



ISSN: 0975-833X

## REVIEW ARTICLE

# THE DETERMINANTS OF CAPITAL STRUCTURE EVIDENCE FROM: MANUFACTURING SHARE COMPANIES OF ADDIS ABABA CITY

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### ARTICLE INFO

#### Article History:

Received 07<sup>th</sup> December, 2014  
Received in revised form  
20<sup>th</sup> January, 2015  
Accepted 13<sup>th</sup> February, 2015  
Published online 17<sup>th</sup> March, 2015

#### Key words:

Manufacturing,  
Determinants,  
Profitability,  
Tangibility,  
Volatility,  
Non-tax shields.

### ABSTRACT

A Capital structure decisions are among the most important and crucial decisions for any business because of their effect on the value and cost of the company. In this paper, an attempt has been made to examine the relevance of theoretical internal (firm level) factors determine capital structure of manufacturing share companies in Addis Ababa, Ethiopia. To seek answers to these questions, seven explanatory variables; tangibility, non-tax shields, growth, earning volatility, profitability, age and size of the firm were regressed against the dependent variables of total debt ratio, short term ratio and long term debt ratio. In connection of this, a sample of 12 companies were taken and secondary data was collected from audited financial statements of selected companies for the period of five years (2007-2011). Stratified sampling design was employed and companies were selected based on simple random to represent different industry sectors (strata) within manufacturing share companies. Data was then analyzed on quantitative basis using multivariate OLS regression. The results show that tangibility, non debt tax shields, earning volatility, profitability, and size of the firm variables are the significant determinants of capital structure of Addis Ababa manufacturing share companies at least one out of the three models for capital structure employed in the study. While no clear and statistical proved relation are obtained for the variables growth of the firm and age of the firm in any of the capital structure models.

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## INTRODUCTION

### Chapter one

#### Back ground of the study

The determination of capital structure has been one of the most contentious issues in the finance literature since Modigliani and Miller introduced their capital structure irrelevance propositions in their seminal article in 1958. Since then, several theories have been developed suggesting a number of factors that might determine a firm's capital structure decision. However, out of these theories of capital structure, two models appear to come across strongly. One of them is the trade-off theory, which assumes that there are benefits and costs associated with the use of debt. In the beginning, the theory was limited to the tradeoff between the tax advantages of debt and bankruptcy costs. Then, it was extended to include benefits and costs of debt associated with agency conflicts. The other main theory is the pecking order hypothesis which assumes that, under information asymmetry between insiders and

outsider, firms will resort to internally generated funds first to finance their growth, but when external financing is needed, firms prefer to raise debt before equity. Empirically, numerous studies have been conducted to investigate the determinants of capital structure on the basis of these two theories. However, neither trade-off theory nor the pecking order hypothesis has found to provide robust and exclusive explanatory power. Nevertheless, Harris and Raviv (1991) conclude that it is necessary that empirical research be directed to test determinants of capital structure in various contexts. Research on the determinants of capital structure was initially directed mainly to firms in the developed countries. One of the classical researches was carried out by Titman and Wessels (1988); where they studied the theoretical determinants of capital structure the theoretical attributes namely; asset structure, non-debt tax shields, growth, uniqueness, industry classification, firm size, earnings volatility and profitability were tested to see how they affect a firm's choice of debt-equity mix. To broaden the understanding of capital structure models, Rajan and Zingales (1995) have attempted to find out whether the capital structure choices in other countries are made based on factors that similar to those capital structure influencing ones in U.S firms. Four factors; tangibility of assets, growth, size of the firm and profitability were tested to see their influences on leverage.

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However, there were not many research directed towards developing countries that saw the applicability of the theories of capital structure developed from the developed nations. Booth *et al.* (2001), Maghyereh (2005), Amidu (2007), Abor (2008), and Bas *et al.* (2009) were among the scholars who have studied the capital structure issues in the developing nations. The determinants of capital structure of Ethiopian firms are still in under-explored areas in the literature of financing decision. As to the researcher knowledge, the study conducted on determinants of capital structure so far in Ethiopian case are by Ashenafi (2005) and Mintesinot (2010). Therefore, the purpose of the paper is to show the determinants of capital structure in Ethiopia, Addis Ababa by taking sample from manufacturing share companies.

