AN EMPIRICAL STUDY OF SOCIAL IMPACT OF LEVERAGING FINANCIAL STRATEGIES FOR INDIAN CORPORATES

Research Report

(2019)

By

Dr. Bhavik Swadia

SAGAR Foundation

L-103, Shrinandanagar Part 4, Vejalpur, Ahmedabad 30051

www.sagarfoundation.org

TABLE OF CONTENTS

CHAPTER 1 :INTRODUCTION

1.1 OVERVIEW OF ACCOUNTING

Accounting has evolved and emerged as a field in response to the social and economic needs of society. Accounting framework or methodology provide a technical means to measure, evaluate and communicate information of an economic and financial nature. Accounting is now related to a complex set of allocations and valuations pertaining to the operational activities of a business enterprise. The concept of accountancy or accounting is now broad enough to include the description of the recording, processing, classifying, evaluating, interpreting and supplying of economic-financial information for financial statement presentation and decision-making purpose. In its task, accounting has been successful technically and methodologically. Accounting as a subject has been evolving continuously ever since its inception. It has been through a rigorous and eventful procedure of invention, innovation and individualization.

The modern accounting, therefore, is not merely concerned with record keeping but also with a whole range of activities involving planning, control, decision-making, problem solving, performance measurement and evaluation, coordinating and directing, auditing, tax determination and planning, cost and management accounting and all such activities have to be carried out in way that are congruent with the needs and requirements of the society. After all, accountancy is meant for the larger good of the society.

1.2 SOCIAL RESPONSIBILITY AND ROLES

Accounting aims at designing a satisfactory information system which may fulfil informational needs of different users and decision-makers. A business organization is regarded as an open system which has a dynamic interplay with its environment from which it draws resources and to which it consigns its products and services. Business enterprises are an integral part of a nation. The enterprise must fulfil its obligations towards society in return for the rights and facilities that the society or the government

gives them. As a result their effect on society of that region is tremendous. The company executives know that their work has a notable effect on welfare of the society. Therefore, they give this information in their Annual Reports.

The stakeholders of the company, viz. shareholders, creditors, suppliers, managers, employees, tax authorities and others, are interested in broadly knowing about how the firm is doing and what is its financial condition. Of course, their concerns may differ. Trade creditors and short term lenders are interested primarily in the short-term liquidity of the company and its ability to pay its dues in the next twelve months or so. Term lending institutions and debenture holders have a relatively longer time horizon and are concerned about the ability of the firm to service its debt over the next five to ten years. Long-term shareholders and managers who want to make a career with the company are interested in the profitability and growth of the company over an extended period of time.

1.3 CAPITAL STRUCTURE – MEANING & TYPES

For any firm there are two principal sources of finance available to it- equity and debt. The capital structure is a term that refers to the sources of finance that a firm has employed to fulfil its capital requirements. It is a bouquet of securities issued or sources employed for capital formation. It is also known as a financing-mix of debt and equity.

The choice of a particular capital structure goes a long way in influencing the market value of a firm. It has a significant impact on the expected earnings of a firm or cost of capital and in some circumstances both.

Capital structure is essentially a mix of various sources of finance. These sources are Equity Share Capital, Retained Earnings, Preference Share Capital and Debt funds including debentures.

A non-leveraged firm has a distinct capital structure which is marked by complete absence of borrowed funds, where as a leveraged firm has a capital structure which has some element of debt in it. Let us take both i.e. a non-leveraged base and a leveraged base as the basis for studying the impact of leverage on capital structure.

1.3.1 NON-LEVERED BASE

When a firm has no leverage in its capital structure, it may have prominently issued Equity Share Capital as a major source of finance. Retained earnings are also a source of finance.So the capital structure can include Retained earnings apart from Equity Share Capital. Let us study the characteristics, benefits and limitations arising from such capital structure.

TYPE 1- EQUITY SHARES ALONE:

When a company funds its capital requirement only through issue of Equity shares or ordinary shares, it is known as Equity-centric capital structure.

Characteristics:

(1) There is no element of debt in this type of capital structure and hence all the advantages of employing debt are forgone at once.

(2) Equity share-holders are real owners of a company and also the claimants of the residue income, which can be in the form of dividends and retained earning which shall be beneficial in the long-run.

(3) Dividend payment on such securities is left to the discretion of the company's Board of Directors. There is no legal obligation to pay dividends.

Benefits:

(1) The main benefit is that there is no fixed-charge on such securities. There is no legal obligation to pay dividend.

(2) Secondly, such securities are not to be redeemed until it goes into liquidation. So there is no need for the company to make any financial provision.

(3) All the decisions made by the board of directors have the approval of the shareholders because it is the equity shareholders who dominate the proceedings in such company.

