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## **IMPACT OF CAPITAL STRUCTURE ON PROFITABILITY: AN EMPIRICAL ANALYSIS OF LISTED MANUFACTURING COMPANIES IN SRI LANKA**

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### **Abstract:**

This study investigates capital structure and profitability of manufacturing companies listed on Colombo stock exchange, Sri Lanka, in order to find out the degree of impact of capital structure on profitability of listed manufacturing firms in Sri Lanka. Researcher choose manufacturing sector listed companies as a sample, because the sector has grown faster and number of companies also more than any other sector in Sri Lankan economy. Further, the contribution of the manufacturing sector to total Gross Domestic Product (GDP) also higher and compare with other companies manufacturing industry is the important one in the country's economic development. Researcher selected 33 listed manufacturing companies in Colombo stock exchange as a sample and carry out the research work for ten years from 2007 to 2016. Findings of this study are, debt to equity and debt to assets have a positive not significant regression coefficient on gross profit and debt to assets has a negative significant regression coefficient on net profit, return on assets, return on equity, and return on capital employee. This is match with the past empirical analysis in developing countries as well as Sri Lanka. This negative relationship suggests that high debt financing is leads to less return by more interest expenses.

**Keywords: Key Words: Capital Structure, Profitability, Debt to equity, Debt to assets**

## **1. Introduction**

### **a. Background and justification**

Capital structure decision is the vital one since the profitability of an enterprise is directly affected by such decision. The successful selection and use of capital is one of the key elements of the firms' financial strategy. Hence, proper care and attention need to be given while determining capital structure decision. Capital structure is one of the most complex areas of financial decision making due to its interrelationship with other financial decisions variables. Profitability is the main component in the financial decision.

An ultimate goal of a firm is the maximization of wealth or value of that firm (Miller & Modigliani, 1958, 1963; Miller, 1977). The relationship between capital structure and profitability has been the subject of remarkable milestone over the past decade throughout their



relevance theory. In the seminal article, presented by MM's (1958) irrelevance theory, they argued that capital structure is unrelated to firm's value. In the presence of corporate income tax and the cost of capital in MM's (1963) they argued that the market value of the firm is positively related to the amount of long term debt used in its capital structure. In recent years, the capital structure and profitability was analyzed by too many researchers in academic level. From the foregoing discussions based on the available empirical literature, it is crystal clear that results from investigations into the relationship between capital structure and profitability are inconclusive and requires more empirical work.

Though many theories tried to explain the capital structure, a model to determine the optimal capital structure is still a famous area among finance researches (Gill et al., 2011). It is widely reported that in the static trade-off theory of capital structure, a more profitable firm is predicted to have a higher leverage ratio (Frank and Goyal, 2003). The empirical relevance of trade off theory has often been questioned. Company chooses the debt and equity mix by balancing the costs and benefits. Competent managers who identify the appropriate mix of debt and equity minimize the firm cost of finance, maximize the profitability and thereby improve the competitive advantage. Different firm specific strategies are implemented by the managers to gain competitive advantage to the firm and thereby enhance the firm value result in performance differences (Gleason et al, 2000).

The impact of capital structure on profitability is one that received considerable attention in the finance literature. The study regarding the impact of capital structure on profitability will help us to know the potential problems in capital structure and profitability. Now a day the manufacturing firms must conduct its business in a highly complex and competitive business environment. Therefore, these types of research findings will be benefited in selecting the capital structure to achieve the optimum level of firm's profitability. This study shows the statistical analysis, carried out seeking to discover the impact of capital structure on profitability of the listed manufacturing companies in the Colombo Stock Exchange.

#### **b. Problem statement/ study problem**

Manufacturing companies are become under profitable organizations. The ultimate target of the manufacturing companies is achieving maximum profitability in order to minimize the cost. The finance cost mainly the interest for the debits one of the main component of the cost structure. Most of the researchers found a negative relationship between leverage or debt and profitability in their research work. But some authors put forward different opinion, thus they found out a positive relationship between profitability and debt levels in their studies. Within this two sides of arguments there is a necessarily to do more empirical research to analyze the relationship between capital structure and profitability.

