2015	-0.15497	0.47236	0.28571	-0.08133	0.87160	0.09500	1.12904
ATMT.COMTECH	2011	0.93430	0.65509	0.16051	0.61205	0.83285	0.11170	2.61748
	2012	0.17898	0.59023	0.40323	0.09696	0.84064	0.08640	2.83658
	2013	0.15394	0.63453	0.43478	0.09070	0.84286	0.10580	3.16380
	2014	-0.58361	0.62078	0.13333	-0.37343	0.84184	0.10270	2.24189
	2015	0.04982	0.61265	0.28571	0.02978	0.84355	0.09500	2.71679
ALVIMA IMPORT & EXPORT PLC	2011	-0.02840	0.28524	1.75000	-0.00810	0.85338	0.11170	2.41883
	2012	0.26719	0.20091	2.50000	0.04934	0.86978	0.08640	2.52310
	2013	-0.20746	0.18677	0.50000	-0.04098	0.87173	0.10580	3.01646
	2014	-2.93724	-0.04222	1.18388	-0.17212	0.88093	0.10270	1.23609
	2015	0.33516	0.92624	0.93911	0.06723	0.90582	0.09500	0.02163
TENSAE INTERNATIONAL	2011	0.91869	0.40472	0.15982	0.37182	0.85872	0.11170	0.98503
	2012	0.34706	0.45070	0.40350	0.13329	0.86502	0.08640	1.57597
	2013	-0.13274	0.41418	0.41794	-0.05889	0.86377	0.10580	1.60590
	2014	-0.48017	0.22087	0.12410	-0.13964	0.86732	0.10270	0.83163
	2015	0.17793	0.34011	0.28648	0.05024	0.86690	0.09500	1.33347

ETHIOPIAN PULP & PAPER SH.CO	2011	0.86203	0.69752	0.00000	0.60128	0.90826	0.11170	0.69421
	2012	0.01246	0.72368	0.34814	0.00896	0.90769	0.08640	0.94940
	2013	0.01523	0.45331	4.40966	0.00685	0.91882	0.10580	0.49479
	2014	-0.01008	0.37674	0.61600	-0.00382	0.92278	0.10270	0.38288
	2015	-0.01593	0.37317	0.48923	-0.00599	0.92263	0.09500	0.30827
SABA ENGINEERING SH.CO	2011	-0.32710	0.07354	0.00550	-0.02406	0.90374	0.11170	0.59652
	2012	-0.65287	0.03322	0.00350	-0.03220	0.90649	0.08640	0.53674
	2013	0.74727	0.07931	0.00287	0.04212	0.90635	0.10580	0.68587
	2014	0.08847	0.09269	0.00617	0.00783	0.90491	0.10270	0.58174
	2015	-3.76215	-0.08999	0.00501	-0.19916	0.90105	0.09500	0.41022
ECLIPSE PLC	2011	0.46209	0.85068	0.33048	0.39309	0.83061	0.11170	1.71850
	2012	0.44133	0.71632	0.97705	0.25705	0.84808	0.08640	1.32600
	2013	-0.08792	0.65281	1.16251	-0.04993	0.85850	0.10580	0.93001
	2014	0.01452	0.73701	0.29459	0.01062	0.85572	0.10270	0.66282
	2015	0.19262	0.86330	0.60790	0.15095	0.85692	0.09500	1.16904
ETHIOPIAN STEEL PLC - SAFAL GROUP	2011	0.80241	0.97992	0.32890	0.78629	0.89134	0.11170	2.74264
	2012	-0.23229	0.43485	0.35243	-0.11428	0.90515	0.08640	2.73118
	2013	-0.92236	0.12634	0.14574	-0.21628	0.91070	0.10580	1.80620
	2014	1.11158	0.40163	0.21086	0.28696	0.91294	0.10270	2.48275
	2015	-0.04632	0.28624	0.21086	-0.01258	0.92312	0.09500	2.09564