(4) To an extent risk is avoided because borrowed funds always entail fixed-charges which can be a huge financial burden when the company is not able to earn sufficiently or its earnings are fluctuating and uncertain.

Obviously this is not always a good idea to issue only equity shares alone for such capital structure suffers from limitations.

Limitations:

(1) The first major limitation is that all the tax benefits of employing debt funds are sacrificed.

(2) The control over management is also diluted because the equity shareholders have a right to attend and participate in all meetings and decision making process. They are also endowed with voting powers.

(3) Besides, the floating cost of such shares is higher than that of debt fund.

(4) Equity shareholders also come last when it comes to staking a claim to the company's assets at the time of liquidation. Generally, the claims of ordinary share-holders remain unpaid.

(5) The shareholders do expect the normal rate of return on their investment plus capital gain commensurate with risk involved. These expectations of shareholders have to be largely fulfilled. Otherwise it can demoralise such investors and in future when the requirement for funds arises, they may not rally behind the company.

TYPE 2 – EQUITY SHARES WITH RETAINED EARNINGS:

The term "retained earnings" refers to the accumulated net income that has been retained for reinvestment in the firm rather than being paid out in the form of dividends to shareholders. It can also be called internal equity. Net income that is retained in the business can be used to acquire additional income-earning assets that

result in increased income in future years. The same can be used to finance expansion plans.

Characteristics:

(1) Such capital structure has Equity share capital as well as retained earnings.

(2) There is no element of debt in this type of capital structure and hence all the advantages of employing debt are forgone at once.

(3) It is believed that both are cost free sources of funds. They don't carry any explicit financial cost.

(4) Retained earnings are that portion of income which is not distributed as dividend.

(5) Retained earing s is also ploughing back of profit.

(6) Equity share-holders are real owners of a company and also the claimants of the residue income, which can be in the form of dividends and retained earning which shall be beneficial in the long-run

(7) Dividend payment on such securities is left to the discretion of the company's Board of Directors. There is no legal obligation to pay dividends.

Now lets us examine the benefits accruing from it:

(1) The main benefit is that there is no fixed-charge on such securities. There is no legal obligation to pay dividend.

(2) Secondly, such securities are not to be redeemed until it goes into liquidation. So there is no need for the company to make any financial provision.

(3) All the decisions made by the board of directors have the approval of the shareholders because it is the equity shareholders who dominate the proceedings in such company.

(4) To an extent risk is avoided because borrowed funds always entail fixed-charges which can be a huge financial burden when the company is not able to earn sufficiently or its earnings are fluctuating and uncertain.

(5) Retained earnings do not entail any financial obligation for the company and are readily available for use.

(6) Retained earnings are also a cost effective way of raising finance. Because if new shares are issued, it may have to incur floatation cost. But in case of retained earnings, there is no such cost.

Clearly this combination also suffers from some limitations:

(1) The first major limitation is that all the tax benefits of employing debt funds are sacrificed.

(2) The control over management is also diluted because the equity shareholders have a right to attend and participate in all meetings and decision making process. They are also endowed with voting powers.

(3) Besides, the floating cost of such shares is higher than that of debt fund. Retained earnings, however, do not entail such cost.

(4) Equity shareholders also come last when it comes to staking a claim to the company's assets at the time of liquidation. Generally, the claims of ordinary share-holders remain unpaid.

(5) The shareholders do expect the normal rate of return on their investments and also the retained part of profit apart from a capital gain commensurate with risk involved. These expectations of shareholders have to be largely fulfilled. Otherwise it can demoralise such investors and in future when the requirement for funds arises, they may not rally behind the company.

(6) The opportunity cost involved in case of Equity shares and Retained earnings cannot be ignored by the company. So the general belief that both are cost-free sources of funds does not hold true in reality.

1.3.2 LEVERED BASE

When a company uses debt in its capital structure along with Equity Share Capital, it can be said to be a levered company. Preference shares are also known as hybrid security. Use of leverage offers many advantages if used in favourable conditions. In unfavourable conditions, use of leverage can prove to be inimical and detrimental to the financial health of the company. This shall be explained later on.

TYPE 1 – EQUITY SHARES WITH PREFERENCE SHARE CAPITAL:

When a company issues Preference Share Capital apart from Equity share capital,to fulfil its financial requirements, its Capital Structure has both Equity shares on which

dividend payment is not mandatory as well as Preference Shares on which , dividend payment is required if the company posts profit orin case of loss , dividend can be carried forward.

Characteristics:

(1) Preference shares have features of both Equity shares and Debenture. So dividend payment can be deferred despite being an obligation.

(2) In the presence of Preference shares the Equity shares play a second fiddle, in that Preference shares have a priority over Equity shares when it comes to dividend payment.

(3) Preference dividend is not tax deductible. It offers no tax benefits.