Hence the main problem of this research is to study **“To what extent the capital structure influence on the profitability of manufacturing companies in Sri Lanka?”**



### **c. Research objectives**

The purpose of this study is to fill this void to some extent by providing empirical evidence from a developing country's perspective. However, this study was confined only to listed manufacturing companies. However manufacturing sector plays an important role in the Sri Lankan economy.

The main objective of this study is **“To examine the impact of capital structure on profitability of listed manufacturing companies in Sri Lanka”**

The Sub objectives of this study are to investigate the impact of capital Structure of listed manufacturing company in Sri Lanka during the period 2007 - 2016.

The sub objectives are,

- To find out the relationship between capital structure and the profitability.
- To find out the significant factors of capital structure which determining the profitability.
- To suggest the possible implications to maintain the optimal capital structure of the listed manufacturing firms in Sri Lanka.

### **d. Hypothesis**

The following hypotheses are formulated for the study.

H1: Firm's Debt to equity and Debt to Assets significantly impact on firm's Gross Profit

H2: Firm's Debt to equity and Debt to Assets significantly impact on firm's Net Profit

H3: Firm's Debt to equity and Debt to Assets significantly impact on firm's Return on Assets

H4: Firm's Debt to equity and Debt to Assets significantly impact on firm's Return on Equity

H5: Firm's Debt to equity and Debt to Assets significantly impact on firm's Return on Capital Employed

## **2. Review of Literature**

Modigliani and Miller (1958) have a theory of “capital structure irrelevance” where argue that financial leverage does not affect the firm's market value with assumptions related to homogenous expectations, perfect capital markets and no taxes. Jensen and Meckling (1976) argue that the shareholders-lenders conflict has the effect of shifting risk from shareholders and of appropriating wealth in their favor as they take on risky investment projects(asset substitution). Hence, shareholders, and managers as their agents, are prompted to take on more borrowing to finance risky projects. Lenders receive interest and principal if projects succeed, and shareholders appropriate the residual income; however, it is the lender who incurs the loss if the project fails. It is difficult and costly for debt holders to be able to assess and monitor Firms in an oligopolistic market will follow the strategy of maximizing their output in favorable economic conditions to optimize profitability (Brander & Lewis 1986). The theory also holds in unfavorable economic conditions; firms would take a cut in production and reduce their profitability.



Shareholders, though, while enjoying increased wealth in good periods, tend to ignore a decline in profitability in bad times. This is due to the fact that unfavorable consequences are passed onto lenders because of shareholders' limited liability status. Therefore, the oligopolistic firms, in contrast to firms in competitive markets, would employ higher levels of debt to produce more when opportunities to earn higher profits arise. The implied prediction of the output maximization hypothesis is that capital structure and market structure have a positive relationship.

Brander and Lewis (1986) and Maksimovic (1988) provide the theoretical framework that links capital structure and market structure. Contrary to the profit maximization objective postulated in industrial organization literature, these theories are similar to the corporate finance theory in that they assume that the firm's objective is to maximize the wealth of shareholders. Furthermore, market structure is shown to affect capital structure by influencing the competitive behavior and strategies of firms.

Berger, A. N. (2002) findings are consistent with the agency cost hypothesis-higher leverage, or a lower equity capital ratio is associated with higher profit efficiency, all else being equal. The relationship between performance and leverage may be reversed when leverage is very high due to the agency cost of outside debt. Profit efficiency is responsible to ownership structure of the firm consistent with agency theory and their argument that profit efficiency embeds agency costs.

Mesquita and Lara (2003) stated that the choice between the ideal proportion of debt and equity can affect the value of the company, as much as the return rates can. The results indicate that the return rates present a positive correlation with short-term debt and equity, and an inverse correlation with long-term debt. Azhagaiah and Premgeetha (2004) suggested that the rapid ability to acquire and dispose of debt provides the desired financial flexibility of firms with a goal for growth. The non-debt tax shield and growth rate are statistically significant, which means that these variables are the major determinants of the capital structure of Pharmaceutical Companies in India.

