Project Report

On

FACTORS AFFECTING CAPITAL STRUCTURE DECISIONS: A STUDY OF S&P CNX NIFTY 50

Submitted By:

Mohit Udar

Roll no. - 2K12/MBA/32

Under the Guidance

Of:

Asst Prof. Dr. Archana Singh

Delhi School of Management,

Delhi Technological University

DELHI SCHOOL OF MANAGEMENT

Delhi Technological University

Bawana Road Delhi 110042

CERTIFICATE

This is to certify that the Project Report titled **"Factors affecting capital structure decisions: A study of S&P CNX NIFTY 50"** is a bonafide work carried out by **Mr. Mohit Udar** of MBA 2012-14 and submitted to Delhi School of Management, Delhi Technological University, Bawana Road, Delhi-42 in partial fulfilment of the requirement for the award of the Degree of Masters of Business Administration.

Prof. P.K Suri
HOD, DSM
Place: Delhi
Date:

Declaration

I Mohit Udar, student of MBA 2012-14 of Delhi School of Management, Delhi Technological University, Bawana Road, Delhi-42 declare that dissertation report entitled Factors affecting capital structure decisions: A study of S&P CNX NIFTY 50 submitted in partial fulfillment of Degree of Masters of Business Administration is the original work conducted by me.

The information and data given in the report is authentic to the best of my knowledge.

This Report is not being submitted to any other University for award of any other Degree, Diploma and Fellowship.

Place: Delhi — Mohit Udar

Date: — 2K12/MBA/32

Acknowledgement

I gratefully acknowledge my profound indebtedness towards my esteemed guide**,** Dr. Archana Singh Assistant Professor Delhi School of Management, Delhi Technological University, for his invaluable guidance, excellent supervision & constant encouragement during the entire duration of the project. This project would never have been possible without his guidance & supervision.

I am also thankful to all the faculty members of Delhi School of Management, DTU, New Delhi.

And last but not the least I am heartily thankful to our batch of 2014, my fellow students & batch mates of Delhi School of Management for their support & encouragement throughout my work.

Date:

Mohit Udar

udarmohit@gmail.com

Table of Contents

1 INTRODUCTION

1.1 Capital Structure

Capital Structure is referred to as the ratio of different kinds of securities raised by a firm as long-term finance. The capital structure involves two decisions-

a. Type of securities to be issued are equity shares, preference shares and long term borrowings (Debentures).These are discussed below

   i. **Equity Capital**: This refers to money put up and owned by the shareholders (owners). Typically, equity capital consists of two types: 1.) contributed capital, which is the money that was originally invested in the business in exchange for shares of stock or ownership and 2.) retained earnings, which represents profits from past years that have been kept by the company and used to strengthen the balance sheet or fund growth, acquisitions, or expansion.

      Many consider equity capital to be the most expensive type of capital a company can utilize because its "cost" is the return the firm must earn to attract investment. A speculative mining company that is looking for silver in a remote region of Africa may require a much higher return on equity to get investors to purchase the stock than a firm such as Procter & Gamble, which sells everything from toothpaste and shampoo to detergent and beauty products.

   ii. **Debt Capital**: The debt capital in a company's capital structure refers to borrowed money that is at work in the business. The safest type is generally considered long-term bonds because the company has years, if not decades, to come up with the principal, while paying interest only in the meantime.

Other types of debt capital can include short-term commercial paper utilized by giants such as Wal-Mart and General Electric that amount to billions of dollars in 24-hour loans from the capital markets to meet day-to-day working capital requirements such as payroll and utility bills. The cost of debt capital in the capital structure depends on the health of the company's balance sheet - a triple AAA rated firm is going to be able to borrow at extremely low rates versus a speculative company with tons of debt, which may have to pay 15% or more in exchange for debt capital.

iii. **Other Forms of Capital**: There are actually other forms of capital, such as vendor financing where a company can sell goods before they have to pay the bill to the vendor that can drastically increase return on equity but don't cost the company anything. This was one of the secrets to Sam Walton's success at Wal-Mart. He was often able to sell Tide detergent before having to pay the bill to Procter & Gamble, in effect, using PG's money to grow his retailer. In the case of an insurance company, the policyholder "float" represents money that doesn't belong to the firm but that it gets to use and earn an investment on until it has to pay it out for accidents or medical bills, in the case of an auto insurer. The cost of other forms of capital in the capital structure varies greatly on a case-by-case basis and often comes down to the talent and discipline of managers.

b. Relative ratio of securities can be determined by process of capital gearing. On this basis, the companies are divided into two-

   i. **Highly geared companies** - Those companies whose proportion of equity capitalization is small.

   ii. **Low geared companies** - Those companies whose equity capital dominates total capitalization.

1.2 Need of Capital Structure

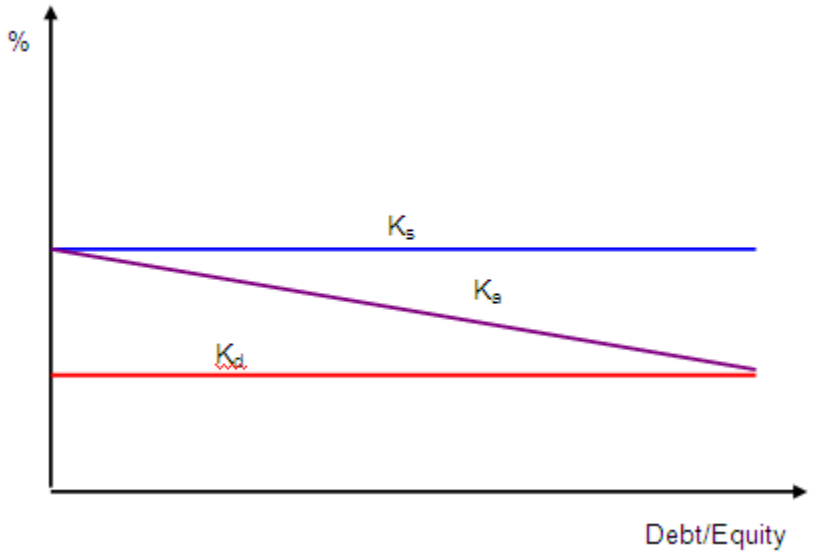
Financing and investment are two major decision areas in a firm. In the financing decision the manager is concerned with determining the best financing mix or capital structure for his firm. Capital structure could have two effects. First, firms of the same risk class could possibly have higher cost of capital with higher leverage. Second, capital structure may affect the valuation of the firm, with more leveraged firms, being riskier, being valued lower than less leveraged firms. If we consider that the manager of a firm has the shareholders' wealth maximization as his objective, then capital structure is an important decision, for it could lead to an optimal financing mix which maximizes the market price per share of the firm.

Capital structure has been a major issue in financial economics ever since Modigliani and Miller (henceforth referred to as MM) showed in 1958 that given frictionless markets, homogeneous expectations, etc., the capital structure decision of the firm is irrelevant. This conclusion depends entirely on the assumptions made. By relaxing the assumptions and analyzing their effects, theory seeks to determine whether an optimal capital structure exists or not, and if so what could possibly be its determinants. If capital structure is not irrelevant, then there is also another thing to consider: the interaction between financing and investment. But in order to try to distinguish the effects of various determinants on capital structure, it is assumed in this paper that the investment decision is held constant.
Having regard to the difference in the risk return characteristics of different sources of capital, capital structure decision is important due to following reasons:-

- Capital structure affects the financial risk assumed by the firm
- Capital structure affects the firm’s cost of capital
- Capital structure affects the value of the firm by affecting either its expected earnings or the cost of capital or both.
- Capital structure decision of a firm represents the attitude of its management towards risk and return.

1.3 Theory of Capital Structure

Determination of an optimal capital structure has frustrated theoreticians for decades. The early work made numerous assumptions in order to simplify the problem and assumed that both the cost of debt and the cost of equity were independent of capital structure and that the relevant figure for consideration was the net income of the firm. Under these assumptions, the average cost of capital decreased with the use of leverage and the value of the firm (the value of the debt and equity combined) increased while the value of the equity remained constant.



Modigliani and Miller showed that this could not be the case. Their contention was that two identical firms, differing only in their capital structure, must have identical total values. If they did not, individuals would engage in arbitrage and create the market forces that would drive the two values to be equal.

Their proof of this proposition was based upon several assumptions (many of which have subsequently been relaxed without changing the results):

- All investors have complete knowledge of what future returns will be
- All firms within an industry have the same risk regardless of capital structure

- No taxes (we will relax this assumption subsequently)
- No transactions costs
- Individuals can borrow as easily and at the same rate of interest as the corporation
- All earnings are paid out as dividends (thus, earnings are constant and there is no growth)
- The average cost of capital is constant

Since no taxes have been assumed, the operating income (EBIT) is equivalent to the net income which is all paid out as dividends. Thus, the value of the firm is equal to

$$V = \frac{EBIT}{k_a}$$

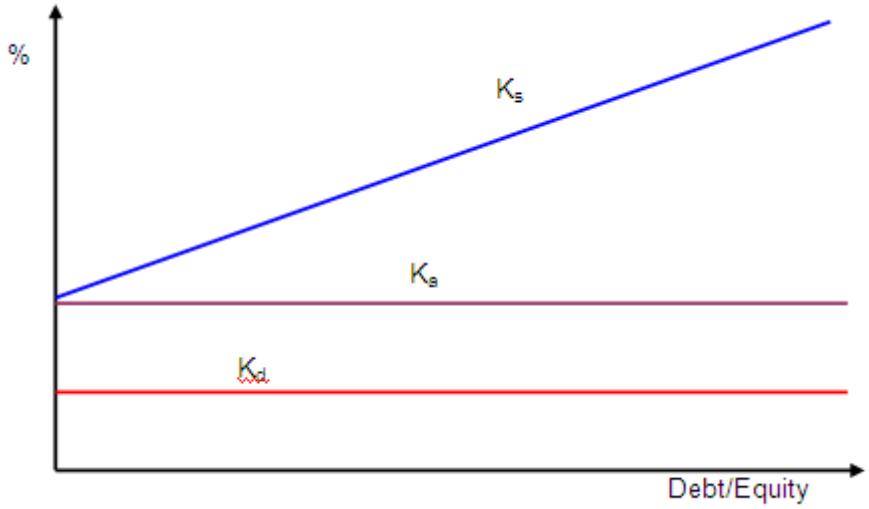
Since the value of the firm is equal to the sum of the value of the debt and equity,

$$V = D + E$$
then
$$k_a V = k_a (D + E)$$
and
$$k_a = k_s (\frac{E}{D+E}) + k_d (\frac{D}{D+E})$$

Substituting the last equation into the preceding equation and solving for K_s

$$k_s = k_a + (k_a - k_d)\frac{D}{E}$$

Thus, k_s must go up as debt is added to the capital structure.

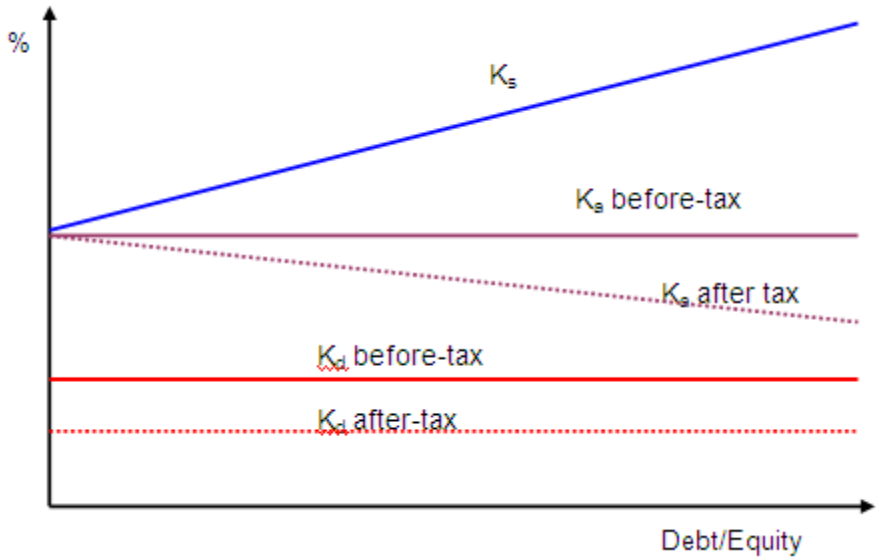


The lesson that is intended by this is that value cannot be created by simply substituting one form of financing for another.

Subsequent to this analysis, it was pointed out that corporate taxes have an impact on the valuation. Without going through the mathematics (which is in your textbook), suffice it to say that the result was that the value of the firm *increased* with increased leverage. Specifically,

$$V_L = V_U + t * D$$

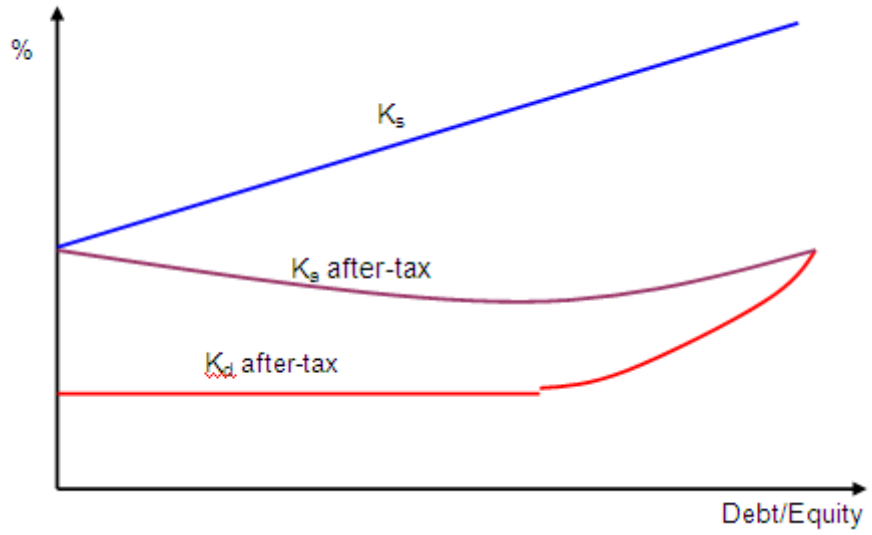
The fact that the government is a "partner" in the business results in a subsidy when debt financing is used and a deductible expense (unlike equity payments). When corporate taxes were taken into account, the average cost of capital was found to *decrease* with increased leverage:



This implies that a firm should use as much debt as possible. Yet, we do not see companies using 100% debt. It might be pointed out that during the late 1980s there was a considerable amount of substitution of debt for equity among firms, particularly in the case of leveraged buyouts. However, many of those firms subsequently failed (for example, Unocal) and the typical debt/equity ratio today is similar to earlier levels.

So why do we not see more debt employed by companies? The answer to this question has been sought by many and two primary proposals have been put forth. First, bankruptcy costs were invoked as a factor. That is, the more debt a firm uses, the higher the probability that the firm would default and go into bankruptcy. Therefore, the present value of bankruptcy costs had to be deducted from the value of the firm. A second factor was that of "agency" costs, such as the necessity of reporting regularly to lenders (audited financial statements, bank "monitoring" fees, trustees for debt payments, etc.) that accompany the use of debt. Both of these costs increase in present value of expected costs terms as the proportion of debt increases. Another way of viewing these costs is that the *risk* of receiving full interest and principal payments increases and thus the required rate of return of lenders increases. (For example, "junk" bonds often yield higher rates of interest than the required rate of return on equity for companies with very

little debt.) Consequently, the cost of debt increases and the average cost of capital will ultimately increase.



As can be observed from the graph, a minimum average cost of capital exists, but exactly where it should be has yet to be determined within a theoretical framework.

So what are the insights that we can gain from this theoretical view of capital structure? First, we should note that, while debt financing is "cheap" in the sense that required rates of return on equity will always be higher than the interest rate on debt, there is a "hidden" cost in that the cost of equity rises as we utilize more debt financing. This is one reason that using the average cost of capital in valuing a project or company is more appropriate, even if we intend to borrow all of the money to finance it. While we may use cheap debt to finance a project, the increased risk to shareholders from increasing our financial leverage results in an increase in the cost of equity. The average cost of capital reflects both the cost of debt as well as the cost of equity and thus will reflect the increased cost of equity associated with the use of more debt financing.

The second important concept is that tax-deductible debt financing results in a tax subsidy by the government. This subsidy adds value to the firm. For example, what is the "advantage" of being a home owner with a mortgage rather than leasing a home? It is the taxes that you will save. The reason that Congress eliminated the deductibility of credit card interest is that it did not want to encourage, through a tax subsidy, the financing of purchases purely for consumption. On the other hand, the purchase of a home (which is still tax-deductible) is an "investment", not to mention the political consequences of voting to end the subsidy of the American Dream of home ownership.

2 REVIEW OF LITERATURE

Anthony (2012) examines the impact of capital structure on financial performance of Nigerian firms using a sample of thirty non-financial firms listed on the Nigerian Stock Exchange during the seven year period, 2004 – 2010. Panel data for the selected firms were generated and analyzed using ordinary least squares (OLS) as a method of estimation. The result shows that a firm's capital structure surrogated by Debt Ratio has a significantly negative impact on the firm's financial measures (Return on Asset, ROA, and Return on Equity, ROE). The study of these findings, indicate consistency with prior empirical studies and provide evidence in support of Agency cost theory.

Esmaeelzadeh, Ahmadifard & Boustani(2012) investigates the relationship between the selected independent variables (size of company, debt ratio, level of disclosure, and type of industry) and dependent variable (cost of capital). For this purpose, the quantitative required information and data have been extracted from the financial statements of companies listed in Tehran Stock Exchange, and the statistical population of about 90 eligible companies has been chosen using a classification sampling method. For data analysis, first the cost of capital was calculated through five models introduced in the research and then the significance test was done for determining the differences in results of models. Then the calculations were performed using the excel software, and the statistical softwares sas.spss-10 were used for the statistical analysis. The results of research indicate that the accounting evaluation model is considered as the most appropriate model for calculating the capital cost, and type of industry and the size of company are selected as the factors affecting the cost of capital.

Antoniou, Guney & Paudyal (2008) investigates how firms operating in capital market-oriented economies (the U.K. and the U.S.) and bank-oriented economies (France, Germany, and Japan) determine their capital structure. Using panel data and a two-step system-GMM procedure, the paper finds that the leverage ratio is positively affected by the tangibility of assets and the size of the firm, but declines with an increase in firm profitability, growth opportunities, and share price performance in both types of

economies. The leverage ratio is also affected by the market conditions in which the firm operates. The degree and effectiveness of these determinants are dependent on the country's legal and financial traditions. The results also confirm that firms have target leverage ratios with French firms being the fastest in adjusting their capital structure toward their target level and Japanese firms the slowest. Overall, the capital structure of a firm is heavily influenced by the economic environment and its institutions, corporate governance practices, tax systems, the borrower-lender relation, exposure to capital markets, and the level of investor protection in the country in which the firm operates.

Jong, Kabir & Nguyen (2008) analyzed the importance of firm-specific and country-specific factors in the leverage choice of firms from 42 countries around the world. The analysis yielded two new results. First, it found out that firm-specific determinants of leverage differ across countries, while prior studies implicitly assumed equal impact of those determinants. Second, although it concurred with the conventional direct impact of country- specific factors on the capital structure of firms, it showed that there is an indirect impact because country-specific factors also influence the roles of firm-specific determinants of leverage.

Lambert , Leuz , Verrecchia (2007) examines whether and how accounting information about a firm manifests in its cost of capital, despite the forces of diversification. They build a model that is consistent with the Capital Asset Pricing Model and explicitly allows for multiple securities whose cash flows are correlated. They demonstrate that the quality of accounting information can influence the cost of capital, both directly and indirectly. The direct effect occurs because higher quality disclosures affect the firm's assessed covariance with other firms' cash flows, which is no diversifiable. The indirect effect occurs because higher quality disclosures affect a firm's real decisions, which likely changes the firm's ratio of the expected future cash flows to the covariance of these cash flows with the sum of all the cash flows in the market. They show that this effect can go in either direction, but also derive conditions under which an increase in information quality leads to an unambiguous decline in the cost of capital.

Buferna, Bangassa & Hodginkson (2006) provided further evidence of the capital structure theories pertaining to a developing country and examined the impact of the lack of a secondary capital market by analyzing capital structure question with reference to the Libyan business environment. The results showed that both the static trade-off theory and the agency cost theory are pertinent theories to the Libyan companies' capital structure whereas there was little evidence to support the asymmetric information theory

Tong & Green (2005) studied the pecking order and trade-off hypotheses of corporate financing decisions using a cross-section of the largest Chinese listed companies. The study is built on Allen (1993), Baskin (1989) and Adedeji (1998) to set up three models in which trade-off and pecking order theories give distinctively different predictions: (1) the determinants of leverage; (2) the relationship between leverage and dividends; and (3) the determinants of corporate investment. In model 1, a significant negative correlation is found between leverage and profitability; in model 2 a significant positive correlation between current leverage and past dividends is found. These results broadly support the pecking order hypothesis over trade-off theory. However, model 3 is inconclusive. Overall, the results provide tentative support for the pecking order hypothesis and demonstrate that a conventional model of corporate capital structure can explain the financing behaviour of Chinese companies.

Deesomsak (2004) contributes to the capital structure literature by investigating the determinants of capital structure of firms operating in the Asia Pacific region, in four countries with different legal, financial and institutional environments, namely Thailand, Malaysia, Singapore and Australia. The results suggest that the capital structure decision of firms is influenced by the environment in which they operate, as well as firm-specific factors identified in the extant literature. The financial crisis of 1997 is also found to have had a significant but diverse impact on firm's capital structure decision across the region.

Chen (2004) develops a preliminary study to explore the determinants of capital structure of Chinese-listed companies using firm-level panel data. The findings reflect the transitional nature of the Chinese corporate environment. They suggest that some of the

insights from modern finance theory of capital structure are portable to China in that certain firm-specific factors that are relevant for explaining capital structure in developed economies are also relevant in China. However, neither the trade-off model nor the Pecking order hypothesis derived from the Western settings provides convincing explanations for the capital choices of the Chinese firms. The capital choice decision of Chinese firms seems to follow a "new Pecking order"—retained profit, equity, and long-term debt. This is because the fundamental institutional assumptions underpinning the Western models are not valid in China. These significant institutional differences and financial constraints in the banking sector in China are the factors influencing firms' leverage decision and they are at least as important as the firm-specific factors. The study has laid some groundwork upon which a more detailed evaluation of Chinese firms' capital structure could be based.

Bhaduri (2002) studied the capital structure choice of Less Developed Countries (LDCs) through a case study of the Indian Corporate sector. The objective is to develop a model that accounts for the possibility of restructuring costs in attaining an optimal capital structure and addresses the measurement problem that arises due to the unobservable nature of the attributes influencing the optimal capital structure. The evidence presented here suggests that the optimal capital structure choice can be influenced by factors such as growth, cash cow, size, and product and industry characteristics. The results also con®rm the existence of restructuring costs in attaining an optimal capital structure.