(4) In such a capital structure there is no pure debt which results in zero tax benefit in terms of reduced tax liability.

(5) The rate of preference dividend is fixed and preference shareholders also have claims on income and assets prior to common shareholders.

(6) Equity share-holders are real owners of a company and also the claimants of the residue income, which can be in the form of dividends and retained earning which shall be beneficial in the long-run.

(7) Dividend payment on common securities is left to the discretion of the company's Board of Directors. There is no legal obligation to pay equity dividends.

Benefits:

(1) Combination of Equity and Preference presents a riskless leverage in that non-payment of preference dividend will not enforce insolvency upon company.

(2) The preference shareholders have no voting rights. So the control over the management is not diluted.

(3) Preference shares are a clever way to undermine the dominance of Equity shareholders.

(4) Preference dividend can be postponed and Equity dividend is of course not mandatory. Hence in both the cases, the company can schedule dividend payment to suit company's financial convenience.

(5) Combination of Equity share capital and Preference share capital presents more flexibility and imposes fewer burdens.

(6) There is also an option to convert preference shares into equity shares which takes care of issue of redemption of Preference share capital.

Limitations:

(1) The first major limitation is that all the tax benefits of employing debt funds are sacrificed.
Preference dividend offers no tax shield.

(2) The control over management may also be diluted because certain types of preference shares do have limited voting rights.

(3) Besides, the floating cost of both the types of shares is higher than that of debt fund.

(4) Equity shareholders also come last when it comes to staking a claim to the company's assets at the time of liquidation. Generally, the claims of ordinary share-holders remain unpaid. Preference shareholders have priority claims on incomes and assets which may demoralise the ordinary shareholders.

(5) The equity shareholders do expect the normal rate of return on their investments and also the retained part of profit apart from a capital gain commensurate with risk involved. In a scenario where preference shareholders are paid the dividend but the equity shareholders are not, it can have inimical impact on the faith of equity shareholders in the company and in future when the requirement for funds arises, they may not rally behind the company.

(6) The opportunity cost involved in case of Equity shares cannot be ignored by the company.

(7) Preference dividend only be deferred and not negated to the shareholders. There is no escaping the financial outgo.

TYPE2 – EQUITY SHARES WITH DEBT:

When a company also uses debt in its capital structure, it also imbibes the element of leverage in it. Debt includes debentures, bonds and long term loans. They are all long-term sources of finance and they are the financiers or creditors of the company. This also means that the firm has to pay interest on the debentures or term loans or bonds. It is a legal obligation and has to be fulfilled. Beside, such securities also come with redemption clause. They have to be redeemed or retired after a specified period of time. Interest on debentures has to be paid before any dividends are disbursed. Upon the failure to do so, a company can be forced into bankruptcy. Such creditors also have a claim on the assets of the company and are pegged ahead of ordinary shareholders.Here the company has to carefully tread between the cost of raising such debts on the one hand and the rate return on its net assets on the other hand..

Characteristics:

(1) Inclusion of debt results in payment of interest on the amount borrowed which is a liability.

(2) The interest paid on the debt is tax-deductible and therefore provides the benefit of tax-shield.

(3) Debenture holder or debt holders are merely providers of finance and they have no voting rights. This will not dilute the control over management.

(4) Creditors or financiers have no claim to the assets of the company.

(5) Unlike Equity share capital, such debt or debentures have to be redeemed after a certain period of time and that calls for special provision of finance.

(6) Floating of debt can be a success or failure depending on the market conditions, firms own ability to make use of it and stability of the company’s earnings.

Benefits:

(1) Interest paid on the debt being a tax-shield reduces tax liability of the company.

(2) Debt holders of are financiers or creditors of the company with no voting rights and hence the control over management is not diluted.

(3) Under favourable market conditions it can enhance the company's earnings without posing significant amount of financial risk.

(4) Debt or debentures are a redeemable source of finance so when the company has enough finance to dispose its debt it can do so and can become debt-free.

(5) The rate of interest on debt provides a benchmark rate of return to the company. The funds borrowed have to be invested such as to generate at least as much as to service the debt.

(6) Those firms whose rate or earnings are consistently high can take full advantage of such debt.

(7) Judicious use of debt funds can increase the Earnings Per Share (EPS) available to the shareholders.

(8) Floatation cost of debt fund is the least as compared with that of other securities.

Limitations:

(1) Under highly volatile market conditions, use of debt can be disadvantageous.

(2) Use of debt can be advantageous only if actual rate of earnings is higher than the rate paid on borrowing. It is a double-edged sword.

(3) Borrowed funds if not used wisely can erode the earnings of the company and it may lose confidence of the investors and shareholders apart from facing adverse financial implications.

