

Management and Firm Characteristics: An Empirical Study on Pecking Order Theory and Practice on Debt and Equity Issuance Decision of Listed Companies in Sri Lanka

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Introduction

Capital structure decision is imperative for every business organization as it is a challenge to management globally to meet the interest of shareholders in which it relates with firms' value maximization, deal with debt and equity issuance decisions (Modigliani and Miller 1958). At the end of the ethnic war in May 2009, the Sri Lankan stock market was reported as one of the best performing stock markets in the world (Daily News

2009), but the volatility of stock market operations due to insider trading, manipulation, malpractices and asymmetric information infested the popular perceptions on Stock Exchange (Myers and Majluf 1984). Inefficient stock market operations cause shares undervaluation problem and also the higher interest rate causes in increasing the finance cost which directly affects the firm value as well as shareholders wealth. The wrong decision of financing for investment opportunities leads to financial distress cost and bankruptcy and affect the image of the firm. It seems that it is vital to balance cost and benefit of debt while maximizing wealth of the shareholders through maximizing value of firms. Referring to this situation, Daily FT (April 20th, 2012) pointed out that the recent rising domestic interest rates in Sri Lanka steals the appeal for equities and also it gives the relative asset allocation disconnect between equities and interest rates, it could dent the pace of corporate earnings growth for those companies that are highly levered.

How do firms take corporate financing decisions? To what extend do management and firm characteristics influence and/or associate with debt and equity issuance decisions in relation to perceived importance of pecking order theory? The mix of debt and equity combination is dependent

on firm's choice of target capital structure, the average maturity of debt, specific sources of financing, management and firms' characteristics (Ibrahima et al, 2012). The capital structure theory i.e. pecking order theory provides guidance to the managers on financing

hierarchy/financial flexibility to determine the debt and equity level which maximize the market value of the firm in which academics indicate how the firm should do but it is imperative to understand how it was perceived and practiced by the managers. Do CFOs consider the academics advice and guidelines in corporate financing decision? This research is conducted to understand the current practice of corporate finance in relation to pecking order theory of listed companies in Sri Lanka.

The best known field study in this area is the survey of the theory and practice of corporate finance by Graham and Harvey (2001). It was followed by many researchers to conduct the survey in relation to corporate financing decisions. However, very few studies have examined these issues in the context of developing countries like Sri Lanka. But we have had no empirical evidence that the pecking order theory and practices of listed companies in Sri Lanka is to understand whether there is similarity in corporate financing decisions of developed countries?

The results of the study are significant in various aspects of corporate financing decision. First, it makes awareness among the management of listed companies in Sri Lanka to understand the factors which influence in debt and equity issuance decision and also to understand the importance of pecking order theory in choosing debt and equity combination to maximize the market value of the firm. Second, this will provide useful information to management to consider the pecking order theory if they do not follow at present and also to understand the role of management and firm characteristics towards the capital structure decision at large. Third, this study provides information to practitioners and academics to understand the reality of pecking order theory in corporate financing decisions and the level of perceptions of management in the firms.

Literature Review

Modigliani and Miller are the prominent scholar and writer on capital structure practice of firms. Initially, they refused the impact of debt capital on value of firm. They argued that there is no relationship between

capital structure and market value of firm, and further state that cost of capital is independent for the degree of leverage (Modigliani and Miller 1958). Modigliani and Miller (1963) further indicate after incorporating tax into theory that the levered firms have higher value than unlevered firm as the interest on debt is a tax deductible item. Miller (1977) argues that even the interest rate on debt is a tax deductible, the value of firm, in equilibrium is independence of its capital structure. Therefore, it seems that the capital structure theory is still debatable topics in corporate finance, and was argued by many researchers on its application and perception of managers in practicing the theory in organizational level to maximize the value of firm. The capital structure theories do not seem to explain actual financing behavior and it seems presumptuous to advise firms on optimal capital structure when we are so far from explaining actual decisions (Myers 1984).

