



Capital structure approaches and firm return: A comparative analysis of banking and insurance companies listed in the Colombo Stock Exchange of Sri Lanka

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Abstract

Financing decisions are one of the most critical areas under the purview of financial managers. These decisions have direct impact on capital structure approaches and firm return. Capital structure decisions affect the firm's cost of capital, capital budgeting decisions and firm value. It has always been an area for researchers to understand the relationship between capital structure approaches and firm return. This paper investigates the impact of capital structure approaches on firm return based on data obtained from nineteen (19) listed banking and insurance companies in the Colombo Stock Exchange for the period spanning from year 2009 to 2017. The study measures the firm return in terms of return on assets and return on equity whereas capital structure approaches are measured in terms of Aggressive Capital Structure Investment Policy and Aggressive Capital Structure Financing Policy. The result indicates that most of listed banking firms and insurance firms adopt aggressive capital structure financing policy in their capital structure decisions. It is important to note that Sri Lankan listed banking and insurance companies prefer to use high volume of liquid assets to control the corporate finance in order to maximize the firm return. The result further reveals that Aggressive Capital Structure Investment Policy affects positively to the return on assets and Aggressive Capital Structure Financing Policy affects negatively to the return on equity of both banking and insurance companies in Sri Lanka. Finally, this research confirmed the fact that banks are highly utilizing the debt capital funds than equity capital funds. Therefore, the financial managers of both banking and insurance companies should make trustful and risky decisions as they use more debt funds in order to deploy the firms' financial resources as well as to

maximize the profitability which would ultimately affect to increase shareholders wealth subsequently firm value.

Keywords: *Capital structure approaches, firm return, listed banking companies, listed insurance companies.*

1. Introduction

Capital refers to the means of funding to a business, whether a business is newly born or it is an ongoing. A firm requires funds to carry out its activities as no success is achievable in the absence of fund. The needed fund may be for short term or long run by means of daily running or business expansions. This means how important or essential fund is in the life of a business. Capital of firms when sourced, it becomes a burden on enterprises simply because it is other persons' resources which they are to compensate as they deriving maximum benefits from it as a symbol of a company's financial liabilities (Chechet & Olayiwola, 2014). This study examines the relationship among the components of financing (equity capital and debt capital) and financial performance in the listed financial companies of the Colombo Stock Exchange (CSE) in Sri Lanka. The motivation behind this research is recognizing that in the process of their financial decision-making, all the listed companies must adhere in controlling the selection of optimal capital structure mix. These companies should disclose the information on capital structure decisions and its impacts for the financial performance of such companies and those would helpful the management as well as investors in the deployment of financial resources to ensure that they are aggressive or conservative. In addition, the financial managers of such firms would make the capital structure decisions within a particular policy framework and would adhere the suitable capital structure mix which is at optimal in order to maximize the firm's value as well as its shareholders wealth. In the existing literature, many researchers have emphasized the effects of capital structure to financial performance and those indicate the relationships among the financial performance variables.

Given the importance of the capital structure into firm performance, the financial managers should purely consider taking optimal capital structure decisions in order to achieve the business results thereby maximizing the profitability of the firm. Therefore, it is vehemently emphasized that financing decisions are one of the most critical areas for finance managers and those decisions would have to be taken within a prescribed policy framework. The impact of such decisions has a direct impact on capital structure and firm financial performance. Hence, this topic has always been an area for interest of researchers to understand the relationship between capital structure and financial performance. Though, the discussion on capital structure approaches and firm return is a less researching area of the field of finance and the availability empirical researches or studies performed on this theme is a vacuum in Sri Lankan context. Therefore, this study aims to find the relationship between capital structure approaches and firm return and thereby to fill the gap in literature in Sri Lankan context. The lack of critical information

about appropriate mix of capital structure is one of major challenges for companies to make their decisions better. The contribution of this study to the extant literature would provide the indicator of finding the level of capital structure position in terms of the reporting, managing, an appropriate mix and performance of capital structure components. Even though, the banking, finance and insurance sector is a deterministic and dependable business sector for the other business sectors in any country

