

DETERMINANTS OF CAPITAL STRUCTURE IN SELECT PHARMACEUTICAL COMPANIES

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ABSTRACT

The most advantageous debt equity mix plays an important role in attaining objective of investors of the firm. Determining optimal capital structure not only assists business for long term sustainability but also affects profitability of the business. The result of study portrays that Current Ratio, Return on Equity, Solvency Ratio, Bank Rate, etc. significantly influences capital structure of pharmaceutical companies.

Keywords: Capital Structure, Pharmaceutical, Current Ratio, Cost of Debt

INTRODUCTION

Earning capacity of a company mainly depends on its capital structure. Companies without impromptu capital structure can survive for shorter period of time and find arduous to mobilize capital in longer run. Appropriate Debt and Equity capital mix not only determines company earnings capacity but also determines risk and return to shareholders. Excessive use of debt put a company in danger similarly not employing of debt in capital mix affects earning potential too. Thus, determining optimal capital structure may keep the cost of capital at minimal and raise the company's earning potential. Thus, companies have to consider various factors like risk and return, return on equity, debt repaying capacity etc. before finalizing their capital structure mix.

REVIEW OF LITERATURE

Booth, Aiazian, and Kunt demirgne, and Maksimoie (2001) in their study identified that asset structure, profitability and size of the company determines its capital structure. Saumitra N Bhaduri (2002) in her study identified that cash inflows, company growth and size of assets determines capital structure. Mohanty (2003) in his study finds capital structure of a company depends on amount spend towards research and advertisement. Sharma, Thenmozhi and Preethi (2004) in their study ascertained that presence of non-traditional debt has a positive influence on

financial leverage. Hanjoon Kim, Paul D Berger (2008) in their study finds capital structure of a company depends on its profitability. Godfred A. et al. (2009) in their study finds that profitability, tangibility, dividend payout ratio and volatility of earnings determines a company's capital structure. Ayesha Mazhar and Mohamed Nasr (2011) in their study observed that capital structure of a company is associated with tax rate, company size and company growth. Wafaa Sbeti and Imad Moosa (2012) in their study pointed out leverage of a company is related with profitability and company's growth.

STATEMENT OF THE PROBLEM

Financial leverage signifies the long-term solvency of a company. A company which has sufficient cash to meet long-term as well as short-term obligations are said to be sound. Investors and lending parties are more interested to ascertain the long-term solvency of the company. Based on their financial position, investors may determine to invest or not. Similarly, lending institutions may determine whether to lend amount or not and what rate of interest. Thus, a study has been made to determine the debt equity proportion mix among select pharmaceuticals companies in India.

OBJECTIVE OF THE STUDY

❖ To determine variables associated with capital structure of select pharmaceutical companies

RESEARCH METHODOLOGY

Data

The study requires secondary data. Secondary data collected from Prowess data base.

Sampling

Purposive sampling method is used for company's selection. Companies whose data are available for a period ranging from 2010 to 2019 alone have been selected. The companies so selected are (1) Cipla Ltd., (2) Lupin Ltd., (3) Ranbaxy Laboratories Ltd., (4) Dr.Reddys Laboratories Ltd., and (5) Sun Pharmaceuticals Ltd.,

Framework of Analysis

The collected data have been analyzed with the help of regression analysis.

FINDINGS

Debt Equity Ratio introduced as a Dependent variables and size of tangible assets, profit, Non-debt tax shield, current ratio, dividend payout ratio, growth rate in sales, age of business, solvency ratio, interest coverage ratio, effective tax rate, cost of debt and equity, equity return, bank rate, selling and distribution expenses and inflation are introduced as independent variables. The following is the regression equation to determine the influence of select independent variables on capital structure of select pharmaceutical companies.

$$CS = a + b_1 STA + b_2 Pro + b_3 NDTs + b_4 CR + b_5 DPR + b_6 GRS + b_7 AOB + b_8 ETR + b_9 ICR + b_{10} SDE + b_{11} ROE + b_{12} SR + b_{13} INF + b_{14} BR + b_{15} COE + b_{16} COD + e$$

