IMPACT OF CAPITAL STRUCTURE ON PROFITABILITY: A CASE STUDY OF BEVERAGE FOOD AND TOBACCO FIRMS IN COLOMBO STOCK EXCHANGE (CSE) IN SRI LANKA

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ABSTRACT

The Capital Structure and Profitability are very important issues in the growth and survival of the business. This study seeks to examine Capital structure impact on profitability: A Listed Beverage food and tobacco firms in Colombo Stock Exchange (CSE) in Sri Lanka. The present study covered Listed Beverage food and tobacco firms over the period of past 7 years from 2008 to 2014. Correlation and regression analysis were used to analyze the data. In this study, Capital structure is represented by three indicators: Debt to Equity Ratio (DE), Debt to Total Assets (DTA) and Gearing ratio (GR) The profitability examined by Return on Capital Employed (ROCE) and Return on Assets (ROA). According to the findings there is a significant impact of Capital Structure on profitability of Listed Beverage food and tobacco firms. There is a positive relationship between capital structure and profitability of Beverage food and tobacco firms.

Key words: Capital Employed, Capital Structure, Gearing Ratio and Profitability

Introduction

Capital structure includes equity capital and debt capital, both holders have prime concern on the wealth of the firm here equity capital holders are interest with dividend and share price of their share as well as debt capital investors are primary attention with interest on their investments and firm’s capability of debt repayment. Ultimately debt to equity ratio is vitally use to analyses the capital structure of the firms, here capital structure compose equity and debt capital. Most of the firms try to sustain their capital structure to maximize their profitability and stability of their firms. It means how much of fund should be made by equity share holders and how much should be borrowed from outsiders as non-current liabilities.

Proper care and attention need to be given while making the capital structure decision. There could be hundreds of options but to decide which option is best in firm's interest in a particular scenario needs to have deep insight in the field of finance as use of more proportion of Debt in capital structure can be effective as it is less costly than equity but it also has some limitations because after a certain limit it affects company's leverage. Therefore, a balance needs to be maintained. Another main issue regarding the management of an enterprise is the compromise to be made between low profitability and high liquidity that the current assets are offering.

Profitability and liquidity are the most prominent issues that management of each organization should take studying and thinking about them into account as their most important duties. Liquidity refers to the ability of a firm to meet its short term obligations. Liquidity plays a crucial role in the

successful functioning of a business firm. A study of liquidity is of major importance to both the internal and external analysts because of its close relationship with day to day operations of a business. A weak liquidity position poses a threat to the solvency as well as profitability of a firm and makes it unsafe and unsound.

The profitability goals are contradictory to each other in most decisions which the finance manager takes. Thus, firms with high liquidity may have low risk and then low profitability. Conversely, firm that has low liquidity may face high risk results to higher return. Consequently, a firm is required to maintain a balance between liquidity and profitability in its day-to-day operations.

Literature review

Pandey (2002) examined the relationship between capital structure and market power using panel data of 208 Malaysian companies from 1994 to 2000. He employed the fixed firm and time effects model to account for both individual firms and temporal effects. Results showed that capital structure and market power have a cubic relationship. That is, at lower and higher ranges of Tobin's Q, firms employ higher debt, and reduce their debt at intermediate range. This is due to the complex interaction of market conditions, agency costs, and bankruptcy costs. His findings also vindicated saucer-shaped relationship between capital structure and profitability because of the interplay of agency costs, costs of external financing and interest tax-shield. He found that size and tangibility have a positive and growth, risk (systematic) and ownership have a negative influence on capital structure.

According to Bauer (2004) the results, leverage of a company is positively correlated with size and it is negatively correlated with profitability, tangibility and non-debt tax shields. There is a negative relationship between leverage measured in market value and growth opportunities. Moreover, leverage decreases with volatility, albeit on a lower level of statistical significance.

Reint & Florian (2008) results suggested that capital requirements may only be of second-order importance for banks 'capital structures and confirm the robustness of current corporate finance findings in a holdout sample of banks. Profitability can be defined as the ability of a firm to generate profits.

Sarngadharan & Rajitha (2011) differentiated profit from profitability based on how it measure the earning capacity, in which profit is an absolute measure of earning capacity but profitability is a relative measure of earning capacity. In other words, profit indicates a firm's earning during a specified period. While, profitability denotes whether these profits are constant or improved or deteriorated, how and to what extent they can be improved. That is why profits of two different firms might be identical, however not for the profitability.