Miguel & Pindado (2001) analyzes the firm characteristics which are determinants of capital structure according to different explanatory theories, and how institutional characteristics affect capital structure. They have developed a target adjustment model, which has then been confirmed by our empirical evidence. It highlights the fact that the transaction costs borne by Spanish firms are inferior to those borne by US firms. Their results are consistent with tax and financial distress theories and with the interdependence between investment and financing decisions; they also provide additional evidence on the pecking order and free cash flow theories. Finally, the evidence obtained confirms the impact of some institutional characteristics on capital structure.

Pandey (2001) founded the capital structure of Malaysian companies utilizing data from 1984 to 1999. It classifies data into four sub-periods that correspond to different stages of Malaysian capital market. Debt is decomposed into three categories: short-term, long-term and total debt. Both book value and market value debt ratios are calculated. The results of pooled OLS regressions show that profitability, size, growth, risk and tangibility variables have significant influence on all types of debt. These results are normally consistent with the results of fixed effect estimation with the exception that risk variable loses its significance. Unlike the evidence from the developed markets, investment opportunity (market-to-book value ratio) has no significant impact on debt policy in the emerging market of Malaysia. The results are generally robust to time periods, but the significance of some variables changes over time. Profitability has a persistent and consistent negative relationship with all types of debt ratios in all periods and under all estimation methods. This confirms the capital structure prediction of the pecking order theory in an emerging capital market.

.**Fama & French (1999)** estimates the internal rates of return earned by nonfinancial firms on (i) the initial market values of their securities and (ii) the cost of their investments. The return on value is an estimate of the overall corporate cost of capital. The estimate of the real cost of capital for 1950–96 is 5.95 percent. The real return on cost is larger, 7.38 percent; so on average corporate investment seems to be profitable. A by-product of calculating these returns is information about the history of corporate earnings, investment, and financing decisions that is perhaps more interesting than the returns

Majumdar & Chhibber (1999) examined the relationship between the levels of debt in the capital structure and performance for a sample of Indian firms. Existing theory posits a positive relationship; however, analysis of the data reveals the relationship for Indian firms to be significantly negative. The structure of capital markets in India, where both short-term and long-term lending institutions are government-owned, is hypothesized to account for the finding of this relationship, and it asserted that corporate governance

mechanisms which work in the West will not work in the Indian context unless the supply of loan capital is privatized.

Harris & Raviv (1991) surveys capital structure theories based on agency costs, asymmetric information, product/input market interactions, and corporate control considerations(but excluding tax-based theories).For each type of model, a brief overview of the papers surveyed and their relation to each other is provided. The central papers are described in some detail, and their results are summarized and followed by a discussion of related extensions. Each section concludes with a summary of the main implications of the models surveyed in the section. Finally, these results are collected and compared to the available evidence. Suggestions for future research are provided.

There is no consistency in the combination of variables used by different researchers for explaining the determinants of capital structure. It is important to make an attempt to analyze important factors which could govern the determinants of capital structure**.** Also when studying the relationship between capital structure and cost of capital, the empirical studies attempted by various researchers have not given uniform conclusions.

3 RESEARCH DESIGN

3.1 Need for the Study

There is no consistency in the combination of variables used by different researchers for explaining the determinants of capital structure. It is important to make an attempt to analyze important factors which could govern the determinants of capital structure**.** Also when studying the relationship between capital structure and cost of capital, the empirical studies attempted by various researchers have not given uniform conclusions. However, these studies have thrown some light on the subject and built a good theoretical base. The present study is an attempt to examine the important factors that determine capital structure decisions in various sectors and whether these factors are different across different sectors or not.

3.2 Research objectives

1. To determine whether or not factors affecting capital structure decision significantly vary amongst the sample companies of different sector.
2. To identify most significant factors considered by sample companies for design of capital structure.

3.3 Hypotheses testing

Since the objective of the study is to examine the cause effect relationship among determinants, hypotheses can be formulated in following manner.

H_{10}: Factors affecting Debt-Equity Ratio do not vary among various sectors.

$H_{11:}$ Factors affecting Debt-Equity Ratio do vary among various sectors.

$H_{20:}$ Factors affecting Debt-Long term Funds do not vary among various sectors.

$H_{21:}$ Factors affecting Debt-Long term Funds vary among various sectors.

$H_{30:}$ Factors affecting Degree of Financial Leverage do not vary among various sectors.

$H_{31:}$ Factors affecting Degree of Financial Leverage vary among various sectors.

3.4 Research Methodology

3.4.1 Data set and sample

The research is based on secondary data only. In this research it is two stage processes. In the first stage five industries are considered ie IT, Cement, Automobile, Pharmacy, Oil, Power and energy and in the second stage companies from each industry would be selected from the firms listed in Nifty 50.So in total 35 companies have been used from 5 sectors. The data is collected from National stock Exchange directory, CMIE prowess.

3.4.2 Tools of Analysis

In this study statistical and econometric techniques would be used for analyzing the impact of explanatory variables on dependent variables.

3.4.2.1 Correlation

The preliminary analysis of the degree of linear association between variables has been done with the help of Karl Pearson's Correlation method. The significance of the correlation coefficient has been tested with the help of students t-test distribution at one, five and ten percent level of significance.

3.4.2.2 Backward Linear regression analysis

This model has been selected to identify the most significant variables out of various selected explanatory variables.

In the backward linear regression analysis, firstly all the selected explanatory variables have been regressed together. In the subsequent steps the explanatory variables were eliminated from the regression equation in order of their insignificance, i.e most insignificant variable has been eliminated from the regression equation first and so on. In the final equation only those explanatory variables were left which have a significant

influence on the dependent variable. Following is the general form of backward stepwise regression equation:

Step 1 $Y = bo + b1X1 + b2X2 + b3X3 + \ldots\ldots bnXn$

Step 2 ……..

Step 3 …….

Last step $Y = bo + b1Xs1 + b2Xs2 + b3Xs3$ and so on

Where,

Y = Dependent variable

b0=Regression constant

b1=(where 1 varies from 1,2,3….n) are the regression coefficients of explanatory variables, X1, X2, X3…. Xsn are significant variables turned out in the last equation.

The regression results have been interpreted with the help of t-test, R square and f-test.

3.5 Computation of Variables

I. Leverage Ratio

The relative amount of a company's capital that was obtained from various sources is a matter of great importance in analyzing the soundness of the company's financial position. Among the other variable in capital structure attention is often focused on the sources of permanent capital, that is long term liabilities and shareholders' liability. Following are the formulae of leverage ratios

LR1 = TD/Equity

Where

LR1 = Debt-Equity Ratio

TD=Total Long term debt

Equity=Equity share capital+ Reserves and surplus

LR2=TD/Capital Employed

Where

LR2=Debt to total long term funds

TD=Total Long term debt

Capital Employed=Total long term debt+ preference share capital+ Equity share capital + Reserves & Surplus.

II. Size

SA=Log (A)

Where

SA=Size measured in terms of fixed assets

A=Arithmetic mean of fixed assets for five years.

III. Profitability

PROF = EBIT/TA

Where

PROF = Profitability

EBIT = Earnings before interest and tax

TA = Total Assets.

IV. Growth

A company's long term financing policy is likely to be influenced by its growth rate. For example a rapidly growing company will typically need to access the financial markets more frequently than slow growing companies in order to finance its expansion plans .Therefore growth can be one of the significant determinant of capital structure. Two measures of growth have been used in the present study

GA= Growth measured in terms of assets

GS= Growth measured in terms of sales

V. Dividend Payout Ratio

Appropriation of profits between dividends and retained earnings is bound to affect capital structure because greater the retained earnings lesser would be dependence on external resources of funds and vice-versa. The dividend payout ratio can be measured as follows.

DPR= DPS/EPS

Where

DPR = Dividend Payout Ratio

DPS = Dividend per Share

EPS = Earnings per Share

VI. Interest Coverage

Coverage ratio is designed to relate the financial charges of a firm to its ability to service it. Higher the coverage ratio greater is the capacity to service debt. ,which consequently results into larger deployment of debt in the capital structure.

IC = EBIT/I

Where

IC = Interest coverage

EBIT = Earnings before interest and tax

I = interest

VII. Cash flow coverage

The analysis of the ability of the firm to meet its fixed payment obligations from its cash flow is perhaps a good way to view the firm's solvency as far as debt service is concerned. Cash flow coverage has been measured as follows

CFC = CFO/I

Where

CFO = Cash flow from operating activities

I = Interest

VIII. Tax Shield

The tax Shield model suggests that the major benefit of using debt financing is corporate tax deduction. The tax shield resulting from the deployment of debt has been measured as follows

TS = Log I (tr)

Where

I = Interest

tr=Rate of tax

4 THREE DETERMINANTS OF CAPITAL STRUCTURE (REGRESSION ANALYSIS)

4.1 Determinants of Debt-equity Ratio

4.1.1 Automobile Sector

4.1.1.1 Correlation Matrix and Results

Correlations

		LR1	IC	DPR	TS	PROF	CFC	GS	GA	SA	PE
LR1	Pearson Correlation	1	-.396	.312	.233	-.460'	-.456'	-.275	.175	.361	.092
	Sig. (2-tailed)		.050	.128	.262	.021	.022	.184	.404	.076	.663
	N	25	25	25	25	25	25	25	25	25	25
IC	Pearson Correlation	-.396	1	.181	.061	.746''	.929''	.362	-.079	-.418'	-.093
	Sig. (2-tailed)	.050		.387	.771	.000	.000	.076	.709	.037	.659
	N	25	25	25	25	25	25	25	25	25	25
DPR	Pearson Correlation	.312	.181	1	.232	.187	.287	.001	-.095	.083	.487'
	Sig. (2-tailed)	.128	.387		.264	.370	.164	.998	.652	.693	.013
	N	25	25	25	25	25	25	25	25	25	25
TS	Pearson Correlation	.233	.061	.232	1	.261	.030	-.262	.023	-.057	.059
	Sig. (2-tailed)	.262	.771	.264		.208	.888	.206	.915	.787	.780
	N	25	25	25	25	25	25	25	25	25	25
PROF	Pearson Correlation	-.460'	.746''	.187	.261	1	.751''	.225	-.131	-.720''	-.250
	Sig. (2-tailed)	.021	.000	.370	.208		.000	.281	.533	.000	.228
	N	25	25	25	25	25	25	25	25	25	25
CFC	Pearson Correlation	-.456'	.929''	.287	.030	.751''	1	.286	.058	-.483'	-.105
	Sig. (2-tailed)	.022	.000	.164	.888	.000		.166	.783	.014	.617
	N	25	25	25	25	25	25	25	25	25	25
GS	Pearson Correlation	-.275	.362	.001	-.262	.225	.286	1	-.181	.019	.076
	Sig. (2-tailed)	.184	.076	.998	.206	.281	.166		.387	.927	.719
	N	25	25	25	25	25	25	25	25	25	25
GA	Pearson Correlation	.175	-.079	-.095	.023	-.131	.058	-.181	1	-.184	-.473'
	Sig. (2-tailed)	.404	.709	.652	.915	.533	.783	.387		.378	.017
	N	25	25	25	25	25	25	25	25	25	25
SA	Pearson Correlation	.361	-.418'	.083	-.057	-.720''	-.483'	.019	-.184	1	.570''
	Sig. (2-tailed)	.076	.037	.693	.787	.000	.014	.927	.378		.003
	N	25	25	25	25	25	25	25	25	25	25
PE	Pearson Correlation	.092	-.093	.487'	.059	-.250	-.105	.076	-.473'	.570''	1
	Sig. (2-tailed)	.663	.659	.013	.780	.228	.617	.719	.017	.003	
	N	25	25	25	25	25	25	25	25	25	25

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The zero order correlation matrix shows that growth in terms of assets(.175) ,size in terms of assets(.229) , PE ratio(.092), Tax shield(.233) and dividend payout ratio(.312) has positive correlation with the dependent variable LR1. Variables like growth in terms of sales (-.275), Interest coverage (-.396), Profitability (-.460) and Cash flow coverage(-.456) are having negative correlation. Significant correlation is found between profitability, Profitability and Cash flow coverage.

4.1.1.2 Regression Analysis and Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.829[a]	.688	.500	.70676086	.688	3.672	9	15	.013
2	.829[b]	.688	.532	.68439862	.000	.004	1	15	.953
3	.827[c]	.685	.555	.66734477	-.003	.163	1	16	.691
4	.823[d]	.677	.569	.65627221	-.008	.408	1	17	.532
5	.797[e]	.636	.540	.67850199	-.041	2.309	1	18	.146

a. Predictors: (Constant), PE, TS, CFC, GS, GA, DPR, SA, PROF, IC

b. Predictors: (Constant), PE, TS, CFC, GS, GA, DPR, PROF, IC

c. Predictors: (Constant), PE, TS, CFC, GA, DPR, PROF, IC

d. Predictors: (Constant), PE, TS, CFC, DPR, PROF, IC

e. Predictors: (Constant), PE, CFC, DPR, PROF, IC

ANOVA[f]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.507	9	1.834	3.672	.013[a]
	Residual	7.493	15	.500		
	Total	24.000	24			
2	Regression	16.506	8	2.063	4.405	.006[b]
	Residual	7.494	16	.468		
	Total	24.000	24			
3	Regression	16.429	7	2.347	5.270	.002[c]
	Residual	7.571	17	.445		
	Total	24.000	24			
4	Regression	16.248	6	2.708	6.287	.001[d]
	Residual	7.752	18	.431		
	Total	24.000	24			
5	Regression	15.253	5	3.051	6.627	.001[e]
	Residual	8.747	19	.460		
	Total	24.000	24			

a. Predictors: (Constant), PE, TS, CFC, GS, GA, DPR, SA, PROF, IC

b. Predictors: (Constant), PE, TS, CFC, GS, GA, DPR, PROF, IC

c. Predictors: (Constant), PE, TS, CFC, GA, DPR, PROF, IC

d. Predictors: (Constant), PE, TS, CFC, DPR, PROF, IC

e. Predictors: (Constant), PE, CFC, DPR, PROF, IC

f. Dependent Variable: LR1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.248E-18	.141		.000	1.000	-.301	.301
	IC	.991	.468	.991	2.117	.051	-.007	1.988
	DPR	.743	.199	.743	3.743	.002	.320	1.166
	TS	.179	.185	.179	.966	.349	-.216	.574
	PROF	-.540	.389	-.540	-1.386	.186	-1.370	.290
	CFC	-1.226	.508	-1.226	-2.414	.029	-2.309	-.144
	GS	-.063	.174	-.063	-.364	.721	-.434	.307
	GA	.125	.211	.125	.594	.561	-.324	.574
	SA	-.017	.285	-.017	-.059	.953	-.623	.590
	PE	-.380	.245	-.380	-1.552	.141	-.901	.142
2	(Constant)	3.988E-17	.137		.000	1.000	-.290	.290
	IC	.986	.446	.986	2.210	.042	.040	1.932
	DPR	.742	.192	.742	3.871	.001	.336	1.148
	TS	.176	.173	.176	1.020	.323	-.190	.542
	PROF	-.525	.284	-.525	-1.847	.083	-1.127	.078
	CFC	-1.225	.491	-1.225	-2.494	.024	-2.266	-.184
	GS	-.066	.163	-.066	-.404	.691	-.411	.280
	GA	.127	.201	.127	.633	.536	-.299	.554
	PE	-.384	.226	-.384	-1.697	.109	-.864	.096
3	(Constant)	4.472E-17	.133		.000	1.000	-.282	.282
	IC	.940	.420	.940	2.235	.039	.053	1.826
	DPR	.745	.187	.745	3.986	.001	.350	1.139
	TS	.199	.159	.199	1.255	.226	-.136	.534
	PROF	-.540	.275	-.540	-1.964	.066	-1.119	.040
	CFC	-1.192	.472	-1.192	-2.523	.022	-2.188	-.195
	GA	.125	.196	.125	.638	.532	-.289	.539
	PE	-.397	.218	-.397	-1.819	.087	-.858	.064
4	(Constant)	-6.003E-18	.131		.000	1.000	-.276	.276
	IC	.855	.392	.855	2.179	.043	.031	1.679
	DPR	.759	.182	.759	4.159	.001	.375	1.142
	TS	.228	.150	.228	1.520	.146	-.087	.542
	PROF	-.628	.234	-.628	-2.686	.015	-1.119	-.137
	CFC	-1.053	.413	-1.053	-2.553	.020	-1.920	-.187
	PE	-.480	.173	-.480	-2.783	.012	-.843	-.118
5	(Constant)	-5.736E-18	.136		.000	1.000	-.284	.284
	IC	.906	.404	.906	2.242	.037	.060	1.751
	DPR	.821	.184	.821	4.470	.000	.437	1.206
	PROF	-.504	.226	-.504	-2.225	.038	-.978	-.030
	CFC	-1.205	.414	-1.205	-2.910	.009	-2.071	-.338
	PE	-.478	.178	-.478	-2.677	.015	-.851	-.104

a. Dependent Variable: LR1

The regression analysis shows that the coefficient of determination i.e R^2 , explained 68.8% variation in LR1 when all the variables are taken together. After removing all insignificant variables coefficient of determination comes out to be 63.6% over the total variation. The t test shows that the Significant variables found in the equation are Interest coverage, Dividend payout ratio, Profitability, Cash flow coverage, PE ratio that are significant up to 5% level.

LR1= (-5.736E-18)+ .906 (IC) + .821 (DPR) -.504 (PROF) -1.205 (CFC) -.478 (PE)

4.1.2 Construction Sector

4.1.2.1 Correlation Matrix and Results

Correlations

		LR1	IC	DPR	TS	PROF	CFC	GS	GA	SA	PE
LR1	Pearson Correlation	1	-.574**	-.219	-.023	-.491**	-.516**	.147	.166	-.453**	.255
	Sig. (2-tailed)		.000	.174	.888	.001	.001	.364	.307	.003	.112
	N	40	40	40	40	40	40	40	40	40	40
IC	Pearson Correlation	-.574**	1	.209	-.014	.663**	.943**	-.179	-.182	.280	-.346*
	Sig. (2-tailed)	.000		.195	.933	.000	.000	.269	.261	.080	.029
	N	40	40	40	40	40	40	40	40	40	40
DPR	Pearson Correlation	-.219	.209	1	-.213	.071	.237	.045	.017	-.148	.200
	Sig. (2-tailed)	.174	.195		.188	.663	.141	.784	.915	.362	.215
	N	40	40	40	40	40	40	40	40	40	40
TS	Pearson Correlation	-.023	-.014	-.213	1	.007	-.045	-.062	.108	.428**	-.225
	Sig. (2-tailed)	.888	.933	.188		.965	.785	.702	.508	.006	.164
	N	40	40	40	40	40	40	40	40	40	40
PROF	Pearson Correlation	-.491**	.663**	.071	.007	1	.546**	-.019	-.211	.137	-.380*
	Sig. (2-tailed)	.001	.000	.663	.965		.000	.906	.191	.398	.016
	N	40	40	40	40	40	40	40	40	40	40
CFC	Pearson Correlation	-.516**	.943**	.237	-.045	.546**	1	-.220	-.188	.294	-.361*
	Sig. (2-tailed)	.001	.000	.141	.785	.000		.172	.246	.065	.022
	N	40	40	40	40	40	40	40	40	40	40
GS	Pearson Correlation	.147	-.179	.045	-.062	-.019	-.220	1	.659**	-.453**	.251
	Sig. (2-tailed)	.364	.269	.784	.702	.906	.172		.000	.003	.119
	N	40	40	40	40	40	40	40	40	40	40
GA	Pearson Correlation	.166	-.182	.017	.108	-.211	-.188	.659**	1	-.247	.202
	Sig. (2-tailed)	.307	.261	.915	.508	.191	.246	.000		.124	.212
	N	40	40	40	40	40	40	40	40	40	40
SA	Pearson Correlation	-.453**	.280	-.148	.428**	.137	.294	-.453**	-.247	1	-.539**
	Sig. (2-tailed)	.003	.080	.362	.006	.398	.065	.003	.124		.000
	N	40	40	40	40	40	40	40	40	40	40
PE	Pearson Correlation	.255	-.346*	.200	-.225	-.380*	-.361*	.251	.202	-.539**	1
	Sig. (2-tailed)	.112	.029	.215	.164	.016	.022	.119	.212	.000	
	N	40	40	40	40	40	40	40	40	40	40

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The zero order correlation matrix shows that growth in terms of assets (.166), growth in terms of sale (.147), PE ratio (.255) has positive correlation with the dependent variable LR1. Variables like Interest coverage (-.574), Profitability (-.491) and Cash flow coverage (-.516), Dividend payout ratio (-.219), Tax shield (-.023), Sales in terms of asset (-.453) are having negative correlation. Significant correlation is found between Interest coverage, Profitability, Cash flow coverage and sales in terms of assets.