Where,

| | | |
|----------------------------------|---|-----------------------------------|
| CS | = | Capital Structure |
| a | = | Intercept Term |
| b ₁ ...b ₉ | = | Regression Coefficients |
| STA | = | Size of Tangible Assets |
| Pro | = | Profit |
| NDTS | = | Non Debt Tax Shield |
| CR | = | Current Ratio |
| DPR | = | Dividend Payout Ratio |
| GRS | = | Growth Rate in Sales |
| AOB | = | Age of Business |
| ETR | = | Effective Tax Rate |
| ICR | = | Interest Coverage Ratio |
| SDE | = | Selling and Distribution Expenses |
| ROE | = | Return on Equity |
| SR | = | Solvency Ratio |
| INF | = | Inflation |
| BR | = | Bank Rate |
| COE | = | Cost of Equity |
| COD | = | Cost of Debt |
| e | = | Error Term |

Table 1
Determinants of Capital Structure – Pharmaceutical

| Variables | Regression coefficient | Standard error | T |
|-----------------------------------|------------------------|----------------|---------|
| Size of Tangible Assets | -0.057 | 0.055 | -1.032 |
| Profit | 1.070 | 0.759 | 1.410 |
| Non Debt Tax Shield | 12.597 | 7.271 | 1.732 |
| Current Ratio | 0.166** | 0.033 | 4.987 |
| Dividend Payout Ratio | 0.000 | 0.001 | 0.289 |
| Growth Rate in Sales | -0.351 | 0.188 | -1.872 |
| Age of Business | -0.005* | 0.002 | -2.455 |
| Effective Tax Rate | 0.530 | 0.303 | 1.752 |
| Interest Coverage Ratio | 0.001* | 0.000 | 2.559 |
| Selling and Distribution Expenses | -1.223 | 1.948 | -0.628 |
| Return on Equity | -0.913** | 0.201 | -4.544 |
| Solvency Ratio | -0.343** | 0.033 | -10.477 |
| Inflation | 0.018 | 0.014 | 1.297 |
| Bank Rate | -0.089** | 0.033 | -2.688 |
| Cost of Equity | 0.003** | 0.001 | 2.738 |
| Cost of Debt | 0.182** | 0.039 | 4.665 |

* Significant at five per cent level ** Significant at one per cent level

Constant : 1.730
 Std. Error of Estimate : 0.471
 \bar{R}^2 : 0.769
 R^2 : 0.816**

The result of regression analysis disclose that Current Ratio, Return on Equity, Solvency Ratio, Bank Rate, Cost of Debt, Cost of Equity, Age of Business and Interest Coverage Ratio significantly influences capital structure of pharmaceutical companies. The select independent variables collectively contribute to a tune of 81.60 per cent towards determining capital structure. The value of R^2 is found to be significant at one per cent level.

Suggestions

- ❖ Companies with long-term existence along should think of issuing Equity share for mobilizing their capital whereas, new promoted companies should mobilize their capital through Debt than equity shares.
- ❖ Companies which have sufficient cash inflows alone should mobilize funds through Debt

- ❖ When bank rate of interest is low, companies should avail loan from banks or financial institutions at low rate of interest, instead of mobilizing funds from stock market
- ❖ Based on cost of equity and debt, companies should determine their optimal capital structure, where risk should be minimized and return to be maximized
- ❖ Companies can think of expanding their business through mobilizing more funds, if their solvency position is satisfied.

CONCLUSION

The result of the study indicates that current ratio, return on equity, solvency ratio, bank rate, cost of debt, cost of equity, age of business and interest coverage ratio significantly influences capital structure of pharmaceutical companies. Depending on the debt and equity earning potential of a company is determined. Thus, utmost care to be exercised by the authority concerned while determining the capital structure of their company for their long-term sustainability and profitability.

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