### Statement of the problem

The capital structure decision is one of the most important decisions made by financial managers in this modern era. The capital structure decision is at the center of many other decisions in the area of corporate finance. One of the many objectives of a corporate financial manager is to ensure low cost of capital and thus maximize the wealth of shareholders. Hence, capital structure is one of the effective tools of management to manage the cost of capital. An optimal capital structure is reached at a point where the cost of the capital is minimal (Gitman 2009).

Most capital structure studies to date are based on data from developed countries. For example, Rajan and Zingales (1995) use data from the developed countries, Bevan and Danbolt (2000 and 2002) utilize data from the UK, Antoniou *et al.* (2002) analyze data from the UK, Germany, and France and Hall *et al.* (2004) used data from European small and medium enterprises. There are few studies that provide evidence from developing countries, for example Booth *et al.* (2001) analyze data from ten developing countries (Brazil, Mexico, India, South Korea, Jordan, Malaysia, Pakistan, Thailand, Turkey and Zimbabwe), Pandey (2001) uses data from Malaysia, Chen (2004) utilize data from China, Omet and Nobanee (2001) use data from Jordan and Al-Sakran (2001) analyses data from Saudi Arabia. Of the capital structure studies, some have used cross-country comparisons based on data from particular region. For example, Deesomsak *et al.* (2004) analyze data from the Asia Pacific region.

In Ethiopia as to the knowledge of the researcher there were few papers which relates with this title these are Ashenafi (2005) a case study in Addis Ababa Small and Medium enterprises and Mintesinot (2010) a case study in private limited manufacturing companies in Tgray region. This study attempted to reduce the gap by analyzing a capital structure question in Ethiopian companies context specifically manufacturing share companies in Addis Ababa city. The study on determinants of capital structure in Ethiopian case is unique from the previously studied cases in developed as well as developing countries in that, first Ethiopia does not have modern financial markets that provide wide ranging functions, and secondly intense empirical investigations have not made yet pertaining to Ethiopian context particularly in manufacturing share companies. However, this does not mean

that the capital structure theories developed and tested in developed countries with well developed capital markets have no implication to developing countries that lack secondary markets.

In connection with this, Booth *et al.* (2001) gave explanations with regard to relevance of firm level attributes explaining variations in usage of financial leverage across firms in developing countries, which states that: "In general, debt ratios in developing countries seem to be affected in the same way and by the same types of variables that are significant in developed countries. However, there are systematic differences in the way these ratios are affected by country factors, such as GDP growth rates, inflation rates, and development of capital markets." This paper, therefore, provides further evidence to the capital structure theories pertaining to Ethiopia, a developing country that lacks a secondary capital market, by identifying the factors determining the financing choices (capital structure) of manufacturing share companies.

### Objectives of the study

The objective of this study is to understand the relevance of the theoretical internal (firm level) factors determining capital structure in explaining the differences in the capital structures of manufacturing share companies in Addis Ababa and to know which of the theories of capital structure are appealing to Ethiopian manufacturing share industry.

### Research methodology

The researcher intention was to investigate the determinant of capital structure in manufacturing share companies of Ethiopia in Addis Ababa city to achieve this objective and to test the hypotheses the researcher used quantitative research approach because it is the best approach to use to test a theory or explanation (Creswell, 2002) since this study tested seven variables which stated in the hypotheses section which makes this approach better than other approaches to achieve the objective of the paper. From the alternatives under quantitative approach the researcher used survey method than experimental one due to the following reason surveys are relatively inexpensive (especially self-administered surveys) and surveys are useful in describing the characteristics of a large population by taking sample on this occasion no other method of observation can provide this general capability. The survey was cross sectional; with the data collected at one point in time.