Goddard et al (2005) shows that there is a consistently negative relationship between size and profitability, gearing and profitability and positive relationship between liquidity and profitability. Goddard et al (2006) found that a large proportion of the cross sectional or time series variance in firm level growth rates cannot be explained by variations in firm sizes. A study based on Abor (2005) argues that short-term debt is less expensive and higher the profit. This study found that ROE of the firm shows significantly positive relationship with the short term debt of the firm. Consistent with the above studies, this study found that there is a negative correlation between profitability and long term debt. This again proves that higher the debt capital, higher risk of bankruptcy and lowers the profitability of the firm.

In contrast, Omondi & Muturi (2014) and Bouraoui and Louri (2014) found that leverage impact negatively on the financial performance of the firm. To sum up, firms with higher bankruptcy cost (higher risk firms) tend to have less debt in their capital structure. The lower the level of debt reduces the overall risk.



Raheman, Zulfiqar and Mustafa (2007) indicated that the capital structure of the non-financial firms listed on Islamabad Stock Exchange have a significant effect on the profitability of these firms. B.Nimalathan & Valeriu Brabete (2010) pointed out capital structure and its impact on profitability: a study of listed manufacturing companies in Sri Lanka. The analysis of listed manufacturing companies shows that Debt equity ratio is positively and strongly associated to all profitability ratios (Gross Profit, Operating Profit & Net Profit Ratios). Prof. (Dr). T. Velnampy & J. Aloy Niresh.(2012) point out their study of Relationship between capital Structure and Profitability in the listed banking and insurance sector in Sri Lanka, the results of the analysis show that there is a negative association between capital structure and profitability except the association between debt to equity and return on equity. Further the results suggest that 89% of total assets in the banking sector of Sri Lanka are represented by debt, confirming the fact that banks are highly geared institutions.

From the above literature analysis it is understood that profitability can be improved by reducing the agency cost as agency cost plays the major role in achieving the optimal capital structure. Similarly, it is also noticed that owner-managed firms are more willing to take risk than managerial-controlled firms. The review of empirical studies which have been carried out worldwide confirm the factors that determine the profitability. Firm size, leverage, industry type, liquidity, age ownership characteristics and sales growth are the popular variables among the researchers. These studies vary from each other as they have used different periods, countries, industries and firm specific factors. With respect to the previous studies this paper adds new evidence about the effect of capital structure on the profitability.

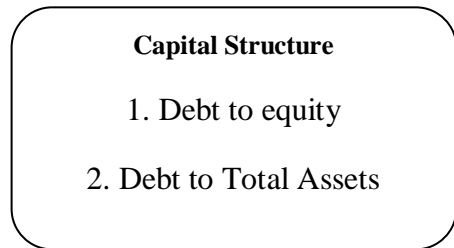
Though many research studies have been undertaken in the field of capital structure and Profitability, very few studies have been undertaken to find the impact of capital structure on Profitability. It is against this background that the present study has been undertaken so as to facilitate the existing literature.

### **3. Methodology**

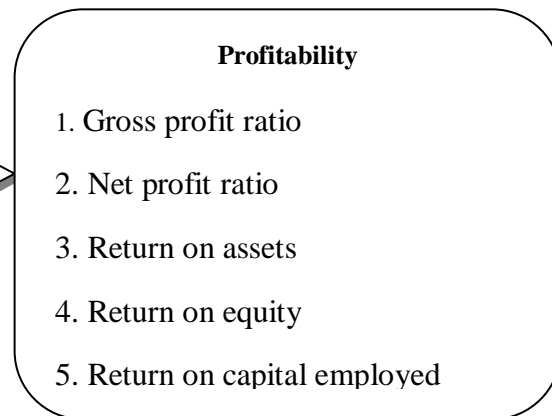
#### **Conceptual Model**

The following conceptual model is formulated to disclose the relationship between capital structure and profitability of the companies. Based on the research problem the following conceptual model has been constructed. Here there are two variables. Such as, independent variable that is, capital structure of the company's is measured by leverage ratios of Debt to equity ratio and Debt to Assets ratio. Five profitability ratios such as gross profit ratio (GPR), net profit ratio (NPR), return on asset (ROA), return on equity (ROE) and return on capital employed (ROCE) are used as the dependent variables for the study.