(4) Use of debt is a purely risk-laden leverage and not a risk-free leverage offered by Preference share capital.

(5) Interest on debt has to be paid by any means. So a company may have to borrow even more to service its debt, if circumstance so demand.

TYPE 3- EQUITY, DEBT AND PREFERENCE:

In this combination apart from Equity shares and debt funds, the company also issues preference shares also known as a hybrid security.As preference shareholders have a priority with respect to claims on income and assets over equity shareholders, it is considered less risky for investors. From the company's point of view, there is no

legal obligation to pay the preference dividends subject to conditions and its non-payment also does not force the company to go into bankruptcy. But if the company pays equity dividend, it has to pay preference dividend first. Again like equity dividend the preference dividend is not tax-deductible, so it does not provide tax-shield. But inclusion of debt in the capital structure overcomes this lacuna. However, the rate of preference dividend is fixed. Preference shareholders also have no voting rights and any say in the management of the company. This financing-mix will reduce the profit available to equity shareholders in the form of EPS or Equity dividend. Debt provides the benefit of tax shied and the providers of finance are mere financiers of the company and not owners. They have no voting rights and control over management.

Characteristics:

(1) Inclusion of debt results in payment of interest on the amount borrowed which is a liability. That is not true in case of Preference share capital or Equity share capital.

(2) The interest paid on the debt is tax-deductible and therefore provides the benefit of tax-shield. No such benefit in case of preference or equity dividend.

(3) Debenture holder or debt providers are merely providers of finance and they have no voting rights. This will not dilute the control over management.

(4) Unlike equity shareholders, creditors or financiers of debt have no claim to the assets of the company.

(5) Unlike Equity share capital, such debt or debentures have to be redeemed after a certain period of time and that calls for special provision of finance.

(6) Floating of debt can be a success or failure depending on the market conditions, firm's own ability to make use of it and stability of the company's earnings.

(7) Preference shares have features of both Equity shares and Debenture.

(8) So dividend payment can be deferred despite being an obligation.

(9) In the presence of Preference shares the Equity shares play a second fiddle, in that Preference shares have a priority over Equity shares when it comes to dividend payment.

(10) The rate of preference dividend is fixed and preference shareholders also have claims on income and assets prior to common shareholders.

(11) Equity share-holders are the real owners of a company and also the claimants of the residue income, which can be in the form of dividends and retained earning which shall be beneficial in the long-run.

(12) Dividend payment on common securities is left to the discretion of the company's Board of Directors. There is no legal obligation to pay equity dividend.

Benefits:

(1) Interest paid on the debt being a tax-shield reduces tax liability of the company. This compensates the non-availability of such benefits from Preference share capital.

(2) Debt holders of are financiers or creditors of the company with no voting rights and hence the control over management is not diluted.

(3) Under favourable market conditions debt can enhance the company's earnings without posing significant amount of financial risk.

(4) Debt or debentures are a redeemable source of finance so when the company has enough finance to dispose its debt it can do so and can become debt-free.

(5) The rate of interest on debt provides a benchmark rate of return to the company. The funds borrowed have to be invested such as to generate at least as much as to service the debt.

(6) Those firms whose rate or earnings are consistently high can take full advantage of such debt.

(7) Judicious use of debt funds can increase the Earnings Per Share (EPS) available to the shareholders.

(8) Floatation cost of debt fund is the least as compared with that of the other securities.

(9) Preference shares have features of both Equity shares and Debenture.
So Preference dividend payment can be deferred despite being an obligation..

(10) Such a capital structure offers the benefits of both pure risk leverage (debt) and risk-free leverage (Preference share capital).

(11) The rate of preference dividend is fixed and preference shareholders also have claims on income and assets prior to common shareholders.

(12) Equity share-holders are real owners of a company and also the claimants of the residue income, which can be in the form of dividends and retained earning which shall be beneficial in the long-run.

(13) Dividend payment on common securities is left to the discretion of the company's Board of Directors. There is no legal obligation to pay equity dividends. This can off-load the financial burden from the company.

Limitations:

(1) Under highly volatile market conditions, use of debt can be disadvantageous.

(2) Use of debt can be advantageous only if actual rate of earnings is higher than the rate paid on borrowing. It is a double-edged sword.

(3) Borrowed funds if not used wisely can erode the earnings of the company and it may lose confidence of the investors and shareholders apart from facing adverse financial implications.

(4) Interest on debt has to be paid by any means. So a company may have to borrow even more to service its debt, if circumstance so demand.

(5) Total floating cost of raising finance increases with the presence of Equity share capital and Preference share capital. Debt involves least floatation cost.

(6) Interest on debt and preference dividend can significantly reduce the profit available to Equity share holder. The shareholders do expect the normal rate of return on their investments and also the retained part of profit apart from a capital gain commensurate with risk involved. These expectations of shareholders have to be largely fulfilled. Otherwise it can demoralise such investors and in future when the requirement for funds arises, they may not rally behind the company.