Profitability is a measure of the amount by which a firm's revenues exceeds its relevant expenses. Potential investors are interested in dividends and appreciation in market price of stock, so they pay more attention on the profitability ratios. Managers on the other hand are interested in measuring the operating performance in terms of profitability. Hence, a low profit margin would suggest ineffective management and investors would be hesitant to invest in the company. Profitability is the most important factor for managers. Firms with

high profitability level are more likely to have . Putting profitability measurement systems in place can be an important way of keeping track on the progress of the firm by giving vital information about what is happening now, but also enables firm to achieve growth.

Hoje and Yong (2008) studied the financial structure of Japanese companies in order to determine the compatibility with agency predictions. Having carried out multiple regression analysis they identified that debt equity ratio could get influenced by the growth rate, the size of the firm and agency costs of the firm.

Eriotis, Frangouli and Ventoura-Neokosmides (2000) examined study to constitute an attempt to investigate the relationship between debt-to equity ratio and firm's profitability. In the study the level of the firm in investment and its degree of market power was observed. The facts and figures of various industries of 1995-96 were taken into study. It was observed through the study that the financial structure plays vital role in a firm's profitability. A firm's profitability depends on debt-toequity ratio. The debt -to-equity ratio varies from firm to firm. It is the selection of debt- to- equity ratio which makes successful financial strategy for this purpose some firms choose a high rate equity ratio and the others depend on lower rate equity ratio

Abdul, Bushra & Mustafa (2007) revealed that the effect of capital structure on the profitability of listed firms on Islamed Stock Exchange (ISE) which study considered 94 of non-financial firms from 1999 to 2004. They used correlation and regression analysis in the study. The findings revealed that the capital structure of the listed betterperformance
nonfinancial in ISE has a significantly effect on the profitability of these firms. They pointed that if the firms want to increase their profitability, they will have to give much consideration to the financing mix to avoid losses.

Bhunia and Brahma (2011) conducted a study to examine and evaluate the importance of liquidity management on profitability as a factor accountable for poor financial performance in the private sector steel Industry in India. Singh and Pandey (2008) suggested that, for the successful working of any business organization, fixed and current assets play a vital role, and that the management of working capital is essential as it has a direct impact on profitability and liquidity. They studied the working capital components and found a significant impact of working capital management on profitability for Hindalco Industries Limited.

Nimalathasan and Valeriu (2009) explained that study an attempt has been made to analyze the capital structure and its impact on profit earning capacity during 2003 to 2007 (05 years) financial year of listed manufacturing companies in Sri Lanka. The results shows that debt to equity ratio (D/E) ratio is positively and strongly associated to all profitability ratios [gross profit ratio (GPR); operating profit ratio(OPR); and net profit ratio(NPR)] except return on capital employed (ROCE) and return on investment (ROI). Debt to assets (D/A) ratio is positively and strongly associated to OPR, NPR and ROCE. Similarly capital gearing (CG) ratio is also positively correlated to GPR and NPR.

Velnampy and Niresh (2012) investigated the association between capital structure and profitability of listed Sri Lankan banks. Results of their analysis show that, there is a negative association between capital structure and profitability except the association between debt to equity and return on equity.

Statement of the Problem

There are problem in every firm which are whether the capital structure impact on firm's profitability. Many studies found positive and negative link of capital structure on firm's profitability in varies industry. Based on the research problem of the study the following research questions (RQ) are formulated,

RQ_1: Is there any impact between capital structure and firms profitability?

RQ_2: Do capital structure associate with firm's profitability?

Methodology

The quantitative research approach is employed to find out the findings of the research study. Since numerical and secondary data is used, quantitative approach is considered to be a suitable approach for the study. The upper level of statistical significance for hypotheses testing was set at 5%. All statistical test results were computed at the 2-tailed level of significance. Statistical analysis involves both descriptive and inferential statistics.

The researcher analyzes the data of the firms by employing correlation and regression analysis for this purpose the well known statistical package 'Eviews' 2007 Version was used in this study. Debt to equity, debt to total assets, gearing ratios was used to analyze the capital structure and ROA and ROCE were used to analyze the profitability of the selected Companies.

Hypotheses

The following hypotheses were formulated for this study based on the clear Literature Review in the field of capital structure their impact on firm's profitability.

H_1: There is a significant impact of capital structure on profitability

H_2: There is significant relationship between the capital structure and profitability

Research Model

Regression analysis was used find out the impact between variables and correlation analysis was used to find out the association between variables. Multiple regression models are formed to find out the impact of capital structure on profitability measures for the selected Beverage food and tobacco companies and manufacturing companies. The correlation model is formulated in the following way;

$Y = \beta_0 + \beta X + \varepsilon$

By substituting both dependent and independent in the above model, the following models can be formed;

$ROCE = \beta_0 + \beta_1 DE + \beta_2 GR + \varepsilon$ Model I

$ROA = \beta_0 + \beta_1 DTA + \varepsilon$ Model II

Where;