4.1.2.2 Regression Analysis and Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.724[a]	.524	.382	.78633881	.524	3.675	9	30	.003
2	.724[b]	.524	.402	.77359153	.000	.003	1	30	.956
3	.722[c]	.521	.416	.76422084	-.004	.229	1	31	.635
4	.716[d]	.513	.425	.75845386	-.008	.504	1	32	.483
5	.708[e]	.502	.429	.75590689	-.011	.772	1	33	.386
6	.698[f]	.487	.429	.75579927	-.015	.990	1	34	.327
7	.675[g]	.455	.410	.76812386	-.032	2.184	1	35	.148

a. Predictors: (Constant), PE, DPR, GA, TS, PROF, CFC, SA, GS, IC

b. Predictors: (Constant), PE, DPR, TS, PROF, CFC, SA, GS, IC

c. Predictors: (Constant), PE, DPR, TS, PROF, SA, GS, IC

d. Predictors: (Constant), PE, DPR, TS, PROF, SA, IC

e. Predictors: (Constant), PE, DPR, PROF, SA, IC

f. Predictors: (Constant), DPR, PROF, SA, IC

g. Predictors: (Constant), DPR, PROF, SA

ANOVA[h]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20.450	9	2.272	3.675	.003[a]
	Residual	18.550	30	.618		
	Total	39.000	39			
2	Regression	20.448	8	2.556	4.271	.002[b]
	Residual	18.552	31	.598		
	Total	39.000	39			
3	Regression	20.311	7	2.902	4.968	.001[c]
	Residual	18.689	32	.584		
	Total	39.000	39			
4	Regression	20.017	6	3.336	5.799	.000[d]
	Residual	18.983	33	.575		
	Total	39.000	39			
5	Regression	19.573	5	3.915	6.851	.000[e]
	Residual	19.427	34	.571		
	Total	39.000	39			
6	Regression	19.007	4	4.752	8.318	.000[f]
	Residual	19.993	35	.571		
	Total	39.000	39			
7	Regression	17.759	3	5.920	10.033	.000[g]
	Residual	21.241	36	.590		
	Total	39.000	39			

a. Predictors: (Constant), PE, DPR, GA, TS, PROF, CFC, SA, GS, IC

b. Predictors: (Constant), PE, DPR, TS, PROF, CFC, SA, GS, IC

c. Predictors: (Constant), PE, DPR, TS, PROF, SA, GS, IC

d. Predictors: (Constant), PE, DPR, TS, PROF, SA, IC

e. Predictors: (Constant), PE, DPR, PROF, SA, IC

f. Predictors: (Constant), DPR, PROF, SA, IC

g. Predictors: (Constant), DPR, PROF, SA

h. Dependent Variable: LR1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.383E-15	.124		.000	1.000	-.254	.254
	IC	-.458	.454	-.458	-1.009	.321	-1.385	.469
	DPR	-.170	.138	-.170	-1.232	.227	-.453	.112
	TS	.142	.148	.142	.963	.343	-.160	.444
	PROF	-.261	.195	-.261	-1.336	.192	-.659	.138
	CFC	.196	.416	.196	.471	.641	-.653	1.045
	GS	-.101	.190	-.101	-.532	.599	-.488	.287
	GA	.010	.179	.010	.055	.956	-.356	.376
	SA	-.551	.181	-.551	-3.039	.005	-.921	-.181
	PE	-.139	.168	-.139	-.827	.415	-.482	.204
2	(Constant)	1.380E-15	.122		.000	1.000	-.249	.249
	IC	-.457	.446	-.457	-1.024	.314	-1.366	.453
	DPR	-.170	.136	-.170	-1.252	.220	-.447	.107
	TS	.144	.143	.144	1.008	.321	-.147	.435
	PROF	-.263	.185	-.263	-1.422	.165	-.641	.114
	CFC	.196	.409	.196	.479	.635	-.638	1.030
	GS	-.094	.142	-.094	-.662	.513	-.384	.196
	SA	-.551	.178	-.551	-3.089	.004	-.914	-.187
	PE	-.139	.165	-.139	-.841	.407	-.476	.198
3	(Constant)	1.408E-15	.121		.000	1.000	-.246	.246
	IC	-.261	.178	-.261	-1.468	.152	-.624	.101
	DPR	-.161	.133	-.161	-1.209	.235	-.431	.110
	TS	.136	.140	.136	.970	.340	-.149	.421
	PROF	-.293	.172	-.293	-1.701	.099	-.644	.058
	GS	-.099	.140	-.099	-.710	.483	-.385	.186
	SA	-.550	.176	-.550	-3.125	.004	-.909	-.192
	PE	-.155	.159	-.155	-.975	.337	-.480	.169
4	(Constant)	1.307E-15	.120		.000	1.000	-.244	.244
	IC	-.248	.176	-.248	-1.414	.167	-.606	.109
	DPR	-.162	.132	-.162	-1.231	.227	-.430	.106
	TS	.121	.137	.121	.879	.386	-.159	.400
	PROF	-.307	.170	-.307	-1.808	.080	-.653	.039
	SA	-.502	.161	-.502	-3.112	.004	-.831	-.174
	PE	-.158	.158	-.158	-1.002	.324	-.480	.163
5	(Constant)	1.218E-15	.120		.000	1.000	-.243	.243
	IC	-.266	.174	-.266	-1.531	.135	-.620	.087
	DPR	-.177	.130	-.177	-1.358	.183	-.442	.088
	PROF	-.300	.169	-.300	-1.775	.085	-.644	.043
	SA	-.448	.149	-.448	-3.015	.005	-.750	-.146
	PE	-.157	.158	-.157	-.995	.327	-.477	.164
6	(Constant)	1.093E-15	.120		.000	1.000	-.243	.243
	IC	-.257	.174	-.257	-1.478	.148	-.609	.096
	DPR	-.203	.128	-.203	-1.590	.121	-.462	.056
	PROF	-.255	.163	-.255	-1.566	.126	-.586	.076
	SA	-.376	.130	-.376	-2.897	.006	-.639	-.113
7	(Constant)	1.126E-15	.121		.000	1.000	-.246	.246
	DPR	-.254	.125	-.254	-2.033	.049	-.507	.000
	PROF	-.414	.125	-.414	-3.318	.002	-.667	-.161
	SA	-.434	.126	-.434	-3.448	.001	-.689	-.179

a. Dependent Variable: LR1

The regression analysis shows that the coefficient of determination i.e R^2 , explained 52.4% variation in LR1 when all the variables are taken together. After removing all insignificant variables coefficient of determination comes out to be 45.5% over the total variation. The t test shows that Dividend payout ratio, Profitability and Size in terms of assets are significant upto 5% level.

LR1= 1.126E-15 -.254 (DPR) -.414 (PROF) -.434 (SA)

4.1.3 IT Sector

4.1.3.1 Correlation Matrix and Results

Correlations

		LR1	IC	DPR	TS	PROF	CFC	GS	GA	SA	PE
LR1	Pearson Correlation	1	-.304	-.211	.198	-.383	-.275	-.023	.127	.152	.150
	Sig. (2-tailed)		.140	.311	.343	.059	.183	.915	.545	.468	.474
	N	25	25	25	25	25	25	25	25	25	25
IC	Pearson Correlation	-.304	1	.256	.024	.364	.456*	.091	.082	.146	.045
	Sig. (2-tailed)	.140		.217	.909	.074	.022	.666	.697	.486	.832
	N	25	25	25	25	25	25	25	25	25	25
DPR	Pearson Correlation	-.211	.256	1	-.484*	.368	.182	.282	.031	.042	.430*
	Sig. (2-tailed)	.311	.217		.014	.071	.385	.172	.884	.843	.032
	N	25	25	25	25	25	25	25	25	25	25
TS	Pearson Correlation	.198	.024	-.484*	1	-.730**	-.120	-.267	-.270	-.348	-.393
	Sig. (2-tailed)	.343	.909	.014		.000	.567	.197	.192	.088	.052
	N	25	25	25	25	25	25	25	25	25	25
PROF	Pearson Correlation	-.383	.364	.368	-.730**	1	.444*	.435*	.322	.578**	.366
	Sig. (2-tailed)	.059	.074	.071	.000		.026	.030	.117	.002	.072
	N	25	25	25	25	25	25	25	25	25	25
CFC	Pearson Correlation	-.275	.456*	.182	-.120	.444*	1	.065	.273	.047	.044
	Sig. (2-tailed)	.183	.022	.385	.567	.026		.758	.187	.824	.834
	N	25	25	25	25	25	25	25	25	25	25
GS	Pearson Correlation	-.023	.091	.282	-.267	.435*	.065	1	.170	.257	.227
	Sig. (2-tailed)	.915	.666	.172	.197	.030	.758		.418	.215	.276
	N	25	25	25	25	25	25	25	25	25	25
GA	Pearson Correlation	.127	.082	.031	-.270	.322	.273	.170	1	-.120	-.044
	Sig. (2-tailed)	.545	.697	.884	.192	.117	.187	.418		.569	.833
	N	25	25	25	25	25	25	25	25	25	25
SA	Pearson Correlation	.152	.146	.042	-.348	.578**	.047	.257	-.120	1	.474*
	Sig. (2-tailed)	.468	.486	.843	.088	.002	.824	.215	.569		.017
	N	25	25	25	25	25	25	25	25	25	25
PE	Pearson Correlation	.150	.045	.430*	-.393	.366	.044	.227	-.044	.474*	1
	Sig. (2-tailed)	.474	.832	.032	.052	.072	.834	.276	.833	.017	
	N	25	25	25	25	25	25	25	25	25	25

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The zero order correlation matrix shows that growth in terms of assets (.127), size in terms of assets (.152), PE ratio (.150) and Tax shield (.98) has positive correlation with the dependent variable LR1. Variables like Interest coverage (-.304), Dividend payout ratio (-.211), Profitability (-.383), Cash flow coverage (-.275) and Growth in terms of sales (-0.023) are having negative correlation. No variable is found to be significant here.

4.1.3.2 Regression Analysis and Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.821[a]	.674	.479	.72198329	.674	3.449	9	15	.017
2	.821[b]	.674	.511	.69914632	.000	.004	1	15	.952
3	.821[c]	.674	.539	.67872960	.000	.022	1	16	.885
4	.816[d]	.665	.554	.66809167	-.008	.440	1	17	.516
5	.805[e]	.648	.555	.66707349	-.018	.942	1	18	.345
6	.790[f]	.625	.549	.67120856	-.023	1.249	1	19	.278
7	.769[g]	.592	.534	.68293578	-.033	1.740	1	20	.202

a. Predictors: (Constant), PE, CFC, GS, GA, IC, TS, SA, DPR, PROF

b. Predictors: (Constant), PE, CFC, GS, GA, IC, TS, SA, PROF

c. Predictors: (Constant), PE, CFC, GS, GA, TS, SA, PROF

d. Predictors: (Constant), PE, GS, GA, TS, SA, PROF

e. Predictors: (Constant), GS, GA, TS, SA, PROF

f. Predictors: (Constant), GA, TS, SA, PROF

g. Predictors: (Constant), GA, SA, PROF

ANOVA[h]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.181	9	1.798	3.449	.017[a]
	Residual	7.819	15	.521		
	Total	24.000	24			
2	Regression	16.179	8	2.022	4.137	.008[b]
	Residual	7.821	16	.489		
	Total	24.000	24			
3	Regression	16.169	7	2.310	5.014	.003[c]
	Residual	7.831	17	.461		
	Total	24.000	24			
4	Regression	15.966	6	2.661	5.962	.001[d]
	Residual	8.034	18	.446		
	Total	24.000	24			
5	Regression	15.545	5	3.109	6.987	.001[e]
	Residual	8.455	19	.445		
	Total	24.000	24			
6	Regression	14.990	4	3.747	8.318	.000[f]
	Residual	9.010	20	.451		
	Total	24.000	24			
7	Regression	14.206	3	4.735	10.153	.000[g]
	Residual	9.794	21	.466		
	Total	24.000	24			

a. Predictors: (Constant), PE, CFC, GS, GA, IC, TS, SA, DPR, PROF

b. Predictors: (Constant), PE, CFC, GS, GA, IC, TS, SA, PROF

c. Predictors: (Constant), PE, CFC, GS, GA, TS, SA, PROF

d. Predictors: (Constant), PE, GS, GA, TS, SA, PROF

e. Predictors: (Constant), GS, GA, TS, SA, PROF

f. Predictors: (Constant), GA, TS, SA, PROF

g. Predictors: (Constant), GA, SA, PROF

h. Dependent Variable: LR1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-6.873E-16	.144		.000	1.000	-.308	.308
	IC	-.022	.198	-.022	-.112	.912	-.444	.400
	DPR	-.013	.211	-.013	-.062	.952	-.462	.436
	TS	-.287	.297	-.287	-.965	.350	-.921	.347
	PROF	-1.418	.387	-1.418	-3.666	.002	-2.242	-.594
	CFC	.125	.195	.125	.642	.531	-.291	.542
	GS	.177	.176	.177	1.007	.330	-.198	.552
	GA	.548	.175	.548	3.125	.007	.174	.922
	SA	.817	.238	.817	3.433	.004	.310	1.324
	PE	.154	.193	.154	.799	.437	-.257	.565
2	(Constant)	-6.925E-16	.140		.000	1.000	-.296	.296
	IC	-.026	.180	-.026	-.147	.885	-.408	.355
	TS	-.280	.263	-.280	-1.062	.304	-.837	.278
	PROF	-1.416	.373	-1.416	-3.793	.002	-2.207	-.625
	CFC	.125	.189	.125	.660	.519	-.276	.525
	GS	.174	.165	.174	1.057	.306	-.176	.525
	GA	.551	.166	.551	3.324	.004	.199	.902
	SA	.822	.218	.822	3.773	.002	.360	1.283
	PE	.149	.172	.149	.871	.397	-.214	.513
3	(Constant)	-6.995E-16	.136		.000	1.000	-.286	.286
	TS	-.295	.235	-.295	-1.257	.226	-.790	.200
	PROF	-1.438	.331	-1.438	-4.348	.000	-2.136	-.740
	CFC	.120	.180	.120	.663	.516	-.261	.500
	GS	.177	.160	.177	1.109	.283	-.160	.513
	GA	.553	.160	.553	3.453	.003	.215	.891
	SA	.826	.210	.826	3.941	.001	.384	1.268
	PE	.148	.166	.148	.891	.385	-.203	.499
4	(Constant)	-6.670E-16	.134		.000	1.000	-.281	.281
	TS	-.230	.210	-.230	-1.096	.288	-.671	.211
	PROF	-1.307	.261	-1.307	-5.009	.000	-1.855	-.759
	GS	.153	.153	.153	1.001	.330	-.168	.475
	GA	.560	.157	.560	3.560	.002	.230	.890
	SA	.780	.195	.780	4.004	.001	.371	1.190
	PE	.158	.163	.158	.971	.345	-.184	.501
5	(Constant)	-7.183E-16	.133		.000	1.000	-.279	.279
	TS	-.285	.202	-.285	-1.414	.173	-.707	.137
	PROF	-1.330	.259	-1.330	-5.129	.000	-1.873	-.788
	GS	.170	.152	.170	1.117	.278	-.148	.488
	GA	.550	.157	.550	3.512	.002	.222	.879
	SA	.844	.183	.844	4.611	.000	.461	1.228
6	(Constant)	-7.342E-16	.134		.000	1.000	-.280	.280
	TS	-.267	.202	-.267	-1.319	.202	-.688	.155
	PROF	-1.247	.250	-1.247	-4.989	.000	-1.768	-.726
	GA	.558	.158	.558	3.539	.002	.229	.886
	SA	.847	.184	.847	4.597	.000	.463	1.231
7	(Constant)	-6.975E-16	.137		.000	1.000	-.284	.284
	PROF	-1.036	.195	-1.036	-5.307	.000	-1.441	-.630
	GA	.558	.160	.558	3.481	.002	.225	.892
	SA	.818	.186	.818	4.394	.000	.431	1.205

a. Dependent Variable: LR1

The regression analysis shows that the coefficient of determination i.e R^2 , explained 67.4% variation in LR1 when all the variables are taken together. After removing all insignificant variables coefficient of determination comes out to be 59.2% over the total variation. The t test shows that the Significant variables found in the equation are Profitability, Growth in terms of asset, Size in terms of assets significant upto 5%.

LR1=-6.975E-16 -1.036 (PROF) +.558 (GA) +.818 (SA)

4.1.4 Oil, Power and Energy

4.1.4.1 Correlation Matrix and Results

Correlations

		LR1	IC	DPR	TS	PROF	CFC	GS	GA	SA	PE
LR1	Pearson Correlation	1	-.316*	.046	.280*	-.512**	-.154	.086	-.100	.383**	.118
	Sig. (2-tailed)		.014	.724	.030	.000	.241	.513	.449	.002	.371
	N	60	60	60	60	60	60	60	60	60	60
IC	Pearson Correlation	-.316*	1	.203	.127	.314*	.042	-.048	-.026	-.051	-.110
	Sig. (2-tailed)	.014		.120	.333	.014	.750	.716	.842	.696	.403
	N	60	60	60	60	60	60	60	60	60	60
DPR	Pearson Correlation	.046	.203	1	.386**	-.128	-.123	-.270*	-.370**	.254	.085
	Sig. (2-tailed)	.724	.120		.002	.330	.349	.037	.004	.050	.518
	N	60	60	60	60	60	60	60	60	60	60
TS	Pearson Correlation	.280*	.127	.386**	1	-.309*	-.404**	-.210	-.411**	.221	-.088
	Sig. (2-tailed)	.030	.333	.002		.016	.001	.107	.001	.090	.502
	N	60	60	60	60	60	60	60	60	60	60
PROF	Pearson Correlation	-.512**	.314*	-.128	-.309*	1	.589**	.416**	.530**	-.611**	-.335**
	Sig. (2-tailed)	.000	.014	.330	.016		.000	.001	.000	.000	.009
	N	60	60	60	60	60	60	60	60	60	60
CFC	Pearson Correlation	-.154	.042	-.123	-.404**	.589**	1	.452**	.779**	-.331**	-.157
	Sig. (2-tailed)	.241	.750	.349	.001	.000		.000	.000	.010	.232
	N	60	60	60	60	60	60	60	60	60	60
GS	Pearson Correlation	.086	-.048	-.270*	-.210	.416**	.452**	1	.359**	-.225	-.082
	Sig. (2-tailed)	.513	.716	.037	.107	.001	.000		.005	.084	.536
	N	60	60	60	60	60	60	60	60	60	60
GA	Pearson Correlation	-.100	-.026	-.370**	-.411**	.530**	.779**	.359**	1	-.421**	-.069
	Sig. (2-tailed)	.449	.842	.004	.001	.000	.000	.005		.001	.600
	N	60	60	60	60	60	60	60	60	60	60
SA	Pearson Correlation	.383**	-.051	.254	.221	-.611**	-.331**	-.225	-.421**	1	.037
	Sig. (2-tailed)	.002	.696	.050	.090	.000	.010	.084	.001		.779
	N	60	60	60	60	60	60	60	60	60	60
PE	Pearson Correlation	.118	-.110	.085	-.088	-.335**	-.157	-.082	-.069	.037	1
	Sig. (2-tailed)	.371	.403	.518	.502	.009	.232	.536	.600	.779	
	N	60	60	60	60	60	60	60	60	60	60

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The zero order correlation matrix shows that growth in terms of sale (.086), PE ratio (.118), Tax shield (.280), Dividend payout ratio (.046) has positive correlation with the dependent variable LR1. Variables like Interest coverage (-.316), Profitability (-.512) and Cash flow coverage (-.154), Growth in terms of assets (-1.0) are having negative correlation. Significant correlation is found between Interest coverage, Profitability, Tax shield, sales in terms of assets.

4.1.4.2 Regression Analysis and Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.684[a]	.467	.371	.79292273	.467	4.871	9	50	.000
2	.683[b]	.467	.383	.78556108	.000	.057	1	50	.812
3	.682[c]	.465	.393	.77900138	-.001	.135	1	51	.715
4	.680[d]	.463	.402	.77332730	-.002	.231	1	52	.633
5	.670[e]	.448	.397	.77642123	-.015	1.433	1	53	.237
6	.661[f]	.436	.395	.77758692	-.012	1.165	1	54	.285

a. Predictors: (Constant), PE, SA, IC, GS, TS, DPR, GA, PROF, CFC

b. Predictors: (Constant), PE, SA, IC, GS, TS, DPR, GA, PROF

c. Predictors: (Constant), SA, IC, GS, TS, DPR, GA, PROF

d. Predictors: (Constant), SA, IC, GS, TS, GA, PROF

e. Predictors: (Constant), IC, GS, TS, GA, PROF

f. Predictors: (Constant), GS, TS, GA, PROF

ANOVA[g]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	27.564	9	3.063	4.871	.000[a]
	Residual	31.436	50	.629		
	Total	59.000	59			
2	Regression	27.528	8	3.441	5.576	.000[b]
	Residual	31.472	51	.617		
	Total	59.000	59			
3	Regression	27.444	7	3.921	6.461	.000[c]
	Residual	31.556	52	.607		
	Total	59.000	59			
4	Regression	27.304	6	4.551	7.609	.000[d]
	Residual	31.696	53	.598		
	Total	59.000	59			
5	Regression	26.447	5	5.289	8.774	.000[e]
	Residual	32.553	54	.603		
	Total	59.000	59			
6	Regression	25.745	4	6.436	10.645	.000[f]
	Residual	33.255	55	.605		
	Total	59.000	59			

a. Predictors: (Constant), PE, SA, IC, GS, TS, DPR, GA, PROF, CFC

b. Predictors: (Constant), PE, SA, IC, GS, TS, DPR, GA, PROF

c. Predictors: (Constant), SA, IC, GS, TS, DPR, GA, PROF

d. Predictors: (Constant), SA, IC, GS, TS, GA, PROF

e. Predictors: (Constant), IC, GS, TS, GA, PROF

f. Predictors: (Constant), GS, TS, GA, PROF

g. Dependent Variable: LR1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-3.493E-16	.102		.000	1.000	-.206	.206
	IC	-.148	.119	-.148	-1.245	.219	-.386	.091
	DPR	.080	.135	.080	.592	.557	-.191	.350
	TS	.227	.129	.227	1.763	.084	-.032	.486
	PROF	-.590	.193	-.590	-3.066	.003	-.977	-.204
	CFC	-.047	.198	-.047	-.240	.812	-.445	.350
	GS	.333	.126	.333	2.637	.011	.079	.587
	GA	.302	.192	.302	1.575	.121	-.083	.687
	SA	.133	.143	.133	.928	.358	-.154	.420
	PE	-.047	.120	-.047	-.394	.695	-.289	.194
2	(Constant)	-3.578E-16	.101		.000	1.000	-.204	.204
	IC	-.147	.117	-.147	-1.250	.217	-.383	.089
	DPR	.068	.124	.068	.547	.587	-.181	.316
	TS	.234	.124	.234	1.891	.064	-.015	.483
	PROF	-.597	.188	-.597	-3.170	.003	-.976	-.219
	GS	.324	.120	.324	2.710	.009	.084	.564
	GA	.270	.135	.270	2.003	.050	.000	.540
	SA	.130	.141	.130	.919	.362	-.154	.413
	PE	-.043	.118	-.043	-.368	.715	-.280	.193
3	(Constant)	-3.809E-16	.101		.000	1.000	-.202	.202
	IC	-.151	.116	-.151	-1.304	.198	-.384	.081
	DPR	.057	.120	.057	.480	.633	-.183	.298
	TS	.246	.119	.246	2.074	.043	.008	.485
	PROF	-.566	.166	-.566	-3.405	.001	-.899	-.232
	GS	.319	.118	.319	2.708	.009	.083	.555
	GA	.265	.133	.265	1.993	.052	-.002	.531
	SA	.144	.135	.144	1.071	.289	-.126	.414
4	(Constant)	-3.976E-16	.100		.000	1.000	-.200	.200
	IC	-.147	.115	-.147	-1.278	.207	-.376	.083
	TS	.262	.113	.262	2.311	.025	.035	.489
	PROF	-.550	.162	-.550	-3.401	.001	-.875	-.226
	GS	.308	.115	.308	2.684	.010	.078	.539
	GA	.251	.129	.251	1.949	.057	-.007	.509
	SA	.157	.131	.157	1.197	.237	-.106	.419
5	(Constant)	-3.627E-16	.100		.000	1.000	-.201	.201
	IC	-.122	.113	-.122	-1.079	.285	-.349	.105
	TS	.258	.114	.258	2.265	.028	.030	.486
	PROF	-.651	.139	-.651	-4.687	.000	-.929	-.372
	GS	.322	.115	.322	2.805	.007	.092	.552
	GA	.232	.128	.232	1.810	.076	-.025	.490
6	(Constant)	-3.779E-16	.100		.000	1.000	-.201	.201
	TS	.235	.112	.235	2.098	.040	.011	.459
	PROF	-.716	.125	-.716	-5.718	.000	-.967	-.465
	GS	.343	.113	.343	3.024	.004	.116	.570
	GA	.253	.127	.253	1.993	.051	-.001	.508

a. Dependent Variable: LR1

The regression analysis shows that the coefficient of determination i.e R^2, explained 46.7% variation in LR1 when all the variables are taken together. After removing all insignificant variables coefficient of determination comes out to be 43.6% over the total variation. The t test shows that Growth in terms of sales, Profitability, tax shield are significant upto 5% level and Growth in terms of assets upto 10% level.