**Independent Variable**



**Dependent Variable**



Source: Developed by Researcher

• **Research Sampling**

The Colombo Stock Exchange (CSE) is the main Stock exchange in Sri Lanka with fully automated trading. The vision of the Colombo Stock Exchange (CSE) is to be the preferred choice for creation of wealth and value. The Colombo Stock Exchange (CSE) has 297 companies representing 20 business sectors. Listed companies in Colombo Stock Exchange are identified and listed manufacturing companies are selected for the purpose of this study. The reason for taking manufacturing companies are these are more compare with other companies and manufacturing industry is the important one in the country's economic development. Secondary data will be used for this study purpose. There are 37 manufacturing companies in Colombo Stock Exchange. Out of the 37 companies the researcher decides to select 33 companies based on the dada availability and time period taken for the study.

• **Methods of data collection**

The secondary data will be used for the study. Thus the data will be collected from the annual financial reports of listed companies published by the Colombo Stock Exchange, Journals and books etc. Thus, to produce the above mentioned research objective, the data for this study will be gathered from the financial statements as published by manufacturing Companies which are listed in Colombo Stock Exchange. In addition, another source of data will be through reference to the review of different articles, papers, and relevant previous Studies. According to the financial data availability 33 manufacturing firms which are listed in Colombo Stock Exchange, are taken for the study representing the period of ten years from 2007-2016.

• **Description of data analysis**

The study examines the capital structure and profitability of listed manufacturing firms in Sri Lanka by using the following analysis,

- Multiple Regression analysis (OLS model)
- The Standardized Beta Coefficients
- Coefficient of Determination (R-squared)



By using the Descriptive Statistics analysis, the researcher tries to summarize the statistics for the selected variables of capital structure and profitability measures for the sample of Sri Lankan listed manufacturing companies. Correlation is concern describing the strength of relationship between independent and dependent variables. To find out the impact of capital structure on profitability of the firms this study use Regression analysis. Well known statistical software “SPSS” will be used to analyze the data the researcher collected.

### **Research Model**

Here capital structure is the independent variable and profitability is the dependent variable. Profitability is measured with the help of five ratios namely Gross profit (GPR), Net profit (NPR), Return on Assets (ROA), Return on Equity (ROE) and Return on Capital Employed (ROCE). Capital structure is measured with the help of Debt/Equity ratio (D/E R) and Debt to Total Assets ratio (D/TA R). Therefore he regression model will be formulated in the following manner.

#### **Model – I**

$$GPR_{i,t} = \beta_0 + \beta_1 D/E R_{i,t} + \beta_2 D/TA R_{i,t} + \varepsilon$$

#### **Model – II**

$$NPR_{i,t} = \beta_0 + \beta_1 D/E R_{i,t} + \beta_2 D/TA R_{i,t} + \varepsilon$$

#### **Model – III**

$$ROA R_{i,t} = \beta_0 + \beta_1 D/E R_{i,t} + \beta_2 D/TA R_{i,t} + \varepsilon$$

#### **Model – IV**

$$ROE R_{i,t} = \beta_0 + \beta_1 D/E R_{i,t} + \beta_2 D/TA R_{i,t} + \varepsilon$$

#### **Model – V**

$$ROCE R_{i,t} = \beta_0 + \beta_1 D/E R_{i,t} + \beta_2 D/TA R_{i,t} + \varepsilon$$

Where,

$\beta_0$  = constant variable

$\beta_1, \beta_2$ , - Model coefficients of variables

$\varepsilon$  = Error term.

$i,t$  = for firm  $i$  in period  $t$



#### 4. Result & Discussion

##### Testing of hypothesis with the help of Multiple Regression analysis (OLS model)

There are five hypothesis were formulated under the methodology based on the conceptual model and these are testing here based on the regression result. Thus. The probability of the each pair of variables are tested in compare with the probability value of 0.05 and then hypotheses can be decided whether accepted or rejected. The following is the regression result of the effect of independent variable on dependent variable. 0.000 level of significant is the highest significant level which implies that dependent variable is significantly influenced by independent variable.

