Capital structure and Profitability:A Details Study of Selected Listed Manufacturing Company in Sri Lanka

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Abstract

Today in the competitive commercial world various sectors are developing competitively. In finance, the most debatable topic is capital structure. The main issue of debate revolves around the optimal capital structure. There are two schools of thought in this regard. One school pleads for optimal capital structure and other does against it. Former school argues that judicious mixture of debt and equity capital can minimize the overall cost of capital and maximize the value of the firm. Hence, this school considers capital structure decision as relevant. Latter school of thought led by Modigliani and Miller contends that financing decision does not affect the value of the firm. Since value of the firm depends on the underlying profitability and risk of investment .In this study, determinants of capital structure in Sri Lankan context are examined with reference to capital structure theories. This study examines the profitability and capital structure of the companies listed in Colombo Stock Exchange. According to the research findings, Debt Equity ratio has strong relationship with earning per share, Return on Equity and Return on Asset. Researcher concluded that there is strong relationship between Capital Structure and Profitability.

Introduction

Capital structure refers to the specific mixture of long term debt and equity such as debenture, long term debt , preference shares capital and reserves and surplus for uses to finance it 's operations . The financial manager has to concerns in this are a, first how much should the firm borrow, that is ,what mixture of debt and equity is best? The mixture chooses will affect both profitability and value of the firm. Some companies' don't plan their capital structure. These companies may prosper in the short run. But ultimate they face considerable difficulties in raising funds to finance their activity. These companies may also fails to economies the use of their funds. Theoretically the financial manager should plan an optimum structure for his company. The optimum capital structure is obtained when the market value per share is maximum. The value will be maximized when the marginal real cost each sources of funds is the same.

The firm Capital structure has a great deal of flexibility in choosing a financial structure. The question of whether one structure is better than another for a particular firm is the heart of the capital issue. In addition to divide on the financing mix, the financial manager has to decide exactly how and where to raise the money. The expenses associated with raising long term financing can be considerable. So different possibilities must be carefully evaluates. An organization could achieve profitability solvency, capacity to obtain Loan and control of financial risk by having optimum capital structure. A company's primarily aim of starting production process by issuing ordinary shares and debt certificates is to earn profit no body dispute. This fact therefore by measuring profitability of a company one could evaluate its performance. A company's financial statement could be analyzed to identify its strength, weakness, opportunity and threats in order to plan for the future activities.

1.1 Research problem

To date much of empirical research has been undertaken in the area of the Capital structure from different countries. Based on the empirical analysis there are so many factors determines the capital structure. But each having a different importance and influence on the Capital structure depends on different countries and some other factors. So; there is lack of research in this field, in Srilanka. So, researcher try to bridge gap in this field.

1.2 Objective of study

The main objectives of the studies are

(A) To identify, the relationship between equity ratio and profitability.

(B) To measure profit deviation of the institution, by relating to industrial medium of selected manufacturing sector.

(C) To test the Capital structure theory in Srilanka conducts.

1.3 Significance of the study

For select manufacturing companies the study determines how planning the Capital structure is beneficial for companies. Who optimizes Capital structure enjoy profitability. Through this researcher would determine how companies would continue to exit. Competitive world to attain its customers to keep price of its shares high and there by increasing the value of the company help to again knowledge of efficiency of the organization in the manufacturing sector determine and how the efficiency has deviated from the industrial average. Because of these reason the study of selected manufacturing organization has significance.

2.0 Literature Review

Anderson and Williamson (2001) concluded in their study on sir family that choice of capital structure depends on many factors, not only pure financial decision tradition, municipality, family goals etc. They chose to put their focus is on the transporting sector since Harris and Raviv (1991) stated that firms with in the same industry. Seem to have a similar capital structure. They believe it to be easier to compare and analyze the different companies because they operate in the same industry instead of because they are all run as family firms.

Another master thesis were we got some useful insight in to the capital structure decision making field is Alvemyz and Arenbolm (2003) who compared differences, in capital structure in different sector. They reached to the conclusion that what is an optimal capital structure varies from firm to firm and that optimal seems to mean two different things in theory, compared to reality. This is why we chose to focus on a specific industry

Wahlberg and Ekeroth (2006) discuss in their thesis if Swedish companies acts in accordance to the optimal capital structure theory and/on the pecking order theory. They came to the conclusion that hone of them is followed and that Swedish companies prefer internal financing followed by equity and as a last choice debt

Billings Ely etal (1988) found that the balance sheets of convertible bound issuers are more like those of debt issuers while the risk/ return complexion of convertible bound issuers is more like equity issuers. Fitman and Wessls' (1988) finding were inconclusive for convertible debt, as the model could, explain virtually none of the variation in convertible debt ratios across firms.

