

# Impact of Capital Structure on Financial Performance of the Listed Trading Companies in Sri Lanka

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**Abstract-** Capital structure is a financial tool that helps to determine ‘how do firms choose their capital structure?’ a firms capital structure is then the composition or structure of its liabilities. In this study, an attempt has been made to analyze the Capital structure and financial performance during 2006 to 2010 (05 years) financial year of listed trading companies in Sri Lanka. For the purpose of this study, the data was extracted from the annual reports of sample companies. Correlation and multiple regression analysis are used for analysis. The results revealed there is positive relationship between capital structure and financial performance. And also capital structure is significantly impact on financial performance of the firm showed that debt asset ratio, debt equity ratio and long term debt correlated with gross profit margin(GPM), net profit margin(NPM), Return on Capital Employed(ROCE),Return on Asset (ROA) & Return on Equity(ROE )at significant level of 0.05 and 0.1

**Index Terms-** capital structure: Financial Performance; and profitability Ratios

## I. INTRODUCTION

A firm basic resource is the stream of cash flows produced by its assets. When the firm is financed entirely by common stock, all of those cash flows belong to the stockholders. When it issues both debt and equity securities, it undertakes to split up the cash flows into two streams, a relatively safe stream that goes to the debt-holders and a more risky one that goes to the stockholders.

In finance, **capital structure** refers to the way in which an organization is financed a combination of long term capital(ordinary shares and reserves, preference shares, debentures, bank loans, convertible loan stock and so on) and short term liabilities such as a bank overdraft and trade creditors. A firm's capital structure is then the composition or 'structure' of its liabilities.

One of the most important issues in corporate finance is responding “how do firms choose their capital structure?” Locating the optimal capital structure has for a long time been a focus of attention in many academic and financial institutions that probes into this area. This is comprehensible as there is a lot of money to be made advising firms on how to improve their capital structure. Defining the optimal capital structure is a critical decision. This decision is important not only because of the impact such a decision has on an organization's ability to deal with its competitive environment.

Capital structure plays a role in determining the risk level of the company, and fixed cost is the key factor whether it is involved in production process or fixed financial charges. It should be kept low if the management is likely to confront an uncertain environment but how low or how high is the basic question. The assets of the company can be financed by owner or the loaner. The owner claims increase when the firm raises funds by issuing ordinary shares or by retaining the earnings which belong to the shareholders, the loaners claim increase when the company borrows money from the market using some instrument other than shares. The various means of financing represent the financial structure of the enterprises. The term capital structure is used to represent the proportionate between debt and equity, where equity includes paid-up capital, share premium, and all reserves & surplus.

The financing or capital structure decision is significant managerial decision, as it influences the shareholder return and risk. The market of the share also be affected by the capital structure decision. The company has to plan its capital structure initially at the time of its promotion. Subsequently, whether the funds have to be raised, a capital structure decision is involved. A demand for raising funds generates a new capital structure which needs a critical analysis. (Ruzben J. Bodhanwala).

## II. RESEARCH PROBLEM

The purpose of this research is to investigate the impact of firms' capital structure on their financial performance. The research will use the data collected from listed companies in the Colombo Stock Exchange. The empirical research found that firm capital structure has a significant impact on financial performance. The findings enhance the knowledge of optimal capital structure and will help companies to make efficient financial performance in growing situations. Each individual business Firm must be considered separately and a ratio that is meaningful for a trading company may be completely meaning for a financial institution. Developed countries already conducted many research in this area but there is a lack of studies in developing countries. There is a deviation among those literatures. In that way, these research studies will be analyzed in this area.

## III. RESEARCH QUESTION

In this research researcher is going to answer the following research question.

- 1 Whether capital structure affect on the company's financial performance?
- 2 What are the nature of relation ship between debt and equity?
- 3 To what extent capital structure affect on the company's financial performance?
- 4 What is the company's capital structure?

#### IV. OBJECTIVES OF THE STUDY

Main Objective that to investigate how the capital structure affects the company's financial performance.

##### Sub Objective

1. To identify the company's capital structure.
2. To identify the nature of relationship between debt and equity.
3. To identify the factors determine the optimal capital structure.