### Sampling design

The population of the study is manufacturing share companies in Addis Ababa city administrations. These firms have provided audited financial statements to tax authority since 2005. For this study, 6 years data (2006-2011 inclusively) has been considered. The data for year the 2006 used to compute the year 2006 value for indicator of variable growth i.e. change in total asset. Those manufacturing share companies which have established after 2006 and started to provide financial statement in the succeeding physical year was not included in this study since the study target companies are those who have

financial statement on 2006 and on wards. The rationale for selecting manufacturing share companies is because they are category "A" tax payers. According to income tax regulation number 78/2002, category "A" tax payers must prepare and submit balance sheet and income statement (profit and loss statement) to the Tax Authority at the end of the tax year. Hence, it would be easier to access the financial statement of these companies as this study solely depends on data from financial statements. In addition to this, the study on manufacturing companies captured the researcher's attention as they have significant contributions to the economic growth of the country. The growth rate of this sector was 10.1% on average from 2006 to 2011 (MOFED Report, 1996-2001 E.C).

According to the report of ministry of industry, in Addis Ababa city, the manufacturing share companies with audited financial statements from 2006 to 2011 were found to be 29. Out of these the researcher took twelve manufacturing share companies as a sample size because the researcher believed that given the availability of time and finance it was difficult to take sample size more than this. Overall, the main and major reason for not taking the higher amount of sample size is that, since the study is survey based taking a higher amount of a sample does not affect the researcher to generalize the result to the populations.

Major manufacturing sectors in Ethiopia which are offering attractive potential benefits to prospective investors are hereby outlined in the food and beverage, leather and textile, chemical and paper, electrical and electronic, building materials, and non-metallic mineral and metallic industrial sub-sectors, shoe factories, and agro industries (CSA 2003).

The sampling procedure employed in this study was stratified sampling method based on the afore-mentioned Central Statistics agency (CSA) classifications of manufacturing companies. Stratified sampling technique used because it is more appropriate as manufacturing share companies have different categories of operation. Among the above listed types of manufacturing companies, four types of manufacturing companies sector are chosen based on combination of their nature. And then each of four strata was divided in to three groups based on companies paid up capital. This is because the researcher is believed that by doing so the representativeness of all groups in the sample was increased and it reflects the true proportion of the sample about the population. Further, Solomon (2004) on his study of socio economic determinants of growth of small manufacturing enterprises in Addis Ababa city divides manufacturing industry in to four strata as leather, textile, metal and food companies.

Accordingly, after stratifying the population using nature of operation and paid up capital the study selected a total sample of twelve (12) companies from all sectors and paid up groups' using random sampling techniques. Unlike other sampling techniques, simple random sampling method has the following advantage which leads the researcher to use it. First, the method gives equal chance for all strata in the study to be included in the sample. Second, it minimizes the existence of sampling biases, and thirdly, the method itself is too easy to use. Accordingly, the study has a total of sixty (60) observations to undertake study.

## Model Specification

The model is derived on the basis of previous studies such as Ozkan (2001), Bevan and Danbolt (2000) and Titman and Wessels (1988). The chosen model is strongly believed to capture the essence of the subject under study. The following three models are specified based on the relation outlined in the hypothesis.

### Model for Total Debt Ratio

$$\text{Total Debt Ratio (TDR)} = \beta_1 + \beta_2 [T_{it}] - \beta_3 [\text{NDTS}_{it}] + \beta_4 [G_{it}] - \beta_5 [EV_{it}] + \beta_6 [A_{it}] - \beta_7 [P_{it}] + \beta_8 [S_{it}] + e_{it}$$

### Model for Short Term Debt Ratio

$$\text{Short Term Debt Ratio (STDR)} = \beta_1 + \beta_2 [T_{it}] - \beta_3 [\text{NDTS}_{it}] + \beta_4 [G_{it}] - \beta_5 [EV_{it}] + \beta_6 [A_{it}] - \beta_7 [P_{it}] + \beta_8 [S_{it}] + e_{it}$$