Narayan rao spar and Jiao lukose (2002) consider empirically the incremental financing decisions for the same of 153 AXE quoted companies during the years 1984 through 1997. First they estimate a binominal. Logic model for the choice between internal and external finance second, they estimate a multinomial logic model for the choice between three types of external finance private loans, bonds and shares. The results provide evidence for the packing order theory. The issuance behaviour appears not to be consistent with long – term capital structure target.

Jenson (1980) also argued that since debt commits the firms to pay out cash, it reduces the amount of free cash flow available to managers to engage itself interest activates. The mitigation of the conflicts between managers and share holders constitute the benefit of debt financing.

Otavio & De Medeiros and cecilioelias Deher (2005) are briefly state that the capital structures would result from a hierarchy of financial decisions where internally generated resources would have first priority, followed by debt issues and as last resort only, by equity issues. In this strong from, the pecking order theory sustains that equity issues, would never occur where as in its weak form, limited amount of issues are acceptable The methodology adopted in this empirical study involves cross-section regressions and the testing of hypotheses stemming from the underlying theory in its strong and weak forms. The upshot leads to the conclusion that the tested theory, in its weak form is applicable to Brazilian firm, but the same does not happen with its strong form .The result also show that the goodness of fit of the Brazilian regressions are significantly better than those reported for American firms and that Brazilian firms seem to be closer to the packing order's strong form than American ones.

According to Baxter and Cragg (1970) found choice of financing to be not purely random however ,They found the empirical model used did not account adequately for the relationship the existing financial mix and the choice of security .Mikkelson (1978)found evidence consistent with the asset substitution and uncertainly of risk hypothesis .That is convertible debt issuers are small, have high leverage ration and possess high risk.

The MM developed (1958) one must be aware of the fact that different measures of capital structure exist, and that each capital structure measure, itself can be measured in different ways. Roughly ,two major categories of leverage measures exist those that are based on market value of equity and those that are based on booked value of equity. At the same time Titraan and wessels (1988) discuss six measures of financial leverage, in their study of capital structure choice. long term, short term and convertible debt divided by market and book values of equity It is Though rather Common that due to data limitations empirical Studies must use only leverage measures in terms of book values rather than market value of equity. As is the case in the study by

Titman and Wessels.

Milton, Harries state in their research paper that surveys capital structure theories based on agency costs, asymmetric information .product /input market interactions, and corporate control considerations(but excluding tax-based theories) for each type of model ,a brief over view of the papers surveyed .and their relation to each ,other is provided .The central papers are described in some detail, and their results are summarized and followed by a discussion of related extensions. Each section concludes with summary of the main implications of the models surveyed in the section. Finally, these results are collected and compared to the available evidence .Suggestions for future research are provided.

3.0 Conceptualization
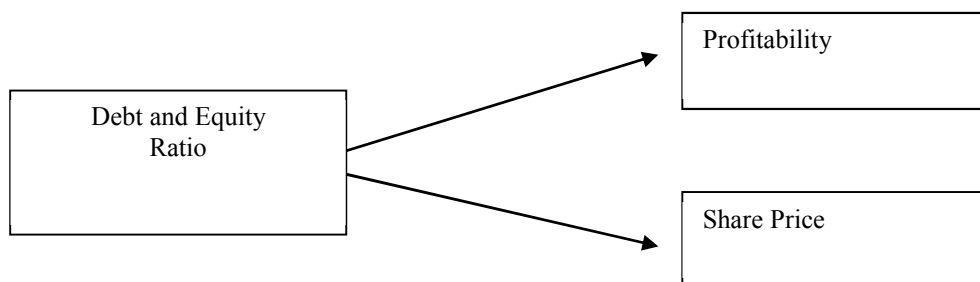
3.1 Hypotheses
1. There is a positive relationship between debt-equity ratio and return on equity (ROE)
2. There is positive relationship between debt -Equity and return on assets (ROA) ratio
3. There is positive relationship between debt equity ratio and Share price.