#### V. SIGNIFICANCE OF THE STUDY

This research will examine how capital structure affects on the selected company's financial performance. There are various methods of long term financing such as share issues, debentures and long term loans from banks and other financial institutions. Most of the researcher's findings didn't examine the financial performance that they only examine optimal capital structure. Which is difficult to decision? Therefore this research not only for the financial manager of an organization but also to further researcher who can get the idea for further research. Effective capital structure of listed trading companies lead to better performance of the firm. The firm must have the effective capital structure to achieve their financial performance. Because the modern industrial firm must conduct its business in a highly complex and competitive environment.

##### Scope of the study

The scope of this study is to identify and analyze the impact of capital structure on the selected company's financial performance. This research will be conducted in the listed company in Sri Lanka. There are 237 listed companies in Sri Lanka. The research will be conducted among sample of **11 trading listed companies**. And **seven** years data are collected to analyze the financial performance of the companies.

##### Meaning of Capital Structure

Capital Structure of a firm is the mix of different securities issued by the firm to finance its operations. Mix of financing methods used by a firm is called the firm's capital structure. Loosely Speaking, capital structure refers to the proportions of debt and equity that make up the liability owners equity side of firm's balance sheet often refers to the use of debt in a firm's capital structure as leverage.

The choice of a firm's capital structure is a marketing problem. It is essentially concerned with how the decides to divide its cash flows into two broad components ,fixed component that is earmarked to meet the obligations toward debt

capital and a residual component that belongs to equity shareholders.

##### Capital structure emerging the market

Research on the determinants of capital structure in emerging/developing markets has emerged as an extended new line of research for certain reasons. They are,

(1) Capital and stock markets in emerging markets are relatively less efficient and incomplete than their developed counterparts.

Companies in emerging markets may not be able to rationalize the financing decisions to follow a clear theoretical approach.

(2) Information asymmetry in emerging stock markets is considerably higher than the developed markets.

(3) The literature on the determinants of capital structure has already been developed in developed markets that have different institutional financing arrangements from those in emerging markets.

According to the three reasons above-mentioned, this paper tests the hypothesis that "in an emerging market, determinants of capital structure include mixed predictors from three theories: tradeoff, pecking order and free cash flow."

#### VI. MODERN CAPITAL STRUCTURE CHOICE

The development of capital structure theory today continues with a relaxation of some of the assumptions that were laid out in the original MM irrelevance theories. Some of those unrealistic assumptions include: the exclusion of taxes and transaction costs, and the assumption that all information pertaining to firm value or performance is available to all market participants at no cost. **MM (1963)<sup>1</sup> and Miller (1977)<sup>2</sup>** published follow-up papers in which they relaxed the assumptions that there were no corporate and personal taxes. They concluded that because tax regulation allows firms to deduct debt interest payments as an expense, firms are encouraged to use debt in their capital structures. In other words, the tax deductibility of interest payments shields the pre-tax income of the firm and this ultimately lowers the weighted average cost of capital.

#### VII. THEORY OF CAPITAL STRUCTURE

##### Modigliani-Miller Theory

The Modigliani-Miller theorem (of **Franco Modigliani, Merton Miller**) forms the basis for modern thinking on **capital structure**. The basic theorem states that, under a certain market price process (the classical **random walk**), in the absence of **taxes, bankruptcy costs, and asymmetric information**, and in an **efficient market**, the value of a firm is unaffected by how that firm is financed.<sup>[1]</sup> It does not matter if the firm's capital is raised by issuing **stock** or selling debt. It does not matter what the firm's **dividend** policy is. Therefore, the Modigliani-Miller theorem is also often called the capital structure irrelevance principle.

## Propositions

The **theorem** was originally proven under the assumption of no taxes. It is made up of two propositions which can also be extended to a situation with taxes.

Consider two firms which are identical except for their financial structures. The first (Firm U) is unlevered that is, it is financed by equity only. The other (Firm L) is levered: it is financed partly by equity, and partly by debt. The Modigliani-Miller theorem states that the value of the two firms is the same.

## Trade off Theory

The trade off theory of capital structure discusses the various corporate finance choices that a corporation experiences.