H1: Firm’s Debt to equity and Debt to Assets significantly impact on firm’s Gross Profit

Hypothesis		t- statics	P value	P<0.05
Debt to Equity	Gross Profit	0.653	0.514	Insignificant
Debt to Assets	Gross Profit	0.780	0.436	Insignificant

Source: Analyzed Data

Debt to Equity has a positive not significant regression coefficient on gross profit with 0.514 at 0.05 significant level and 0.653 t-values. This positive relationship suggests that high debt financing is leads to more gross profit. There is a positive not significant regression coefficient between debt to assets and gross profit with 0.436 at 0.05 significant level and 0.780 t-values. This positive indicates that high debt firms are more likely to have a gross profit.

H2: Firm’s Debt to equity and Debt to Assets significantly impact on firm’s Net Profit

Hypothesis		t- statics	P value	P<0.05
Debt to Equity	Net Profit	- 0.381	0.703	Insignificant
Debt to Assets	Net Profit	- 4.010	0.000	Significant

Source: Analyzed Data

Debt to Equity has a negative not significant regression coefficient on net profit with 0.703 at 0.05 significant level and - 0.381 t-values. This negative relationship suggests that high debt financing is leads to less net profit. Because have to pay more interest as expenses. There is a negative highly significant regression coefficient between debt to assets and net profit with 0.000at 0.05 significant level and - 4.010 t-values. This negative indicates that high debt firms have a less amount of net profit.





H3: Firm’s Debt to equity and Debt to Assets significantly impact on firm’s Return on Assets

Hypothesis		t- statics	P value	P<0.05
Debt to Equity	Return on Assets	-0.862	0.389	Insignificant
Debt to Assets	Return on Assets	-4.028	0.000	Significant

Source: Analyzed Data

Debt to Equity has a negative not significant regression coefficient on return on assets with 0.389 at 0.05 significant level and -0.862 t-values. This negative relationship suggests that high debt financing is leads to less return on assets, because of more interest expenses. There is a negative highly significant regression coefficient between debt to assets and return on assets with 0.000at 0.05 significant level and -4.028 t-values. This negative indicates that high debt firms have low level of return on assets.

H4: Firm’s Debt to equity and Debt to Assets significantly impact on firm’s Return on Equity

Hypothesis		t- statics	P value	P<0.05
Debt to Equity	Return on Equity	-4.451	0.000	Significant
Debt to Assets	Return on Equity	-1.462	0.145	Insignificant

Source: Analyzed Data

Debt to Equity has a negative highly significant regression coefficient on return on equity with 0.000 at 0.05 significant level and -4.451 t-values. This negative relationship suggests that high debt financing is leads to less return on equity by more interest expenses. There is a negative not significant regression coefficient between debt to assets and return on equity with 0.145 at 0.05 significant level and -1.462t-values. This negative indicates that high debt firms have less return on equity.

H5: Firm’s Debt to equity and Debt to Assets significantly impact on firm’s Return on Capital Employed

Hypothesis		t- statics	P value	P<0.05
Debt to Equity	Return on Capital Employed	-1.114	0.266	Insignificant
Debt to Assets	Return on Capital Employed	-3.254	0.001	Significant

Source: Analyzed Data

Debt to Equity has a negative not significant regression coefficient on return on capital employed with 0.266 at 0.05 significant level and -1.114 t-values. This negative relationship suggests that high debt financing is leads to less return on capital employed due to more interest expenses.



There is a negative significant regression coefficient between debt to assets and return on capital employed with 0.001 at 0.05 significant level and -3.254 t-values. This negative indicates that high debt firms have less return on capital employed.

**The Standardized Beta Coefficients**

Beta(s) are the standardized coefficients. These are the coefficients that researcher would obtain if researcher the standardized all of the variables in the regression, including the dependent and all of the independent variables, and ran the regression. A large value indicates that a unit change in this predictor variable has a large effect on the criterion variable.

