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DETERMINANTS OF CAPITAL STRUCTURE DECISIONS OF SELECTED INFORMATION TECHNOLOGY COMPANIES, INDIA

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Abstract
Capital structure is more of a combination of the equity and debt mixture, an optimal one, which would be the measuring rod of risk for the investors. It also, is required by the company to determine an optimal capital structure so it can both earn wealth to its investors at the same time reducing the risk for the investors.In this paper the top five companies, based upon the highest market capitalization, present in the National Stock Exchange(NSE) are selected. The top five companies are Hewlett-Packard (HP), Infosys, Tata Consultancy Services (TCS), Tech Mahindra and Wipro. In this paper, firm specific characteristics have been taken into consideration viz. profitability, liquidity, growth, size and tax-shield. The method of data collection is from secondary sources and the companies' financial statements, for over a period of five years ranging from 2012-2016. Least Squares method of regression is used to find out the factors influencing the capital structure decisions of the selected firms.In the following research, the profitability and size of a firm does not influence a firm's decision on its capital structure, whereas, liquidity, growth and tax shield do have bearings on the capital structure decisions of a firm. A further research can be carried out by broadening the selection criteria of the firms and putting in place various other macro parameters.

Keywords: Capital Structure, Firm Specific Characteristics, IT firms.

Introduction

Capital is required for any company to perform its operations. Capital structure plays a vital role in determining how the operations are to be financed. It is more of a combination of the equity and debt mixture, an optimal one, which would be the measuring rod of risk for the investors. It also, is required by the company to determine an optimal capital structure so as to it can both earn wealth to its investors at the same time reducing the risk for the investors.

Recognizing the importance of the capital structure, many theories have been put forth such as Miller and Modigliani Theory, Trade-off theory, Agency theory and Pecking order theory.These theories have given the theoretical framework on the capital structure, but have not about the factors that can influence the capital structure decisions of the companies.

Indian Information Technology, though had its earlier roots from 1980's, have shown development only after Y2K. This industry have survived dotcom crash and through the recession in which there was a growth of 5.5% where the rest of the world saw negative growth, thus forming the necessity of a study into the factors influencing their capital structure decisions.

In this paper, firm specific characteristics have been taken into consideration viz. profitability, liquidity, growth, size and tax-shield.Along with the external factors like country specific factors and industry specific factors; it is known that even the firm specific factors make an influence on the determination of optimal capital structure (Masnoon & Anwar, 2012).

Review of Literature

(Berk, 2005) In this paper, the author considers blue-chip firms of the Slovene capital market as the sample. The author has used ordinary least squares regression for data analysis. In this paper, along with the analysis for drivers of capital structure, it also studies the effect of leverage on higher market performance and accounting performance. Its findings include that the extent of using debt financing is better explained by the pecking order theory than the trade-off theory.

(Psillaki & Daskalakis, 2009) In this paper, the authors have taken SMEs of four countries and compare their capital structures. The authors lay-out both the country and firm specific characters. The results what they have obtained by comparing is, it is the firm specific characters that influences the capital structure of the firms and due to this there have been differences in determining the capital structure in different countries. Balanced panel model has been used by the authors for analyzing the data.

(Dallocchio, Tzivelis, & Vinzia, 2010)This article firstly studies about what are the determinants that influence the capital structure of a firm. The authors have prepared a questionnaire to determine up to what extent does the financial structure policy contributes to the wealth created to the shareholders. These questionnaires have been directed to the CFO's of 76 listed non-financial Italian companies. This paper also considers the external factors like BASEL III, IFRS, SOX and other government actions. The authors have used Likert scale to avoid central tendency bias. The finding of this paper was that family capitalism affects the capital structural decisions of the firms. Trade-off theory and Pecking order theory has less applicability in the Italian firms.

(Rauh & Sufi, 2010)This paper studies about the debt-heterogeneity which makes up a big chunk in the capital structure variations. The authors have considered public firms for this research and have a comprehensive dataset on the debt structure of these firms. One of the findings of the paper is, though the total debt remains stable, debt structure is frequently adjusted by the firms. It also opens up another avenue for research on how important does these adjustment costs in framing the capital structure. Correlation has been used for data analysis.

(Pahuja & Sahi)In this article, the authors analyze the factors that determine the capital structure of the firms. The factors considered here are the firm specific characters and the data is collected for the period 2008-2010 of the 30 companies listed in the BSE. Regression analysis and correlation has been used for analyzing the data. The findings include that profitability, size and tangibility does not impact the capital structure decisions of the firm.

(Kajananthan & Achchuthan, 2013) This paper is about to what extent the liquidity effects the capital structure of a firm. The authors have chosen Sri Lanka Telecom Plc as their sample for research and the data have been collected during six years (2005-2011). Regression analysis have been used for the data analysis. The finding of this research was, liquidity management has high influence on the capital structure of the firm, and in here its careful management leads to increase in the firm's value in longer term.