(7) In such a capital structure, the cost of servicing the debt is double-fold. Preference dividend can only be deferred and not negated to the shareholders. There is no escaping the financial outgo. Again, interest on debt is mandatory- profit or no profit.

TYPE 4-EQUITY, DEBT, PREFERENCE AND RETAINED EARNINGS:

In such a financial make-up of the company, the company has features, advantages and disadvantages of both – levered as well as non-levered capital structure.Retained earnings are a reliable source of long term financing. In simple words it is the use of internal accruals and as mentioned earlier it is also an internal equity. Unlike Equity shares or preference shares, to raise funds through retained earnings is easy as no formal and legal procedures are required as also shareholders' approval. It is also not a debt, so it does not entail fixed charges unlike debentures or preference shares. It is advantageous to the company as there is no floatation cost involved in it. Most important of all is that the board of directors also don't dilute their control over the company with the use of retained earnings.

Characteristics:

(1) Preference shares have features of both Equity shares and Debenture. So dividend payment can be deferred despite being an obligation.
(2) Preference shares have a priority over Equity shares when it comes to dividend payment.
(3) Preference dividend is not tax deductible. It offers no tax benefits, which is compensated by issuance of debt.
(4) In such a capital structure there is pure debt which results in zero tax benefit in terms of reduced tax liability and there is risk-free debt i.e. preference shares.
(5) Retained earnings are purported to be cost free but there are other costs it involves.
(6) The rate of preference dividend is fixed and preference shareholders also have claims on income and assets prior to common shareholders.
(7) Equity share-holders are real owners of a company and also the claimants of the residue income, which can be in the form of dividends and retained earning which shall be beneficial in the long-run.
(8) Dividend payment on common securities is left to the discretion of the company's Board of Directors. There is no legal obligation to pay equity

dividends. Debt interest has be paid whether the company is earing profit or incurring loss.

(9) Retained earnings are that portion of income which is not distributed as dividend.

(10) Retained earing s is also ploughing back of profit with no explicit cost like interest on debentures or dividend on preference shares.

Benefits:

(1) Interest paid on the debt being a tax-shield reduces tax liability of the company. This compensates the non-availability of such benefits from Preference share capital.

(2) Equity shares and Retained earnings both are cost-free funds.

(3) Debt holders of are financiers or creditors of the company with no voting rights and hence the control over management is not diluted.

(4) Under favourable market conditions debt can enhance the company's earnings without posing significant amount of financial risk.

(5) Debt or debentures are a redeemable source of finance so when the company has enough finance to dispose its debt it can do so and can become debt-free.

(6) The rate of interest on debt provides a benchmark rate of return to the company. The funds borrowed have to be invested such as to generate at least as much as to service the debt. There is no such binding in case of Equity shares or retained earnings.

(7) Those firms whose rate or earnings are consistently high can take full advantage of such debt.

(8) Judicious use of debt funds can increase the Earnings Per Share (EPS) available to the shareholders who have provided not just initial capital but also a part of undistributed- dividends in the form of retained earnings.

(9) Floatation cost of debt fund is the least as compared with that of the other securities.Again, retained earnings as a source of finance is cost-free.

(10) Preference dividend payment can be deferred despite being an obligation.

(11) Such a capital structure offers the benefits of both pure risk leverage (debt) and risk-free leverage (Preference share capital).

(12) Equity share-holders are real owners of a company and also the claimants of the residue income, which can be in the form of dividends and retained earning which shall be beneficial in the long-run.

(13) Dividend payment on common securities is left to the discretion of the company's Board of Directors. There is no legal obligation to pay equity dividends. This can off-load the financial burden from the company.

Limitations:

(1) Under highly volatile market conditions, use of debt can be disadvantageous. A huge portion if finance cannot be raised through retained earning alone.

(2) Use of debt can be advantageous only if actual rate of earnings is higher than the rate paid on borrowing. It is a double-edged sword.

(3) Borrowed funds if not used wisely can erode the earnings of the company and it may lose confidence of the investors and shareholders apart from facing adverse financial implications.

(4) Interest on debt has to be paid by any means. So a company may have to borrow even more to service its debt, if circumstance so demand.

(5) Total floating cost of raising finance increases with the presence of Equity share capital and Preference share capital. Debt involves least floatation cost.

(6) Interest on debt and preference dividend can significantly reduce the profit available to Equity share holder. The shareholders do expect the normal rate of return on their investments and also the retained part of profit apart from a capital gain commensurate with risk involved. These expectations of shareholders have to be largely fulfilled. Otherwise it can demoralise such investors and in future when the requirement for funds arises, they may not rally behind the company.