LR1=-3.779E-16 + .235 (TS) -0.716 (PROF) +0.343 (GS) +0.253 (GA)

4.1.5 Pharma

4.1.5.1 Correlation Matrix and results

Correlations

		LR1	IC	DPR	TS	PROF	CFC	GS	GA	SA	PE
LR1	Pearson Correlation	1	-.467*	-.282	-.067	-.754**	-.289	.138	.077	.229	-.602**
	Sig. (2-tailed)		.019	.172	.750	.000	.161	.510	.715	.270	.001
	N	25	25	25	25	25	25	25	25	25	25
IC	Pearson Correlation	-.467*	1	.331	-.164	.393	-.099	.120	-.145	-.169	.439*
	Sig. (2-tailed)	.019		.106	.433	.052	.637	.567	.488	.421	.028
	N	25	25	25	25	25	25	25	25	25	25
DPR	Pearson Correlation	-.282	.331	1	.054	.556**	.176	.003	-.157	-.311	.488*
	Sig. (2-tailed)	.172	.106		.798	.004	.399	.989	.455	.130	.013
	N	25	25	25	25	25	25	25	25	25	25
TS	Pearson Correlation	-.067	-.164	.054	1	-.072	-.147	.052	-.040	.149	-.002
	Sig. (2-tailed)	.750	.433	.798		.732	.484	.804	.848	.478	.993
	N	25	25	25	25	25	25	25	25	25	25
PROF	Pearson Correlation	-.754**	.393	.556**	-.072	1	.199	.182	-.221	-.321	.706**
	Sig. (2-tailed)	.000	.052	.004	.732		.340	.384	.289	.117	.000
	N	25	25	25	25	25	25	25	25	25	25
CFC	Pearson Correlation	-.289	-.099	.176	-.147	.199	1	-.465*	-.222	-.283	.305
	Sig. (2-tailed)	.161	.637	.399	.484	.340		.019	.286	.170	.139
	N	25	25	25	25	25	25	25	25	25	25
GS	Pearson Correlation	.138	.120	.003	.052	.182	-.465*	1	.165	-.018	.020
	Sig. (2-tailed)	.510	.567	.989	.804	.384	.019		.430	.931	.925
	N	25	25	25	25	25	25	25	25	25	25
GA	Pearson Correlation	.077	-.145	-.157	-.040	-.221	-.222	.165	1	-.188	-.553**
	Sig. (2-tailed)	.715	.488	.455	.848	.289	.286	.430		.367	.004
	N	25	25	25	25	25	25	25	25	25	25
SA	Pearson Correlation	.229	-.169	-.311	.149	-.321	-.283	-.018	-.188	1	-.067
	Sig. (2-tailed)	.270	.421	.130	.478	.117	.170	.931	.367		.750
	N	25	25	25	25	25	25	25	25	25	25
PE	Pearson Correlation	-.602**	.439*	.488*	-.002	.706**	.305	.020	-.553**	-.067	1
	Sig. (2-tailed)	.001	.028	.013	.993	.000	.139	.925	.004	.750	
	N	25	25	25	25	25	25	25	25	25	25

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The zero order correlation matrix shows that growth in terms of sales (.138), growth in terms of assets(.077) and size in terms of assets(.229) has positive correlation with the dependent variable LR1. Variables like Interest coverage(-.467), Dividend payout ratio(-.282) ,Tax shield(-.067) ,Profitability(-.754) and Cash flow coverage(-.289) are having negative correlation. Significant correlation is found between profitability, PE ratio and Interest coverage.

4.1.5.2 Regression Analysis and Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.921[a]	.849	.758	.49189534	.849	9.354	9	15	.000
2	.921[b]	.848	.771	.47807174	-.001	.113	1	15	.741
3	.917[c]	.841	.776	.47307941	-.006	.647	1	16	.433
4	.907[d]	.823	.764	.48576864	-.018	1.979	1	17	.178

a. Predictors: (Constant), PE, TS, GS, SA, IC, DPR, GA, CFC, PROF

b. Predictors: (Constant), PE, TS, GS, IC, DPR, GA, CFC, PROF

c. Predictors: (Constant), PE, TS, GS, IC, DPR, GA, PROF

d. Predictors: (Constant), TS, GS, IC, DPR, GA, PROF

ANOVA[e]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	20.371	9	2.263	9.354	.000[a]
	Residual	3.629	15	.242		
	Total	24.000	24			
2	Regression	20.343	8	2.543	11.126	.000[b]
	Residual	3.657	16	.229		
	Total	24.000	24			
3	Regression	20.195	7	2.885	12.891	.000[c]
	Residual	3.805	17	.224		
	Total	24.000	24			
4	Regression	19.753	6	3.292	13.951	.000[d]
	Residual	4.247	18	.236		
	Total	24.000	24			

a. Predictors: (Constant), PE, TS, GS, SA, IC, DPR, GA, CFC, PROF

b. Predictors: (Constant), PE, TS, GS, IC, DPR, GA, CFC, PROF

c. Predictors: (Constant), PE, TS, GS, IC, DPR, GA, PROF

d. Predictors: (Constant), TS, GS, IC, DPR, GA, PROF

e. Dependent Variable: LR1

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-6.128E-16	.098		.000	1.000	-.210	.210
	IC	-.315	.124	-.315	-2.544	.022	-.580	-.051
	DPR	.345	.128	.345	2.695	.017	.072	.619
	TS	-.238	.106	-.238	-2.239	.041	-.464	-.011
	PROF	-.819	.167	-.819	-4.905	.000	-1.175	-.463
	CFC	-.117	.137	-.117	-.850	.409	-.410	.176
	GS	.335	.122	.335	2.747	.015	.075	.596
	GA	-.302	.130	-.302	-2.323	.035	-.580	-.025
	SA	-.041	.123	-.041	-.337	.741	-.303	.220
	PE	-.195	.193	-.195	-1.014	.326	-.606	.215
2	(Constant)	-4.946E-16	.096		.000	1.000	-.203	.203
	IC	-.308	.119	-.308	-2.596	.019	-.560	-.057
	DPR	.354	.122	.354	2.898	.010	.095	.613
	TS	-.240	.103	-.240	-2.327	.033	-.458	-.021
	PROF	-.805	.157	-.805	-5.124	.000	-1.138	-.472
	CFC	-.101	.125	-.101	-.804	.433	-.367	.165
	GS	.339	.118	.339	2.871	.011	.089	.590
	GA	-.295	.125	-.295	-2.366	.031	-.559	-.031
	PE	-.210	.182	-.210	-1.157	.264	-.596	.175
3	(Constant)	-5.181E-16	.095		.000	1.000	-.200	.200
	IC	-.280	.112	-.280	-2.495	.023	-.517	-.043
	DPR	.349	.121	.349	2.890	.010	.094	.603
	TS	-.223	.100	-.223	-2.235	.039	-.434	-.013
	PROF	-.816	.155	-.816	-5.272	.000	-1.143	-.490
	GS	.385	.102	.385	3.762	.002	.169	.601
	GA	-.298	.123	-.298	-2.418	.027	-.558	-.038
	PE	-.246	.175	-.246	-1.407	.178	-.614	.123
4	(Constant)	-4.730E-16	.097		.000	1.000	-.204	.204
	IC	-.319	.112	-.319	-2.864	.010	-.554	-.085
	DPR	.328	.123	.328	2.670	.016	.070	.587
	TS	-.234	.102	-.234	-2.286	.035	-.449	-.019
	PROF	-.944	.129	-.944	-7.315	.000	-1.215	-.673
	GS	.393	.105	.393	3.742	.001	.172	.613
	GA	-.201	.105	-.201	-1.916	.071	-.421	.019

a. Dependent Variable: LR1

The regression analysis shows that the coefficient of determination i.e R^2 , explained 84.9% variation in LR1 when all the variables are taken together. After removing all insignificant variables coefficient of determination comes out to be 82.3%. The t test shows that the Significant variables found in the equation are Interest coverage, Dividend payout ratio, Tax shield, Profitability, Growth in terms of sale significant upto 5% level.

LR1=(-4.730E-16) -.319 (IC) +.328 (DPR) -.234 (TS) -.944 (PROF) -.393 (GS) -.201 (GA)

4.1.6 Main Findings

Correlation

	Automobile	Construction	IT	Oil, Power& Energy	Pharma
IC	*	(**)		(*)	(*)
DPR					
TS				*	
PROF	(*)	(**)	(*)	(**)	(**)
CFC	(*)	(**)			
GS					
GA					
SA	*	(**)		**	
PE					(**)

Regression

	Automobile	Construction	IT	Oil, Power& Energy	Pharma
IC	*				(*)
DPR	**	(*)			*
TS				*	(*)
PROF	(*)	(**)	(**)	(**)	(**)
CFC	**				
GS				**	**
GA			**	*	(*)
SA		(**)	**		
PE	(*)				
Variation explained by all factors	**68.8%**	**52.4%**	**67.4%**	**46.7%**	**84.9%**
Variation explained by significant variable	**63.6%**	**45.5%**	**59.2%**	**43.6%**	**82.3%**

- As we can see from above tables Profitability is negatively correlated to Debt-Equity ratio amongst all the 5 sectors.
- Also Growth in terms of assets is significantly related in IT, Oil, Power and Energy and Pharma sector.
- Dividend payout ratio is significantly correlated in Automobile, Construction and Pharma sector.

  Hence **H_{01} is accepted** and we can say factors affecting Debt-Equity ratio do not vary among different sectors of India.

4.2 Determinants of Debt to Total Long Term Funds Ratio

4.2.1 Automobile

4.2.1.1 Correlation Matrix and Results

Correlations

		LR2	IC	DPR	TS	PROF	CFC	GS	GA	SA	PE
LR2	Pearson Correlation	1	-.429*	.303	.240	-.456*	-.494*	-.229	.145	.336	.115
	Sig. (2-tailed)		.032	.141	.247	.022	.012	.271	.488	.101	.584
	N	25	25	25	25	25	25	25	25	25	25
IC	Pearson Correlation	-.429*	1	.181	.061	.746**	.929**	.362	-.079	-.418*	-.093
	Sig. (2-tailed)	.032		.387	.771	.000	.000	.076	.709	.037	.659
	N	25	25	25	25	25	25	25	25	25	25
DPR	Pearson Correlation	.303	.181	1	.232	.187	.287	.001	-.095	.083	.487*
	Sig. (2-tailed)	.141	.387		.264	.370	.164	.998	.652	.693	.013
	N	25	25	25	25	25	25	25	25	25	25
TS	Pearson Correlation	.240	.061	.232	1	.261	.030	-.262	.023	-.057	.059
	Sig. (2-tailed)	.247	.771	.264		.208	.888	.206	.915	.787	.780
	N	25	25	25	25	25	25	25	25	25	25
PROF	Pearson Correlation	-.456*	.746**	.187	.261	1	.751**	.225	-.131	-.720**	-.250
	Sig. (2-tailed)	.022	.000	.370	.208		.000	.281	.533	.000	.228
	N	25	25	25	25	25	25	25	25	25	25
CFC	Pearson Correlation	-.494*	.929**	.287	.030	.751**	1	.286	.058	-.483*	-.105
	Sig. (2-tailed)	.012	.000	.164	.888	.000		.166	.783	.014	.617
	N	25	25	25	25	25	25	25	25	25	25
GS	Pearson Correlation	-.229	.362	.001	-.262	.225	.286	1	-.181	.019	.076
	Sig. (2-tailed)	.271	.076	.998	.206	.281	.166		.387	.927	.719
	N	25	25	25	25	25	25	25	25	25	25
GA	Pearson Correlation	.145	-.079	-.095	.023	-.131	.058	-.181	1	-.184	-.473*
	Sig. (2-tailed)	.488	.709	.652	.915	.533	.783	.387		.378	.017
	N	25	25	25	25	25	25	25	25	25	25
SA	Pearson Correlation	.336	-.418*	.083	-.057	-.720**	-.483*	.019	-.184	1	.570**
	Sig. (2-tailed)	.101	.037	.693	.787	.000	.014	.927	.378		.003
	N	25	25	25	25	25	25	25	25	25	25
PE	Pearson Correlation	.115	-.093	.487*	.059	-.250	-.105	.076	-.473*	.570**	1
	Sig. (2-tailed)	.584	.659	.013	.780	.228	.617	.719	.017	.003	
	N	25	25	25	25	25	25	25	25	25	25

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The zero order correlation matrix shows that growth in terms of assets(.145) ,size in terms of assets(.336) , PE ratio(.115), Tax shield(.240) and dividend payout ratio(.303) has positive correlation with the dependent variable LR2. Variables like growth in terms of sales (-.229), Interest coverage (-.429),Profitability (-.456) and Cash flow coverage(-.494) are having negative correlation. Significant correlation is found between profitability, Profitability and Cash flow coverage and Interest coverage.

4.2.1.2 Regression Analysis and Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.825[a]	.681	.490	.71419865	.681	3.561	9	15	.015
2	.825[b]	.681	.521	.69189451	.000	.016	1	15	.900
3	.822[c]	.676	.542	.67669452	-.005	.261	1	16	.616
4	.816[d]	.666	.555	.66707494	-.009	.492	1	17	.493
5	.793[e]	.629	.532	.68444501	-.037	2.002	1	18	.174

a. Predictors: (Constant), PE, TS, CFC, GS, GA, DPR, SA, PROF, IC

b. Predictors: (Constant), PE, TS, CFC, GA, DPR, SA, PROF, IC

c. Predictors: (Constant), PE, TS, CFC, GA, DPR, PROF, IC

d. Predictors: (Constant), PE, TS, CFC, DPR, PROF, IC

e. Predictors: (Constant), PE, CFC, DPR, PROF, IC

ANOVA[f]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.349	9	1.817	3.561	.015[a]
	Residual	7.651	15	.510		
	Total	24.000	24			
2	Regression	16.341	8	2.043	4.267	.007[b]
	Residual	7.659	16	.479		
	Total	24.000	24			
3	Regression	16.215	7	2.316	5.059	.003[c]
	Residual	7.785	17	.458		
	Total	24.000	24			
4	Regression	15.990	6	2.665	5.989	.001[d]
	Residual	8.010	18	.445		
	Total	24.000	24			
5	Regression	15.099	5	3.020	6.446	.001[e]
	Residual	8.901	19	.468		
	Total	24.000	24			

a. Predictors: (Constant), PE, TS, CFC, GS, GA, DPR, SA, PROF, IC

b. Predictors: (Constant), PE, TS, CFC, GA, DPR, SA, PROF, IC

c. Predictors: (Constant), PE, TS, CFC, GA, DPR, PROF, IC

d. Predictors: (Constant), PE, TS, CFC, DPR, PROF, IC

e. Predictors: (Constant), PE, CFC, DPR, PROF, IC

f. Dependent Variable: LR2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-6.823E-19	.143		.000	1.000	-.304	.304
	IC	.950	.473	.950	2.010	.063	-.058	1.958
	DPR	.725	.201	.725	3.615	.003	.298	1.153
	TS	.210	.187	.210	1.122	.280	-.189	.609
	PROF	-.559	.394	-.559	-1.422	.176	-1.398	.279
	CFC	-1.286	.513	-1.286	-2.505	.024	-2.380	-.192
	GS	.022	.176	.022	.128	.900	-.352	.397
	GA	.121	.213	.121	.569	.578	-.333	.575
	SA	-.147	.288	-.147	-.511	.617	-.760	.466
	PE	-.299	.247	-.299	-1.209	.246	-.826	.228
2	(Constant)	1.866E-17	.138		.000	1.000	-.293	.293
	IC	.963	.449	.963	2.145	.048	.011	1.914
	DPR	.724	.194	.724	3.729	.002	.312	1.135
	TS	.201	.168	.201	1.197	.249	-.155	.557
	PROF	-.547	.368	-.547	-1.484	.157	-1.327	.234
	CFC	-1.296	.492	-1.296	-2.633	.018	-2.339	-.252
	GA	.123	.206	.123	.597	.559	-.314	.559
	SA	-.138	.270	-.138	-.511	.616	-.710	.434
	PE	-.297	.239	-.297	-1.242	.232	-.804	.210
3	(Constant)	3.356E-16	.135		.000	1.000	-.286	.286
	IC	.908	.426	.908	2.130	.048	.009	1.807
	DPR	.717	.189	.717	3.787	.001	.318	1.117
	TS	.184	.161	.184	1.142	.269	-.156	.523
	PROF	-.427	.279	-.427	-1.533	.144	-1.015	.161
	CFC	-1.271	.479	-1.271	-2.653	.017	-2.281	-.260
	GA	.139	.199	.139	.701	.493	-.280	.559
	PE	-.336	.221	-.336	-1.518	.147	-.803	.131
4	(Constant)	2.791E-16	.133		.000	1.000	-.280	.280
	IC	.814	.399	.814	2.041	.056	-.024	1.651
	DPR	.733	.185	.733	3.954	.001	.344	1.123
	TS	.215	.152	.215	1.415	.174	-.104	.535
	PROF	-.525	.238	-.525	-2.211	.040	-1.024	-.026
	CFC	-1.116	.419	-1.116	-2.662	.016	-1.998	-.235
	PE	-.429	.175	-.429	-2.444	.025	-.797	-.060
5	(Constant)	2.794E-16	.137		.000	1.000	-.287	.287
	IC	.862	.408	.862	2.114	.048	.009	1.715
	DPR	.792	.185	.792	4.275	.000	.404	1.180
	PROF	-.408	.228	-.408	-1.786	.090	-.886	.070
	CFC	-1.260	.418	-1.260	-3.016	.007	-2.134	-.386
	PE	-.426	.180	-.426	-2.368	.029	-.803	-.049

a. Dependent Variable: LR2

The regression analysis shows that the coefficient of determination i.e R^2 , explained 68.1% variation in LR2 when all the variables are taken together. After removing all insignificant variables coefficient of determination comes out to be 62.9% over the total variation. The t test shows that the Significant variables found in the equation are Interest coverage, Dividend payout ratio, Cash flow coverage, PE ratio that are significant upto 5% level and Profitability is significant upto 10% level.

LR2= 2.749E-16 + 0.862 (IC) + 0.792 (DPR) -.408 (PROF) – 1.26 (CFC) - .426 (PE)

4.2.2 Construction

4.2.2.1 Correlation Matrix and Results

Correlations

		LR2	IC	DPR	TS	PROF	CFC	GS	GA	SA	PE
LR2	Pearson Correlation	1	-.692**	-.322*	.009	-.553**	-.637**	.196	.248	-.523**	.322*
	Sig. (2-tailed)		.000	.043	.954	.000	.000	.225	.123	.001	.043
	N	40	40	40	40	40	40	40	40	40	40
IC	Pearson Correlation	-.692**	1	.209	-.014	.663**	.943**	-.179	-.182	.280	-.346*
	Sig. (2-tailed)	.000		.195	.933	.000	.000	.269	.261	.080	.029
	N	40	40	40	40	40	40	40	40	40	40
DPR	Pearson Correlation	-.322*	.209	1	-.213	.071	.237	.045	.017	-.148	.200
	Sig. (2-tailed)	.043	.195		.188	.663	.141	.784	.915	.362	.215
	N	40	40	40	40	40	40	40	40	40	40
TS	Pearson Correlation	.009	-.014	-.213	1	.007	-.045	-.062	.108	.428**	-.225
	Sig. (2-tailed)	.954	.933	.188		.965	.785	.702	.508	.006	.164
	N	40	40	40	40	40	40	40	40	40	40
PROF	Pearson Correlation	-.553**	.663**	.071	.007	1	.546**	-.019	-.211	.137	-.380*
	Sig. (2-tailed)	.000	.000	.663	.965		.000	.906	.191	.398	.016
	N	40	40	40	40	40	40	40	40	40	40
CFC	Pearson Correlation	-.637**	.943**	.237	-.045	.546**	1	-.220	-.188	.294	-.361*
	Sig. (2-tailed)	.000	.000	.141	.785	.000		.172	.246	.065	.022
	N	40	40	40	40	40	40	40	40	40	40
GS	Pearson Correlation	.196	-.179	.045	-.062	-.019	-.220	1	.659**	-.453**	.251
	Sig. (2-tailed)	.225	.269	.784	.702	.906	.172		.000	.003	.119
	N	40	40	40	40	40	40	40	40	40	40
GA	Pearson Correlation	.248	-.182	.017	.108	-.211	-.188	.659**	1	-.247	.202
	Sig. (2-tailed)	.123	.261	.915	.508	.191	.246	.000		.124	.212
	N	40	40	40	40	40	40	40	40	40	40
SA	Pearson Correlation	-.523**	.280	-.148	.428**	.137	.294	-.453**	-.247	1	-.539**
	Sig. (2-tailed)	.001	.080	.362	.006	.398	.065	.003	.124		.000
	N	40	40	40	40	40	40	40	40	40	40
PE	Pearson Correlation	.322*	-.346*	.200	-.225	-.380*	-.361*	.251	.202	-.539**	1
	Sig. (2-tailed)	.043	.029	.215	.164	.016	.022	.119	.212	.000	
	N	40	40	40	40	40	40	40	40	40	40

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The zero order correlation matrix shows that growth in terms of assets (.248), growth in terms of sale (.196), PE ratio (.322) and Tax shield (.009) has positive correlation with the dependent variable LR2. Variables like Interest coverage (-.692), Profitability (-.553) and Cash flow coverage (-.637), Dividend payout ratio (-.322), Sales in terms of asset (-.523) are having negative correlation. Significant correlation is found between Interest coverage, Profitability, Cash flow coverage, sales in terms of assets, Dividend payout ratio and PE ratio.