(Shiva & Girish, 2017)This article is about the factors that influence the capital structure decisions in Pharmaceutical Industry, India. The authors have chosen the top five pharmacy companies based on the market capitalization. The finding of this paper was the profitability, liquidity and tax shield has no influence on the capital structure decisions. The growth and size of the firm does not have any impact on the capital structure decisions of the firm.

Research Methodology

Objectives

1. To examine the impact profitability in determining the capital structure of a firm.
2. To analyze the influence liquidity and growth on capital structure of a firm.
3. To determine the effect of size and tax shield on capital structure of a firm.

Hypothesis

- H1: Profitability does not have any impact on the capital structure of the firm.
- H2: Liquidity and growth of the firm does not influence the capital structure decision of the firm.
- H3: Size and Tax-Shield does not exhibit any relationship with the capital structure of the firm.

Selection of Sample

In this paper the top five companies, based upon the highest market capitalization, present in the NSE are selected. The top five companies are Hewlett-Packard, Infosys, Tata Consultancy Services, Tech Mahindra and Wipro.

Data Collection

The method of data collection is from secondary sources and the companies' financial statements, for over a period of five years ranging from 2012-2016. (The data for the financial year 2016-2017 was not available as on June 5, 2017.)

Data Analysis

Least Squares method of regression is used to find out the factors influencing the capital structure decisions of the selected firms by using eviews version 8.

Data Analysis and Findings

Dependent Variable: DE				
Method: Least Squares				
Date: 06/02/17 Time: 01:34				
Sample: 1 25				
Included observations: 25				
Variable	**Coefficient**	**Std. Error**	**t-Statistic**	**Prob.**
P	-1.751982	0.410249	-4.270533	0.0004
L	0.014484	0.018910	0.765923	0.4527
G	-0.000301	0.001523	-0.197464	0.8455
S	0.044066	0.010970	4.016990	0.0007
T	-2.304582	3.568697	-0.645777	0.5258
R-squared	0.494633	Mean dependent var		0.128800
Adjusted R-squared	0.393559	S.D. dependent var		0.109557

S.E. of regression	0.085317	Akaike info criterion	-1.908041
Sum squared resid	0.145578	Schwarz criterion	-1.664266
Log likelihood	28.85052	Hannan-Quinn criter.	-1.840428
Durbin-Watson stat	1.229619		

- Profitability (P) of the firm does not have any impact on the capital structural decisions of the firm. A firm that earns more income can finance its future operations with internally generated funds. That means that those firms have relatively smaller needs for debt, and should decrease usage of debt in time.
- Liquidity (L) and growth (G) of the firms' assets does influence the capital structural decisions of the firm.On the other hand, it has been shown that growth opportunitiesincrease.A total increase in the growth of the assets of the firm, at the same time its liquidity ensures the easy availability of the funds for the firm and further growth of the firm's projects also does not influence its capital structure decisions as the firm can have more of the assets and its projects at a very liquefiable rate and henceforth it proves the null hypotheses. Thiscan be explained by the trade-off theory, since greater growth opportunitiesallow more external financing, since the revenue generation is stronger; bypecking order hypothesis, since after the depletion of retained earnings more debt is second-best to finance growth.
- Size (S) of the firm does not exhibit any relationship with respect to the capital structure decision of the firm. If a firm, has greater sales, then we can imply that there is a greater profitability of the firm and henceforth there will be a greater percentage of increase in its revenue and henceforth need not worry on getting the funds from outside and as proved in this case, profitability and size of the firm does not influence its capital structure decisions.
- Tax-shield (T) of the firm exerts influence in determining the capital structure of the firm. In the case of tax shield, if there is a greater availability of the internal funds for the firm in its further expansion and its operations and henceforth the tax shield also does not affect the firm's capital structure decisions.

Conclusion

In this paper, we have taken 5 Information Technology companies from NSE based upon the market capitalization as the criterion. Five firm specific characters Profitability, Liquidity, Growth, Size and Tax-shield have been taken for analyzing their effects on the capital structure. Regression analysis has been used to analyze the data collected over a period ranging 2012-2016. The findings are profitability and size does not affect the capital structure decisions taken by the firms, whereas, firms' growth, liquidity and tax-shield doinfluence and drive the capital structure decisions.The findings are in-line with our review of literature.

The research further leaves a question on how much extent does these determinants influence the capital structure decision of the firm. A further research can be carried out by broadening the selection criteria of the firms and putting in place various other macro parameters. The data collected is solely from the secondary sources and any errors in it may lead to the errors in the analyses.

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