### Model for Long Term Debt Ratio

$$\text{Long Term Debt Ratio (LTDR)} = \beta_1 + \beta_2 [T_{it}] - \beta_3 [\text{NDTS}_{it}] + \beta_4 [G_{it}] - \beta_5 [EV_{it}] + \beta_6 [A_{it}] - \beta_7 [P_{it}] + \beta_8 [S_{it}] + e_{it}$$

Where:

- TDR = Total Debt Ratio
- STDR = Short Term Debt Ratio
- LTDR = Long Term Debt Ratio
- $\beta_1$  = Coefficient of Intercept,
- $\beta_2$  = Coefficient of Tangibility,
- $\beta_3$  = Coefficient of Non-debt tax shields,
- $\beta_4$  = Coefficient of Growth,
- $\beta_5$  = Coefficient of Earnings Volatility
- $\beta_6$  = Coefficient of Age,
- $\beta_7$  = Coefficient of profitability, and
- $\beta_8$  = Coefficient of size,
- $T_{it}$  = Tangibility for "i" company at time "t" = Fixed Asset/Total Asset
- $\text{NDTS}_{it}$  = Non-debt tax shields for "i" company at time "t" = Depreciation/Total Asset
- $G_{it}$  = Growth =  $[T_{it} - T_{it-1}] / T_{it-1}$
- $EV_{it}$  = Earnings Volatility for "i" company at time "t" = The standard deviation of the first difference in annual earnings over mean of the earning is applied as a proxy for risk
- $A_{it}$  = Age of the firm for "i" company at time "t" = Number of Years in Business
- $P_{it}$  = Profitability of the firm for "i" company at time "t" = EBIT/ Total Sales
- $S_{it}$  = Size for "i" company at time "t" = Natural Logarithm of Total Assets (ln A) and
- $e_{it}$  = The Error Term.

## Variable-Indicator List

S. No.	Dependent variables	Indicator
1	Total Debt Ratio	Total Debt/Total Asset
2	Short term Debt Ratio	Current Liabilities/Total Asset
3	Long term Debt Ratio	Long Term Liabilities/Total Asset
Serial no.	INDEPENDENT ARIABLES	INDICATOR
1	Tangibility	Fixed Assets / Total Asset
2	Non-Debt Tax Shields	Depreciation Expense /Total Assets
3	Growth	Percentage Change In Total Assets Standard Deviation of Operating Income over the
4	Earnings Volatility	Mean
5	Age	Number of Years
6	Profitability	Operating Income/Total Sales
7	Size	Natural Logarithm Of Total Asset

Sources researcher own computation from hypothesis parts.

### Method of data analysis

To test the hypothesis, the relationships between the level of debt and seven explanatory variables representing tangibility, non-debt tax shields, growth earnings volatility, age, profitability, and size, was examined for 60 observation for 12 companies by using multivariate ordinary least square regressions and SPSS Version 19 soft ware application were used to test seven variables. Using SPSS package the basic OLS assumption were tested, summary of descriptive statistics for basic variables also presented, correlation analysis among basic variable also disclosed and finally detailed discussion of the regression were performed. Indeed the study used panel data in OLS regression, where time-series and cross-sectional observations were combined and estimated. In other word, in panel data setting several cross-sectional units were observed over a period of time. Hence, it is more useful in studying the dynamics of adjustment, and it is better able to identify and measure effects that are simply not detectable in pure cross-sections or pure time series data. Moreover, many variables can be more accurately measured at the micro level and biases resulting from aggregation over firms or individuals are eliminated.

As pointed out by Buferna *et al.* (2005) and Titman and Wessels (1988), capital structure studies examining the determinants of leverage based on total debt may disguise the significant differences between long-term and short-term debt. Therefore, in line with Buferna *et al.* (2005) and Titman and Wessels (1988), this study will decompose total debt into long-term and short-term debt. The debt ratios that shall be considered are: Total Debt to Total Assets, Short-Term Debt to Total Assets, and Long-Term Debt to Total Assets ratios. Therefore, the study used one gross measure of leverage and its two broad classifications as dependent variables and analyses their relation with independent variables.

