

FACTORS DETERMINING CAPITAL STRUCTURE: AN ANALYSIS OF LISTED COMPANIES IN THE COLOMBO STOCK EXCHANGE IN SRI LANKA

Sithy Safeena M.G. Hassan

Department of Management,
South Eastern University of Sri Lanka,
ssafeena@seu.ac.lk

ABSTRACT

Capital structure / financial leverage describe the combination of debt and equity capital. A business concern can go for different levels of capital structure. It is determined by several factors. the objectives of this study are to investigate the impact of determinants of capital structure on leverage level (Long term debt ratio) and to identify the significant relationship between the determinants of capital structure and Long term debt ratio(LTD) with a sample of 34 listed companies in the Colombo stock exchange(CSE) in Sri Lanka over the period of five years from 2009 to 2013. Companies / firms were selected by using the convenient sampling technique and the availability of the necessary data. Four factors such a profitability, liquidity, tangibility and firm size were taken as a independent variable and Long term debt ratio was used as dependent variable to measure the leverage level / capital structure. For the purpose of this study, the secondary data was extracted from the annual reports of the selected listed companies from beverage food and tobacco and manufacturing sector. The collected data were analyzed using the multiple regression and correlation analysis with usage of SPSS -20 versions. The findings revealed that the determinants of capital structure such as profitability (PROF) and liquidity (LIQ) were significantly negatively correlated with leverage level (Long term debt ratio) while Tangibility (TANG) has a significant positive relationship with level of leverage but Firm size (FSIZE) has no relationship with leverage level (LTD). Further determinants of capital structure have a significant impact on leverage level (LTD) in manufacturing and Beverage food and Tobacco sector in the CSE in Sri Lanka.

Keywords: Capital structure, Profitability, Firm size, Tangibility, Liquidity

INTRODUCTION

The capital structure decision is one of the most important decisions made by financial management in organizations. One of the main objectives of financial managers is to maximize the wealth of shareholders through the lower cost of capital. And also capital structure is one of the effective tools to manage the cost of capital effectively. But decision making in capital structure is a big issue to all firms. To maximize firm's value as well as minimize the cost of capital, a manager should set up an optimal capital structure. But no strict theory has been developed yet to determine the optimal capital structure. So it concerns managers in identifying some factors influencing capital structure decision by which they can benefit to make an optimal mix of debt and equity to maximize firm's value.

Positive relationship between leverage and value of the firm has been identified in some studies (Champion, 1999; Chowdry, 1993). Theoretical and empirical capital structure studies have generated different results that attempt to explain the determinants of capital structure. Some broad categories of capital structure determinants have emerged Titman and Wessals (1998), and Harris and Raviv (1990). However, point out the choice of suitable explanatory variables is potentially contentious.

There are number of studies on capital structure and profitability conducted in Sri Lanka (Samarakoon,1999; Nimalathan and Brabete, 2010; Pratheepkanth, 2011; Prahalthan 2010; Velnampy and Aloy Niresh, 2012)). Their finding differs in time period of studies and industries. Further analyzing different set of variables and indicate different degrees of results some findings indicate positive relationship in between capital structure and profitability. Therefore researchers continuously analyzing to determine the most important determinants of capital structure but there are very few studies related with determinants of capital structure in Sri Lanka. In this scenario the researcher interest to find out the factors determining the capital structure in listed companies in the Colombo Stock Exchange in Sri Lanka. In this research the researcher is going to answer the following research questions.

- What is the impact of determinants of capital structure on leverage level of listed companies on the Colombo Stock Exchange in Sri Lanka?
- What type of significant relationship exists between the determinants of capital structure and leverage level?

LITERATURE REVIEW

Capital structure as the mix of long-term debt and equity financing. Several researchers have tried to determine what factors affect companies' financing decision. The capital structure of the firm influences by many factors such as capital intensity, tangibility, expected growth, firm size, profitability, non-debt tax shields, liquidity, volatility, uniqueness and industry classification (Titman and Wessels, 1998; Ajanthan, 2013; Samarakoon, 1999; Sangeetha and Sivathaasan, 2013). Frank and Goyal (2009) found that company size is positively related to leverage. But Rajan and Zingales (1995) found that it has a negative relationship while Marsh (1982), Titman and Wessels (1998), Ooi (1999), and Chen (2003) concluded that there is a negative relationship between debt ratios and firm size. Several empirical studies also reported that there is a negative relationship between profitability and leverage (Toy, Stonehill, Remmer and Beekhuisen, 1974; Titman and Wessels, 1998; Rajan and Zingales,1995). Further Ajanthan (2013) found that there is a positive relationship between Capital structure and tangibility and growth whereas negative association reveals among leverage and profitability (ROA) and firm size While Sangeetha and Sivatharsan (2013) found that the use of debt financing by Sri Lankan firm is significantly low and this is largely due to the use of less long term debt. Further they found that tangibility, firm size, growth, profitability, liquidity, dividend payout, profitability and growth are statistically significant determinants of capital structure in Sri Lanka.

RESEARCH METHODOLOGY

This study based on the secondary data. These required data were collected from annual report of the selected companies during the study period from 2009 to 2013. 34 companies were selected by using the convenient sampling technique from two sectors; Beverage food and Tobacco sector and the manufacturing sector in the Colombo Stock Exchange in Sri Lanka.