The theory is an important one while studying the financial economics concepts. The theory describes that the companies or firms are generally financed by both equities and debts. The theory primarily deals with the two concepts. Cost of finance distress and agency cost.

The purpose of the trade –off theory of capital structure is to explain the strategy of the firms to finance their investments sometimes by debt. The theory also studies the corresponding advantages and disadvantages of the financing either by equity or bound. The trade-off theory actually allows the cost of bankruptcy to exist.

According to the Miller, the attractiveness of debt decreases with the personal tax on the interest income. A firm experiences financial distress when the firm is unable to cope with the debt holders' obligations. If the firm continues to fail in making payments to the debt holders, the firm can even be insolvent.

The direct cost of financial distress refers to the cost of insolvency of a company. Once the proceeding of insolvency starts, the assets of the firm may be needed to be sold at distress price, which is generally much lower than the current value of the assets. A huge amount of administrative and legal costs are also associated with the insolvency. even if the company is not insolvent, the financial distress of the company may include a number of indirect cost like-cost of employees, cost of customers, cost of suppliers, cost of investors, cost of managers and cost of share holders.

The firms may often experience a dispute of interests among the management of the firm, debt holders and share holders. These disputes generally give birth to agency problems.

There is an alternative theory which could explain why profitable companies borrow less. It is based on asymmetric information. Managers know more than outside investors about the profitability and prospects of the firm. Thus investors may not be able to access the true value of a new issue of securities by the firm. They may be especially reluctant to buy newly issued common stock, because they worry that the new shares will turn out to be overpriced.

Such worries can explain why the announcement of a stock issue can drive down the stock price. If managers know more than outside investors. The manager will be tempted to time stock issues when their companies stock is overpriced. In other words, when the managers are relatively pessimistic. On the other hand, optimistic managers will see their company's shares as under priced and decide not to issue as a 'pessimistic manager' signal and mark down the stock price accordingly. You can also see why optimistic financial managers-and most managers are optimistic-would view a common stock issue as a relatively expensive source of financing.

These entire problems are avoided if the company can finance with internal funds, that is, with earning retained and reinvested. But if external financing is required, the path of least resistance is debt, not equity. Issuing debt seems to have a trifling effort on stock prices. There is less scope for debt to be disvalued and therefore debt issue is a less is a less worrisome signal to investors.

## Agency Costs Theory

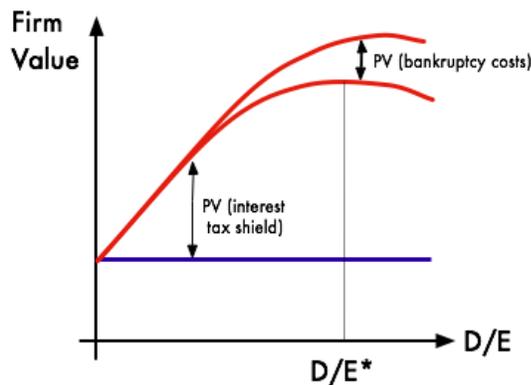
There are three types of **agency** costs which can help explain the relevance of capital structure.

**Asset substitution effect:** As D/E increases, management has an increased incentive to undertake risky (even negative NPV) projects. This is because if the project is successful, share holders get all the upside, whereas if it is unsuccessful, debt holders get all the downside. If the projects are undertaken, there is a chance of firm value decreasing and a wealth transfer from debt holders to share holders.

**Underinvestment problem:** If debt is risky (e.g. in a growth company), the gain from the project will accrue to debt holders rather than shareholders. Thus, management have an incentive to reject positive NPV projects, even though they have the potential to increase firm value.

**Free cash flow:** unless **free cash flow** is given back to investors, management has an incentive to destroy firm value through empire building and perks etc. Increasing leverage imposes financial discipline.

FIGURE1



Pecking Order Theory

## VIII. REVIEW OF EMPIRICAL EVIDENCE

**Stepen Jason kasozi (2009)**, his study examines the divide between finance theory and practice by analyzing the significance of the determinants of capital structure choice among 123 listed firms on the JSE, to determine whether these firms follow the trade-off theory or the pecking-order theory. Data obtained from McGregor's Bureau of Financial Analysis database was analyzed using standard multiple regressions, stepwise regressions and ANOVA techniques to test for financing behavior. The results revealed a significant positive correlation between debt financing and financial distress, and a

significant negative correlation between debt financing and the collateral value of assets during the period under study (1995-2005).