### Scope and limitations of the study

This paper tried to encompass the broadest and most interesting branch of finance, financing decision also known as capital structure decision. From the topics in the capital structure the study selected the area of the determinants of capital structure and assesses their relevance in Ethiopian context.

The study was limited to the Federal Democratic Republic of Ethiopia, Addis Ababa and to those firms engaged in the manufacturing share companies' industry sector.

The unavailability of active secondary market limited and forced the researcher to measure the dependent variable i.e. measures of debt ratio as well as the proxies of the independent variables in terms of book values rather than market values. Finally, the study was limited to firm level (internal) determinants of capital structure thereby excluding effect of external determinants of capital structure on both the dependent and independent variables which are beyond the control of the firm. Example of which is:

- Banking and other financial infrastructures and their efficiency,
- Legal structure and its efficiency,

Therefore, the above listed and other external factors that may have a role as determinant of capital structure financing choices, did not consider in the study.

## Chapter Two

### Literature Review

Since the pioneering work of Modigliani and Miller (1958), the question of what determines firms' choices of capital structure has been a major field in the corporate finance literature. Since then, numerous studies have attempted to identify those factors that have an effect on firms' choice of capital structure. A previous narrative review conducted by Harris and Raviv (1991) showed that the direction of the relationship between leverage and its determinants across studies shows some inconsistent findings. Accordingly, they conclude that understanding and analyzing these mixed results across research studies is filled with difficulty in the capital structure literature.

One of the classical researches was carried out by Titman and Wessels (1988); where they studied the theoretical determinants of capital structure by examining them empirically. The theoretical attributes namely; asset structure, non-debt tax shields, growth, uniqueness, industry classification, firm size, earnings volatility and profitability

were tested to see how they affect the firm's debt-equity choice. The results indicated consistencies with theory for the factors affecting capital structure choices of firms. One of the few interesting conclusion drawn from the studies include the negative levels of debt to "uniqueness" of a firm's line of business. The short-term debt ratio was negatively related to firm size. Besides that, a strong negative relationship was noted between debt ratios and past profitability. This study however did not provide strong empirical support on variables like non-debt tax shields, volatility, collateral value and future growth. As stated previously, there were many papers written by research scholars on capital structure choices that are mostly based on empirical data of the firms in the United States only. To broaden the understanding of capital structure models, Rajan and Zingales (1995) have attempted to find out whether the capital structure choices in other countries is based on the similar factors of those influencing capital structure of U.S firms. For this purpose, the accounting data and monthly stock prices for five years, from 1987 till 1991 were collected from the international financial database called Global Vantage of all the G7 countries; namely the U.S, Japan, Germany, France, the U.K, Italy and Canada. Banks and insurance companies were eliminated from the sample collected as their leverages are affected by government regulations. Four factors; tangibility of assets, growth, firm size and profitability were tested to see its influences on leverage.

A cross-sectional basic regression model of leverage was developed with four of the factors mentioned above as independent variables. Rajan and Zingales noted that across the countries, the asset tangibility was positively correlated with leverage for all the countries as theory supported the notion that firms having more fixed assets in their assets mix will use that as collateral to get more loans or debt. The market to book ratio seemed to be negatively correlated with leverage except for Italy. Having high market value of the stocks would enable firms to issue more stocks and not seeking debt. Size of firm was positively correlated while profitability was negatively correlated with leverage in all countries except Germany. As a conclusion, this paper found that at an aggregate level, firm leverage was fairly similar across the G-7 countries. This study also pointed out some avenue for future research especially on the unbiased sample selection, the actual determinants of capital structure and deeper consideration of institutional influences. After Rajan and Zingales, there were several research papers made on capital structure by testing the applicability on other countries apart from United States alone. One of the prominent researches was carried out by Gropp and Heider (2007) approached the issue of Bank Capital Structure using banks from developed countries (US and 15 EU members, for 14 years). They specifically tested the significance of size, profitability, market-to-book ratio, asset tangibility, and dividend paying status in determining bank leverage. Their results provided strong support for the relevance of standard determinants of capital structure on bank capital.