A number of surveys of capital structure practices have been carried out to investigate the influence of management and firm characteristics (Graham and Harvey, 2001 & 2002; Bancel and Mittoo, 2004; Ibrahima et al, 2012). Several studies on both theoretical and empirical capital structure have generated results to explain the capital structure practices and its determinants factors based on firm characteristics in causal research work (Buferna, Bangassa and Hodgkinson, 2005; Sheikh and Wang, 2011; Titman and Wessels, 1988; Khrawish and Khraiwesh, 2010; Mefteh and Oliver, 2010). In addition to the survey in 2001, Graham and Harvey conducted in 2002, whom they argued the influence and/or impact of management and firm characteristics in corporate financing decisions; especially referring to capital structure theories. Similar to these, there were several surveys conducted by many researchers (Bancel and Mittoo, 2004; Ibrahima et al, 2012) in developed and developing countries to understand the practice of capital structure of firms. The findings were interesting that management and/or firms were not stick with the Modigliani and Miller hypothesis/model. There were many factors that influence on capital structure decisions of firm. Graham and Harvey (2001) & (2002) describe the current practice of corporate finance questioning 392 CFOs in U.S firms about the cost of capital, capital budgeting, and capital structure. Similar to that, Ibrahima et al, (2012) investigate a similar issue in the Malaysian context and carried out a comprehensive survey of capital structure practices in Malaysia through questioning on the CEOs of Malaysian non-financial listed companies on their perceptions of the capital structure practices. Bancel and Mittoo (2004) investigate managers of firms in sixteen European countries to examine the link between theory and practice of capital structure across countries with different legal systems.

In view of literature, the determinants of debt and equity in firms are also based on firm characteristics. They differ from Graham and Harvey (2001) that they

classified the management response conditional to management and firm characteristics. Evidences are stronger and also insignificant under certain circumstances. Buferna, Bangassa and Hodgkinson (2005) investigate the determinants of capital structure pertaining to a developing country and examine the impact of the lack of secondary capital market in Libya. Sheikh and Wang (2011) explore the factors that affect the capital structure of manufacturing firms and investigate whether the capital structure models derived from Western settings. Titman and Wessels (1988) investigate the determinants of capital structure choice and discuss the attributes that different theories of capital structure suggest may affect the firm's debt-equity choice. Khrawish and Khraiwesh (2010) describe on the determinants of the capital structure; using from Jordanian industrial companies. They examine various firm characteristics (explanatory variables) which determine the capital structure of firms. Managers' confidence on market, firm and industry and various firm characteristics have an influence on capital structure choice in French based companies (Mefteh and Oliver 2010).

The application of pecking order theory was tested at organizational level by various researchers and assessed the perceived importance of utilizing the theory to maximize market value of the firm. They show that the choice of capital structure is dependent on the circumstance and/or factors in relation to management and firm characteristics, the determinants of capital structure are not only related with capital structure model but also other factors which influence on determining debt and equity level of firms. The literature identified that capital structure practices and management and firm characteristics have not been studied in highly volatile environments such as Sri Lanka, where stock markets are resilient to volatility in the environment. This review was used to design the conceptual framework developing the relevant hypotheses in this study.

Research Methodology

To investigate the association between management and firm characteristics and perceived importance of pecking order theory on corporate financing decision of listed companies in Sri Lanka, this study employed survey methodology as adopted in prior research in this area.

Hypothesis

The hypothesis presented in this study will be testable. The null and alternative hypotheses are to test whether the pecking order theory is relevant of listed companies in Sri Lanka.

H₀:- Among management characteristics, the degree of perceived importance of pecking order theory to debt and equity issuance decision is not closely associated to management characteristics.

H₁:- Among management characteristics, the degree of perceived importance of pecking order theory to debt and equity issuance decisions is closely associated to management characteristics.

H₀:- Among firm characteristics, the degree of perceived importance of pecking order theory to debt and equity issuance decision is not closely associated to firm characteristics.

H₁:- Among firm characteristics, the degree of perceived importance of pecking order theory to debt and equity issuance decisions is closely associated to firm characteristics.