2. Literature review

Capital structure is one of the most puzzling issues in corporate finance literature (Velnampy & Niresh, 2012; Brounen & Eichholtz, 2001). This is a general combination of debt and equity that composites the total capital of firms. The proportion of debt to equity is a strategic choice of corporate managers (Velnampy & Niresh, 2012). Capital structure decision can be considered as an utmost since the profitability of an enterprise is directly affected by such decision. The financial managers of firms should keep greater attention in time on determining capital structure decision. The capital is a vital part of the balance sheet as it represents all kinds of assets, liabilities and capital. The term “capital structure” of an enterprise is a combination of equity shares, preference shares and long-term debts. Also, the financial managers should give an utmost care in case of the optimum capital structure is concerned. The firms have to be systematically formulated the capital structure mix unless they may fail to economize the use of their funds. As a result, it is being increasingly realized that a company should plan its capital structure to maximize the use of funds and to be able to adapt more easily to the changing conditions in order to achieve the firms goals and objectives. The relationship between capital structure and profitability has been the subject of remarkable milestone over the past decade throughout the irrelevance theory. In the seminal article, presented by Miller and Modigliani (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 Miller and Modigliani (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. The relationship between capital structure and firm financial performance is one that received considerable attention in the finance literature.

Companies have to remain vital in current hypercompetitive environments. Companies have to rethink their organization and their flexibility to adapt themselves to new business situations (Volderba, 1996). Accordingly, this has always been an area for interest for researchers to understand the relationship between capital structure and financial performance due to the thorough understanding on financial accounting and reporting by companies. Researchers have proposed various models to establish the relationship between capital structure on financial performance (Prahalthan, 2011; Pratheepkanth, 2011; Nimalathan & Valeriu, 2010). However, there is no agreement among the researcher about the optimal mix of capital structure as well as the indication of capital

structure policy (aggressiveness or conservativeness) to achieve organizational effectiveness in terms of profitability.

Modigliani and Miller (1958) theorem suggested that firms in a given risk class would have the same applicable discount rate, differing based on “scale factor” only and would be unaffected by financial gearing (Weston & Copeland, 1998). However, the arguments made by Brigham and Gapenski (1996), an optimal capital structure can be attained if there exist a tax sheltering benefits provided an increase in debt level is equal to the bankruptcy costs. They further indicated that the manager of the firm should be able to identify optimal capital structure and to maintain it at desired level. This is the point at which the financing costs and the cost of capital are minimized, thereby increasing financial performance of a firm.

According to Onaolapo and Kojola (2010) conducted a study by selecting thirty listed non- financial firms in Nigeria for the period 2001 – 2007. They found a negative relationship between asset tangibility and Return on Assets (ROA) and conclude that there is a negative relationship between capital structure and financial performance of the firms. The implication of this is that the sampled firms were not able to utilize the fixed asset composition of their total assets judiciously to impact positively on their firm performance. However, it provides evidence that asset tangibility is a major determinant of firm performance. Meanwhile, Saeedi and Mahmoodi (2011) revealed that there is a negative relationship between capital structure and ROA and there is no significant relationship between Return on Equity (ROE) and capital structure. Altogether, this study provides evidence that capital structure is positively or even negatively related to firm performance. The research was conducted by selecting a sample of 320 listed companies in the Tehran Stock Exchange over the period 2002-2009. Gupta, Srivastava and Sharma (2007) in their research on capital structure and financial performance by selecting 100 companies listed on National Stock Exchange of India from 2006-2010 strongly pointed out that the financing decisions are one of the most critical areas for firms’ finance managers. They found that the capital structure influences financial performance. The significance of the influence of capital structure on performance is respectively belonged to measures of adjusted value, market value and book value. Also, a study conducted focusing Lithuanian food and beverages companies over the period 2005- 2010 confirmed that the selected indicators such as return on capital, return on equity, return on assets, earning per share, operating profit margin and net profit margin are negatively correlated with the companies’ financial performance (Norvaisiene & Stankeviciene, 2012). They also concluded that the firms’ efficiency is related to debt level to a large extent. Moreover, the capital structure is to be arranged to maintain in an appropriate manner so that firm should give priorities associated with the implementation of fast-track, profitable businesses, that would allow these companies to ensure the growth of performance efficiency. Moreover, Pratheepkanth (2011) found that the capital structure is most significant discipline of company’s operations in his research by selecting 30 listed companies of the CSE from 2005 to 2009. The results indicated that the relationship between the capital structure (debt to equity) and financial performance (gross profit, net profit, ROA, and ROI/ROCE) is negative. The literature shows that capital structure

strongly affects to maximize firms' operational performance so that decision makers pay much more attention to the financing activities that exert potential and strong impact on their operating performance.