**Joseph P.H. Fan, Sheridan Titman, and Garry Twite (2008)**, examined 'An International Comparison of Capital Structure and Debt Maturity Choices' this study examines the influence of institutions on the capital structure and debt maturity choices in a cross-section of firms in 39 developed and developing countries. They found that firms that choose to cross-list tend to use more equity and longer-term debt. They also found that taxes and the characteristics of the financial institutions that supply capital have an influence on how firms are financed. Finally, they found that the cross-sectional determinants of leverage differ across countries. In particular, the relationship between profitability and leverage tends to be stronger in countries with weaker shareholder protection.

**Marc L. Lipson and Sandra Mortal (2008)** 'Liquidity and Capital Structure'. In this paper we study the link between liquidity and capital structure decisions. Since enhanced liquidity reduces the required return on equity and the cost of issuing equity, we expect more liquid firms to prefer equity in their capital structures. Thus, in the cross section we expect more liquid firms to have less leverage and that when firms increase capital we expect them to prefer to increase it with equity. Stock market liquidity is a major concern to all those involved in one way or another in equity trading, and for that reason there are many studies devoted to investigating factors affecting liquidity, and how liquidity relates to asset values and expected returns. This paper highlights one important role liquidity plays on one corporate decision – it has a significant impact on capital structure.

**Myers (1984)** refers to this as a 'pecking order theory' which states that firms prefer to finance new investment, first internally with retained earnings, then with debt, and finally with an issue of new equity.

**Hall et al. (2004)** agreed that age is positively related to long-term debt but negatively related to short-term debt. **Booth et al. (2001)** in ten developing countries, and **Huang and Song (2002)** in China, find that tangibility is negatively related to leverage. It is argued, however, that this relation depends on the type of debt.

**Titman and Wessels, 1988; Rajan and Zingales (1995)**, Firms with high levels of tangible assets will be in a position to provide collateral for debts. If the company then defaults on the debt, the assets will be seized but the company may be in a position to avoid bankruptcy. It is expected, therefore, that companies with high levels of tangible assets are less likely to default and will take on relatively more debt resulting in a positive relationship between tangibility and financial leverage.

**Ross (1977)** says that managers have better knowledge of the income distribution of a firm. When they issue debt, it may generate positive signals to the outside world about the firm's income distribution suggesting that the firm has stable income and is able to pay the periodic installments and interest payments. In this regard, higher debt may show higher confidence of managers in the firm's smooth income Distribution and adequacy of the income. Thus firms in their efforts to increase investors' confidence and thus increase the value of equity will use higher debt in the capital structure.

## IX. METHODOLOGY

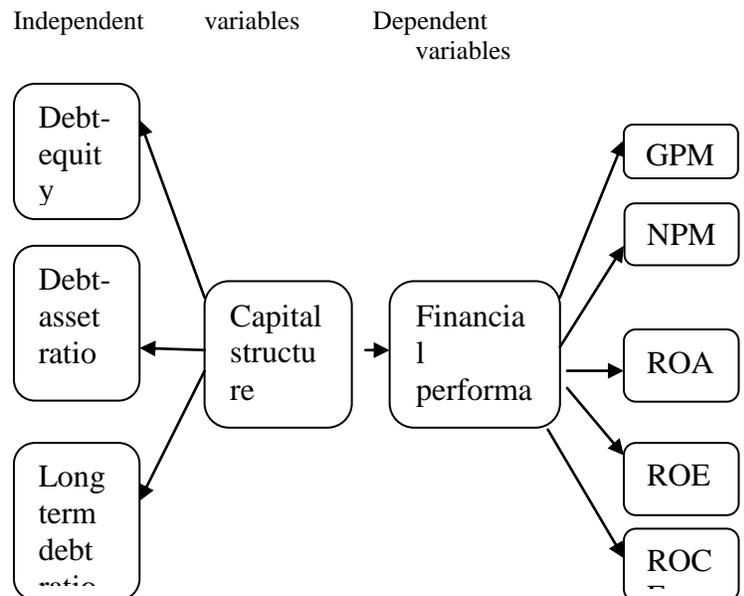
### Sampling Methods

In this research researcher has been selected trading sector from the listed companies in Colombo stock exchange. This trading sector contains 11 companies. Data collect from the hand book of listed companies published by Colombo stock exchange & the individual company's annual reports.