4.2.2.2 Regression Analysis and Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.861[a]	.742	.665	.57899326	.742	9.593	9	30	.000
2	.859[b]	.738	.671	.57391343	-.004	.458	1	30	.504
3	.856[c]	.734	.675	.56987007	-.005	.551	1	31	.464
4	.852[d]	.727	.677	.56829639	-.007	.818	1	32	.373
5	.848[e]	.719	.678	.56764460	-.008	.922	1	33	.344
6	.835[f]	.697	.663	.58058422	-.022	2.614	1	34	.115

a. Predictors: (Constant), PE, DPR, GA, TS, PROF, CFC, SA, GS, IC

b. Predictors: (Constant), PE, DPR, GA, TS, PROF, SA, GS, IC

c. Predictors: (Constant), PE, DPR, TS, PROF, SA, GS, IC

d. Predictors: (Constant), PE, DPR, TS, PROF, SA, IC

e. Predictors: (Constant), DPR, TS, PROF, SA, IC

f. Predictors: (Constant), DPR, PROF, SA, IC

ANOVA[g]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	28.943	9	3.216	9.593	.000[a]
	Residual	10.057	30	.335		
	Total	39.000	39			
2	Regression	28.789	8	3.599	10.926	.000[b]
	Residual	10.211	31	.329		
	Total	39.000	39			
3	Regression	28.608	7	4.087	12.585	.000[c]
	Residual	10.392	32	.325		
	Total	39.000	39			
4	Regression	28.342	6	4.724	14.626	.000[d]
	Residual	10.658	33	.323		
	Total	39.000	39			
5	Regression	28.045	5	5.609	17.407	.000[e]
	Residual	10.955	34	.322		
	Total	39.000	39			
6	Regression	27.202	4	6.801	20.175	.000[f]
	Residual	11.798	35	.337		
	Total	39.000	39			

a. Predictors: (Constant), PE, DPR, GA, TS, PROF, CFC, SA, GS, IC

b. Predictors: (Constant), PE, DPR, GA, TS, PROF, SA, GS, IC

c. Predictors: (Constant), PE, DPR, TS, PROF, SA, GS, IC

d. Predictors: (Constant), PE, DPR, TS, PROF, SA, IC

e. Predictors: (Constant), DPR, TS, PROF, SA, IC

f. Predictors: (Constant), DPR, PROF, SA, IC

g. Dependent Variable: LR2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.181E-15	.092		.000	1.000	-.187	.187
	IC	-.560	.334	-.560	-1.676	.104	-1.243	.122
	DPR	-.268	.102	-.268	-2.633	.013	-.476	-.060
	TS	.175	.109	.175	1.609	.118	-.047	.397
	PROF	-.212	.144	-.212	-1.474	.151	-.505	.082
	CFC	.207	.306	.207	.677	.504	-.418	.832
	GS	-.155	.140	-.155	-1.110	.276	-.440	.130
	GA	.097	.132	.097	.732	.470	-.173	.366
	SA	-.609	.133	-.609	-4.563	.000	-.881	-.336
	PE	-.093	.124	-.093	-.754	.457	-.346	.159
2	(Constant)	1.211E-15	.091		.000	1.000	-.185	.185
	IC	-.354	.135	-.354	-2.625	.013	-.628	-.079
	DPR	-.258	.100	-.258	-2.585	.015	-.461	-.054
	TS	.166	.107	.166	1.554	.130	-.052	.385
	PROF	-.243	.135	-.243	-1.803	.081	-.518	.032
	GS	-.161	.138	-.161	-1.165	.253	-.443	.121
	GA	.097	.131	.097	.742	.464	-.170	.363
	SA	-.608	.132	-.608	-4.600	.000	-.878	-.338
	PE	-.111	.120	-.111	-.925	.362	-.355	.133
3	(Constant)	1.176E-15	.090		.000	1.000	-.184	.184
	IC	-.341	.133	-.341	-2.570	.015	-.611	-.071
	DPR	-.257	.099	-.257	-2.590	.014	-.458	-.055
	TS	.182	.104	.182	1.740	.092	-.031	.394
	PROF	-.271	.129	-.271	-2.106	.043	-.533	-.009
	GS	-.095	.104	-.095	-.904	.373	-.307	.118
	SA	-.608	.131	-.608	-4.632	.000	-.876	-.341
	PE	-.111	.119	-.111	-.933	.358	-.353	.131
4	(Constant)	1.080E-15	.090		.000	1.000	-.183	.183
	IC	-.329	.132	-.329	-2.498	.018	-.597	-.061
	DPR	-.258	.099	-.258	-2.613	.013	-.459	-.057
	TS	.167	.103	.167	1.626	.113	-.042	.377
	PROF	-.284	.127	-.284	-2.231	.033	-.543	-.025
	SA	-.563	.121	-.563	-4.653	.000	-.809	-.317
	PE	-.114	.119	-.114	-.960	.344	-.355	.127
5	(Constant)	9.885E-16	.090		.000	1.000	-.182	.182
	IC	-.322	.131	-.322	-2.453	.019	-.589	-.055
	DPR	-.277	.097	-.277	-2.867	.007	-.474	-.081
	TS	.166	.103	.166	1.617	.115	-.043	.375
	PROF	-.251	.123	-.251	-2.051	.048	-.500	-.002
	SA	-.510	.108	-.510	-4.737	.000	-.729	-.291
6	(Constant)	8.672E-16	.092		.000	1.000	-.186	.186
	IC	-.347	.133	-.347	-2.599	.014	-.617	-.076
	DPR	-.297	.098	-.297	-3.029	.005	-.496	-.098
	PROF	-.243	.125	-.243	-1.937	.061	-.497	.012
	SA	-.436	.100	-.436	-4.374	.000	-.638	-.234

a. Dependent Variable: LR2

The regression analysis shows that the coefficient of determination i.e R^2 , explained 74.2% variation in LR2 when all the variables are taken together. After removing all insignificant variables coefficient of determination comes out to be 69.7% over the total variation. The t test shows that Interest Coverage, Dividend payout ratio and Size in terms of assets are significant upto 5% level and Profitability upto 10% level.

LR2= (8.627E-16) -0.347 (IC) -0.297 (DPR) -0.243 (PROF) -0.436 (SA)

4.2.3 IT

4.2.3.1 Correlation Matrix and Results

Correlations

		LR2	IC	DPR	TS	PROF	CFC	GS	GA	SA	PE
LR2	Pearson Correlation	1	-.308	-.203	.197	-.394	-.281	-.028	.103	.147	.168
	Sig. (2-tailed)		.134	.332	.345	.051	.174	.894	.623	.482	.423
	N	25	25	25	25	25	25	25	25	25	25
IC	Pearson Correlation	-.308	1	.256	.024	.364	.456*	.091	.082	.146	.045
	Sig. (2-tailed)	.134		.217	.909	.074	.022	.666	.697	.486	.832
	N	25	25	25	25	25	25	25	25	25	25
DPR	Pearson Correlation	-.203	.256	1	-.484*	.368	.182	.282	.031	.042	.430*
	Sig. (2-tailed)	.332	.217		.014	.071	.385	.172	.884	.843	.032
	N	25	25	25	25	25	25	25	25	25	25
TS	Pearson Correlation	.197	.024	-.484*	1	-.730**	-.120	-.267	-.270	-.348	-.393
	Sig. (2-tailed)	.345	.909	.014		.000	.567	.197	.192	.088	.052
	N	25	25	25	25	25	25	25	25	25	25
PROF	Pearson Correlation	-.394	.364	.368	-.730**	1	.444*	.435*	.322	.578**	.366
	Sig. (2-tailed)	.051	.074	.071	.000		.026	.030	.117	.002	.072
	N	25	25	25	25	25	25	25	25	25	25
CFC	Pearson Correlation	-.281	.456*	.182	-.120	.444*	1	.065	.273	.047	.044
	Sig. (2-tailed)	.174	.022	.385	.567	.026		.758	.187	.824	.834
	N	25	25	25	25	25	25	25	25	25	25
GS	Pearson Correlation	-.028	.091	.282	-.267	.435*	.065	1	.170	.257	.227
	Sig. (2-tailed)	.894	.666	.172	.197	.030	.758		.418	.215	.276
	N	25	25	25	25	25	25	25	25	25	25
GA	Pearson Correlation	.103	.082	.031	-.270	.322	.273	.170	1	-.120	-.044
	Sig. (2-tailed)	.623	.697	.884	.192	.117	.187	.418		.569	.833
	N	25	25	25	25	25	25	25	25	25	25
SA	Pearson Correlation	.147	.146	.042	-.348	.578**	.047	.257	-.120	1	.474*
	Sig. (2-tailed)	.482	.486	.843	.088	.002	.824	.215	.569		.017
	N	25	25	25	25	25	25	25	25	25	25
PE	Pearson Correlation	.168	.045	.430*	-.393	.366	.044	.227	-.044	.474*	1
	Sig. (2-tailed)	.423	.832	.032	.052	.072	.834	.276	.833	.017	
	N	25	25	25	25	25	25	25	25	25	25

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The zero order correlation matrix shows that growth in terms of assets (.103), size in terms of assets (.147), PE ratio (.168) and Tax shield (.197) has positive correlation with the dependent variable LR2. Variables like Interest coverage (-.308), Dividend payout ratio (-.203), Profitability (-.394), Cash flow coverage (-.281) and Growth in terms of sales (-0.028) are having negative correlation. No variable is found to be significant here.

4.2.3.2 Regression Analysis and Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.822[a]	.675	.481	.72066510	.675	3.468	9	15	.016
2	.822[b]	.675	.513	.69794454	.000	.007	1	15	.934
3	.822[c]	.675	.541	.67748196	.000	.018	1	16	.896
4	.816[d]	.665	.554	.66785380	-.009	.492	1	17	.493
5	.804[e]	.647	.554	.66760030	-.018	.986	1	18	.334
6	.792[f]	.627	.552	.66923731	-.020	1.098	1	19	.308
7	.762[g]	.581	.521	.69184300	-.046	2.443	1	20	.134

a. Predictors: (Constant), PE, CFC, GS, GA, IC, TS, SA, DPR, PROF

b. Predictors: (Constant), PE, CFC, GS, GA, TS, SA, DPR, PROF

c. Predictors: (Constant), PE, CFC, GS, GA, TS, SA, PROF

d. Predictors: (Constant), PE, GS, GA, TS, SA, PROF

e. Predictors: (Constant), PE, GA, TS, SA, PROF

f. Predictors: (Constant), PE, GA, SA, PROF

g. Predictors: (Constant), GA, SA, PROF

ANOVA[h]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	16.210	9	1.801	3.468	.016[a]
	Residual	7.790	15	.519		
	Total	24.000	24			
2	Regression	16.206	8	2.026	4.159	.007[b]
	Residual	7.794	16	.487		
	Total	24.000	24			
3	Regression	16.197	7	2.314	5.041	.003[c]
	Residual	7.803	17	.459		
	Total	24.000	24			
4	Regression	15.971	6	2.662	5.968	.001[d]
	Residual	8.029	18	.446		
	Total	24.000	24			
5	Regression	15.532	5	3.106	6.970	.001[e]
	Residual	8.468	19	.446		
	Total	24.000	24			
6	Regression	15.042	4	3.761	8.396	.000[f]
	Residual	8.958	20	.448		
	Total	24.000	24			
7	Regression	13.948	3	4.649	9.714	.000[g]
	Residual	10.052	21	.479		
	Total	24.000	24			

a. Predictors: (Constant), PE, CFC, GS, GA, IC, TS, SA, DPR, PROF

b. Predictors: (Constant), PE, CFC, GS, GA, TS, SA, DPR, PROF

c. Predictors: (Constant), PE, CFC, GS, GA, TS, SA, PROF

d. Predictors: (Constant), PE, GS, GA, TS, SA, PROF

e. Predictors: (Constant), PE, GA, TS, SA, PROF

f. Predictors: (Constant), PE, GA, SA, PROF

g. Predictors: (Constant), GA, SA, PROF

h. Dependent Variable: LR2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-7.456E-16	.144		.000	1.000	-.307	.307
	IC	-.017	.198	-.017	-.084	.934	-.438	.405
	DPR	-.019	.210	-.019	-.092	.928	-.468	.429
	TS	-.307	.297	-.307	-1.035	.317	-.940	.325
	PROF	-1.439	.386	-1.439	-3.727	.002	-2.261	-.616
	CFC	.132	.195	.132	.676	.509	-.284	.548
	GS	.179	.176	.179	1.019	.325	-.195	.553
	GA	.523	.175	.523	2.985	.009	.150	.896
	SA	.801	.238	.801	3.372	.004	.295	1.307
	PE	.180	.193	.180	.933	.365	-.231	.590
2	(Constant)	-7.469E-16	.140		.000	1.000	-.296	.296
	DPR	-.025	.191	-.025	-.133	.896	-.430	.379
	TS	-.319	.252	-.319	-1.267	.223	-.854	.215
	PROF	-1.452	.341	-1.452	-4.257	.001	-2.175	-.729
	CFC	.130	.187	.130	.692	.499	-.267	.526
	GS	.181	.167	.181	1.083	.295	-.173	.536
	GA	.523	.170	.523	3.083	.007	.163	.882
	SA	.801	.230	.801	3.482	.003	.313	1.289
	PE	.181	.186	.181	.976	.343	-.212	.575
3	(Constant)	-7.594E-16	.135		.000	1.000	-.286	.286
	TS	-.310	.234	-.310	-1.322	.204	-.804	.184
	PROF	-1.455	.330	-1.455	-4.407	.000	-2.152	-.759
	CFC	.126	.180	.126	.701	.493	-.254	.506
	GS	.177	.159	.177	1.111	.282	-.159	.513
	GA	.528	.160	.528	3.306	.004	.191	.866
	SA	.812	.209	.812	3.880	.001	.370	1.253
	PE	.172	.166	.172	1.033	.316	-.179	.522
4	(Constant)	-7.252E-16	.134		.000	1.000	-.281	.281
	TS	-.241	.210	-.241	-1.149	.266	-.681	.200
	PROF	-1.317	.261	-1.317	-5.048	.000	-1.865	-.769
	GS	.152	.153	.152	.993	.334	-.170	.473
	GA	.536	.157	.536	3.407	.003	.205	.866
	SA	.764	.195	.764	3.919	.001	.354	1.173
	PE	.182	.163	.182	1.118	.278	-.160	.525
5	(Constant)	-7.333E-16	.134		.000	1.000	-.279	.279
	TS	-.218	.208	-.218	-1.048	.308	-.654	.218
	PROF	-1.240	.249	-1.240	-4.979	.000	-1.762	-.719
	GA	.543	.157	.543	3.460	.003	.215	.872
	SA	.759	.195	.759	3.897	.001	.351	1.166
	PE	.200	.162	.200	1.237	.231	-.139	.539

6	(Constant)	-6.905E-16	.134		.000	1.000	-.279	.279
	PROF	-1.075	.193	-1.075	-5.566	.000	-1.477	-.672
	GA	.546	.157	.546	3.470	.002	.218	.874
	SA	.718	.191	.718	3.754	.001	.319	1.117
	PE	.245	.157	.245	1.563	.134	-.082	.572
7	(Constant)	-7.608E-16	.138		.000	1.000	-.288	.288
	PROF	-1.033	.198	-1.033	-5.225	.000	-1.444	-.622
	GA	.532	.162	.532	3.278	.004	.195	.870
	SA	.808	.188	.808	4.289	.000	.416	1.200

a. Dependent Variable: LR2

The regression analysis shows that the coefficient of determination i.e R^2 , explained 67.5% variation in LR2 when all the variables are taken together. After removing all insignificant variables coefficient of determination comes out to be 58.9% over the total variation. The t test shows that the Significant variables found in the equation are Profitability, Growth in terms of asset, Size in terms of assets significant upto 5%.

LR2= (-7.608E-16) -1.033 (PROF) +.532 (GA) +.808 (SA)

4.2.4 Oil, Power and Energy

4.2.4.1 Correlation Matrix and Results

Correlations

		LR2	IC	DPR	TS	PROF	CFC	GS	GA	SA	PE
LR2	Pearson Correlation	1	-.305*	.003	.479**	-.495**	-.153	-.047	-.129	.291*	.028
	Sig. (2-tailed)		.018	.983	.000	.000	.244	.720	.327	.024	.829
	N	60	60	60	60	60	60	60	60	60	60
IC	Pearson Correlation	-.305*	1	.203	.127	.314*	.042	-.048	-.026	-.051	-.110
	Sig. (2-tailed)	.018		.120	.333	.014	.750	.716	.842	.696	.403
	N	60	60	60	60	60	60	60	60	60	60
DPR	Pearson Correlation	.003	.203	1	.386**	-.128	-.123	-.270*	-.370**	.254	.085
	Sig. (2-tailed)	.983	.120		.002	.330	.349	.037	.004	.050	.518
	N	60	60	60	60	60	60	60	60	60	60
TS	Pearson Correlation	.479**	.127	.386**	1	-.309*	-.404**	-.210	-.411**	.221	-.088
	Sig. (2-tailed)	.000	.333	.002		.016	.001	.107	.001	.090	.502
	N	60	60	60	60	60	60	60	60	60	60
PROF	Pearson Correlation	-.495**	.314*	-.128	-.309*	1	.589**	.416**	.530**	-.611**	-.335**
	Sig. (2-tailed)	.000	.014	.330	.016		.000	.001	.000	.000	.009
	N	60	60	60	60	60	60	60	60	60	60
CFC	Pearson Correlation	-.153	.042	-.123	-.404**	.589**	1	.452**	.779**	-.331**	-.157
	Sig. (2-tailed)	.244	.750	.349	.001	.000		.000	.000	.010	.232
	N	60	60	60	60	60	60	60	60	60	60
GS	Pearson Correlation	-.047	-.048	-.270*	-.210	.416**	.452**	1	.359**	-.225	-.082
	Sig. (2-tailed)	.720	.716	.037	.107	.001	.000		.005	.084	.536
	N	60	60	60	60	60	60	60	60	60	60
GA	Pearson Correlation	-.129	-.026	-.370**	-.411**	.530**	.779**	.359**	1	-.421**	-.069
	Sig. (2-tailed)	.327	.842	.004	.001	.000	.000	.005		.001	.600
	N	60	60	60	60	60	60	60	60	60	60
SA	Pearson Correlation	.291*	-.051	.254	.221	-.611**	-.331**	-.225	-.421**	1	.037
	Sig. (2-tailed)	.024	.696	.050	.090	.000	.010	.084	.001		.779
	N	60	60	60	60	60	60	60	60	60	60
PE	Pearson Correlation	.028	-.110	.085	-.088	-.335**	-.157	-.082	-.069	.037	1
	Sig. (2-tailed)	.829	.403	.518	.502	.009	.232	.536	.600	.779	
	N	60	60	60	60	60	60	60	60	60	60

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The zero order correlation matrix shows that PE ratio (.028), Tax shield (0.479), Dividend payout ratio (.003) and sales in terms of assets (0.291) has positive correlation with the dependent variable LR2. Variables like Interest coverage (-.305), Profitability (-0.495) and Cash flow coverage (-0.153), Growth in terms of assets (-.129), growth in terms of sales (-0.47) are having negative correlation. Significant correlation is found between Interest coverage, Profitability, Tax shield.

Regression Analysis and Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.728[a]	.529	.445	.74517372	.529	6.250	9	50	.000
2	.727[b]	.529	.455	.73801420	.000	.025	1	50	.876
3	.726[c]	.527	.464	.73244035	-.002	.218	1	51	.643
4	.725[d]	.525	.471	.72700546	-.002	.216	1	52	.644
5	.722[e]	.521	.477	.72349467	-.004	.480	1	53	.492

a. Predictors: (Constant), PE, SA, IC, GS, TS, DPR, GA, PROF, CFC

b. Predictors: (Constant), PE, IC, GS, TS, DPR, GA, PROF, CFC

c. Predictors: (Constant), PE, IC, GS, TS, DPR, PROF, CFC

d. Predictors: (Constant), IC, GS, TS, DPR, PROF, CFC

e. Predictors: (Constant), IC, TS, DPR, PROF, CFC

ANOVA[f]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	31.236	9	3.471	6.250	.000[a]
	Residual	27.764	50	.555		
	Total	59.000	59			
2	Regression	31.222	8	3.903	7.165	.000[b]
	Residual	27.778	51	.545		
	Total	59.000	59			
3	Regression	31.104	7	4.443	8.283	.000[c]
	Residual	27.896	52	.536		
	Total	59.000	59			
4	Regression	30.988	6	5.165	9.771	.000[d]
	Residual	28.012	53	.529		
	Total	59.000	59			
5	Regression	30.734	5	6.147	11.743	.000[e]
	Residual	28.266	54	.523		
	Total	59.000	59			

a. Predictors: (Constant), PE, SA, IC, GS, TS, DPR, GA, PROF, CFC

b. Predictors: (Constant), PE, IC, GS, TS, DPR, GA, PROF, CFC

c. Predictors: (Constant), PE, IC, GS, TS, DPR, PROF, CFC

d. Predictors: (Constant), IC, GS, TS, DPR, PROF, CFC

e. Predictors: (Constant), IC, TS, DPR, PROF, CFC

f. Dependent Variable: LR2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.356E-16	.096		.000	1.000	-.193	.193
	IC	-.188	.111	-.188	-1.684	.098	-.411	.036
	DPR	-.151	.127	-.151	-1.191	.239	-.405	.103
	TS	.548	.121	.548	4.523	.000	.305	.791
	PROF	-.527	.181	-.527	-2.910	.005	-.890	-.163
	CFC	.259	.186	.259	1.394	.169	-.114	.633
	GS	.090	.119	.090	.756	.453	-.149	.328
	GA	.086	.180	.086	.474	.637	-.277	.448
	SA	.021	.134	.021	.157	.876	-.249	.291
	PE	-.054	.113	-.054	-.480	.633	-.281	.173
2	(Constant)	1.429E-16	.095		.000	1.000	-.191	.191
	IC	-.184	.109	-.184	-1.699	.095	-.402	.034
	DPR	-.147	.123	-.147	-1.195	.238	-.394	.100
	TS	.545	.119	.545	4.583	.000	.306	.784
	PROF	-.543	.145	-.543	-3.754	.000	-.834	-.253
	CFC	.262	.184	.262	1.427	.160	-.107	.630
	GS	.092	.117	.092	.790	.433	-.142	.326
	GA	.083	.178	.083	.466	.643	-.274	.440
	PE	-.059	.108	-.059	-.545	.588	-.276	.158
3	(Constant)	1.216E-16	.095		.000	1.000	-.190	.190
	IC	-.189	.107	-.189	-1.755	.085	-.404	.027
	DPR	-.172	.109	-.172	-1.576	.121	-.392	.047
	TS	.550	.118	.550	4.666	.000	.313	.786
	PROF	-.529	.140	-.529	-3.771	.000	-.810	-.247
	CFC	.322	.130	.322	2.487	.016	.062	.582
	GS	.083	.114	.083	.728	.470	-.146	.312
	PE	-.049	.105	-.049	-.465	.644	-.260	.162
4	(Constant)	1.009E-16	.094		.000	1.000	-.188	.188
	IC	-.190	.107	-.190	-1.786	.080	-.404	.023
	DPR	-.180	.107	-.180	-1.675	.100	-.395	.035
	TS	.563	.113	.563	4.979	.000	.336	.790
	PROF	-.508	.132	-.508	-3.853	.000	-.772	-.243
	CFC	.324	.128	.324	2.525	.015	.067	.582
	GS	.078	.113	.078	.693	.492	-.148	.304
5	(Constant)	1.071E-16	.093		.000	1.000	-.187	.187
	IC	-.199	.105	-.199	-1.895	.063	-.410	.012
	DPR	-.196	.104	-.196	-1.884	.065	-.405	.013
	TS	.571	.112	.571	5.092	.000	.346	.795
	PROF	-.486	.127	-.486	-3.815	.000	-.742	-.231
	CFC	.348	.123	.348	2.830	.007	.102	.595

a. Dependent Variable: LR2

The regression analysis shows that the coefficient of determination i.e R^2 , explained 52.9% variation in LR2 when all the variables are taken together. After removing all insignificant variables coefficient of determination comes out to be 52.1% over the total variation. The t test shows that Cash flow coverage, Profitability, tax shield are significant upto 5% level and Interest coverage and Dividend payout ratio upto 10% level.