#### **Prior studies related to the context of Ethiopia in determinants of capital structure**

Most capital structure studies made to date are based on data from developed countries. There are few studies that provide

evidence from developing countries. The determinants of capital structure of Ethiopian firms are still in under-explored areas in the literature of financing decision. As per the researcher's access and knowledge, the researchers conducted on determinants of capital structure so far in Ethiopian case are by Ashenafi (2005) and Mintesinot (2010).

Ashenafi (2005) approached the question of capital structure using data from medium firms in Ethiopia. He took variables like non-debt tax shield, economic risk, age of firms, size of firms, tangibility, profitability and growth were regressed against leverage. The results proved that non-debt tax shield, economic risk, profitability, growth, tangibility, and age showed a negative coefficient of correlation with debt to equity ratio. Recently, Mintesinot (2010) has undertaken an attention-grabbing study on the determinants of capital structure evidencing manufacturing firms in Tigray, Ethiopia. Mintesinot has used eight explanatory variables: Tangibility, Profitability, Growth, Age, Uniqueness, Size, Earnings Volatility, and Non-Debt Tax Shields. After regressed these variables against leverage, he came up with the outcomes as following: Tangibility, Firm Growth, Age of the Firm, Firm Size, Earnings Volatility and Non Debt Tax Shields variables are the significant determinants of capital structure in at least one out of the three models for capital structure employed in his study.

In conclusion, although the theories presented in this chapter identified many potential determinants of capital structure, the question of which of these theories best explains capital structure practice remains unanswered.

### **Chapter Three**

#### **Data Analysis and Interpretation**

In this study, firm-specific determinants (internal factors) are examined. To achieve the intended goal, the researcher has formulated seven hypotheses. To test these hypotheses, total of seven variables; namely tangibility, non tax shields, growth, earning volatility, profitability, age of the firm and size of the firm were selected from prominent previous research works on capital structure. In addition, the researcher has taken five years audited annual financial statements of twelve manufacturing share companies of Addis Ababa city. For analysis, this study selected multivariate ordinary least square model. The capital structure of the these firms are measured by one aggregate measure of leverage total debt ratio and its two extensions short term debt ratio and long term debt ratio. Separate analysis has been done to mitigate problems of omitting important variables from and including unnecessary variables in to analysis when taking total measure of capital structure alone. Therefore, short term and long term leverage measures were analyzed separately as long- and short-term debt ratio and arrived at the pure implications of seven independent variables to the same. Based on the findings discussed so far, the following key conclusions are drawn vis-à-vis the capital structure framework of manufacturing share companies in Addis Ababa, Ethiopia.

From the descriptive statistic, the average (mean) total debt to Asset ratio (TDR) of manufacturing share companies is found

to be 47 percent, while 53 percent of the total asset is left for equity financing. The results also tell that manufacturing share companies use more of short term debts than long term debts.

Concerning the correlation between variables in the different models employed, a positive correlation is maintained between capital structure total debt ratio and age of the firm, profitability, size of the firm and growth of the firm. On the other hand, a negative correlation is obtained between total debt ratio and tangibility, non debt tax shields and earning volatility. The short-term debt ratio model found the following relations; a positive relationship observed between short term debt ratio and non debt tax shields, growth of the firm, profitability, size and age of the firm but tangibility and earning volatility has a negative relationship with short term debt ratio. Finally the correlation schedule also disclosed that long term debt ratio has a positive relationship with age of the firm only and the remaining variables; tangibility, non debt tax shields, growth, earning volatility, profitability and size of the firm has a negative relationship with long term debt ratio.