### The company's names are given below:

- Brown & company limited [BRWN]
- C.w.mackie plc[CWM]
- Ceylon & foreign traders limited[CFT]
- Eastern merchants limited[EMER]
- Environmental resources investment plc[GREG]
- Hay leys exports plc[HEXP]
- Office equipment limited[OFEQ]
- Radiant gems international limited[RGEM]
- Richard pieris exports plc[REXP]
- Singer(srilanka)limited[SINS]
- Tess agro limited[TESS]

## X. CONCEPTUAL MODEL



### Hypotheses

The following hypotheses are formulated.

**H<sub>1</sub>**:- There is a negative relationship between debt equity ratio and financial performance variables (GPM, NPM, ROCE, ROE, and ROA).

**H<sub>2</sub>**:- There is a positive relationship between debt asset ratio and financial performance variables (GPM, NPM, ROCE, ROE, and ROA).

**H<sub>3</sub>**:- There is a positive relationship between long term debt ratio and financial performance variables (GPM, NPM, ROCE, ROE, and ROA).

**H<sub>4</sub>**: capital structure is significantly impact on the financial performance of the trading companies in Sri Lanka.

**Descriptive statistics**

The following table shows the maximum, minimum, mean & standard deviation and also consist of number of samples and variance of each capital structure and financial performance variables.

|                            | N  | Maximum   | Minimum   | Mean     | Std.deviation |
|----------------------------|----|-----------|-----------|----------|---------------|
| <b>GPM</b>                 | 77 | 23.01468  | -5.287149 | 14.27181 | 3.7778049     |
| <b>NPM</b>                 | 77 | 8.3977968 | -3.161258 | 14.27181 | 3.7778049     |
| <b>ROCE</b>                | 77 | 11.8948   | -1.228073 | 0.904906 | 0.9512654     |
| <b>ROA</b>                 | 77 | 24.128509 | 1.994274  | 10.32905 | 3.2138839     |
| <b>ROE</b>                 | 77 | 1.7017813 | 0.153347  | 0.904906 | 0.9512654     |
| <b>DEBTEQUITY RATIO</b>    | 77 | 367.94721 | 98.06439  | 202.9009 | 14.2443287    |
| <b>DEBT ASSET RATIO</b>    | 77 | 104.35144 | 57.5498   | 67.96053 | 8.2438176     |
| <b>LONGTERM DEBT RATIO</b> | 77 | 27.683021 | 15.21041  | 19.15669 | 4.376835      |

**Hypothesis testing**

Here the correlation analysis and regression analysis are used to test the hypothesis. The hypothesis testing has formulated by the researcher for this study based on the hypothesis referred in chapter 3.They are,

**H<sub>1</sub>**:- There is a negative relationship between debt equity ratio and financial performance variables (GPM, NPM, ROCE, ROE, and ROA).

**H<sub>2</sub>**:- There is a positive relationship between debt asset ratio and financial performance variables (GPM, NPM, ROCE, ROE, and ROA).

**H<sub>3</sub>**:- There is a positive relationship between long term debt ratio and financial performance variables (GPM, NPM, ROCE, ROE, and ROA).

**H<sub>4</sub>**: capital structure is significantly impact on the financial performance of the trading companies in silence.

**XI. CORRELATION ANALYSIS**

H<sub>1</sub>, H<sub>2</sub>, H<sub>3</sub> Correlation between capital structure variables (debt equity ratio, debt asset ratio and long term debt ratio) and financial performance variables (GPM, NPM, ROCE, ROA, ROE) of trading sector.