3.2 Operationalization

Concept	Variable	Indicator	Measurement
Capital Structure	Equity Capital Debt Capital	Debt ratio Gearing ratio Interest cover Ratio Cash flow Ratio	Ratio Increase OR Decrease
Profitability	Profitability Ratio	1. Cross Profit margin 2. Net profit margin 3. Return on Assess 4. Return on Equity 5. Earning per Share 6. ROCE	Ratio Increase Or Decrease

3.3 Data collection
The data can be collected either primary or secondary. The primary data will be obtained by researcher using method of observation, interview and questionnaire. The secondary data will be obtained from annual report, statistic and essays. The manufacturing companies include in the listed companies are surrounding of Srilanka's capital of Colombo. So, It is not possible to obtain primary data for this research study. There for secondary data will be obtained from Hand Book of listed companies CD published yearly by CSE is used as secondary data for this research study.

3.4 Statistical Methodology
Statistical method is used for testing the hypothesis and expands the theory for this Research. We apply the statistical technique such as
1. Mean deviation
2. Standard deviation
3. Variance
4. Co efficient of variance
5. Co efficient of Correlation
6. Hypothesis testing

4.0 Correlation analysis
In this research, which is undertaken to find out the relationship between the gear and ROE,ROA and EPS of

manufacturing firms. Correlation analysis is carried out in order to find out the nature of relationship between the variable based on the value of correlation coefficient, here

Correlations

		GEAR	ROE
GEAR	Pearson Correlation	1	.727**
	Sig. (2-tailed)		.002
	N	15	15
ROE	Pearson Correlation	.727**	1
	Sig. (2-tailed)	.002	
	N	15	15

**·. Correlation is significant at the 0.01 level

According to the coefficient correlation, there is positive high relationship between Gear and ROE during the 2005-2009. So conclusion may be made, that there is positive relationship between the Gear and ROE . Through this finding ROE depending on Gearing ratio. Then significant level is 0.002 so research hypothesis is supported.

Correlations

		GEAR	EPS
GEAR	Pearson Correlation	1	.535*
	Sig. (2-tailed)		.040
	N	15	15
EPS	Pearson Correlation	.535*	1
	Sig. (2-tailed)	.040	
	N	15	15

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

According to the coefficient correlation, there is positive moderate relationship between Gear and EPS during the 2005-2009. So conclusion may be made, that there is positive relationship between the Gear and EPS . Through this finding EPS depending on Gearing ratio. then significant level is 0.05 so research hypothesis is supported.

Correlations

		GEAR	ROA
GEAR	Pearson Correlation	1	.551*
	Sig. (2-tailed)		.033
	N	15	15
ROA	Pearson Correlation	.551*	1
	Sig. (2-tailed)	.033	
	N	15	15

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

According to the coefficient correlation, there is positive moderate relationship between Gear and ROA during the 2005-2009. So conclusion may be made, that there is positive relationship between the Gear and ROA . Through this finding ROA depending on Gearing ratio. then significant level is 0.05 so research hypothesis is supported.

4.1 Regression analysis

Regression analysis made to find out the equation, which describes the relationship between the variable. From this analysis the dependent variable can be forecasted through the independent variable, regression line was Y= a+bx. Here the regression summary output is obtained through the statistical analysis.this output is given in the table

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	13.224	4.514		2.929	.012
	GEAR	.374	.164	.535	2.284	.040

a. Dependent Variable: EPS

In this period, Coefficient of regression is 0.040, it indicates that for every year increase of the independent variable Gear, will increase by 0.374 that is Rs 3.7. On the basis of EPS weighted base, the coefficient of regression is 0.374.It indicates that for every year increase of the dependent variable EPS will increase by 0.374 that is Rs 3.7. Hence these analyses provide the hypothesis of high degree of Gear lead to high degree of EPS

This fitness is shown by the rp^2 in the rp^2 summary output. This value rp^2 is 53.5% (based on EPS weight) therefore only 46.5% of can be explained through this regression equation. That is the Gear affects the EPS the EPS only 53.5%. Rest of 46.5% denotes the other factors, which determines the Gear.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	14.250	1.385		10.291	.000
	GEAR	.227	.050	.781	4.509	.001

a. Dependent Variable: ROE

In this period, Coefficient of regression is 0.001, it indicates that for every year increase of the independent variable Gear, will increase by 0.227 that is Rs 2.2. On the basis of ROE weighted base, the coefficient of regression is 0.227.It indicates that for every year increase of the dependent variable ROE will increase by 0.227 that is Rs 2.7. Hence these analyses provide the hypothesis of high degree of Gear lead to high degree of ROE

This fitness is shown by the rp^2 in the rp^2 summary output. This value rp^2 is 78.1% (based on ROE weight) therefore only 21.9% of can be explained through this regression equation. That is the Gear affects the ROE the ROEonly 78.1%. Rest of 21.9% denotes the other factors, which determines the Gear.