LR2= (1.071E-16) -0.199 (IC) -.196 (DPR) +0.571 (TS) -0.486 (PROF) +0.348 (CFC)

4.2.5 Pharma

4.2.5.1 Correlation Matrix and Results

Correlations

		LR2	IC	DPR	TS	PROF	CFC	GS	GA	SA	PE
LR2	Pearson Correlation	1	-.523**	-.267	-.019	-.643**	-.397*	.201	.165	.170	-.565**
	Sig. (2-tailed)		.007	.197	.929	.001	.050	.336	.430	.418	.003
	N	25	25	25	25	25	25	25	25	25	25
IC	Pearson Correlation	-.523**	1	.331	-.164	.393	-.099	.120	-.145	-.169	.439*
	Sig. (2-tailed)	.007		.106	.433	.052	.637	.567	.488	.421	.028
	N	25	25	25	25	25	25	25	25	25	25
DPR	Pearson Correlation	-.267	.331	1	.054	.556**	.176	.003	-.157	-.311	.488*
	Sig. (2-tailed)	.197	.106		.798	.004	.399	.989	.455	.130	.013
	N	25	25	25	25	25	25	25	25	25	25
TS	Pearson Correlation	-.019	-.164	.054	1	-.072	-.147	.052	-.040	.149	-.002
	Sig. (2-tailed)	.929	.433	.798		.732	.484	.804	.848	.478	.993
	N	25	25	25	25	25	25	25	25	25	25
PROF	Pearson Correlation	-.643**	.393	.556**	-.072	1	.199	.182	-.221	-.321	.706**
	Sig. (2-tailed)	.001	.052	.004	.732		.340	.384	.289	.117	.000
	N	25	25	25	25	25	25	25	25	25	25
CFC	Pearson Correlation	-.397*	-.099	.176	-.147	.199	1	-.465*	-.222	-.283	.305
	Sig. (2-tailed)	.050	.637	.399	.484	.340		.019	.286	.170	.139
	N	25	25	25	25	25	25	25	25	25	25
GS	Pearson Correlation	.201	.120	.003	.052	.182	-.465*	1	.165	-.018	.020
	Sig. (2-tailed)	.336	.567	.989	.804	.384	.019		.430	.931	.925
	N	25	25	25	25	25	25	25	25	25	25
GA	Pearson Correlation	.165	-.145	-.157	-.040	-.221	-.222	.165	1	-.188	-.553**
	Sig. (2-tailed)	.430	.488	.455	.848	.289	.286	.430		.367	.004
	N	25	25	25	25	25	25	25	25	25	25
SA	Pearson Correlation	.170	-.169	-.311	.149	-.321	-.283	-.018	-.188	1	-.067
	Sig. (2-tailed)	.418	.421	.130	.478	.117	.170	.931	.367		.750
	N	25	25	25	25	25	25	25	25	25	25
PE	Pearson Correlation	-.565**	.439*	.488*	-.002	.706**	.305	.020	-.553**	-.067	1
	Sig. (2-tailed)	.003	.028	.013	.993	.000	.139	.925	.004	.750	
	N	25	25	25	25	25	25	25	25	25	25

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The zero order correlation matrix shows that growth in terms of sales (.201), growth in terms of assets (.165) and size in terms of assets (.170) has positive correlation with the dependent variable LR2. Variables like Interest coverage(-.523), Dividend payout ratio(-.267) ,Tax shield(-.019) ,Profitability(-.643), Cash flow coverage(-.397) and PE ratio(-0.565) are having negative correlation. Significant correlation is found between profitability, PE ratio, Interest coverage, Profitability and Cash flow coverage.

4.2.5.2 Regression Analysis and Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.874[a]	.763	.621	.61524237	.763	5.378	9	15	.002
2	.874[b]	.763	.645	.59585971	.000	.008	1	15	.931
3	.866[c]	.750	.646	.59463510	-.014	.930	1	16	.349
4	.858[d]	.736	.648	.59291509	-.013	.896	1	17	.357
5	.834[e]	.695	.615	.62071334	-.041	2.823	1	18	.110
6	.809[f]	.655	.585	.64384548	-.040	2.518	1	19	.129
7	.784[g]	.615	.560	.66348468	-.040	2.301	1	20	.145

a. Predictors: (Constant), PE, TS, GS, SA, IC, DPR, GA, CFC, PROF

b. Predictors: (Constant), TS, GS, SA, IC, DPR, GA, CFC, PROF

c. Predictors: (Constant), TS, GS, IC, DPR, GA, CFC, PROF

d. Predictors: (Constant), TS, GS, IC, DPR, CFC, PROF

e. Predictors: (Constant), GS, IC, DPR, CFC, PROF

f. Predictors: (Constant), GS, IC, DPR, PROF

g. Predictors: (Constant), GS, IC, PROF

ANOVA[h]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.322	9	2.036	5.378	.002[a]
	Residual	5.678	15	.379		
	Total	24.000	24			
2	Regression	18.319	8	2.290	6.450	.001[b]
	Residual	5.681	16	.355		
	Total	24.000	24			
3	Regression	17.989	7	2.570	7.268	.000[c]
	Residual	6.011	17	.354		
	Total	24.000	24			
4	Regression	17.672	6	2.945	8.378	.000[d]
	Residual	6.328	18	.352		
	Total	24.000	24			
5	Regression	16.680	5	3.336	8.658	.000[e]
	Residual	7.320	19	.385		
	Total	24.000	24			
6	Regression	15.709	4	3.927	9.474	.000[f]
	Residual	8.291	20	.415		
	Total	24.000	24			
7	Regression	14.756	3	4.919	11.173	.000[g]
	Residual	9.244	21	.440		
	Total	24.000	24			

a. Predictors: (Constant), PE, TS, GS, SA, IC, DPR, GA, CFC, PROF

b. Predictors: (Constant), TS, GS, SA, IC, DPR, GA, CFC, PROF

c. Predictors: (Constant), TS, GS, IC, DPR, GA, CFC, PROF

d. Predictors: (Constant), TS, GS, IC, DPR, CFC, PROF

e. Predictors: (Constant), GS, IC, DPR, CFC, PROF

f. Predictors: (Constant), GS, IC, DPR, PROF

g. Predictors: (Constant), GS, IC, PROF

h. Dependent Variable: LR2

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-8.165E-16	.123		.000	1.000	-.262	.262
	IC	-.492	.155	-.492	-3.176	.006	-.823	-.162
	DPR	.278	.160	.278	1.733	.104	-.064	.619
	TS	-.213	.133	-.213	-1.608	.129	-.497	.070
	PROF	-.665	.209	-.665	-3.182	.006	-1.110	-.220
	CFC	-.345	.172	-.345	-2.008	.063	-.711	.021
	GS	.258	.153	.258	1.687	.112	-.068	.583
	GA	-.175	.163	-.175	-1.073	.300	-.522	.172
	SA	-.136	.154	-.136	-.888	.389	-.464	.191
	PE	-.021	.241	-.021	-.088	.931	-.534	.492
2	(Constant)	-8.213E-16	.119		.000	1.000	-.253	.253
	IC	-.497	.142	-.497	-3.507	.003	-.797	-.197
	DPR	.276	.154	.276	1.795	.092	-.050	.601
	TS	-.215	.128	-.215	-1.678	.113	-.486	.057
	PROF	-.675	.166	-.675	-4.063	.001	-1.028	-.323
	CFC	-.350	.159	-.350	-2.202	.043	-.686	-.013
	GS	.256	.147	.256	1.740	.101	-.056	.569
	GA	-.168	.138	-.168	-1.217	.241	-.460	.124
	SA	-.140	.145	-.140	-.964	.349	-.446	.167
3	(Constant)	-4.117E-16	.119		.000	1.000	-.251	.251
	IC	-.483	.141	-.483	-3.434	.003	-.780	-.186
	DPR	.301	.151	.301	1.993	.063	-.018	.620
	TS	-.225	.127	-.225	-1.767	.095	-.493	.044
	PROF	-.652	.164	-.652	-3.972	.001	-.998	-.306
	CFC	-.304	.151	-.304	-2.011	.060	-.624	.015
	GS	.267	.147	.267	1.821	.086	-.042	.576
	GA	-.122	.129	-.122	-.947	.357	-.395	.150
4	(Constant)	-3.561E-16	.119		.000	1.000	-.249	.249
	IC	-.467	.139	-.467	-3.355	.004	-.760	-.175
	DPR	.298	.151	.298	1.981	.063	-.018	.615
	TS	-.212	.126	-.212	-1.680	.110	-.477	.053
	PROF	-.629	.162	-.629	-3.886	.001	-.968	-.289
	CFC	-.287	.150	-.287	-1.914	.072	-.601	.028
	GS	.248	.145	.248	1.714	.104	-.056	.553
5	(Constant)	-3.651E-16	.124		.000	1.000	-.260	.260
	IC	-.419	.143	-.419	-2.938	.008	-.718	-.121
	DPR	.258	.156	.258	1.657	.114	-.068	.584
	PROF	-.618	.169	-.618	-3.652	.002	-.972	-.264
	CFC	-.245	.155	-.245	-1.587	.129	-.569	.078
	GS	.249	.152	.249	1.640	.117	-.069	.566

6	(Constant)	-4.191E-16	.129		.000	1.000	-.269	.269
	IC	-.373	.145	-.373	-2.574	.018	-.675	-.071
	DPR	.244	.161	.244	1.517	.145	-.092	.581
	PROF	-.700	.167	-.700	-4.188	.000	-1.049	-.351
	GS	.372	.135	.372	2.757	.012	.091	.654
7	(Constant)	-3.671E-16	.133		.000	1.000	-.276	.276
	IC	-.339	.148	-.339	-2.297	.032	-.646	-.032
	PROF	-.573	.149	-.573	-3.845	.001	-.882	-.263
	GS	.346	.138	.346	2.505	.021	.059	.632

a. Dependent Variable: LR2

The regression analysis shows that the coefficient of determination i.e R^2 , explained 76.3% variation in LR2 when all the variables are taken together. After removing all insignificant variables coefficient of determination comes out to be 61.5% over the total variation. The t test shows that the Significant variables found in the equation are Interest coverage, Profitability, Growth in terms of sale significant upto 5% level.

LR2=-(3.671E-16) -0.339 (IC) -0.573 (PROF) +0.346 (GS)

4.2.6 Main Findings

Correlation

	Automobile	Construction	IT	Oil, Power& Energy	Pharma
IC	**(*)**	**(**)**		**(*)**	**(**)**
DPR		**(*)**			
TS				**	
PROF	**(*)**	**(*)**		**(**)**	**(**)**
CFC	**(*)**	**(**)**			**(*)**
GS					
GA					
SA		**(**)**		**	
PE					**(**)**

Regression

	Automobile	Construction	IT	Oil, Power& Energy	Pharma
IC	*	(*)		(*)	(*)
DPR	**	(**)		(*)	*
TS				**	(*)
PROF	(*)	(*)	(**)	(**)	(**)
CFC	(**)			**	
GS					**
GA			**		(*)
SA		(**)	**		
PE	(*)				
Variation explained by all factors	**68.1%**	**74.2%**	**67.5%**	**52.9%**	**76.3%**
Variation explained by significant variable	**62.9%**	**69.7%**	**58.1%**	**52.1%**	**61.5%**

- As we can see Profitability is negatively correlated to Debt-Long term funds in all the 5 sectors.
- Dividend Payout Ratio is significantly related to Debt-Long Term Funds in 4 of the 5 sectors.
- Interest Coverage is significantly related to Debt-Long Term Funds in 4 of the 5 sectors.

Hence **H_{20} is accepted** and we can say Factors affecting Debt-Long Term Funds do not vary amongst various Indian sectors.

4.3 Determinants of Degree of Financial Leverage

4.3.1 Automobiles

4.3.1.1 Correlation Matrix and Results

Correlations

		LR3	IC	DPR	TS	PROF	CFC	GS	GA	SA	PE
LR3	Pearson Correlation	1	-.196	.205	.334	-.331	-.171	-.201	.144	.468*	.323
	Sig. (2-tailed)		.347	.325	.103	.106	.413	.335	.491	.018	.115
	N	25	25	25	25	25	25	25	25	25	25
IC	Pearson Correlation	-.196	1	.181	.061	.746**	.929**	.362	-.079	-.418*	-.093
	Sig. (2-tailed)	.347		.387	.771	.000	.000	.076	.709	.037	.659
	N	25	25	25	25	25	25	25	25	25	25
DPR	Pearson Correlation	.205	.181	1	.232	.187	.287	.001	-.095	.083	.487*
	Sig. (2-tailed)	.325	.387		.264	.370	.164	.998	.652	.693	.013
	N	25	25	25	25	25	25	25	25	25	25
TS	Pearson Correlation	.334	.061	.232	1	.261	.030	-.262	.023	-.057	.059
	Sig. (2-tailed)	.103	.771	.264		.208	.888	.206	.915	.787	.780
	N	25	25	25	25	25	25	25	25	25	25
PROF	Pearson Correlation	-.331	.746**	.187	.261	1	.751**	.225	-.131	-.720**	-.250
	Sig. (2-tailed)	.106	.000	.370	.208		.000	.281	.533	.000	.228
	N	25	25	25	25	25	25	25	25	25	25
CFC	Pearson Correlation	-.171	.929**	.287	.030	.751**	1	.286	.058	-.483*	-.105
	Sig. (2-tailed)	.413	.000	.164	.888	.000		.166	.783	.014	.617
	N	25	25	25	25	25	25	25	25	25	25
GS	Pearson Correlation	-.201	.362	.001	-.262	.225	.286	1	-.181	.019	.076
	Sig. (2-tailed)	.335	.076	.998	.206	.281	.166		.387	.927	.719
	N	25	25	25	25	25	25	25	25	25	25
GA	Pearson Correlation	.144	-.079	-.095	.023	-.131	.058	-.181	1	-.184	-.473*
	Sig. (2-tailed)	.491	.709	.652	.915	.533	.783	.387		.378	.017
	N	25	25	25	25	25	25	25	25	25	25
SA	Pearson Correlation	.468*	-.418*	.083	-.057	-.720**	-.483*	.019	-.184	1	.570**
	Sig. (2-tailed)	.018	.037	.693	.787	.000	.014	.927	.378		.003
	N	25	25	25	25	25	25	25	25	25	25
PE	Pearson Correlation	.323	-.093	.487*	.059	-.250	-.105	.076	-.473*	.570**	1
	Sig. (2-tailed)	.115	.659	.013	.780	.228	.617	.719	.017	.003	
	N	25	25	25	25	25	25	25	25	25	25

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The zero order correlation matrix shows that growth in terms of assets(.144) ,size in terms of assets(.468) , PE ratio(.323), Tax shield(.334) and dividend payout ratio(.205) has positive correlation with the dependent variable LR3. Variables like growth in terms of sales (-.201), Interest coverage (-.196), Profitability (-.331) and Cash flow coverage(-.171) are having negative correlation. Significant correlation is found between Sales in terms of assets.

4.3.1.2 Regression Analysis and Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.665[a]	.443	.108	.94433125	.443	1.324	9	15	.303
2	.665[b]	.443	.164	.91436190	.000	.001	1	15	.981
3	.664[c]	.441	.211	.88828197	-.002	.044	1	16	.836
4	.661[d]	.437	.250	.86613790	-.004	.114	1	17	.740
5	.658[e]	.433	.284	.84645858	-.005	.146	1	18	.706
6	.652[f]	.426	.311	.83014568	-.007	.237	1	19	.632
7	.635[g]	.403	.318	.82606859	-.023	.794	1	20	.383
8	.592[h]	.350	.291	.84210842	-.053	1.863	1	21	.187

a. Predictors: (Constant), PE, TS, CFC, GS, GA, DPR, SA, PROF, IC

b. Predictors: (Constant), PE, TS, CFC, GS, GA, SA, PROF, IC

c. Predictors: (Constant), PE, TS, CFC, GS, GA, SA, PROF

d. Predictors: (Constant), PE, TS, CFC, GS, GA, SA

e. Predictors: (Constant), PE, TS, GS, GA, SA

f. Predictors: (Constant), PE, TS, GA, SA

g. Predictors: (Constant), TS, GA, SA

h. Predictors: (Constant), TS, SA

ANOVA[i]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.624	9	1.180	1.324	.303[a]
	Residual	13.376	15	.892		
	Total	24.000	24			
2	Regression	10.623	8	1.328	1.588	.205[b]
	Residual	13.377	16	.836		
	Total	24.000	24			
3	Regression	10.586	7	1.512	1.917	.129[c]
	Residual	13.414	17	.789		
	Total	24.000	24			
4	Regression	10.496	6	1.749	2.332	.077[d]
	Residual	13.504	18	.750		
	Total	24.000	24			
5	Regression	10.387	5	2.077	2.899	.041[e]
	Residual	13.613	19	.716		
	Total	24.000	24			
6	Regression	10.217	4	2.554	3.706	.021[f]
	Residual	13.783	20	.689		
	Total	24.000	24			
7	Regression	9.670	3	3.223	4.724	.011[g]
	Residual	14.330	21	.682		
	Total	24.000	24			
8	Regression	8.399	2	4.199	5.922	.009[h]
	Residual	15.601	22	.709		
	Total	24.000	24			

a. Predictors: (Constant), PE, TS, CFC, GS, GA, DPR, SA, PROF, IC
b. Predictors: (Constant), PE, TS, CFC, GS, GA, SA, PROF, IC
c. Predictors: (Constant), PE, TS, CFC, GS, GA, SA, PROF
d. Predictors: (Constant), PE, TS, CFC, GS, GA, SA
e. Predictors: (Constant), PE, TS, GS, GA, SA
f. Predictors: (Constant), PE, TS, GA, SA
g. Predictors: (Constant), TS, GA, SA
h. Predictors: (Constant), TS, SA
i. Dependent Variable: LR3

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	1.168E-15	.189		.000	1.000	-.403	.403
	IC	-.118	.625	-.118	-.189	.853	-1.451	1.215
	DPR	.006	.265	.006	.024	.981	-.559	.572
	TS	.360	.248	.360	1.453	.167	-.168	.888
	PROF	-.158	.520	-.158	-.304	.765	-1.267	.951
	CFC	.271	.679	.271	.399	.696	-1.176	1.717
	GS	-.085	.232	-.085	-.366	.719	-.580	.410
	GA	.225	.282	.225	.798	.437	-.375	.825
	SA	.410	.380	.410	1.078	.298	-.401	1.220
	PE	.156	.327	.156	.477	.640	-.541	.853
2	(Constant)	1.170E-15	.183		.000	1.000	-.388	.388
	IC	-.122	.583	-.122	-.210	.836	-1.357	1.113
	TS	.361	.238	.361	1.518	.149	-.143	.864
	PROF	-.156	.497	-.156	-.315	.757	-1.211	.898
	CFC	.275	.627	.275	.439	.667	-1.055	1.605
	GS	-.085	.224	-.085	-.380	.709	-.561	.391
	GA	.226	.270	.226	.835	.416	-.347	.799
	SA	.410	.367	.410	1.118	.280	-.368	1.189
	PE	.160	.278	.160	.573	.574	-.431	.750
3	(Constant)	1.148E-15	.178		.000	1.000	-.375	.375
	TS	.353	.228	.353	1.547	.140	-.128	.835
	PROF	-.163	.482	-.163	-.337	.740	-1.180	.855
	CFC	.164	.327	.164	.502	.622	-.526	.854
	GS	-.096	.213	-.096	-.451	.658	-.544	.353
	GA	.244	.249	.244	.982	.340	-.280	.768
	SA	.398	.352	.398	1.131	.274	-.345	1.141
	PE	.175	.261	.175	.669	.513	-.377	.726
4	(Constant)	1.336E-15	.173		.000	1.000	-.364	.364
	TS	.311	.186	.311	1.674	.111	-.079	.701
	CFC	.085	.223	.085	.383	.706	-.383	.554
	GS	-.116	.199	-.116	-.580	.569	-.534	.303
	GA	.288	.207	.288	1.389	.182	-.147	.723
	SA	.476	.259	.476	1.837	.083	-.068	1.020
	PE	.187	.252	.187	.743	.467	-.342	.717

5	(Constant)	1.221E-15	.169		.000	1.000	-.354	.354
	TS	.316	.181	.316	1.743	.097	-.063	.695
	GS	-.089	.182	-.089	-.486	.632	-.470	.293
	GA	.299	.200	.299	1.494	.152	-.120	.718
	SA	.422	.213	.422	1.980	.062	-.024	.869
	PE	.212	.238	.212	.889	.385	-.287	.711
6	(Constant)	1.244E-15	.166		.000	1.000	-.346	.346
	TS	.339	.171	.339	1.980	.062	-.018	.696
	GA	.314	.194	.314	1.616	.122	-.091	.719
	SA	.427	.209	.427	2.041	.055	-.009	.863
	PE	.208	.234	.208	.891	.383	-.279	.696
7	(Constant)	1.423E-15	.165		.000	1.000	-.344	.344
	TS	.359	.169	.359	2.125	.046	.008	.710
	GA	.234	.172	.234	1.365	.187	-.123	.591
	SA	.532	.172	.532	3.097	.005	.175	.889
8	(Constant)	1.239E-15	.168		.000	1.000	-.349	.349
	TS	.362	.172	.362	2.102	.047	.005	.719
	SA	.489	.172	.489	2.840	.010	.132	.846

a. Dependent Variable: LR3

The regression analysis shows that the coefficient of determination i.e R^2, explained 44.3% variation in LR3 when all the variables are taken together. After removing all insignificant variables coefficient of determination comes out to be 35% over the total variation. The t test shows that Tax shield and Size in terms of assets are significant upto 5% level.