The Standardized Beta Coefficients

Variables	Debt to Equity	Debt to Assets
Gross Profit	.036	.043
Net Profit	-.021	-.218
Return on Assets	-.047	-.219
Return on Equity	-.240	-.079
Return on Capital Employed	-.061	-.178

Source: Analyzed Data

In this model 1, 2, 3, and 5 debt to assets is the large effect or contributed variable on the profitability. But In the model 4, debt to equity is the large effect or contributed variable on profitability.

**Testing of the Models Fitness by Coefficient of Determination (R-squared)**

Model summary

Model	R square	Adjusted R Square	Std.Error of the Estimate
GP	.004	-.002	8.0753431
NP	.049	.043	.1265100
ROA	.053	.047	.1236383
ROE	.069	.063	.3568117
ROCE	.038	.033	.2199190
a. Predictors: (constant),DE, DTA			

Source: Analyzed Data

R Squared ( $R^2$ ) is the square of the measure of correlation and indicates the proportion of the variance in the criterion variable which is accounted for by the model; also see the adjusted R-square which attempts to yield a more honest value to estimate the R-squared for the population.



When the number of observations is small and the number of predictors is large, there will be a much greater difference between R-square and adjusted R-square. By contrast, when the number of observations is very large compared to the number of predictors, the value of R-square and adjusted R-square will be much closer.

R-squared shows a predictor debt to equity and debt to assets 0.4% with gross profit, 4.9% with net profit, 5.3% with return on assets, 6.9% with return on equity and 3.8% with return on capital employed are explained by the existence of those variables. It shows capital structure has impact on profitability in Sri Lankan listed manufacturing firms.

## **5. Conclusions, Recommendations & Limitations**

### **• Conclusions**

The findings of this study contribute towards a better understanding an impact of capital structure on firms 'profitability in the Sri Lankan context. Hypothesis were tested by using the regression analysis and the hypothesis 1 was rejected and that is debt to equity and debt to assets have a positive not significant regression coefficient on gross profit. Hypothesis 2, 3, 4, and 5 was accepted and debt to assets has a negative significant regression coefficient on net profit, return on assets, return on equity, and return on capital employee. This is match with the past empirical analysis in developing countries as well as Sri Lanka. This negative relationship suggests that high debt financing is leads to less return by more interest expenses.

According to the standardized beta coefficients, debt to assets is the large effect or contributed variable on the profitability. The models fitness were tested by Coefficient of Determination (R-squared). R-squared shows a predictor debt to equity and debt to assets has an impact on profitability in Sri Lankan listed manufacturing firms. This situation also indicates capital structure explain less influence on profitability in listed manufacturing firms Sri Lanka.

### **• Recommendations**

According to the findings of the study, manufacturing firms are use more equity resources instead of debt because their cash flow streams are not able to meet the obligation arising from debt. The proportion of debt should less in their financing more rely on equity. Hence, it can be concluded that an increase in debts will result in a decrease in corporations' performance. An increase in the level of debt also increases the risk of financial distress of the firm and the riskiness of the firm's. Therefore, firms should put more emphasis on internal sources of financing in order to increase their profitability. Accordingly the present research outcome is in line with the output of the "pecking order theory". Pecking order theory assumes a negative correlation (relationship) between firm value and the debt level in the capital structure. By developing Pecking order theory, Myers and Majluf (1984) argued that there is a hierarchy in the firm's preference for financing its assets. Therefore, firm's management should concentrate more on internal sources of financing in order to increase their profitability. Further, interest payment on debt is tax deductible, the addition of debt in the capital structure will improve the profitability of the firm. So, an appropriate mix of capital structure can therefore be adopted in



order to increase the profitability of firms. The Top management of every manufacturing firm should make prudent financing decision in order to remain profitable and competitive.

### • **Limitations**

The researcher identified the limitations in this study. Which are, the analysis of this study is mainly based on secondary data. The study covers only 10 years from 2007 to 2016. The findings of this study imply areas that need further study. The study covered only the listed manufacturing sector companies. Therefore, additional investigation is required to examine firms in the different sectors in the capital structure patterns and profitability. Giving enough time and resources it is possible to attempt to study some other listed companies in Sri Lanka over a long period of time and using different statistical methods in order to have a more comprehensive result.