#### Summary of Results of OLS regression Analysis

The Variables	Total Debt Ratio	Short-term debt ratio	Long-term debt
Intercept	-.340 (-0.807)	-0.492 (-.025)	0.284 (0.861)
Tangibility	-0.742** (-6.978)	-0.275 ** (-2.274)	-0.413** (-4.966)
Non Debt Tax Shields	-0.844** (-4.761)	0.090 (0.448)	-0.708** (-5.105)
Growth	0.163 (1.617)	0.216 (1.884)	-0.069 (-0.877)
Earnings Volatility	-0.01** (3.035)	7.83E-5 (0.212)	-0.001** (2.345)
Age	0.006 (-1.177)	0.14 (1.583)	-0.009 (-1.432)
Profitability	-0.207 (-1.177)	0.570** (2.850)	-0.743** (-5.407)
Size	0.150** (2.572)	0.097 (1.461)	0.033 (0.752)
R <sup>2</sup>	0.619	0.572	0.546

Source: SPSS multivariate regression output from financial statements of sample companies

Coming to conclusion of regression results, of the capital structure model of total debt ratio verified that about 61.29 percent of the change in the dependent variable (capital structure a measured by total debt to asset ratio) is explained by the independent variables that are selected and included in the model the only determinant factors affecting capital structure when measured in total debt ratio are tangibility, non debt tax shield, earning volatility and size. Whereas variables; growth, age and profitability do not have a statistically significant relationship with total debt ratio. Thus they are not significant factors to affect the capital structure of manufacturing share companies in Addis Ababa city. But on the other hand tangibility, non debt tax shield, earning volatility, and size of manufacturing share firms play important role in using debt from financial institutions.

When similar variables are run against short term debt ratio, 57.1 percent of the change in dependent variable is explained by the independent variables that are included in the model.

Two variables tangibility and profitability found to affect capital structure. This implies that non debt tax shields, earning volatility, age, and size are not significant to affect the capital structure of manufacturing share companies which related with short term debt ratio.

The regression result for the model of long-term debt ratio showed that 54.6 percent of changes in the dependent variable long term debt ratio can be explained by the change in the listed explanatory variables and it also informed that the only determinant factors affecting capital structure as measured by long-term debt ratio are tangibility, non debt tax shield, earning volatility and profitability. Whereas variables growth, age and size do not have a statistically significant relationship with long-term debt ratio.

It is proved that tangibility, non debt tax shields, earning volatility, profitability and size of the firm variables are the significant determinants of capital structure of Ethiopian manufacturing share companies (affecting leverage in either of both directions i.e. positively and negatively) in at least one out of the three models for capital structure employed in the study. While no clear and statistically proved relations are obtained for the variables growth of the firm and age of the firm in any of the capital structure models. As a result growth and age of the firm are not important factors to determine the capital structure of manufacturing share companies in Addis Ababa city.

## Chapter 4

### Implication and Recommendation of the Paper

This study can give information for external investors and shareholders who will be able to know the main variables that affect the capital structure and to observe manufacturing share company's performance before making the decisions of whether or not to buy or sell the stocks when secondary market is being practiced in Ethiopia. In this study, the researcher has mainly examined the factors that influence financing mix of manufacturing share companies in Ethiopia. It might be interesting and crucial to extend this research to other sectors of the economy in the country.

A comparative analysis of capital structure decision of firms across developing countries may give enhanced picture about what really determines their capital structure decisions. Therefore, studies should be made across countries on determinants of capital structure decision in order to obtain clear understanding about whether and to what extent macroeconomic conditions influence capital structure decision of manufacturing share companies.

In this study important external (macroeconomic) variables like inflation, GDP growth, interest rate, corporate governance, legal framework and impact of the country's financial system could be added besides the firm-specific factors to determine capital structure affirms. But because of lack of time the researcher did not include the above mentioned factors so the researcher recommend for future researcher to accommodate

the external factors which can affect capital structure of manufacturing share companies.

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