Accountancy and Finance

Capital Structure of Pecking Order Theory: A Case of Non Financial Firms in the CSE

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ABSTRACT

The capital structure of a company shows the proportion of debt-equity mix, vital for any organization regardless of the size of the firm. This is because capital structure is directly linked to the cost of capital and hence the organization's performance and survival. However, there is a vacuum in the Sri Lankan context, only few studies have supported the capital structure in nonfinancial firms in the CSE. Hence, the main objective of this study was to assess the adoption of pecking order theory in non-financial listed companies in Sri Lanka. The study employed secondary data, by selecting 70 companies representing 10 sectors of listed companies in the Colombo Stock Exchange for the period of 2009 - 2014, in order to achieve the objective of the study. And the study used descriptive, correlation and regression statistics for data analysis. The findings of the study revealed that Pecking Order Theory in its weak form is supported by Sri Lanka listed firms capital structure. The results of this study will help policy makers in defining policies and procedures to ensure reliability and easy accessibility to different sources of finance for the Sri Lanka listed companies.

Keywords: listed firms, pecking order theory, capital structure

Introduction and research problem/issue

The pecking order theory of capital structure is among the most influential theories of corporate leverage, assumes that there is no target capital structure. Myers (1984) considered two dimensions to establish capital structure. The first part is called the Static Trade off Theory, which highlights that companies pursue the target debt ratio and achieve it over long-term. The company may change the capital structure in the short period, but it remains stable in the long-run. The second part is called the Pecking Order Theory, which was first proposed by Myers (1984) and Myers and Majluf (1984). It highlights that a firm has a hierarchy of ways for raising funds for the projects. The first priority is its internal resources, the second is debt, and the last priority is equity. Specifically, there are two reasons to explain this financial pattern, which are asymmetric information theory and external transaction costs.

Financing is a vital decision for every organization regardless of the size, industry, etc. (Kuruppu & Azeez, 2016) as the survival of the business has a direct relationship with their financial structure (Heng & Azrabijani, 2012). Therefore, identify the correct mix and order of different sources of finance is vital for every organizations. However, there is a vacuum in the Sri Lankan context, only few studies have supported the capital structure in non-financial organizations (Nadeesha & Pieris, 2014). Hence, the main objective of this study was to assess the adoption of pecking order theory in non-financial listed companies in Sri Lanka.

Research Methodology

Cross-section, secondary data within the period 2009-2014 was used to study the capital structure of the Sri Lankan listed firms. The 70 firms except the banks and finance sector were selected according to the criteria. The headquarters of these firms are located in Sri Lanka and they are incorporated in Sri Lanka representing 10 industries.

Data was analysed using descriptive and regression analysis. In order to run the regression, two models were developed, named aggregated model and disaggregated model. Aggregated model indicate;

$$DEF_t = DIV_t + I_t + DW_t - C_t \ldots \ldots \ldots \ldots . (2.1)$$

Disaggregated model indicates;

$$\Delta D_{it} = a + b_{DIV}DIV_t + b_I I_t + b_w \Delta W_t - b_c C_t + e_{it}$$

The Pecking Order Hypothesis can be empirically tested with a regression by means of the linear equation,

$$\Delta D_i = \alpha + \beta DEF_i + u_i \ldots \ldots \ldots \ldots \ldots (2.2)$$

Where,

DEFt   =   Cash Deficit

DIVt   =   Cash dividends in year t

I_t =   Net investment in year t (i.e., It = capital expenditures+ increase in investments+ acquisitions + other use of funds - sale of PPE - sale of investment)

ΔWt =   Change in working capital in the year t (i.e., ΔWt = change in operating working capital +change in cash and cash equivalents + change in current debt)

Ct   =   cash flow after interest and taxes (i.e., Ct = income before extraordinary items +   depreciation and amortization + extraordinary items and discontinued operations +deferred taxes + equity in net loss – earnings + other funds from operations + gain (loss) from sales of PPE and other investments)

Rt   =   current portion of the long-term debt in year t

Δ Dt = net debt issued in year Δ (i.e., Dt=long-term debt issuance-longterm debt reduction)

Et = Net equity issued in year t (i.e., Et =sale of common stock minus stock repurchases)

Δ Δ

Results and findings

The descriptive analysis of the study showed that nearly 60% of the company's main source of finance is equity where the rest was debt finance, 40%.