## **6. References**

1. Abor, J. (2005). The effect of capital structure on profitability: an empirical analysis of listed firms in Ghana, *Journal of Risk Finance*, 6(5), 16-30
2. Abor, J. (2007). Corporate governance and financing decisions of Ghanaian listed firms. *Corporate Governance*, 7(1), p-83-92.
3. Azhagaiah, R., and J. Premgeetha. 2004. 'A Study on Capital Structure in Select Companies.' *Management Insight* 7 (1): 17–27.
4. Berger, A. N. 2002. 'Capital Structure and Firm Performance: A New Approach to Testing Agency Theory and an Application to the Banking Industry.' Working Paper, Board of Governors of the Federal Reserve System, Washington.
5. Berger, Allen N., and Emilia Bonaccorsi di Patti. 2006. "Capital structure and firm performance: A new approach to testing agency theory and an application to the banking industry." *Journal of Banking and Finance* 30.4: 1065-1102.
6. Bouraoui, T., & Li, T. (2014, January/February). The Impact of Adjustment in Capital Structure in Mergers & Acquisitions on Us Acquirers' Business Performance. *The Journal of Applied Business Research*, 30(1), 27-41.05
7. Brander, J.A. & Lewis, T.R. 1986, 'Oligopoly and financial structure: the limited liability effect', *American Economic Review*, 76(5): 956-70
8. De Mesquita, J. M. C., & Lara, J. E. (2003). Capital structure and profitability: the Brazilian case.
9. Frank M. and Goyal H. (2003). "Testing the Pecking Order Theory of Capital Structure" *Journal of Financial Economics*, vol. 67, pp.217-248.
10. Frank, M. Z., & Goyal, V. K. (2009). Capital structure decisions: Which factors are Reliability important? *Financial Management*, 38, p-1-38.
11. Gill, A., Nahum B., & Neil M. (2011). The effect of capital structure on profitability: Evidence from the United States. *International Journal of Management*, 28(4)1: 3-15.
12. Gleason, K. C., Mathur, L. K., & Mathur, I. (2000). The interrelationship between culture, capital structure, and performance: evidence from European retailers. *Journal of Business Research*, 50(2), p-185-191.



13. Goddard, J., Tavakoli, M., & Wilson, J. O. S. (2005). „Determinants of profitability in European manufacturing and services: evidence from a dynamic panel model”. Applied Financial Economics, Vol.15(18), p. 1269-1282
14. Goddard J.A.,and Wilson, J.O.S. (2006), “Do firm sizes and profit rates converge? Evidence on Gibrat's Law and the persistence of profits in the long run” Applied economics,Vol.38(3) pp267
15. Jensen, M. Meckling, W. 1976), ‘Theory of the firm, managerial behavior, agency costs and ownership structure’, Journal of Financial Economics, vol. 3 no. 4, pp. 305-360.
16. Modigliani, F., & Miller, M. H. (1958). The cost of capital, corporation finance and the theory of investment. The American economic review, 48(3),p- 261-297
17. Modigliani, F. and Miller, M. (1963), “Corporate income taxes and the cost of capital: A Correction”. American Economic Review, Vol. 53, pp. 443-53.
18. Nimalathasan, B., Brabete, V.(2010), “Capital Structure and its Impact on Profitability: A Study of Listed Manufacturing Companies in Sri Lanka.
19. Omondi, M. M., & Muturi, W. 2013. Factors Affecting the Financial Performance of Listed Companies at the Nairobi Securities Exchange in Kenya. Research Journal of Finance and Accounting, 4(15), 99-1
20. Prof. (Dr). T. Velnampy & J. Aloy Nireesh (2012), The Relationship between Capital Structure & Profitability Journal of Global Journal of Management and Business Research Volume 12 Issue 13 Version 1.0.
21. Raheman\_ A, Zulfiqar\_B\* and Mustafa. 2007. " Capital structure and profitability: Case of Islamabad Stock Exchange""International Review of Business Research Papers Vol. 3 No.5, 347-361