Based on the above literature, the following conceptual model (Figure 1) is formulated to illustrate the relationship between the capital structure approaches and firm return.

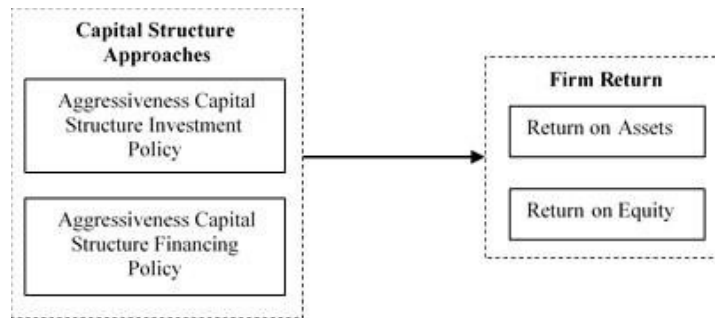


Figure 1 Conceptual framework

According to the above conceptual model, the capital structure policy is the independent variable, which is represented by the aggressive capital structure investment policy and aggressive capital structure financing policy. The firm return is the dependent variable which is represented by ROA and ROE. Accordingly, the main hypotheses derived to be tested in this study are as follows:

- H₁: There is positive relationship between ACSIP and ROA
- H₂: There is positive relationship between ACSFP and ROA
- H₃: There is positive relationship between ACSIP and ROE
- H₄: There is positive relationship between ACSFP and ROE

3. Methodology

The scope of the study is listed banking and insurance companies in the CSE of Sri Lanka. The researcher conducted the comparative analysis by using these two parallel categories. Nineteen (19) companies were selected from banking and insurance sector using purposive sampling method. In order to meet the objectives of the study, data were collected from secondary sources mainly from the audited financial statements included in the annual reports of the selected companies, which were published by the CSE. Specifically, the financial statements of the sampled firms were collected for the period of nine years ending with 2017.

Two approaches are defined using aggressiveness and conservativeness of the firms in deciding their capital structure. Aggressive Capital Structure Investment Policy (ACSIP) results in minimal level of investment in fixed assets versus total assets. In contrast,

Aggressive Capital Structure Financing Policy (ACSFP) places a greater proportion of capital in durable assets with the opportunity cost of lesser profitability. In order to measure the degree of aggressiveness, following ratio was used. A lower ratio means a relatively aggressive policy while a higher ratio means a relatively conservative policy.

$$\text{Degree of aggressiveness} = \text{Total Fixed Assets (TFA)} / \text{Total Assets (TA)}$$

ACSFP utilizes higher levels of total debts. In contrast, a conservative financing policy uses more debt than equity capital. The degree of aggressiveness of a financing policy adopted by a firm is measured as follows. A higher ratio means a relatively aggressive policy while lower ratio means a relatively conservative policy.

$$\text{Degree of aggressiveness} = \text{Total Debts (TD)} / \text{Total Assets (TA)}$$

The impact of capital structure policies on the firm’s return was analyzed through frequently used profitability measures i.e. ROA and ROE by running multiple regression analysis. The performance variables ROA and ROE as well as the TFA/TA and TD/TA are averaged for the period. The regression models used in the estimation are;

$$ROA_i = \alpha + \beta_1 (TFA/TA_i) + \beta_2 (TD/TA_i) + \varepsilon \dots\dots (i)$$

$$ROE_i = \alpha + \beta_1 (TFA/TA_i) + \beta_2 (TD/TA_i) + \varepsilon \dots\dots (ii)$$

4. Results and discussion

The descriptive statistics show (see Table 1) that over the period under review, the firm returns in banking firms measured by return on assets and return on equity averaged are 175.77 percent and 2786.18 percent respectively. The aggressive capital structure investment policy is reported as 11.87 percent and aggressive capital structure financing policy is averaged to 86.73 percent. This is an indication that approximately 87 percent of listed banking firms in Sri Lanka are adopted aggressive capital structure financing policy, confirming the fact that banks are highly utilizing the debt capital than equity capital.