The Sample

The population of the study is listed companies in Sri Lanka which are listed in Colombo Stock Exchange. The Colombo Stock Exchange (CSE) has 280 companies representing 20 business sectors as at 18th May 2012. The Market Capitalization of the CSE stood at Rs. 1,949.5 Bn as at 18th May 2012.

The sample was selected from the top 50 companies in the *Lanka Monthly Digest*, listed in the Colombo Stock Exchange for the period in 2010/2011. The top 50 companies in the LMD were selected because these were more likely to have resources and motivation to take advantage of the opportunity to adopt good corporate financing practices, especially capital structure practices. Further, these companies were better performing, exhibited higher stock return and were assumed to engage in good corporate financing practices.

Statistical Methods

This survey focuses to analyze management and firm characteristics in relation to pecking order theory. As a result, the analysis of CFOs responses conditional to management and firm characteristics included descriptive statistical analysis, correlation analysis, Univariate analysis, and Independent Sample t-Test. Questionnaire is the main instrument consistent with the previous study (Graham & Harvey 2001 & 2002; Ibrahim et al 2012; Bancel & Mitto 2004).

Discussion and Implications of the Results

The Pecking Order Theory of Capital Structure Choice: Association with Management and Firm Characteristics

Financial Flexibility: Internal Funds

Firms restrict debt so that they have enough internal funds available to pursue new projects when they come along which refers the financial flexibility. Consistently, the survey findings of this study indicates that the rating of CFOs on the financial flexibility is as fairly important factor that they consider in making debt

financing decisions for their firms. This shows that CFOs of listed companies in Sri Lanka are fairly cautious on the availability and sufficiency of their internal funds for future projects and growth. Among 39.30% of the respondents indicate that financial flexibility is an important or very important factor in their financing decisions, and none of the management and firm characteristics are rated as important for this factor. The survey responses indicate that the desire for financial flexibility is not mainly a concern of financing decisions of CFOs of listed companies in Sri Lanka and also is not driven by the factors behind the pecking order theory (asymmetry of information). Therefore, from an observation of the survey responses on this factor in relation to management and firm characteristics, it is not supported to financial hierarchy model. The evidence in Sri Lanka is not consistent with the findings from the study of Graham and Harvey (2001), Bancel and Mitto (2004), and Ibrahim et al (2012) whereas they state that the financial flexibility is rated as most important factor in corporate financing decisions.

Another aspect of pecking order model of financing hierarchy tested in this study is the notion of this theory that external financing will only be acquired when internal funds are insufficient. This assumption is, similar to the responses of the factor of financial flexibility, rated as fairly important. Among 46.40% of the respondents say that the insufficient internal funds caused the CFOs to consider importantly or very importantly in their corporate financing decisions. More small firms than large firms and non-dividend paying firms indicate that they use debt in the face of insufficient internal funds are rated as important in their corporate financing decisions. The finding is not consistent with the study of Bancel and Mitto (2004) which state that insufficient internal fund is not considered as important by managers. Insufficient internal fund is moderately important in debt issuance decisions (Graham and Harvey 2001) whereas it is rated as most important by Malaysian managers (Ibrahim et al 2012).

A more direct test of the pecking order model is conducted on the factor that the CFOs consider in issuing equities i.e. whether the recent profits have sufficient to fund activities is rated as moderately important in their financing decisions, but 21.40% of the respondents say that this factor is important or very important in corporate financing decisions. Surprisingly, firms without target debt, considering credit rating on debt decisions, and high levered firm are rated as important to this factor while it is rated as importantly considered by the CFOs with long tenure, mature age and female.