**Correlations Matrix**

| Variabl e    | GP M | NP M | RO CE | RO A   | RO E    | Deb t - equity | Debt- asset | LG debt ratio |
|--------------|------|------|-------|--------|---------|----------------|-------------|---------------|
| GPM          | 1    | .742 | .409  | .676** | .333    | -.346          | .783*       | .457          |
| NPM          |      | 1    | .746  | .688   | .749    | -.697          | .468*       | .308**        |
| ROCE         |      |      | 1     | -.359  | -.779** | .801           | .459        | .285          |
| ROA          |      |      |       | 1      | .572**  | -.655**        | .356        | .657**        |
| ROE          |      |      |       |        | 1       | -.371**        | .493*       | .736**        |
| Debt-equity  |      |      |       |        |         | 1              | .161        | .265          |
| Debt - asset |      |      |       |        |         |                | 1           | .056          |
| L-term debt  |      |      |       |        |         |                |             | 1             |

\*correlation is significant at the 0.05 level (1-tailed)

\*\*correlation is significant at the 0.01 level (2-tailed)

The above correlation table indicates the relation ship between debt equity ratios, debt asset ratio and long term debt ratio are as follows,

- Correlation between debt equity ratio and GPM, NPM, ROCE, ROA, ROE is positive because R values of debt equity ratio& GPM is 0.327, debt equity ratio and NPM is 0.214, debt equity ratio and ROA is 0.256, debt equity ratio and ROCE is 0.458, debt equity & ROE is 0.186.
- Correlation between debt asset ratio and GPM, NPM, ROCE, ROA, ROE is positive because R values of debt asset & GPM is 0.583, debt asset ratio and NPM is 0.581, debt asset ratio and ROA is 0.741, ROCE is 0.481, debt equity & ROE is 0.254.
- Correlation between long term debt ratio and GPM, NPM, ROCE, ROA, ROE is positive because R values of long term debt ratio& GPM is 0.198, long term debt ratio and NPM is 0.432, long term debt ratio and ROA is 0.715, long term debt ratio and ROCE is 0.511, long term debt & ROE is 0.011.

According to the above result we can accept the hypothesis H<sub>1</sub>, H<sub>2</sub>, H<sub>3</sub> because the results indicate the negative relationship between debt equity ratio and financial performance variables & positive relationship between debt asset ratio, long-term debt ratio and financial performance variables (GPM, NPM, ROCE, ROA, and ROE).

**Regression analysis**

Regression analysis is a mathematical method to measure the impact of one (independent) variable on other (dependent) variable. In this part, the researcher has used this to test the hypothesis H<sub>4</sub> to measure the impact of capital structure on financial performance.

**H<sub>4</sub>: capital structure is significantly impact on the financial performance of the trading companies in Sri Lanka.**

Regression analysis between independent variable debt equity ratio and financial performance variables

| Dependent variable | R <sup>2</sup> | Significance level |
|--------------------|----------------|--------------------|
| GPM                | .119           | 0.005              |
| NPM                | .485           | 0.002              |
| ROCE               | .641           | 0.003              |
| ROA                | .429           | 0.002              |
| ROE                | .137           | 0.005              |

I) Regression analysis between debt equity ratio and GPM Based on the above table R<sup>2</sup> = 0.119. That means 11.9% of the variation in the GPM is determined by in the variation of debt equity ratio other remaining 88.1% is undetermined with a significant level of 0.005. This means 88.1% of variation of GPM may be caused by other variables.

II) Regression analysis between debt asset ratio and NPM  
Based on the above table  $R^2 = 0.485$ . That means 21.9 % of the variation in the NPM is determined by in the variation of debt asset ratio other remaining 78.1% is undetermined with a significant level of 0.002. This means 78.1% of variation of NPM may be caused by other variables.

III) Regression analysis between debt equity ratio and ROCE  
Based on the above table  $R^2 = 0.641$ . That means 64.1 % of the variation in the ROCE is determined by in the variation of debt equity ratio other remaining 35.9% is undetermined with a significant level of 0.003. This means 35.9 % of variation of ROCE may be caused by other variables

IV) Regression analysis between debt equity ratio and ROA  
Based on the above table  $R^2 = 0.429$ . That means 42.9 % of the variation in the ROA is determined by in the variation of debt equity ratio other remaining 57.1% is undetermined with a significant level of 0.002. This means 57.1% of variation of ROA may be caused by other variables.