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	8.213	2.716		3.024	.010
	GEAR	.235	.099	.551	2.383	.033

a. Dependent Variable: ROA

In this period, Coefficient of regression is 0.033, it indicates that for every year increase of the independent variable Gear, will increase by 0.235 that is Rs 2.3. On the basis of ROA weighted base, the coefficient of regression is 0.235.It indicates that for every year increase of the dependent variable ROA will increase by 0.235 that is Rs 2.3. Hence these analyses provide the hypothesis of high degree of Gear lead to high degree of ROA
This fitness is shown by the rp^2 in the rp^2 summary output. This value rp^2 is 55.1% (based on ROA weight) therefore only 49.1% of can be explained through this regression equation. That is the Gear affects the ROA the ROA only 55.1%. Rest of 49.1% denotes the other factors, which determines the Gear.

5.0 Conclusion
In the manufacturing sector 15 companies were taken for my analysis of the capital structure and profitability. I am finding out the following problem
   ❖ The 15 companies in the manufacturing sector were taken for surveying by the Colombo stock

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exchange center and they were categorized into three groups According to their Established year.

❖ Capital of manufacturing sector companies is maintained at various levels. If the Capital is surplus or deficit the required amount that will affect their efficiency.

❖ In manufacturing sector companies, profit yields are found lo be varying from company to company. Some companies tend to run at a loss and there by they end it difficult to raise the requested funds for their functioning, at the same time they are liable lo lose goodwill of the shareholders.

❖ In companies return on capital employed (ROCE) is found to be different from one company to another. If some companies incur losses, the incomes from their Assets are found to be less. Yet if companies do not follow the same principles, ROC'1: evaluation will not rely the true picture.   Other alternative, to find the Residual income enough data (Rate of interest are not to be found)

❖ ROCE is found to be more in some companies and loss in some like wise EPS also is more in some companies management has not been furnished with adequate information to implement the set out in the agenda programmers.

❖ The competitive nature of the companies which are listed in other fields, the Competitiveness of the competing companies in the manufacturing companies.

Threat of new incoming companies is the manufacturing field the threat of   Substituted products the bargaining power of the customer's the bargaining power Of the suppliers and other competitive factor, easily affect the manufacturingCompanies.

❖ In some organizations, the capital structure is not found to be optimal As such. Organizations face the following problems.-

❖ In order to achieve their long term goals. Organization has to   continue thei rdifficulties in planning performance programmers.

❖ If Organizations do not have optimum combination.

❖ Unnecessary wastage of finance would occur. That is. if there is a low

❖ combination, finance would be expended through granting of more share

❖ profits. If there is a high combination, through interest payments for loans,

❖ large amount of finance would be expended.

❖ If the organization doesn't have the capital it needs, there

❖ would be irregular growth, and difficulty in proceeding with profitable venture

❖ would result.

❖ Due to organization's inefficient capital structure inefficient

❖ activities of the managers of the organization would create difficulties in the

❖ day -to-day performances.

5.2 Recommendations

➢ The management of an Organization should be as concerned about its capital Management as it shows concern in managing its assets that is in their capital Structure, the organizations should maintain an optimal situation between the loan Capital and their own capital.

➢ An organization should get correct information at the proper time, when it Prepares a programme related lo it capital. Then only, the decision taken by the   Management will be a good decision.

➢ An organization should take into account, factors such as replacement. Modernization, expansion and diversification when making decisions regarding Capital budgeting.

➢ An organization should take decision as to how lo obtain the finance its needs from internal funds, debts and external equity.

➢ An organization should take its share profit policy into consideration when it take decision regarding capital structure.

➢ The purpose of using the loan capital by an organization is to increase the ordinary shareholder's profit. When increasing the loan capital in this way. Organizations would have to face financial risks. Therefore loan capital should be raised taking into consideration, this risk The combination of loan capital and equity capital of an organization decide the income and risks of share holders and influence the cost of capital and market value of the firm Therefore care should be taken to maintain capital combination in an optimal level.

➢ All organization would like lo maximize its profitability. Therefore it should avoid unnecessary expenditures.

➢ An organization should determine its profit for the coming financial year before hand and decide on its performance plans according to the profit that could be earned in that financial year when an organization engages itself in activities such as designing of a product, replacement of asset, introducing new products, it should lake profitability into consideration.

➢ *When* a manufacturing organization makes designs regarding production, "the design should be flexible

according to the changes in modern technological environment.

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