EXTENDED ABSTRACT

IMPACT OF CAPITAL STRUCTURE ON FIRMS' PROFITABILITY: EVIDENCE FROM LISTED INSURANCE COMPANIES IN COLOMBO STOCK EXCHANGE

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Abstract

In recent years, many insurance companies in Sri Lanka encounter profitability issues due to adopting adverse capital structure decisions. Accordingly, this study examines the impact of capital structure on a firms' profitability using all the listed insurance companies in the Colombo Stock Exchange over the period of 2015 – 2019. The capital structure is measured using the Debt to Asset Ratio (D/A) and Debt to Equity Ratio (D/E), while Return on Assets (ROA) and Return on Equity (ROE) are used to measure the firms' profitability.Using the random effect panel regression methodology, the study finds that D/E and D/A have negative and statistically significant ROA and ROE of Sri Lankan listed insurance companies. According to the findings of the study, it is recommended to implement a conservative capital structure strategy, focusing on minimizing debt capital and maximizing equity capital from their total capital structure, as this has the most significant impact on the profitability of listed insurance companies in the CSE.

Keywords: Capital structure, Colombo stock exchange, profitability

1. Introduction

The firms' capital structured epics how a firm raises capital to set up and expand its business operations (Myers, 1977). It could blend different equity and debt capital types that a firm keeps coming about from its financing choices. Capital structure decisions are crucial since they have a direct impact on an enterprise's productivity (Modigliani & Miller, 1958). According to Zheng (2013), a capital structure study attempts to explain the blend of securities and financing sources utilized by companies to finance investment.The capital structure of a firm is the most critical aspect of overall business activities. Every company must maintain a successful capital structure since it's closely related to the profitability of the business firms (Zheng, 2013).

Insurance companies engage a capital structure that is highly geared, it has a positive effect on their profitability; therefore, insurance companies that depend on more debt in their capital structure had relatively high profitability outcomes (Ababio, 2018). The capital structure of the insurance company is very important to various stakeholders, including agents, policyholders, policymakers, and owners (Abor, 2008). The insurance industry of any country plays a significant role in promoting and protecting commercial, industrial, and other country's economic activities. It is vital to identify how the firms' capital structure of insurance companies affects their profitability.

In recent years many insurance companies in Sri Lanka have faced numerous capital structure challenges a result of poor capital structure decisions.Many empirical research studies have been carried out to find the impact of capital structure on firms' profitability of the non-financial companies in Sri Lanka (Arulvel & Aganthan, 2013). Leon (2013) revealed a negative and significant relationship between the debt capital and the profitability of the listed manufacturing companies in the CSE. Further Manawaduge, DeZoyza, and Chandrakumara (2010) revealed a negative relationship between leverage and financial performances of the listed non-financial sector of the CSE. Still, only a few studies have been conducted in Sri Lanka to explore the impact of capital structure on insurance company profitability. The researcher has identified the need for considerable attention on the impact of capital structure on a firms' profitability with the econometrics models. Therefore, this study investigates the impact of capital structure on firms' profitability of the listed insurance companies on the CSE.

2. Methodology

The study used the capital structure as the independent variable and measured using the two most commonly used capital structure indicators such as Debt to Equity Ratio (D/E) and Debt to Asset Ratio (D/A). The dependent variable of this study was the firms' profitability, and it was measured by using Return on Assets (ROA) and Return on Equity (ROE). In addition to the independent and dependent variables, the researcher has used the Firm Size (FS) as the control variable of the research study. The functional form of the variable relationship is provided in the following econometrics model.

$$P_{it} = \beta_0 + \beta_1 D/E_{it} + \beta_2 D/A_{it} + \beta_3 FS_{it} + \varepsilon_{it} \qquad (1)$$

In equation 1, P denotes a vector of performance variables such as Return on Assets and Return on Equity used by the researcher to measure the profitability of the listed insurance companies in the CSE. D/E, D/A denotes the capital structure measures, while FS denotes the control variable used in the research study. β_0 is the constant and $\beta_1 - \beta_3$ denotes the coefficient of the variables. ε_{it} represents the error term of the econometrics model.