Table 1
Descriptive Statistics

Variable	Banking firms		Insurance firms	
	Mean (%)	Standard deviation	Mean (%)	Standard deviation
ACSIP	11.87	0.11408	17.27	0.10011
ACSFP	86.73	0.10048	82.26	0.10059
ROA	175.77	1.67894	253.24	3.62882
ROE	2786.18	43.73784	1780.01	26.50726

In the same period under review, the firm returns in insurance firms measured by return on assets and return on equity ate averaged to 253.24 percent and 1780.01 percent respectively. The aggressive capital structure investment policy is reported as 17.27 percent and aggressive capital structure financing policy is averaged to 82.26 percent.

Capital structure approaches and firm return: A comparative analysis of banking and insurance companies listed in the Colombo Stock Exchange of Sri Lanka

This is an indication that approximately 82 percent of listed insurance firms in Sri Lanka adopted aggressive capital structure financing policy, confirming the fact that insurance firms are highly utilizing the debt capital funds than equity capital funds.

In addition, all Sri Lankan listed banking and insurance firms have not adopted aggressive capital structure investment policy stating that they do not invest funds in a higher portion of fixed assets of their total assets and conventionally they prefer to use high liquid assets in order to secure the liquidity which would be affected to gain the optimal profits.

Table 2
Result of correlation analysis

Industry	Variable	Corr. & Sig.	Firm return	
			ROA	ROE
Banking	ACSIP	Corr.	0.477**	0.312
		Sig.	0.000	0.231
	ACSFP	Corr.	-0.178	-0.143*
		Sig.	0.214	0.018
Insurance	ACSIP	Corr.	0.350*	-0.255
		Sig.	0.046	0.088
	ACSFP	Corr.	-0.086	-0.331*
		Sig.	0.479	0.019

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

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

Table 2 shows the result for the relationship between capital structure policies and firm return. The result indicates that there is a positive relationship between ACSIP and ROA in listed banking firms as well as listed insurance firms. On the other hand, the relationship between ACSIP and ROE of listed banking firms is negative and significant, a similar relationship can also be seen in ACSIP and ROE of listed insurance firms. According to these results, it is important to note that Sri Lankan listed banking and insurance firms prefer to use high volume of liquid assets for controlling the corporate finance in order to maximize the firm return. The result further reveals that the association of ACSFP and ROA in listed banking firms and insurance firms is negative but insignificant. This implies that these firms prefer to use more long term debts than equity funds in order to fulfill their corporate financial needs for the purpose of implementing their operations.

It is a clear indication that the ACSIP and ACSFP are significantly associated with the firm returns. If the banking and insurance firms increasingly adopt the aggressive capital structure investment policy in their capital structure decision making the value of ROA would be increased and vice versa. Also, higher the adopting of ACSFP in these firms for their same decision-making, lower the value of ROE and vice versa.

Regression analysis was used to test the effect of capital structure approaches on firm returns. Results are shown in Table 3. With regard to the banking firms, the result indicates that ACSIP has a positive effect on ROA and ACSFP has no any significant

effect on ROA. On other hand, ACSFP is only policy which has a negative effect on ROE. Therefore, aggressive capital structure investment policy increases the return on assets while aggressive capital structure financing policy is deteriorating the return on equity of banking firms.

In contrast, effects of these policies on ROA and ROE of the insurance firms are completely matching. In fact, aggressive capital structure investment policy helps insurance firms to increase the return on assets while aggressive capital structure financing would have adverse effect on the return on equity.