(7) In such a capital structure, the cost of servicing the debt is double-fold. Preference dividend can only be deferred and not negated to the shareholders. There is no escaping the financial outgo. Again, interest on debt is mandatory- profit or no profit.

1.4 LEVERAGE

Leverage is an important factor having great influence on the financing decision or capital structure decision of a firm. There are several sources at the disposal of a firm to raise capital or fulfil its funding requirements. All these sources of financing entail different costs.In this context, Leverage is of paramount importance. Leverage can be described as an employment of a source of fund which requires the firm to pay the fixed chargesor fixed return- e.g. if debentures are employed ,interest on debentureshas to be paid or if preference shares are employed, dividend has to be paid.

According to **M.Y. Khan and P.K. Jain** "Leverage may be defined as the employment of an asset or sources of funds for which the firm has to pay a fixed cost or fixed return''

According to **Ravi M. Kishore** "Leverage refers to the ability of a firm in employing long term funds having a fixed cost, to enhance returns to the owners "

Prasanna Chandra has defined leverage as the extent to which the firm has fixed operating costs or the extent to which the firm has fixed financing costs arising from the use of debt capital.

Financial leverage can be aptly described as the extent to which a business or investor is using the borrowed money. Business companies with high leverage are considered to be at risk of bankruptcy if, in case, they are not able to repay the debts, it might lead to difficulties in getting new lenders in future. It is not that financial leverage is always bad. However, it can lead to an increased shareholders' return on investment. Also, very often, there are tax advantages related with borrowing, also known as leverage.

Leveraging is a way to use funds whereby most of the money is raised by borrowing rather than by stock issue (for a company) or use of capital (by an individual). At its most basic, leveraging means taking out a loan so that you can invest the money and hoping your investment makes more money than you will have to pay in interest on the loan.

The leverage ratio is used to calculate the financial leverage of a company. This information gives an insight into the company's financing methods, or it can be used to measure the company's ability to meet its financial obligations. There are a number of different ratios, but the main factors involved are debt, equity, assets, operating income, and interest expenses.

The most commonly used ratio is debt to equity (D/E, or financial leverage), which indicates how much the business relies on debt financing. In normal circumstances the typical D/E ratio is 2:1, with only one-third of the debt in the long term. A high D/E ratio might show up possible difficulty in paying interest and capital while obtaining extra funding. As an example, if a company has $10 million of debt and $20 million of equity, it has a D/E ratio of 0.5 ($10 million/$20 million).

Another leveraging ratio can be used to measure the operating cost mix. This helps to indicate how any change in output may affect operating income. There are two types of operating costs: fixed and variable. The mix of these will differ depending on the company and the industry. A high operating leverage can lead to forecasting risk. For example, a tiny error made in a sales forecast could trigger far bigger errors when it comes to projecting cash flows based on those sales.

There is also interest coverage, which measures a company's margin of safety and indicates how many times the company can make its interest payments. This figure is calculated by dividing earnings prior to interest and taxes by the interest expense.

Leverage allows a financial institution to increase the potential gains or losses on a position or investment beyond what would be possible through a direct investment of its own funds. There are three types of leverage—balance sheet, economic, and embedded—and no single measure can capture all three dimensions simultaneously. The first definition is based on balance sheet concepts, the second on market-dependent future cash flows, and the third on market risk. Balance sheet leverage is the most visible and widely recognized form. Whenever an entity'sLeverage is

traditionally viewed as arising from financing activities: Firms borrow to raise cash for operations.

The standard measure of leverage is total liabilities to equity. However, whilesome liabilities—like bank loans and bonds issued—are due to financing, other liabilities—like trade payables, deferred revenues, and pension liabilities—result from transactions with suppliers, customers and employees in conducting operations. Financing liabilities are typically traded in well-functioning capital markets where issuers are price takers. In contrast, firms are able to add value in operations because operations involve trading in input and output markets that are less perfect than capital markets. So, with equity valuation in mind, there are a priori reasons for viewing operating liabilities differently from liabilities that arise in financing.