V) Regression analysis between debt equity ratio and ROE  
Based on the above table  $R^2 = 0.137$ . That means 13.7 % of the variation in the ROE is determined by in the variation of debt equity ratio other remaining 86.3% is undetermined with a significant level of 0.005. This means 86.3% of variation of ROE may be caused by other variables.

Regression analysis between independent variable debt asset ratio and financial performance variables

| Dependent variable | $R^2$ | Significance level |
|--------------------|-------|--------------------|
| GPM                | .613  | 0.001              |
| NPM                | .219  | 0.002              |
| ROCE               | .210  | 0.005              |
| ROA                | .126  | 0.003              |
| ROE                | .243  | 0.005              |

I) Regression analysis between debt asset ratio and GPM  
Based on the above table  $R^2 = 0.613$ . That means 61.3% of the variation in the GPM is determined by in the variation of debt asset ratio other remaining 38.7% is undetermined with a significant level of 0.001. This means 38.7% of variation of GPM may be caused by other variables.

II) Regression analysis between debt asset ratio and NPM  
Based on the above table  $R^2 = 0.219$ . That means 21.9 % of the variation in the NPM is determined by in the variation of debt asset ratio other remaining 78.1% is undetermined with a significant level of 0.002. This means 78.1% of variation of NPM may be caused by other variables.

III) Regression analysis between debt asset ratio and ROCE  
Based on the above table  $R^2 = 0.210$ . That means 21 % of the variation in the ROCE is determined by in the variation of debt asset ratio other remaining 79% is undetermined with a significant level of 0.005. This means 79 % of variation of ROCE may be caused by other variables

IV) Regression analysis between debt asset ratio and ROA  
Based on the above table  $R^2 = 0.126$ . That means 12.6 % of the variation in the ROA is determined by in the variation of debt asset ratio other remaining 87.4% is undetermined with a

significant level of 0.003. This means 87.4% of variation of ROA may be caused by other variables.

V) Regression analysis between debt asset ratio and ROE  
Based on the above table  $R^2 = 0.243$ . That means 24.3 % of the variation in the ROE is determined by in the variation of debt asset ratio other remaining 75.7% is undetermined with a significant level of 0.005. This means 75.7% of variation of ROE may be caused by other variables.

Regression analysis between independent variable long-term debt ratio and financial performance variables.

| Dependent variable | $R^2$ | Significance level |
|--------------------|-------|--------------------|
| GPM                | .208  | 0.004              |
| NPM                | .094  | 0.001              |
| ROCE               | .081  | 0.001              |
| ROA                | .431  | 0.000              |
| ROE                | .541  | 0.002              |

I) Regression analysis between long-term debt ratio and GPM

Based on the above table  $R^2 = 0.208$ . That means 20.8% of the variation in the GPM is determined by in the variation of long-term debt ratio other remaining 79.2% is undetermined with a significant level of 0.004. This means 79.2% of variation of GPM may be caused by other variables.

II) Regression analysis between long-term debt ratio and NPM

Based on the above table  $R^2 = 0.094$ . That means 9.4 % of the variation in the NPM is determined by in the variation of long-term debt ratio other remaining 90.6% is undetermined with a significant level of 0.001. This means 90.6% of variation of NPM may be caused by other variables.

III) Regression analysis between long-term debt ratio and ROCE

Based on the above table  $R^2 = 0.081$ . That means 8.1 % of the variation in the ROCE is determined by in the variation of long-term debt ratio other remaining 91.9% is undetermined with a significant level of 0.001. This means 91.9 % of variation of ROCE may be caused by other variables

IV) Regression analysis between long-term debt ratio and ROA

Based on the above table  $R^2 = 0.431$ . That means 43.1 % of the variation in the ROA is determined by in the variation of long-term debt ratio other remaining 56.9% is undetermined with a significant level of 0.000. This means 56.9% of variation of ROA may be caused by other variables.

V) Regression analysis between long-term debt ratio and ROE

Based on the above table  $R^2 = 0.541$ . That means 54.1 % of the variation in the ROE is determined by in the variation of long-term debt ratio other remaining 45.9% is undetermined with a significant level of 0.002. This means 45.9% of variation of ROE may be caused by other variables.