Equity Undervaluation or Overvaluation by the Market

Equity Issuance

Considering the stock undervaluation or overvaluation by the market when the firm decides to issue common stock is rated as fairly important in their corporate financing decisions. It means that firms are not much reluctant to issue common stock when they perceive that it is undervalued or overvalued. It is considered as important or very important only for 14.30% of the responding CFOs; especially CFOs with long tenure, mature age, and female are considered as important. This factor is regarded relatively as most important by the firms without target debt, considered credit rating on debt decisions, and high levered firms. It is noted from the survey that the reasons for such lower response rate for important or very important for such factor is that 32.14% of the firms indicate that they are willing to issue common stock in their corporate financing decisions. Graham and Harvey (2001) state that equity undervaluation is rated as moderately important factor by the firms, and Bancel and Mittoo (2004) state that equity undervaluation or overvaluation in issuing equity received as important factor while Ibrahim et al (2012) state that it is most importantly considered by Malaysian managers. If a firm's stock price is undervalued due to informational asymmetry, it delays issuing until after an informational release (of good news) and the ensuring increase in stock price. This argument is perceived as moderately important by the CFOs of listed companies in Sri Lanka. This is regarded importantly by CFOs with long tenure, mature age, MBA holders and female. Firms without target debt, low growth firm, high levered firm considering the credit ratings in their corporate financing decisions are concerned as importantly.

This study also investigates whether concern about earnings per share dilution affects of equity issuance decisions. The textbook view is that earnings are not diluted if a firm earns the required return on the new equity. Conversely, if funds are obtained by issuing debt, the number of shares remains constant and so EPS can increase. To investigate this issue, this study asks managers if EPS dilution concerns affect their equity issuance decisions. Surprisingly, only 25% of the respondents are responded CFOs agree that EPS dilution is the most important or very important factors affecting the equity issuance decisions. Bancel and Mittoo (n.d) state that earnings per share dilution are considered as important or very important factors in equity issuance decisions and also it is strongly agreed by the Malaysian managers (Ibrahim et al, 2012).

Convertible Debt Issuance

The preference of convertible debt issuance of listed companies in Sri Lanka is recorded at very lower level; the CFOs are hesitant to issuing convertible debt in their firm's corporate financing decisions. It is noted that 7.14% of the respondents are interested on issuing convertible debt. The CFOs of listed companies in Sri Lanka respond that considering the equity undervaluation is most importantly perceived and it's

driven them to the issuance of convertible debt. The option towards issuance of convertible debt when equity is undervalued is considered as most important by the firms with various characteristics, and also it is regarded relatively as important by the CFOs with short tenure, young age who is having MBA degree. The perception on convertible debt issuance is very popular in developed countries, in line with the study of Graham and Harvey (2001) find that strong evidence on convertibles is preferred by the management than equity or debt issuance. Bancel and Mittoo (2004) state that convertible debt is important or very important factor to determine the debt level of the firm, and also the study conducted among Malaysian managers by Ibrahim et al (2012) state that the firm prefers convertible debt issuance as important in their corporate financing decisions.

Issuance of convertible debt is because of the perception of inexpensive way to issue delayed common stock and to attract investors unsure about the riskiness of the company which are not very importantly or fairly considered by CFOs of listed companies in Sri Lanka respectively. Attracting investors to unsure about the riskiness of the company in convertible debt issuance are relatively considered as important by female CFOs from Sri Lanka and the high growth firm without credit ratings.

The survey asks question to CFOs whether the ability to call or force conversion is an important feature affecting convertible debt policy. Among 3.60% of the firms are importantly or very importantly considered the convertibles because of the ability to call or force conversion. The idea that it is fairly important by the firms and also it is regarded as important by firms' high growth, not having credit ratings and also Sri Lankan male CFOs. Graham and Harvey (2001) find that strong evidence on convertibles is preferred by the management than equity or debt issue. Bancel and Mittoo (2004) state that convertible debt is important or very important factor to determine the debt level of firm. Companies run by male CFOs from Sri Lanka are considered as important the factors of convertible are less expensive than straight debt. The same response is received from high growth firm without credit ratings. It is generally perceived as fairly important by CFOs.