The researcher has used balance panel data set, which includes all the listed insurance companies in CSE (ten Insurance companies) for a period of five years from 2015 to 2019.The researcher selected this sample due to the absence of a research study carried out in the Sri Lankan context to determine the impact of the capital structure on profitability of the listed insurance companies in the CSE. The researcher used E Views statistical software package and Microsoft Excel package to analyze the gathered data as analysis tools. The study used Pearson correlation analysis to investigate the relationship between capital structure and profitability. Two-panel regression analyses were conducted using the model specified in equation 1 to examine the impact of capital structure measures on profitability measures. The Hausman test was applied to choose between the random-effect model and fixed-effect models.

3. Results and Discussion

Table 1 presents the results of the Pearson correlation analysis to establish the association between capital structure and profitability measures.

Based on the results presented in Table 1 below, the D/E and D/A are negatively associated with the ROA and ROE (p<0.05). The FS is positively associated with the ROA and ROE (p<0.05). These findings are consistent with the study carried out by Myer (1997).

According to the Levin Lin Chu test results, p-values of all the variables are stationary at a 5% significance level. The P-Value of Hausman tests conducted for the two-panel regression models are above 0.05 (not significant). Thisreveals that the random-effect model best suits the two econometrics

models. The results of two random effect panel regression models for each profitability measure are presented in Table 2.

Table 1. Correlation Matrix

Variable	D/E	D/A	FS	ROA	ROE
D/E	1.000				
D/A	0.751	1.000			
FS	0.331	0.536	1.000		
ROA	- 0.590*	-0.139*	0.094	1.000	
ROE	- 0.413*	-0.212*	0.256	0.867	1.000

* Indicates statistical significance at a 5% level of significance.

Table 2. Random Effect Panel Regression Models

	Return on Assets (ROA) Model 1	Return on Equity (ROE) Model 2
C	7.022	7.336
D/E	-0.871*	-2.722*
D/A	-0.361*	-0.194*
FS	0.544	0.609
R^2	0.65	0.58
F Statistics	0.000	0.002

* Indicates statistical significance at a 5% level of significance.

According to Table 2, based on the F-Values of each model, both models used by the researcher are statistically significant at a 5% significant level. R2 statistics explain the explanatory power of the independent variables of the research study. According to the R2 statistics, model 01 explains 65% of the explanatory power of the capital structure variables on ROA. Models 02 explains 58% of the explanatory power of the capital structure variables on ROE. According to Model 01, there are negative impacts of D/E and D/A on profitability. These findings are consistent with the investigation carried out by Singh and Bagga (2019). On the other hand, the results reported concerning Model 02 also show that D/E and D/A have a negative impact on profitability, which is consistent with the investigation carried out by Singh and Bagga (2019).

4.   Conclusion

This study investigated the impact of capital structure on the profitability of listed insurance companies on the CSE. The study results show that D/E and D/A negatively impact the profitability of the Sri Lankan insurance companies listed on the CSE. According to the findings of the study, it is recommended to implement a conservative capital structure strategy, focusing on minimizing debt capital and maximizing equity capital from their total capital structure, as this has the greatest impact on the profitability of listed insurance companies in the CSE.Based on the findings of this study, it is suggested that insurance businesses must boost their retained earnings percentage to reduce their dependency on debt to finance.

This study considers all the insurance companies listed on the CSE for five years from 2015-2019 and provides empirical evidence to the Sri Lankan finance literature regarding the impact of the

capital structure on firms' profitability of the listed insurance companies in CSE.Future researchers can further investigate the impact of capital structure on profitability by increasing the research study period and increasing the sample amount by developing research to another non-finance industry or developing the investigation beyond the country level. Further, many of the studies used quantitative analysis to measure the impact of capital structure on profitability. Future researchers can research the same impact by using qualitative methods such as interviewing the managers of the relevant business firms. This would help develop knowledge related to the firms' capital structure and help to maintain the optimal capital structure within the organization to increase the firms' value.

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