Our research asks whether a dollar of operating liabilities on the balance sheet is priced differently from a dollar of financing liabilities. As operating and financing liabilities are components of the book value of equity, the question is equivalent to asking whether price-to-book ratios depend on the composition of book values. The price-to-book ratio is determined by the expected rate of return on the book value so, if components of book value command different price premiums, they must imply different expected rates of return on book value. Accordingly, the paper also investigates whether the two types of liabilities are associated with differences in future book rates of return. Standard financial statement analysis distinguishes shareholder profitability that arises from operations from that which arises from borrowing to finance operations. So, return on assets is distinguished from return on equity, with the difference attributed to leverage. However, in the standard analysis, operating liabilities are not distinguishedfrom financing liabilities. Therefore, to develop the specifications for the empirical analysis, the paper presents a financial statement analysis that identifies the effects of operating and financing liabilities on rates of return on book value and so on price-to-book ratios—with explicit leveraging equations that explain when leverage from each type of liability is favourable or unfavourable. The empirical results in the paper show that financial statement analysis that distinguishes leverage in operations from leverage in financing also distinguishes differences in contemporaneous and future profitability among firms. Leverage from operating liabilities typically levers profitability more than financing leverage and has

a higher frequency of favourable effects.1 Accordingly, for a given total leverage from both sources, firms with higher leverage from operations have higher price-tobookratios, on average. Additionally, distinction between contractual and estimated operating liabilities explains further differences in firms' profitability and their price to book ratios. Our results are of consequence to an analyst who wishes to forecast earnings and book rates of return to value firms. Those forecasts—and valuations derived from them—depend, we show, on the composition of liabilities. The financial statement analysis of the paper, supported by the empirical results, shows how to exploit information in the balance sheet for forecasting and valuation.

Leverage allows a financial institution to increase the potential gains or losses on a position or investment beyond what would be possible through a direct investment of its own funds. There are three types of leverage—balance sheet, economic, and embedded—and no single measure can capture all three dimensions simultaneously. The first definition is based on balance sheet concepts, the second on market-dependent future cash flows, and the third on market risk. Balance sheet leverage is the most visible and widely recognized form. Whenever an entity'sassets exceed its equity base, its balance sheet is said to be leveraged. Banks typically engage in leverage by borrowing to acquire more assets, with the aim of increasing their return on equity. Banks face economic leverage when they are exposed to a change in the value of a position by more than the amount they paid for it. A typical example is a loan guarantee that does not show up on the bank's balance sheet even though it involves a contingent commitment that may materialize in the future. Embedded leverage refers to a position with an exposure larger than the underlying market factor, such as when an institution holds a security or exposure that is itself leveraged. A simple example is a minority investment held by a bank in an equity fund that is itself funded by loans. Embedded leverage is extremely difficult to measure, whether in an individual institution or in the financial system. Most structured credit products have high levels of embedded leverage, resulting in an overall exposure to loss that is a multiple of a direct investment in the underlying portfolio. Two-layer securitizations or securitizations, such as in the case of a collateralized debt obligation that invests in asset-backed securities, can boost embedded leverage to even higher levels.

1.4.1 TYPES OF LEVERAGE

There are basically two types of Leverage 1**) Operating Leverage** and 2) **Financial Leverage** but when a firm resorts to a Leverage which imbibes the elements of both the types of Leverage, a third type of Leverage comesinto being which is **Combined Leverage.**

OPERATING LEVERAGE

When there are fixed costs or expenses in the firm's income stream, Operating Leverage results. The firm which employs fixed costs must be able to use the same to magnify the effects of changes in its sales on its earnings before interest and taxes (EBIT). The overriding concern for the firm is that it must be able to meet the fixed costs regardless of volume.

FINANCIAL LEVERAGE

Financial Leverage pertains to financing activity of a firm. The sources from where a firm can raise its resources can be categorised into two types 1) Those sources which carry a fixed financial charge 2) those sources which do not have involve fixed charges. Financial Leverage is a fall out of employment of fixed-charges bearing securities or sources of finance. The overriding concern of the firm here is to fulfil the contractual obligations and still the changes in the earnings before interest and tax (EBIT) should result in greater Earning Per Share (EPS).

COMBINED LEVEARGE

When a firm employs fixed costs in its income streams as well as fixed-charge bearing sources of finance, it can be said to have employed Combined Leverage. This entails not only operating risk but also financial risk.

1.4.2 FINANCIAL LEVERAGE – MEANING & SIGNIFICANCE

When a company makes a financing decision, it has to consider all possible ways to fulfil its financial requirements. The decision to employ a particular source of finance is greatly influenced by the type of project to be financed, nature of capital requirement; the company's earning capacity as also its debt repayment capacity and the prevailing market conditions among many other factors.

The management of a company goes through many brain storming sessions before deciding on a particular capital structure- Equity dominated or Debt-dominated or trade- off between the two etc. Needless to say, the main purpose is to maximize the market value of the share and to fetch decent returns to the investors.

For the investors, Equity is a risky avenue for investment when compared with Debt funds. The returns on Equity Share Capital largely depend on the financial performance of the company, dividend policy of the company etc.and therefore the returns are not guaranteed. Whereas the debt fund gives assured returns and also ensures safety of investment.

For a company, Equity Shares is the least risky of all sources of finance.Distribution of equity dividend is always subject to company's financial position and its future growth plans. But debt fund or leverage when employed also entails regular payment of servicing charges (interest) and redemption of capital.