ROCE = Return on Capital Employed

ROA = Return on Assets

DE =Debt Equity Ratio

GR =Gearing Ratio

DTA = Debt to total assets Ratio

β_0 = Intercept

e = Error term

Findings

Correlation between Capital Structure and Profitability of Beverage Food and Tobacco Company

Table 1: Correlation between Capital structure and Profitability

		DE	GR	DTA	ROCE	ROA
DE	Pearson Correlation	1				
	Sig. (2-tailed)					
GR	Pearson Correlation	.596**	1			
	Sig. (2-tailed)	.000				
DTA	Pearson Correlation	-.241*	-.684**	1		
	Sig. (2-tailed)	.045	.000			
ROCE	Pearson Correlation	-.024	.299*	-.117	1	
	Sig. (2-tailed)	.042	.012	.033		
ROA	Pearson Correlation	-.235	-.363**	.494**	.600**	1
	Sig. (2-tailed)	.051	.002	.000	.000	

In the above table the correlation analysis of ROA and DTA point out a positive relationship between them is having value of 0.4944. Then ROCE and DE show the negative relationship between them having value of -0.0243 and ROCE and DTA also specify negative relationship between them having value of -0.1173 and ROCE and GR denote positive relationship between them having value of 0.299.

Impact of Debt Equity Ratio, Gearing Ratio on Return on Capital Employed

Table 2: Predictors of Profitability - Model Summary I

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	39.07626	10.42595	3.747982	0.0004
DE	-21.43805	9.546963	-2.245536	0.0280
GR	6.952334	2.001245	3.474004	0.0009
R_2.0.153136 Adj R^2 0.127857 prob (F) 0.003817				

Dependent Variable: ROCE

The above mentioned table indicates the impact between the capital structure and profitability which have used in the study, from the above table is clearly shown that there is significant impact of Capital Structure on Profitability (P > 0.05). Impact of DE on ROCE significant level is 0.0280 and impact of GR on ROCE significant level is 0.0009. The adjusted R^2 shows only 0.1279 which means that liquidity management impact only by 12.79% on profitability and remaining 87.21% are determined by other factors. The table 2 shows the coefficient between dependent variables and independent variables also. The dependent variable ROCE relating to DE and GR are -21.44 and 6.95 respectively. Thus, confirms significantly impact of Capital Structure on Profitability of Beverage Food and Tobacco Firms.

Impact of Debt Total Assets on Return on Assets

Table 3: Predictors of Profitability - Model Summary II

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-2.215921	2.522092	-0.878604	0.3827
DTA	16.18327	3.450183	4.690554	0.0000
R-squared 0.244455 Adj R^2 0.233344 prob (F) 0.0000147				

Dependent Variable: ROA

The above table shows the impact between the DTA and ROA which have used in the study, from the above table is clearly shown that there is significant impact of Capital Structure on Profitability (P > 0.05). Impact of DTA on ROA significant level is 0.0000. The adjusted R^2 shows only 0.2333 which means that liquidity management impact only by 23.33% on profitability and remaining 76.67% are determined by other factors. The table 3 indicates the coefficient between DTA and ROA also. The dependent variable ROA relating to DTA is 16.1832. Thus, confirms significantly impact of DTA on ROA of Beverage Food and Tobacco Firms.

Conclusion

The results depicted in table 2 and 3 clearly indicate that the R^2 value is 0.1278 and 0.2333. That can be shows ROCE is influenced by DE and GR by 12.78%. Likely, ROA is affected by DTA by 23.33% at the significant level of 0.05level. Those P-values are 0.00381 and 0.000014 respectively (P<0.05). This indicates there is a significant impact of capital structure on profitability of Beverage, Food and Tobacco Firms. Therefore this hypothesis (H_1) is accepted.

The results depicted in table 1 indicate the relationship between the capital structure and profitability which have used in the study; the Sig. (2-tailed) between ROCE and DE & GR are 0.042 & 0.012 respectively. Then ROA and DTA are 0.051. It is also clearly revealed that there is significant relationship of capital structure on profitability (P > 0.05) of Beverage, Food and Tobacco Firms. Therefore the hypothesis (H_2) is accepted.

According to the above finding, it is clearly shown there is a significant association between capital structure and profitability of the companies. However correlation analysis clearly stated that, beverage, food and tobacco companies' capital structure are positively correlated with companies' profitability. Finally it can be stated that the capital structure has very little role in Beverage, Food and Tobacco companies.

The R^2 values reveal that the variables of capital structure have a very little impact on the variable of profitability. This reveals that, other factors are probably found to be better predictors of profitability. Firm size, credit policy, sales growth, technological changes and seasonal changes in demand may exert a greater influence on the profitability measures, which are not taken into consideration in the present study.

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