LR3= 1.239E-15 + 0.362TS + 0.489SA

4.3.2 Construction

4.3.2.1 Correlation Matrix and Results

Correlations

		LR3	IC	DPR	TS	PROF	CFC	GS	GA	SA	PE
LR3	Pearson Correlation	1	-.211	.003	-.103	-.092	-.166	-.190	-.290	.020	-.057
	Sig. (2-tailed)		.191	.986	.526	.574	.307	.241	.070	.902	.727
	N	40	40	40	40	40	40	40	40	40	40
IC	Pearson Correlation	-.211	1	.209	-.014	.663**	.943**	-.179	-.182	.280	-.346*
	Sig. (2-tailed)	.191		.195	.933	.000	.000	.269	.261	.080	.029
	N	40	40	40	40	40	40	40	40	40	40
DPR	Pearson Correlation	.003	.209	1	-.213	.071	.237	.045	.017	-.148	.200
	Sig. (2-tailed)	.986	.195		.188	.663	.141	.784	.915	.362	.215
	N	40	40	40	40	40	40	40	40	40	40
TS	Pearson Correlation	-.103	-.014	-.213	1	.007	-.045	-.062	.108	.428**	-.225
	Sig. (2-tailed)	.526	.933	.188		.965	.785	.702	.508	.006	.164
	N	40	40	40	40	40	40	40	40	40	40
PROF	Pearson Correlation	-.092	.663**	.071	.007	1	.546**	-.019	-.211	.137	-.380*
	Sig. (2-tailed)	.574	.000	.663	.965		.000	.906	.191	.398	.016
	N	40	40	40	40	40	40	40	40	40	40
CFC	Pearson Correlation	-.166	.943**	.237	-.045	.546**	1	-.220	-.188	.294	-.361*
	Sig. (2-tailed)	.307	.000	.141	.785	.000		.172	.246	.065	.022
	N	40	40	40	40	40	40	40	40	40	40
GS	Pearson Correlation	-.190	-.179	.045	-.062	-.019	-.220	1	.659**	-.453**	.251
	Sig. (2-tailed)	.241	.269	.784	.702	.906	.172		.000	.003	.119
	N	40	40	40	40	40	40	40	40	40	40
GA	Pearson Correlation	-.290	-.182	.017	.108	-.211	-.188	.659**	1	-.247	.202
	Sig. (2-tailed)	.070	.261	.915	.508	.191	.246	.000		.124	.212
	N	40	40	40	40	40	40	40	40	40	40
SA	Pearson Correlation	.020	.280	-.148	.428**	.137	.294	-.453**	-.247	1	-.539**
	Sig. (2-tailed)	.902	.080	.362	.006	.398	.065	.003	.124		.000
	N	40	40	40	40	40	40	40	40	40	40
PE	Pearson Correlation	-.057	-.346*	.200	-.225	-.380*	-.361*	.251	.202	-.539**	1
	Sig. (2-tailed)	.727	.029	.215	.164	.016	.022	.119	.212	.000	
	N	40	40	40	40	40	40	40	40	40	40

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

The zero order correlation matrix shows that Dividend payout ratio (.003) and Sales in terms of assets (.02). Variables like Interest coverage (-.211), Profitability (-.092), Cash flow coverage (-.166), Dividend payout ratio (-.003), growth in terms of sales (-.190), Growth in terms of assets (-.290), Tax shield(-.103) are having negative correlation. None of the variables are found to be significant here.

4.3.2.2 Regression Analysis and Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.429[a]	.184	-.060	1.02973560	.184	.753	9	30	.659
2	.429[b]	.184	-.026	1.01301352	.000	.001	1	30	.971
3	.429[c]	.184	.005	.99734213	.000	.018	1	31	.895
4	.428[d]	.183	.035	.98254964	.000	.028	1	32	.867
5	.425[e]	.181	.060	.96950873	-.003	.103	1	33	.750
6	.417[f]	.174	.079	.95960579	-.007	.289	1	34	.595
7	.405[g]	.164	.094	.95166447	-.010	.407	1	35	.528
8	.395[h]	.156	.110	.94318100	-.008	.343	1	36	.562

a. Predictors: (Constant), PE, DPR, GA, TS, PROF, CFC, SA, GS, IC

b. Predictors: (Constant), PE, DPR, GA, TS, PROF, CFC, GS, IC

c. Predictors: (Constant), PE, DPR, GA, TS, PROF, CFC, IC

d. Predictors: (Constant), PE, DPR, GA, TS, CFC, IC

e. Predictors: (Constant), PE, DPR, GA, TS, IC

f. Predictors: (Constant), PE, GA, TS, IC

g. Predictors: (Constant), PE, GA, IC

h. Predictors: (Constant), GA, IC

ANOVA[i]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.189	9	.799	.753	.659[a]
	Residual	31.811	30	1.060		
	Total	39.000	39			
2	Regression	7.188	8	.898	.876	.547[b]
	Residual	31.812	31	1.026		
	Total	39.000	39			
3	Regression	7.170	7	1.024	1.030	.430[c]
	Residual	31.830	32	.995		
	Total	39.000	39			
4	Regression	7.142	6	1.190	1.233	.315[d]
	Residual	31.858	33	.965		
	Total	39.000	39			
5	Regression	7.042	5	1.408	1.498	.216[e]
	Residual	31.958	34	.940		
	Total	39.000	39			
6	Regression	6.770	4	1.693	1.838	.144[f]
	Residual	32.230	35	.921		
	Total	39.000	39			
7	Regression	6.396	3	2.132	2.354	.088[g]
	Residual	32.604	36	.906		
	Total	39.000	39			
8	Regression	6.085	2	3.043	3.420	.043[h]
	Residual	32.915	37	.890		
	Total	39.000	39			

a. Predictors: (Constant), PE, DPR, GA, TS, PROF, CFC, SA, GS, IC

b. Predictors: (Constant), PE, DPR, GA, TS, PROF, CFC, GS, IC

c. Predictors: (Constant), PE, DPR, GA, TS, PROF, CFC, IC

d. Predictors: (Constant), PE, DPR, GA, TS, CFC, IC

e. Predictors: (Constant), PE, DPR, GA, TS, IC

f. Predictors: (Constant), PE, GA, TS, IC

g. Predictors: (Constant), PE, GA, IC

h. Predictors: (Constant), GA, IC

i. Dependent Variable: LR3

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-6.202E-17	.163		.000	1.000	-.333	.333
	IC	-.538	.594	-.538	-.905	.373	-1.752	.676
	DPR	.082	.181	.082	.455	.652	-.287	.452
	TS	-.088	.194	-.088	-.452	.654	-.483	.308
	PROF	.050	.255	.050	.196	.846	-.471	.572
	CFC	.183	.544	.183	.335	.740	-.929	1.295
	GS	-.028	.248	-.028	-.114	.910	-.536	.479
	GA	-.289	.234	-.289	-1.233	.227	-.768	.190
	SA	.009	.237	.009	.037	.971	-.476	.493
	PE	-.124	.220	-.124	-.564	.577	-.573	.325
2	(Constant)	-4.696E-17	.160		.000	1.000	-.327	.327
	IC	-.536	.583	-.536	-.920	.365	-1.725	.653
	DPR	.082	.178	.082	.462	.648	-.281	.445
	TS	-.085	.175	-.085	-.485	.631	-.441	.271
	PROF	.049	.249	.049	.196	.846	-.459	.557
	CFC	.183	.536	.183	.341	.735	-.910	1.275
	GS	-.031	.234	-.031	-.133	.895	-.508	.446
	GA	-.289	.231	-.289	-1.254	.219	-.760	.181
	PE	-.127	.198	-.127	-.641	.526	-.532	.277
3	(Constant)	-5.870E-17	.158		.000	1.000	-.321	.321
	IC	-.534	.574	-.534	-.930	.359	-1.703	.635
	DPR	.082	.175	.082	.466	.644	-.275	.438
	TS	-.081	.170	-.081	-.478	.636	-.427	.265
	PROF	.040	.235	.040	.168	.867	-.440	.519
	CFC	.187	.526	.187	.356	.724	-.884	1.259
	GA	-.310	.167	-.310	-1.853	.073	-.650	.031
	PE	-.131	.193	-.131	-.677	.503	-.525	.263
4	(Constant)	-6.372E-17	.155		.000	1.000	-.316	.316
	IC	-.481	.473	-.481	-1.016	.317	-1.444	.482
	DPR	.082	.173	.082	.477	.637	-.269	.433
	TS	-.083	.167	-.083	-.497	.623	-.423	.257
	CFC	.156	.484	.156	.322	.750	-.828	1.139
	GA	-.313	.164	-.313	-1.909	.065	-.646	.021
	PE	-.139	.184	-.139	-.756	.455	-.514	.236
5	(Constant)	-3.513E-17	.153		.000	1.000	-.312	.312
	IC	-.340	.175	-.340	-1.942	.060	-.695	.016
	DPR	.090	.168	.090	.537	.595	-.252	.433
	TS	-.088	.164	-.088	-.539	.594	-.422	.245
	GA	-.314	.162	-.314	-1.941	.061	-.642	.015
	PE	-.149	.179	-.149	-.833	.411	-.513	.215

6	(Constant)	-8.611E-18	.152		.000	1.000	-.308	.308
	IC	-.312	.166	-.312	-1.886	.068	-.648	.024
	TS	-.102	.160	-.102	-.638	.528	-.428	.223
	GA	-.311	.160	-.311	-1.942	.060	-.635	.014
	PE	-.125	.172	-.125	-.729	.471	-.474	.223
7	(Constant)	-9.417E-18	.150		.000	1.000	-.305	.305
	IC	-.304	.164	-.304	-1.855	.072	-.635	.028
	GA	-.326	.157	-.326	-2.078	.045	-.644	-.008
	PE	-.096	.164	-.096	-.586	.562	-.429	.237
8	(Constant)	-3.087E-17	.149		.000	1.000	-.302	.302
	IC	-.273	.154	-.273	-1.776	.084	-.584	.038
	GA	-.340	.154	-.340	-2.211	.033	-.651	-.028

a. Dependent Variable: LR3

The regression analysis shows that the coefficient of determination i.e. R^2, explained 18.4% variation in LR3 when all the variables are taken together. After removing all insignificant variables coefficient of determination comes out to be 15.6% over the total variation. The t test shows that Growth in terms of assets are significant upto 5% level and Interest coverage upto 10% level.

LR3= -3.087E-17 -0.273IC -0.34GA

4.3.3 IT

4.3.3.1 Correlation Matrix and Results

Correlations

		LR3	IC	DPR	TS	PROF	CFC	GS	GA	SA	PE
LR3	Pearson Correlation	1	-.058	-.112	.056	-.094	-.068	-.063	-.224	.237	.146
	Sig. (2-tailed)		.782	.593	.791	.656	.746	.766	.282	.255	.486
	N	25	25	25	25	25	25	25	25	25	25
IC	Pearson Correlation	-.058	1	.256	.024	.364	.456*	.091	.082	.146	.045
	Sig. (2-tailed)	.782		.217	.909	.074	.022	.666	.697	.486	.832
	N	25	25	25	25	25	25	25	25	25	25
DPR	Pearson Correlation	-.112	.256	1	-.484*	.368	.182	.282	.031	.042	.430*
	Sig. (2-tailed)	.593	.217		.014	.071	.385	.172	.884	.843	.032
	N	25	25	25	25	25	25	25	25	25	25
TS	Pearson Correlation	.056	.024	-.484*	1	-.730**	-.120	-.267	-.270	-.348	-.393
	Sig. (2-tailed)	.791	.909	.014		.000	.567	.197	.192	.088	.052
	N	25	25	25	25	25	25	25	25	25	25
PROF	Pearson Correlation	-.094	.364	.368	-.730**	1	.444*	.435*	.322	.578**	.366
	Sig. (2-tailed)	.656	.074	.071	.000		.026	.030	.117	.002	.072
	N	25	25	25	25	25	25	25	25	25	25
CFC	Pearson Correlation	-.068	.456*	.182	-.120	.444*	1	.065	.273	.047	.044
	Sig. (2-tailed)	.746	.022	.385	.567	.026		.758	.187	.824	.834
	N	25	25	25	25	25	25	25	25	25	25
GS	Pearson Correlation	-.063	.091	.282	-.267	.435*	.065	1	.170	.257	.227
	Sig. (2-tailed)	.766	.666	.172	.197	.030	.758		.418	.215	.276
	N	25	25	25	25	25	25	25	25	25	25
GA	Pearson Correlation	-.224	.082	.031	-.270	.322	.273	.170	1	-.120	-.044
	Sig. (2-tailed)	.282	.697	.884	.192	.117	.187	.418		.569	.833
	N	25	25	25	25	25	25	25	25	25	25
SA	Pearson Correlation	.237	.146	.042	-.348	.578**	.047	.257	-.120	1	.474*
	Sig. (2-tailed)	.255	.486	.843	.088	.002	.824	.215	.569		.017
	N	25	25	25	25	25	25	25	25	25	25
PE	Pearson Correlation	.146	.045	.430*	-.393	.366	.044	.227	-.044	.474*	1
	Sig. (2-tailed)	.486	.832	.032	.052	.072	.834	.276	.833	.017	
	N	25	25	25	25	25	25	25	25	25	25

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The zero order correlation matrix shows that the size in terms of assets (.237), PE ratio (.146) and Tax shield (.056) has positive correlation with the dependent variable LR3. Variables like Interest coverage (-.058), Dividend payout ratio (-.112), Profitability (-.094), Cash flow coverage (-.068), Growth in terms of sales (-0.063) and Growth in terms of assets (-.224) are having negative correlation. No variable is found to be significant here.

4.3.3.2 Regression Analysis and Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.411[a]	.169	-.330	1.15307581	.169	.339	9	15	.947
2	.410[b]	.168	-.247	1.11682080	.000	.010	1	15	.923
3	.409[c]	.167	-.176	1.08440131	-.001	.027	1	16	.871
4	.401[d]	.161	-.119	1.05766682	-.006	.123	1	17	.730
5	.397[e]	.158	-.064	1.03131433	-.003	.065	1	18	.802
6	.390[f]	.152	-.017	1.00853104	-.006	.126	1	19	.726
7	.376[g]	.142	.019	.99047209	-.011	.255	1	20	.619
8	.369[h]	.136	.057	.97092862	-.006	.140	1	21	.712
9	.237[i]	.056	.015	.99249977	-.080	2.033	1	22	.168
10	.000[j]	.000	.000	1.00000000	-.056	1.364	1	23	.255

a. Predictors: (Constant), PE, CFC, GS, GA, IC, TS, SA, DPR, PROF

b. Predictors: (Constant), PE, CFC, GA, IC, TS, SA, DPR, PROF

c. Predictors: (Constant), PE, CFC, GA, TS, SA, DPR, PROF

d. Predictors: (Constant), CFC, GA, TS, SA, DPR, PROF

e. Predictors: (Constant), CFC, GA, TS, SA, PROF

f. Predictors: (Constant), CFC, TS, SA, PROF

g. Predictors: (Constant), CFC, SA, PROF

h. Predictors: (Constant), SA, PROF

i. Predictors: (Constant), SA

j. Predictor: (constant)

ANOVA[k]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.056	9	.451	.339	.947[a]
	Residual	19.944	15	1.330		
	Total	24.000	24			
2	Regression	4.043	8	.505	.405	.901[b]
	Residual	19.957	16	1.247		
	Total	24.000	24			
3	Regression	4.009	7	.573	.487	.831[c]
	Residual	19.991	17	1.176		
	Total	24.000	24			
4	Regression	3.864	6	.644	.576	.745[d]
	Residual	20.136	18	1.119		
	Total	24.000	24			
5	Regression	3.791	5	.758	.713	.621[e]
	Residual	20.209	19	1.064		
	Total	24.000	24			
6	Regression	3.657	4	.914	.899	.483[f]
	Residual	20.343	20	1.017		
	Total	24.000	24			
7	Regression	3.398	3	1.133	1.155	.350[g]
	Residual	20.602	21	.981		
	Total	24.000	24			
8	Regression	3.261	2	1.630	1.729	.201[h]
	Residual	20.739	22	.943		
	Total	24.000	24			
9	Regression	1.344	1	1.344	1.364	.255[i]
	Residual	22.656	23	.985		
	Total	24.000	24			
10	Regression	.000	0	.000	.	.[j]
	Residual	24.000	24	1.000		
	Total	24.000	24			

a. Predictors: (Constant), PE, CFC, GS, GA, IC, TS, SA, DPR, PROF

b. Predictors: (Constant), PE, CFC, GA, IC, TS, SA, DPR, PROF

c. Predictors: (Constant), PE, CFC, GA, TS, SA, DPR, PROF

d. Predictors: (Constant), CFC, GA, TS, SA, DPR, PROF

e. Predictors: (Constant), CFC, GA, TS, SA, PROF

f. Predictors: (Constant), CFC, TS, SA, PROF

g. Predictors: (Constant), CFC, SA, PROF

h. Predictors: (Constant), SA, PROF

i. Predictors: (Constant), SA

j. Predictor: (constant)

k. Dependent Variable: LR3

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-4.156E-16	.231		.000	1.000	-.492	.492
	IC	.055	.316	.055	.175	.864	-.619	.730
	DPR	-.132	.337	-.132	-.393	.700	-.850	.585
	TS	-.230	.475	-.230	-.484	.635	-1.243	.783
	PROF	-.540	.618	-.540	-.875	.396	-1.856	.776
	CFC	.147	.312	.147	.470	.645	-.519	.812
	GS	.028	.281	.028	.098	.923	-.571	.626
	GA	-.106	.280	-.106	-.378	.711	-.703	.491
	SA	.390	.380	.390	1.025	.322	-.420	1.200
	PE	.106	.308	.106	.343	.737	-.551	.762
2	(Constant)	-4.177E-16	.223		.000	1.000	-.474	.474
	IC	.050	.302	.050	.165	.871	-.590	.690
	DPR	-.124	.316	-.124	-.393	.700	-.795	.546
	TS	-.217	.441	-.217	-.492	.630	-1.151	.718
	PROF	-.517	.554	-.517	-.934	.364	-1.691	.657
	CFC	.140	.295	.140	.475	.642	-.486	.766
	GA	-.103	.270	-.103	-.382	.707	-.675	.469
	SA	.389	.368	.389	1.057	.306	-.391	1.169
	PE	.106	.298	.106	.356	.726	-.526	.739
3	(Constant)	-4.130E-16	.217		.000	1.000	-.458	.458
	DPR	-.107	.291	-.107	-.369	.716	-.721	.506
	TS	-.183	.381	-.183	-.482	.636	-.987	.620
	PROF	-.483	.498	-.483	-.969	.346	-1.533	.568
	CFC	.149	.282	.149	.529	.604	-.446	.744
	GA	-.104	.262	-.104	-.398	.695	-.657	.448
	SA	.389	.357	.389	1.088	.292	-.365	1.143
	PE	.101	.288	.101	.351	.730	-.507	.709
4	(Constant)	-4.632E-16	.212		.000	1.000	-.444	.444
	DPR	-.066	.260	-.066	-.255	.802	-.611	.479
	TS	-.201	.368	-.201	-.546	.592	-.974	.572
	PROF	-.507	.481	-.507	-1.055	.305	-1.517	.503
	CFC	.152	.275	.152	.551	.588	-.426	.729
	GA	-.101	.255	-.101	-.395	.697	-.638	.436
	SA	.444	.314	.444	1.415	.174	-.215	1.102
5	(Constant)	-4.866E-16	.206		.000	1.000	-.432	.432
	TS	-.169	.337	-.169	-.501	.622	-.875	.537
	PROF	-.520	.466	-.520	-1.116	.278	-1.496	.456
	CFC	.144	.267	.144	.541	.595	-.414	.702
	GA	-.086	.242	-.086	-.355	.726	-.593	.421
	SA	.462	.298	.462	1.549	.138	-.162	1.085
6	(Constant)	-5.156E-16	.202		.000	1.000	-.421	.421
	TS	-.166	.330	-.166	-.505	.619	-.854	.522
	PROF	-.566	.438	-.566	-1.291	.211	-1.480	.348
	CFC	.139	.260	.139	.536	.598	-.404	.683
	SA	.499	.272	.499	1.835	.081	-.068	1.067

7	(Constant)	-4.819E-16	.198		.000	1.000	-.412	.412
	PROF	-.402	.288	-.402	-1.393	.178	-1.001	.198
	CFC	.088	.235	.088	.375	.712	-.401	.578
	SA	.465	.259	.465	1.797	.087	-.073	1.003
8	(Constant)	-4.635E-16	.194		.000	1.000	-.403	.403
	PROF	-.346	.243	-.346	-1.426	.168	-.850	.157
	SA	.437	.243	.437	1.799	.086	-.067	.941
9	(Constant)	-2.971E-16	.198		.000	1.000	-.411	.411
	SA	.237	.203	.237	1.168	.255	-.182	.656
10	(Constant)	-5.329E-17	.200		.000	1.000	-.413	.413

a. Dependent Variable: LR3

The regression analysis shows that the coefficient of determination i.e R^2 , explained 16.9% variation in LR1 when all the variables are taken together. After removing all insignificant variables coefficient of determination comes out to be 0% over the total variation. The t test shows that there is no significant variable in this case.

4.3.4 Oil, Power and Energy

4.3.4.1 Correlation Matrix and Results

Correlations

		LR3	IC	DPR	TS	PROF	CFC	GS	GA	SA	PE
LR3	Pearson Correlation	1	.025	.054	-.252	.031	.037	.062	.056	-.016	.275*
	Sig. (2-tailed)		.847	.684	.052	.814	.781	.640	.673	.902	.034
	N	60	60	60	60	60	60	60	60	60	60
IC	Pearson Correlation	.025	1	.203	.127	.314*	.042	-.048	-.026	-.051	-.110
	Sig. (2-tailed)	.847		.120	.333	.014	.750	.716	.842	.696	.403
	N	60	60	60	60	60	60	60	60	60	60
DPR	Pearson Correlation	.054	.203	1	.386**	-.128	-.123	-.270*	-.370**	.254	.085
	Sig. (2-tailed)	.684	.120		.002	.330	.349	.037	.004	.050	.518
	N	60	60	60	60	60	60	60	60	60	60
TS	Pearson Correlation	-.252	.127	.386**	1	-.309*	-.404**	-.210	-.411**	.221	-.088
	Sig. (2-tailed)	.052	.333	.002		.016	.001	.107	.001	.090	.502
	N	60	60	60	60	60	60	60	60	60	60
PROF	Pearson Correlation	.031	.314*	-.128	-.309*	1	.589**	.416**	.530**	-.611**	-.335**
	Sig. (2-tailed)	.814	.014	.330	.016		.000	.001	.000	.000	.009
	N	60	60	60	60	60	60	60	60	60	60
CFC	Pearson Correlation	.037	.042	-.123	-.404**	.589**	1	.452**	.779**	-.331**	-.157
	Sig. (2-tailed)	.781	.750	.349	.001	.000		.000	.000	.010	.232
	N	60	60	60	60	60	60	60	60	60	60
GS	Pearson Correlation	.062	-.048	-.270*	-.210	.416**	.452**	1	.359**	-.225	-.082
	Sig. (2-tailed)	.640	.716	.037	.107	.001	.000		.005	.084	.536
	N	60	60	60	60	60	60	60	60	60	60
GA	Pearson Correlation	.056	-.026	-.370**	-.411**	.530**	.779**	.359**	1	-.421**	-.069
	Sig. (2-tailed)	.673	.842	.004	.001	.000	.000	.005		.001	.600
	N	60	60	60	60	60	60	60	60	60	60
SA	Pearson Correlation	-.016	-.051	.254	.221	-.611**	-.331**	-.225	-.421**	1	.037
	Sig. (2-tailed)	.902	.696	.050	.090	.000	.010	.084	.001		.779
	N	60	60	60	60	60	60	60	60	60	60
PE	Pearson Correlation	.275*	-.110	.085	-.088	-.335**	-.157	-.082	-.069	.037	1
	Sig. (2-tailed)	.034	.403	.518	.502	.009	.232	.536	.600	.779	
	N	60	60	60	60	60	60	60	60	60	60

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The zero order correlation matrix shows that PE ratio (.275), Dividend payout ratio (.054), Interest coverage (.025), Profitability (.031), Cash flow coverage (.037), Growth in terms of assets(.056), Growth in terms of sales(.062) has positive correlation with the dependent variable LR3. Variables like Tax shield (-.252) and Sales in terms of assets (-.016) are having negative correlation. Significant correlation is found between PE ratio.