Debt Issuance

In relating the equity undervaluation issue with debt issuance decision, this study questions the CFOs on the effect of equity undervaluation on their debt policy. Among 39.30% of the respondents are rated as important or very important on the factor effect of equity undervaluation on their debt decisions. It is generally rated as not very important on their debt policy. It is also regarded as fairly important by CFOs with mature age, and female. In addition, the decision to debt issuance in response to equity undervaluation is also important for small firms.

Apart from the undervaluation or overvaluation, firms use capital structure to signal their quality or future prospect. However, there is no indication that their debt or equity policy is affected by factors consistent with signaling. This survey finds no evidence on issuing debt or stock gives investors a better impression of firm's prospects. A question is asked to the respondents regarding a high debt ratio and its help to bargain for concessions from the employees. The survey finds no indication that it is not very importantly considered by firms and the determinants of debt is not because of the bargain for concessions from employees, but due to other factors discussed in this study.

Having private information about credit quality can affect a firm's optimal debt maturity. In practice, the evidence that firm time their credit worthiness is very weak. Firm borrow short term until the credit ratings to improve is not very importantly considered by CFOs of listed companies in Sri Lanka.

The survey finds surprising indications that CFOs try to time the market in other ways. The firm time the interest rate by issuing debt at lower rate is considered as fairly important by CFOs of listed companies in Sri Lanka. This survey also finds evidence that firms issue short term debt at lower rate in an effort to time market long term interest rate or expecting the long term rate to decline are considered moderately and fairly important respectively. There is strong evidence that relatively low foreign interest rates affect the decision to issue abroad is most importantly considered by CFOs. The Firm issue foreign debt in response to tax incentives, to keep the source close to the use of funds, and in an attempt to take advantage of low foreign interest rates. All those factors are most importantly considered by the firms when they take foreign debt issue decisions. It is also regarded as most important factors by the management and firm characteristics.

The perceived importance of pecking order model is not strongly supported with the hypotheses stated in this study and the asymmetric informational issues are relatively weak in this survey other than timing the interest rates including foreign debt issuance. Survey responses of perceived importance of these factors are examined conditional upon management and firm characteristics for the purpose of testing the hypotheses. The means differences among the management and firm characteristics are not significantly associated which is greater than 5% ($P > 0.05$) other than Race is association with these factors of equity undervaluation, borrow short term when long term rates are high or expecting the long term rates to decline. Therefore, the null hypotheses are accepted.

Conclusion

The study tests the perceived importance of pecking order model observing the practice of CFOs of listed companies in Sri Lanka. The survey finds little support

but not strongly on the argument favor to pecking order model. The survey finds that CFOs of listed companies in Sri Lanka rank financial flexibility as the fairly important factor in firm's debt financing decisions. This shows that CFOs are not aware of the financing hierarchy and/or pecking order model in debt or equity issuance decisions. The importance of this factor is not driven by asymmetric information as proposed by the theory. There is no such evidence that firms support the importance of restricting debt to ensure sufficient internal funds to finance future projects. In terms of debt and equity issuance, the study finds that CFOs issue debt followed by equity because recent profits have been insufficient to finance future project, this argument is considered as moderately important as well as by the firms with no target debt and high levered. It is not support of financing preference as proposed by the theory since 68% of the respondents indicate that they are not willing to issue common stock. The argument of financial flexibility based of listed companies in Sri Lanka is not consistent with the findings from the study of Graham and Harvey (2001), Bancel and Mittoo (2004), and Ibrahim et al, (2012) whereas they state that the financial flexibility is rated as most important factor in corporate financing decisions.

In addition to the debt and equity issuance, firms are reluctant to issue debt and equity when they perceive the stocks are currently undervalued. This argument is rated as importantly by CFOs of listed companies in Sri Lanka. It is generally consistent with the pecking order theory. The survey shows responding to equity undervaluation; it is regarded as important by many firm characteristics. The arguments favor to signaling is weak but the earning per share dilution on equity issuance decisions is strongly considered by CFOs. This research finds no significant association between management and firm characteristics and pecking order theory in corporate financing decisions.

The study shows that the CFOs are far away from the guidelines of academics in their corporate financing decisions of listed companies in Sri Lanka.

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