Table 3
Regression results

Predictor	Unstandardized β			
	Banking firms		Insurance firm	
	ROA	ROE	ROA	ROE
(Constant)	11.382**	98.104	3.894	300.559**
ACSIP	0.246*	-15.758	1.285*	12.229
ACSFP	-11.130	-59.676**	-1.923	-28.192**
Adj. R ²	0.465	0.426	0.389	0.412
F (sig)	23.24 (0.001)	18.25 (0.012)	34.25 (0.000)	29.34 (0.000)

** Regression coefficient is significant at the 0.01 level (2-tailed)

* Regression coefficient is significant at the 0.01 level (2-tailed)

5. Conclusion

This study explores the effect of capital structure investment and financing policies on firm return across Sri Lankan listed banking and insurance companies. The study found that the Sri Lankan banking and insurance firms likely to invest lower amount on their fixed assets than liquid assets as well as to finance lower amount of their own funds in fixed assets than liquid assets. In fact, most of listed banking and insurance firms tend to adopt aggressive capital structure financing policy in their capital structure decisions. It is also important to note that Sri Lankan listed banking and insurance companies prefer to use high volume liquid assets to control the corporate finance in order to maximize the firm return. Therefore, aggressive capital structure investment approach would help enhance the firm return by maintain high level liquidity. The findings of the study suggest that the financial professionals and decision makers should make timely and accurate corporate financial decisions and deployment of financial resources to ensure the soundness and viability of the capital structure decisions in order to maximize the firm return.

References

- Brounen, D., & Eichholtz, P.M.A. (2001). Capital structure theory: Evidence from European Property Companies' Capital Offerings. *Real Estate Economics*, 29 (4), 615–632.

Capital structure approaches and firm return: A comparative analysis of banking and insurance companies listed in the Colombo Stock Exchange of Sri Lanka

- Brigham, E., & Gapenski, L. (1996). *Financial Management*. Dallas. The Dryden Press.
- Chechet, I.L., & Olayiwola, A.B. (2014). Capital structure and profitability of Nigerian Quoted Firms: The Agency Cost Theory Perspective. *American International Journal of Social Science*, 3(1), 139-158.
- Gupta, P., Srivastava, A., & Sharma, D. (2007). Capital structure and financial performance: Evidence from India. *Gautam Buddin University. Greater Noida. India*.
- Modigliani, F., & Miller, M. H. (1958). The Cost of capital, Corporate finance and the theory of investment. *American Economic Review*, 48, 261-297.
- Modigliani, F., & Miller, M. H. (1963). Corporate income taxes and the cost of capital: A correction. *American Economic Review*, 53, 433-443.
- Nimalathasan, B., & Valeriu B. (2010). Capital structure and its impact on profitability: A study of listed manufacturing companies in Sri Lanka, *Revista Tinerilor Economists/The Young Economists Journal*, 13, 55-61.
- Norvaisiene, R., & Stankeviciene, J. (2012). The relationship of corporate governance decision on capital structure and company's performance: Evidence from Lithuanian Food and Beverages Industry Companies. *Economics and Management = Ekonomika Ir Vadyba*, 17(2), 486-492.
- Onaolapo, A. A. and Kajola, S.O. (2010). Capital Structure and firm performance: Evidence from Nigeria. *European Journal of Economics, Finance and Administrative Sciences*. Retrieved from <http://liba.edu/wp-content/uploads/2014/08/GuidelinesForAuthorsVersion1.pdf>
- Prahalathan, B. (2011). The determinants of capital structure: An analysis of listed manufacturing companies in Colombo Stock Exchange Market in Sri Lanka. fems.kln.ac.lk/ICBI2011/images/ICBM/dccs/Microsoft%20Word%20-%20FIN11.pdf
- Pratheepkanth, P. (2011). Capital structure and financial performance: Evidence from selected business companies in Colombo stock exchange Sri Lanka. *Journal of Arts, Science & Commerce*, 2, 171-183.
- Saeedi, A., & Mahmoodi, I. (2011). Capital structure and firm performance: Evidence from Iranian Companies. *International Research Journal of Finance and Economics*, 70, 21-28.
- Velnampy T. & Niresh J. A. (2012). The relationship between capital structure & profitability. *Global Journal of Management and Business Research*, 12(13-1), 66-74.
- Volderba, H.W. (1996). Towards the flexible form: How to remain vital in hypercompetitive environments, *Organization Science*, 7(4), 359-374.

Journal of Management Matters Volume 5 Number 2 December 2018

Weston, J.F., & Copeland, T.E. (1998). Managerial finance. *CBS College Publishing*, New York, 243-255.