CONCEPTUAL FRAMEWORK

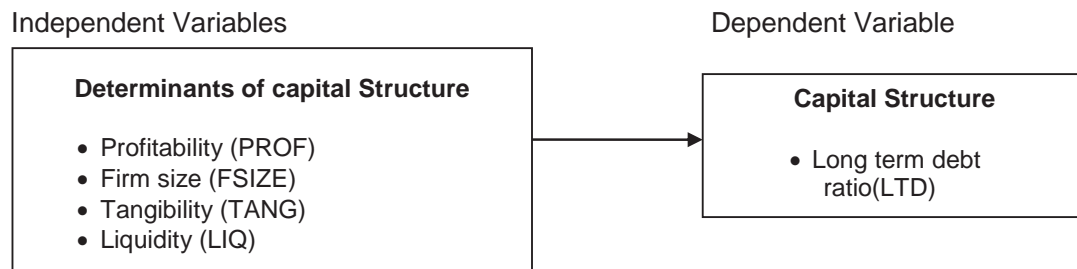


Figure 1: Conceptual Framework

ANALYSIS

Correlation Analysis

Table 1: Coefficient of Correlation

		LTD	PROF	FSZE	TANG	LIQ
PROF	Pearson Correlation	-.284**	1			
	Sig. (2-tailed)	.000				
FSIZE	Pearson Correlation	-.010	.153*	1		
	Sig. (2-tailed)	.900	.047			
TANG	Pearson Correlation	.222**	-.289**	-.537**	1	
	Sig. (2-tailed)	.004	.000	.000		
LIQ	Pearson Correlation	-.198**	.063	-.008	-.302**	1
	Sig. (2-tailed)	.010	.413	.916	.000	

** . Correlation is significant at the 0.01 level (2-tailed).

Table 1 revealed the result of the Pearson correlation of coefficient between long term debt ratio / Leverage level (LTD) and profitability (PROF) is -0.284 and the p value is 0.000 which is less than alpha value of 0.05 which explain that there is a significant negative relationship between profitability and Leverage level and also correlation of coefficient between long term debt ratio (LTD) and liquidity is -0.198 and the $p < 0.05$ (0.010) which indicates there is a significant negative relationship between liquidity and long term debt ratio but tangibility and the capital structure has a positive significant relationship since the coefficient of correlation between liquidity and long term debt ratio is .222 with a significant value of 0.004 which is less than 0.05. Moreover the correlation of coefficient between firm size (FSIZE) and long term debt ratio is -0.010 but the $P > 0.005$ which indicates there is no significant relationship between firm size and leverage level.

Multiple Regressions Analysis

Table 2 summarized the SPSS output of multiple regression analysis. ANOVA table of this model indicate that the overall model is significant since the p-value is (0.000) which is less than the p value= 0.05, which is indicates that, the model applied can statistically predict the outcome variable of LTD. Further output of model summary of the multiple regression analysis describes the R square value of 0.133, which indicates that 13.3 percent of the observed variability in LTD is explained by the independent variable of PROF, FSIZE, TANG, and LIQ. Further finding reveals that,

other factors have 86.7 percent impact on leverage level in manufacturing and Beverage food and Tobacco sector in the CSE in Sri Lanka.

Table 2: Summary of the Result of Multiple Regression Analysis

Detail	Dependent Variable: LTD			Sig.
	Value	β - value	T Value	
(Constant)		.029	.287	.774
PROF		-.208	-3.201	.002
FSIZE		.013	1.397	.164
TANG		.127	1.893	.045
LIQ		.012	-1.638	.031
R	0.365			
R ²	0.133			
Adj. R ²	0.112			
Std. Error	0.15257			
F Value	6.32			
Sig (P. Value)	.0000			

(Source: SPSS output)

CONCLUSION

The findings revealed that the determinants of capital structure such as PROF and LIQ were significantly negatively correlated with capital structure (LTD) at 1% significance level. But tangibility (TANG) has a significant positive correlation with LTD while Firm size (FSIZE) has no significant relationship with capital structure (LTD). Further determinants of capital structure have a significant impact on capital structure (LTD) at 1% significance level in manufacturing and Beverage food and Tobacco sector in the CSE in Sri Lanka.

REFERENCES

- AJANTHAN.A. (2013) The determinants of capital structure: evidence from hotel and restaurant companies in srilanka. *International Journal of Scientific and Research Publications*, 3(6)
- CHAMPION, D. (1999) Finance: the joy of leverage, *Harward Business Review*. 77. pp. 19-22.
- CHEN, J.J. (2003) Determinants of capital structure of Chinese-listed companies. *Journal of Business Research*. 57. PP.1341-1351.
- CHOUDHURY, J. A. (1993) Evaluation of Capital Structure of Three companies Listed with Dhaka Stock exchange. *The Cost and Management*.11(4). PP. 9-13.
- FRANK, M.Z. & GOYAL,V K. (2009) Capital structure decisions: Which factors are reliably important? *Financial Management*. pp.38. 1-38.
- HARRIS, M. & RAVIV, A. (1990) The Theory of Capital Structure, *Journal of Finance*. 46(1). Pp. 297-355.
- NIMALATHASAN, B. & BRABETE, V. (2010) Capital Structure and Its Impact on Profitability: A Study of Listed Manufacturing Companies in Sri Lanka. *The Young Economists Journal*. 13. pp. 55-61.
- OOI, J.T.L. (1999) The debt maturity structure of UK property Companies. *Journal of Property Research*.16(4). pp. 293-307.