4.3.4.2 Regression Analysis and Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.401[a]	.161	.010	.99491852	.161	1.067	9	50	.403
2	.400[b]	.160	.028	.98566605	.000	.056	1	50	.814
3	.400[c]	.160	.047	.97630075	.000	.017	1	51	.898
4	.396[d]	.157	.061	.96880576	-.003	.189	1	52	.665
5	.391[e]	.153	.074	.96214669	-.004	.260	1	53	.612
6	.386[f]	.149	.087	.95539702	-.004	.231	1	54	.633
7	.381[g]	.145	.099	.94900667	-.004	.253	1	55	.617
8	.357[h]	.128	.097	.95016389	-.017	1.139	1	56	.290

a. Predictors: (Constant), PE, SA, IC, GS, TS, DPR, GA, PROF, CFC

b. Predictors: (Constant), PE, IC, GS, TS, DPR, GA, PROF, CFC

c. Predictors: (Constant), PE, IC, GS, TS, DPR, GA, CFC

d. Predictors: (Constant), PE, IC, GS, TS, DPR, CFC

e. Predictors: (Constant), PE, IC, GS, TS, DPR

f. Predictors: (Constant), PE, GS, TS, DPR

g. Predictors: (Constant), PE, TS, DPR

h. Predictors: (Constant), PE, TS

ANOVA[i]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9.507	9	1.056	1.067	.403[a]
	Residual	49.493	50	.990		
	Total	59.000	59			
2	Regression	9.452	8	1.181	1.216	.309[b]
	Residual	49.548	51	.972		
	Total	59.000	59			
3	Regression	9.436	7	1.348	1.414	.220[c]
	Residual	49.564	52	.953		
	Total	59.000	59			
4	Regression	9.255	6	1.543	1.643	.154[d]
	Residual	49.745	53	.939		
	Total	59.000	59			
5	Regression	9.011	5	1.802	1.947	.102[e]
	Residual	49.989	54	.926		
	Total	59.000	59			
6	Regression	8.797	4	2.199	2.409	.060[f]
	Residual	50.203	55	.913		
	Total	59.000	59			
7	Regression	8.566	3	2.855	3.170	.031[g]
	Residual	50.434	56	.901		
	Total	59.000	59			
8	Regression	7.540	2	3.770	4.176	.020[h]
	Residual	51.460	57	.903		
	Total	59.000	59			

a. Predictors: (Constant), PE, SA, IC, GS, TS, DPR, GA, PROF, CFC

b. Predictors: (Constant), PE, IC, GS, TS, DPR, GA, PROF, CFC

c. Predictors: (Constant), PE, IC, GS, TS, DPR, GA, CFC

d. Predictors: (Constant), PE, IC, GS, TS, DPR, CFC

e. Predictors: (Constant), PE, IC, GS, TS, DPR

f. Predictors: (Constant), PE, GS, TS, DPR

g. Predictors: (Constant), PE, TS, DPR

h. Predictors: (Constant), PE, TS

i. Dependent Variable: LR3

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-4.285E-16	.128		.000	1.000	-.258	.258
	IC	.053	.149	.053	.356	.724	-.246	.352
	DPR	.178	.169	.178	1.050	.299	-.162	.517
	TS	-.305	.162	-.305	-1.886	.065	-.630	.020
	PROF	.059	.242	.059	.242	.810	-.427	.544
	CFC	-.168	.248	-.168	-.677	.502	-.667	.331
	GS	.094	.158	.094	.592	.556	-.224	.412
	GA	.098	.241	.098	.409	.685	-.385	.582
	SA	.042	.179	.042	.236	.814	-.318	.403
	PE	.245	.151	.245	1.621	.111	-.058	.548
2	(Constant)	-4.139E-16	.127		.000	1.000	-.255	.255
	IC	.059	.145	.059	.408	.685	-.232	.350
	DPR	.185	.164	.185	1.128	.265	-.144	.515
	TS	-.310	.159	-.310	-1.949	.057	-.629	.009
	PROF	.025	.193	.025	.129	.898	-.363	.413
	CFC	-.163	.245	-.163	-.665	.509	-.655	.329
	GS	.099	.156	.099	.633	.530	-.214	.411
	GA	.093	.237	.093	.392	.696	-.384	.570
	PE	.235	.144	.235	1.630	.109	-.054	.525
3	(Constant)	-4.159E-16	.126		.000	1.000	-.253	.253
	IC	.067	.131	.067	.508	.614	-.197	.330
	DPR	.187	.162	.187	1.157	.253	-.138	.512
	TS	-.314	.154	-.314	-2.045	.046	-.622	-.006
	CFC	-.159	.241	-.159	-.660	.512	-.642	.324
	GS	.104	.148	.104	.703	.485	-.193	.401
	GA	.100	.229	.100	.435	.665	-.361	.560
	PE	.229	.134	.229	1.709	.093	-.040	.497
4	(Constant)	-4.444E-16	.125		.000	1.000	-.251	.251
	IC	.067	.130	.067	.516	.608	-.194	.329
	DPR	.157	.145	.157	1.083	.284	-.133	.447
	TS	-.312	.152	-.312	-2.049	.045	-.618	-.007
	CFC	-.080	.156	-.080	-.510	.612	-.394	.234
	GS	.097	.146	.097	.664	.510	-.196	.390
	PE	.236	.132	.236	1.797	.078	-.027	.500
5	(Constant)	-4.426E-16	.124		.000	1.000	-.249	.249
	IC	.062	.129	.062	.481	.633	-.197	.321
	DPR	.146	.142	.146	1.026	.310	-.139	.431
	TS	-.281	.138	-.281	-2.030	.047	-.558	-.003
	GS	.065	.131	.065	.498	.621	-.198	.329
	PE	.250	.128	.250	1.947	.057	-.007	.507
6	(Constant)	-4.364E-16	.123		.000	1.000	-.247	.247
	DPR	.158	.139	.158	1.139	.260	-.120	.436
	TS	-.278	.137	-.278	-2.028	.047	-.553	-.003
	GS	.066	.131	.066	.503	.617	-.196	.327
	PE	.242	.126	.242	1.915	.061	-.011	.495

7	(Constant)	-4.377E-16	.123		.000	1.000	-.245	.245
	DPR	.144	.135	.144	1.067	.290	-.126	.415
	TS	-.287	.135	-.287	-2.124	.038	-.558	-.016
	PE	.237	.125	.237	1.894	.063	-.014	.488
8	(Constant)	-4.770E-16	.123		.000	1.000	-.246	.246
	TS	-.230	.124	-.230	-1.850	.069	-.478	.019
	PE	.254	.124	.254	2.048	.045	.006	.503

a. Dependent Variable: LR3

The regression analysis shows that the coefficient of determination i.e R^2 , explained 16.1% variation in LR3 when all the variables are taken together. After removing all insignificant variables coefficient of determination comes out to be 12.8% over the total variation. The t test shows that PE ratio is significant upto 5% level and Tax Shield upto 10% level.

LR3= -4.770E-16 -.230TS + 0.254PE

4.3.5 Pharma

4.3.5.1 Correlation Matrix and Results

Correlations

		LR3	IC	DPR	TS	PROF	CFC	GS	GA	SA	PE
LR3	Pearson Correlation	1	-.276	-.216	-.023	-.242	.181	-.234	.019	-.108	-.360
	Sig. (2-tailed)		.181	.299	.914	.244	.387	.260	.927	.607	.077
	N	25	25	25	25	25	25	25	25	25	25
IC	Pearson Correlation	-.276	1	.331	-.164	.393	-.099	.120	-.145	-.169	.439*
	Sig. (2-tailed)	.181		.106	.433	.052	.637	.567	.488	.421	.028
	N	25	25	25	25	25	25	25	25	25	25
DPR	Pearson Correlation	-.216	.331	1	.054	.556**	.176	.003	-.157	-.311	.488*
	Sig. (2-tailed)	.299	.106		.798	.004	.399	.989	.455	.130	.013
	N	25	25	25	25	25	25	25	25	25	25
TS	Pearson Correlation	-.023	-.164	.054	1	-.072	-.147	.052	-.040	.149	-.002
	Sig. (2-tailed)	.914	.433	.798		.732	.484	.804	.848	.478	.993
	N	25	25	25	25	25	25	25	25	25	25
PROF	Pearson Correlation	-.242	.393	.556**	-.072	1	.199	.182	-.221	-.321	.706**
	Sig. (2-tailed)	.244	.052	.004	.732		.340	.384	.289	.117	.000
	N	25	25	25	25	25	25	25	25	25	25
CFC	Pearson Correlation	.181	-.099	.176	-.147	.199	1	-.465*	-.222	-.283	.305
	Sig. (2-tailed)	.387	.637	.399	.484	.340		.019	.286	.170	.139
	N	25	25	25	25	25	25	25	25	25	25
GS	Pearson Correlation	-.234	.120	.003	.052	.182	-.465*	1	.165	-.018	.020
	Sig. (2-tailed)	.260	.567	.989	.804	.384	.019		.430	.931	.925
	N	25	25	25	25	25	25	25	25	25	25
GA	Pearson Correlation	.019	-.145	-.157	-.040	-.221	-.222	.165	1	-.188	-.553**
	Sig. (2-tailed)	.927	.488	.455	.848	.289	.286	.430		.367	.004
	N	25	25	25	25	25	25	25	25	25	25
SA	Pearson Correlation	-.108	-.169	-.311	.149	-.321	-.283	-.018	-.188	1	-.067
	Sig. (2-tailed)	.607	.421	.130	.478	.117	.170	.931	.367		.750
	N	25	25	25	25	25	25	25	25	25	25
PE	Pearson Correlation	-.360	.439*	.488*	-.002	.706**	.305	.020	-.553**	-.067	1
	Sig. (2-tailed)	.077	.028	.013	.993	.000	.139	.925	.004	.750	
	N	25	25	25	25	25	25	25	25	25	25

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

The zero order correlation matrix shows that growth in terms of assets (.019) and Cash flow coverage (.181) has positive correlation with the dependent variable LR3. Variables like Interest coverage(-.276), Dividend payout ratio(-.216) ,Tax shield(-.023)

,Profitability(-.242), Growth in terms of sales(-0.234), sales in terms of assets(-0.108) and PE ratio(-0.360) are having negative correlation. No variable is found significant in this case.

4.3.5.2 Regression Analysis and Results

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.541[a]	.293	-.132	1.06380269	.293	.690	9	15	.708
2	.540[b]	.292	-.062	1.03053263	.000	.015	1	15	.905
3	.537[c]	.289	-.004	1.00196286	-.003	.070	1	16	.794
4	.532[d]	.283	.044	.97794246	-.006	.147	1	17	.706
5	.528[e]	.278	.088	.95479961	-.004	.111	1	18	.742
6	.524[f]	.274	.129	.93327549	-.004	.108	1	19	.746
7	.511[g]	.261	.155	.91901579	-.013	.363	1	20	.554
8	.472[h]	.223	.152	.92083048	-.038	1.087	1	21	.309
9	.360[i]	.130	.092	.95292649	-.093	2.631	1	22	.119

a. Predictors: (Constant), PE, TS, GS, SA, IC, DPR, GA, CFC, PROF

b. Predictors: (Constant), PE, GS, SA, IC, DPR, GA, CFC, PROF

c. Predictors: (Constant), PE, GS, SA, DPR, GA, CFC, PROF

d. Predictors: (Constant), PE, GS, SA, DPR, GA, CFC

e. Predictors: (Constant), PE, GS, SA, GA, CFC

f. Predictors: (Constant), PE, SA, GA, CFC

g. Predictors: (Constant), PE, GA, CFC

h. Predictors: (Constant), PE, CFC

i. Predictors: (Constant), PE

ANOVA[j]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	7.025	9	.781	.690	.708[a]
	Residual	16.975	15	1.132		
	Total	24.000	24			
2	Regression	7.008	8	.876	.825	.593[b]
	Residual	16.992	16	1.062		
	Total	24.000	24			
3	Regression	6.933	7	.990	.987	.473[c]
	Residual	17.067	17	1.004		
	Total	24.000	24			
4	Regression	6.785	6	1.131	1.182	.359[d]
	Residual	17.215	18	.956		
	Total	24.000	24			
5	Regression	6.679	5	1.336	1.465	.247[e]
	Residual	17.321	19	.912		
	Total	24.000	24			
6	Regression	6.580	4	1.645	1.889	.152[f]
	Residual	17.420	20	.871		
	Total	24.000	24			
7	Regression	6.264	3	2.088	2.472	.090[g]
	Residual	17.736	21	.845		
	Total	24.000	24			
8	Regression	5.346	2	2.673	3.152	.063[h]
	Residual	18.654	22	.848		
	Total	24.000	24			
9	Regression	3.114	1	3.114	3.430	.077[i]
	Residual	20.886	23	.908		
	Total	24.000	24			

a. Predictors: (Constant), PE, TS, GS, SA, IC, DPR, GA, CFC, PROF

b. Predictors: (Constant), PE, GS, SA, IC, DPR, GA, CFC, PROF

c. Predictors: (Constant), PE, GS, SA, DPR, GA, CFC, PROF

d. Predictors: (Constant), PE, GS, SA, DPR, GA, CFC

e. Predictors: (Constant), PE, GS, SA, GA, CFC

f. Predictors: (Constant), PE, SA, GA, CFC

g. Predictors: (Constant), PE, GA, CFC

h. Predictors: (Constant), PE, CFC

i. Predictors: (Constant), PE

j. Dependent Variable: LR3

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-4.469E-16	.213		.000	1.000	-.453	.453
	IC	-.060	.268	-.060	-.223	.827	-.631	.512
	DPR	-.106	.277	-.106	-.381	.709	-.696	.485
	TS	.028	.230	.028	.122	.905	-.461	.517
	PROF	.136	.361	.136	.375	.713	-.634	.905
	CFC	.202	.297	.202	.678	.508	-.432	.835
	GS	-.105	.264	-.105	-.399	.696	-.668	.458
	GA	-.270	.282	-.270	-.960	.352	-.871	.330
	SA	-.148	.266	-.148	-.555	.587	-.714	.419
	PE	-.597	.416	-.597	-1.434	.172	-1.484	.291
2	(Constant)	-4.407E-16	.206		.000	1.000	-.437	.437
	IC	-.067	.253	-.067	-.265	.794	-.603	.469
	DPR	-.100	.265	-.100	-.378	.710	-.663	.462
	PROF	.131	.348	.131	.377	.711	-.607	.870
	CFC	.196	.284	.196	.689	.501	-.406	.797
	GS	-.105	.256	-.105	-.410	.687	-.647	.437
	GA	-.271	.273	-.271	-.993	.336	-.849	.307
	SA	-.146	.257	-.146	-.567	.578	-.690	.399
	PE	-.592	.401	-.592	-1.475	.160	-1.442	.259
3	(Constant)	-4.074E-16	.200		.000	1.000	-.423	.423
	DPR	-.106	.257	-.106	-.412	.686	-.648	.437
	PROF	.130	.339	.130	.384	.706	-.585	.845
	CFC	.219	.263	.219	.833	.416	-.335	.773
	GS	-.100	.248	-.100	-.405	.691	-.624	.423
	GA	-.274	.265	-.274	-1.035	.315	-.833	.285
	SA	-.133	.245	-.133	-.541	.595	-.650	.385
	PE	-.625	.370	-.625	-1.691	.109	-1.406	.155
4	(Constant)	-4.917E-16	.196		.000	1.000	-.411	.411
	DPR	-.081	.243	-.081	-.334	.742	-.591	.429
	CFC	.219	.256	.219	.856	.403	-.319	.758
	GS	-.081	.237	-.081	-.342	.736	-.580	.417
	GA	-.259	.256	-.259	-1.014	.324	-.797	.278
	SA	-.158	.231	-.158	-.684	.503	-.643	.327
	PE	-.540	.288	-.540	-1.874	.077	-1.145	.065
5	(Constant)	-4.435E-16	.191		.000	1.000	-.400	.400
	CFC	.226	.250	.226	.905	.377	-.296	.748
	GS	-.076	.231	-.076	-.329	.746	-.560	.408
	GA	-.266	.249	-.266	-1.068	.299	-.787	.255
	SA	-.135	.215	-.135	-.627	.538	-.585	.315
	PE	-.584	.251	-.584	-2.329	.031	-1.108	-.059
6	(Constant)	-4.523E-16	.187		.000	1.000	-.389	.389
	CFC	.267	.211	.267	1.268	.219	-.172	.707
	GA	-.279	.240	-.279	-1.161	.259	-.781	.222
	SA	-.126	.208	-.126	-.603	.554	-.560	.309
	PE	-.604	.237	-.604	-2.549	.019	-1.099	-.110
7	(Constant)	-7.974E-17	.184		.000	1.000	-.382	.382
	CFC	.306	.197	.306	1.551	.136	-.104	.717
	GA	-.235	.226	-.235	-1.043	.309	-.704	.234
	PE	-.584	.231	-.584	-2.526	.020	-1.064	-.103
8	(Constant)	2.397E-17	.184		.000	1.000	-.382	.382
	CFC	.320	.197	.320	1.622	.119	-.089	.729
	PE	-.458	.197	-.458	-2.320	.030	-.867	-.048
9	(Constant)	3.723E-17	.191		.000	1.000	-.394	.394
	PE	-.360	.195	-.360	-1.852	.077	-.763	.042

a. Dependent Variable: LR3

The regression analysis shows that the coefficient of determination i.e R^2 , explained 29.3% variation in LR3 when all the variables are taken together. After removing all insignificant variables coefficient of determination comes out to be 13% over the total variation. The t test shows that the Significant variables found in the equation is PE ratio and that to be significant at 10% level.

LR3= 3.723E-17 -.360PE

4.3.6 Main Findings

Correlation

	Automobile	Construction	IT	Oil, Power& Energy	Pharma
IC					
DPR					
TS					
PROF					
CFC					
GS					
GA					
SA	*				
PE				*	(*)

Regression

	Automobile	Construction	IT	Oil, Power& Energy	Pharma
IC		**(*)**			
DPR					
TS	*****			**(*)**	
PROF					
CFC					
GS					
GA		**(*)**			
SA	*****				
PE				*****	**(*)**
Variation explained by all factors	**44.3%**	**18.4%**	**16.9%**	**16.1%**	**19.3%**
Variation explained by significant variable	**35%**	**15.6%**	**0%**	**12.8%**	**13%**

As we can see from above tables Degree of Financial Leverage is not significantly related to any variables. Hence **H_{30} is rejected** and we can say Factors affecting Degree of Financial Leverage vary amongst various sectors of India.

5 SUMMARY

Capital Structure is referred to as the ratio of different kinds of securities raised by a firm as long-term finance. Financing and investment are two major decision areas in a firm. In the financing decision the manager is concerned with determining the best financing mix or capital structure for his firm.

The study has two objectives 1) To determine whether or not factors affecting capital structure decision significantly vary amongst the sample companies of different sector.2)To identify most significant factors considered by sample companies for design of capital structure.

There are 3 dependent variables used to measure Capital Structure i.e Debt-Equity ratio, Debt-Long Term Funds and Degree of Financial Leverage. 9 Independent variables are used in this study. Those are Size, Growth in terms of assets, and Growth in terms of sales, Interest Coverage, PE ratio, Profitability, Cash Flow Coverage, Dividend Payout Ratio and Tax Shield.

The research is based on secondary data only. In this research it is two stage processes. In the first stage five industries are considered ie IT, Cement, Automobile, Pharmacy, Oil, Power and energy and in the second stage companies from each industry would be selected from the firms listed in Nifty 50.So in total 35 companies have been used from 5 sectors. The data is collected from National stock Exchange directory, CMIE prowess.

Three different statistical tools and models have been used in the study. These are descriptive statistics, Pearson correlation and Multiple Linear Backward Regression.

6 CONCLUSION

We conclude that

- Factors affecting Debt-Equity Ratio do not vary among various sectors.
- Factors affecting Debt-Total Long Term Funds do not vary among various sectors.
- Factors affecting Degree of Financial Leverage vary among various sectors.
- Important determinants of Capital structure are Profitability, Dividend Payout Ratio, Growth in terms of Assets and Interest Coverage.

7 REFERENCES

Jong, Abe.; Kabir, Rezaul.; and Nguyen, Thuy Thu. (2007), "Capital Structure around the world: The roles of firm- and country-specific determinants", *Journal of Banking & Finance*, 32, pp. 1954-1969.

Tong, Guanqun.; and Green, Christopher J. (2005), "Pecking order of trade off hypothesis? Evidence on the capital structure of Chinese companies", *Applied Economics*, 2005, 37,pp. 2179-2189

Majumdar, Sumit K.; and Chhibber, Pradeep. (1997), "Capital structure and performance: Evidence from a transition economy on an aspect of corporate governance", *Public choice* 98: pp. 287-305.

Bhaduri, Sumit N. (2002), "Determinants of Corporate Borrowing: Some evidence from the Indian corporate structure", *Journal of Economics and Finance*, 26(2).

Pandey, I.M. (2001), "Capital structure and the firm characteristics: Evidence from an emerging market", IIMA Working Paper No. 2001-10-04.

Buferna, Fakher.; Bangassa, Kenbata.; and Hodgkinson, Lynn. (2006), "Determinants of Capital structure from Libya", *Research paper series*, University of Liverpool, No. 2005-08.

Jean J. Chen (2004), "Determinants of capital structure of Chinese listed companies", *Journal of Business Research*,57(12).

Alberto de Miguel,Julio Pindado (2012)," Determinants of Capital Structure :new evidence from Spanish panel data", *Journal of Corporate Finance*,7(1).

Antonios Antoniou, Yilmoz Geneu, Krishna Pandyal (2008), "Determinants of Capital Structure : Capital Market oriented Versus Bank oriented institution", *Journal of Finance and Quantitative*, 43(01), pp 59-62.

Richard Lambert, Christian Leuz, Robert E. Verrecchia (2007), "Accounting Information,Disclosure and Cost of Capital", *Journal of Accounting Research*, 45(2),pp 385-420.

Eugene F. Fama, Kenneth R. French (1999),"The corporate Cost of Capital and Return on Corporate Investment", *Journal of Finance*, 54(6), pp 1939-1969