Therefore the above results point out the capital structure variables are significantly impact on financial performance of companies, and hypothesis  $H_4$  is accepted by the researcher. Here the GPM, NPM, ROCE, ROA, ROA are considered as dependent variables to test the hypothesis & Debt equity ratio,

debt asset ratio & long term debt ratio are considered as independent variables. Based on the regression analysis the following findings are discovered. They are,

- 10.7% of variation in gross profit is explained by debt equity ratio and remaining 89.3% may be caused by other variables.
- 4.6% of variation in net profit is explained by debt equity ratio and remaining 95.5% may be caused by other variables.
- 21% of variation in ROCE is explained by debt equity ratio and remaining 79% may be caused by other variables.
- 6.6% of variation in ROA is explained by debt equity ratio and remaining 93.4% may be caused by other variables.
- 3.4% of variation in ROE is explained by debt equity ratio and remaining 96.4% may be caused by other variables.
- 4.6% of variation in gross profit is explained by debt asset ratio and remaining 95.5% may be caused by other variables.
- 33.8% of variation in net profit is explained by debt asset ratio and remaining 66.2% may be caused by other variables.
- 23.1% of variation in ROCE is explained by debt asset ratio and remaining 76.9% may be caused by other variables.
- 54.9% of variation in ROA is explained by debt asset ratio and remaining 45.1% may be caused by other variables.
- 6.5% of variation in ROE is explained by debt asset ratio and remaining 93.5% may be caused by other variables.
- 3.9% of variation in gross profit is explained by long term debt ratio and remaining 96.1% may be caused by other variables.
- 18.6% of variation in net profit is explained by long term debt ratio and remaining 81.4% may be caused by other variables.
- 26.1% of variation in ROCE is explained by long term debt ratio and remaining 73.9% may be caused by other variables.
- 51.2% of variation in ROA is explained by long term debt ratio and remaining 48.8% may be caused by other variables.

In addition to the above findings the ratio analysis interprets the followings.

When we focus on debt and equity position of trading industry, some firm had adequate level of debt capital and equity capital and also long term debt but maximum amount of firm didn't have standard rate among them. The trading industry firms maintained excess amount of capital structure and some firm faced shortage of capital funds in last seven years. So generally firms in trading industry didn't have good capital structure decisions. However we have considered the measures on the basis of total average of each, so we can agree with hypothesis

## XII. SUMMARY

In this part, the researcher has concentrated on data presentation, data analysis, ratio analysis, and hypothesis testing. Correlation analysis showed that there is a positive relationship between capital structure variables and financial performance variables. So hypothesis  $H_1$ ,  $H_2$ ,  $H_3$  are accepted and regression analysis showed that each of capital structure variables has a different significant level and this analysis is found that capital structure is significantly impact on financial performance of listed trading companies in Sri Lanka. So  $H_4$  also accepted following chapter mainly involves finding of the study, suggestion for further study, finally conclusion.

### Suggestions and Recommendations for further research

The researcher has experiencing the ability to provide suggestion and recommendation for further researcher to gain more worthy if any research will be conducted by them in this field. Some of the suggestion and recommendations are given below,

- Here the company's financial performance is computed based on debt equity, debt asset, long term debt but too many factors or measures have impact on financial performance of companies. So the result will be further valuable when researcher considers varies kinds of measures.
- There are 234 companies are listed in srilanka but this study has taken only one sector and also it consist of small number of firms. To generalize the analysis the sample size would be increased.
- Only some methods are used to test hypothesis such as correlation & regression. Further the researcher can add much variety of techniques to generalize their findings such as ANOVA, descriptive statistics and etc.
- Only secondary data are collected to analysis to do this research. Further researchers may use secondary data by visiting to every company.

## XIII. CONCLUSION

This paper been completed with the important objectives of to what extend capital structure impact on financial performance of companies and whether the capital structure impact in financial performance of listed trading companies in Sri Lanka, that Correlation analysis showed that debt asset ratio, debt equity ratio and long term debt correlated with gross profit margin, net profit margin, ROCE, ROA & ROE at significant level of 0.05 and 0.1.

Finally conclude there is positive relationship between capital structure and financial performance. And also capital structure is significantly impact on financial performance of the firm. So every firm should make good capital structure decision to earn profit and carry on their business successfully.

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