As per the findings in an aggregate method, there is 0.2 % of the impact of the independent variable on the dependent variable. It indicates that the value relevance of deficit has 0.2% impact on debt and the significant value of debt impact on the deficit is 0.946. However, the study highlighted that β of 0.75 was obtained. Therefore, based on aggregated model, the evidence points toward the validation of the Pecking Order Theory in its weak form, such as found by Shyam-Sunder and Myers (1999) and Frank and Goyal (2003).

The disaggregate method there are 6.7% of the impact of the independent variable on the dependent variable. It indicates that the value relevance of deficit has a totally impact on predicting variable of dividend, net income, working capital and cash flows. The regression estimation based on with the disaggregated deficit, together with Frank and

Goyal's (2003) corresponding outcome. If the result supports the strong form, then α = 0, and β1 = β2 = β3 =

1, and β4 = −1. If the result supports the weak form, then α ≠ 0, but is close to 0; and β1, β2, β3 ≤ 1 but close to 1, and β4 ≥ −1 but close to-1.. For all other β, hence, it can affirm again that the Pecking Order Theory in its strong form is rejected,

- For the Hypothesis 1, In equation (3.2), Tool of Regression results reject the hypotheis and the pecking order theory are $\alpha = 0 \ and \beta = 1$ are approximately equal to 1, so that the variation in the level of debt coincides with the deficit (ΔD=DEF): that is ,the financial deficit is completely covered by debt. The expression (3.2) implicitly supposes that companies have not increased their capital during the period under study.

- For the Hypothesis 2, In equation (3.3), the hypothesis defined by the pecking order theory are $\alpha = 0$, and $\beta 1 = \beta 2 = \beta 3 = 1$, and $\beta 4 = -1$

- Finally, in hypothesis 3, the results show the rejection of hypothesis and confirmed that there is a significant relationship between deficit and debt financing.

Conclusions, implications and significance

Based on Shyam-Sunder and Myers (1999) and Frank and Goyal (2003), this study has attempted to test whether the hierarchic financing associated with the Pecking Order Theory. Using financial statements supplied by the Colombo Stock Exchange, this study submitted a sample of 70 listed firms. The results allow to infer that the Pecking Order Theory in its weak form is supported by Sri Lankan data similar to the findings of Rooly, Banda & Jamaldeen (2014). The models can show that the equity issue volumes are much lower than the ones of other forms of financing. Similarly, as explain by Rooly, Banda & Jamaldeen (2014) this is because companies do not want to issue equity when the shares are undervalued. The results of this study will help policy makers in defining policies and procedures to ensure reliable and easy accessibility to different sources of finance for the Sri Lanka listed companies. Even though this study contributes to the theory and practices, the study was limited to a small sample with different industrial characteristics will provide opportunity to future research to consider a large sample with different industrial characteristics.

References (Selected)

Chirinko, R.S., &Singha, A.R., (2000). Testing static tradeoff against pecking order models of capital structure: a critical comment,*Journal of Financial Economics,* 58, 417–425.

Frank M. Z. & V.K. Goyal (2003). Testing the Pecking Order Theory of Capital Structure. *Journal of Financial Economics,* 67. 217 – 248.

Heng and Azrabajani, (2012), Board of directors and capital structure: Evidence from leading Malaysian companies, Easian Social Science, 8(3), 123-136.

Myers, S. C., & Majluf, N. S. (1984), "Corporate financing and investment decisions When firms have information that investors do not have", Journal of Financial Economics, 187-221.

Shyam-Sunder, L., &Myers, S. C. (1999), Testing static tradeoff against pecking order models of capital structure, Journal of Financial Economics, 51, 219–244.