The dictionary meaning of the word leverage is 'the power to control' or 'augmentation' or 'dominance'. In terms of business finance the leverage is employment of debt fund or borrowed capital. Although leverage is purely a financial tool, it is used immensely by managers involved in the decision-making processes related to capital structuring decisions, mergers and acquisitions, ascertainment of cost of capital etc.

Financial Leverage has a direct bearing on the shape of the capital structure of a company or firm. Capital Structure basically represents various sources that a firm has employed to fulfil its financial requirements. It also reveals the proportion of debt capital and equity capital. When a firm uses debt funds or fixed-charges sources of

funds such as preference capital or debentures along with the owners' funds or equity in the capital structure, it is described as Financial Leverage or trading on equity. The coinage of the term 'trading on equity' is due to the fact that it is the owner's equity that is used by the company to raise debt.

In today's market conditions when the expectations of the Equity shareholders are rising, a company has to be able to determine a judicious mix of debt funds and owned funds. It has to verify whether the employment of debt fund to a certain degree helps the company realise the cherished goals or not. After all, leverage is a very powerful phenomenon affecting a company's profitability and liquidity and overall financial performance.

When a company involves debt in its capital structure, it invariably results in fixed charges that have to be paid to service the debt. This is a significant event because the company has to use these funds to augment its profitability. If such debt funds are not gainfully utilized, their use will prove to be counterproductive. In other words, the employment of debt in the capital structure has a deep impact on the profitability of the company. In this respect the cost of borrowing assumes significant importance vis-à-vis the rate return on net assets that a firm enjoys.

On the other hand, the liquidity of a company is also impacted by leverage. The greater the degree of debt funds employed, the greater will be outflow of cash in terms of cost of servicing the debt. That does affect the cash profit earned by a company. And debt funds also have to be redeemed after certain duration of time. That is major cash out flow for the company. However, if a company's capital structure is dominated by equity alone, the advantage of tax shield will not be available. In order to fulfil expectations of high number of equity shareholders, the company has to distribute a greater portion of profit as dividend to equity shareholders.

Financial Leverage also provides tax-shield in that the charges paid to service debt are tax-deductible and therefore they reduce the tax liability of a firm. This also enhances the earnings available to shareholders. This again is beneficial to the firm.

As long as the rate of earning is higher than the cost of borrowing, leverage is beneficial. But if there is a possibility of a decline in the rate of earnings, the company should try to dispose of debt fund to the extent permitted by availability of sufficient funds or earnings generation or disposable short-term investments.

1.4.3 EFFECTS OF FINANCIAL LEVERAGE ILLUSTRATED

Financial Leverage is an important tool in the hands of a financial manager. In today's highly competitive world where cost of raising finance is a major decisive factor influencing various types of financial decisions, capital structure management plays a pivotal role in a firm's financial success. It is widely believed that Financial Leverage on one hand can enhance the Earning per share, at the same time it can bring about financial ruin for the company if it is not employed at the right time and in the right dosage. The key word here is right proportion. Right proportion is achieved if a manager can juggle the interplay between firm's ROI and the average interest rate. The following three situations can arise with respect to ROI and average rate of interest:

1. ROI is greater than the interest rate: In this situation it is advisable to borrow because the firm is generating revenue at a rate greater than the rate of borrowing. If the firm is borrowing at a rate of 10 % p.a. and if its ROI is 18 % p.a..this a case of **highly favourable leverage**.This is called trading on equity.
2. ROI equals the interest rate: In this scenario, leverage is **neither favourablenor unfavourable**. But if other factors are at play tilting the balance in favour of borrowing, then by all means the manager should employ leverage.
3. ROI is greater than the interest rate: Now this is a precarious situation because the rate of earning is not able to keep up with the rate being paid on borrowed funds. It doesn't make sense to borrow in such a situation. This is called **unfavourable leverage.**

To demonstrate the effects of Financial Leverage in a company's financial structure, consider four firms- A, B, C and D- each with Rs. 50,00,000 of assets. All the firms earn 12% return on investment. Each firm has issued equity shares of Rs. 10 each. Firm A has issued Rs. 50,00,000 of Equity shares. Firms B,C and D have issued Rs. 30,00,000 of Equity shares and the balance capital amount Rs. 20,00,000 in the form of debentures carrying interest rates of8%, 12% and 16% respectively for the three firms.

T-1

	FIRM A	FIRM B	FIRM C	FIRM D
	NO DEBT	FAVOURABLE LEVERAGE	NO LEVERAGE	UNFAVOURABLE LEVERAGE
Data				
ROI	12%	12%	12%	12%
INTEREST RATE	0%	8%	12%	16%
EQUITY	Rs. 50,00,000	Rs. 30,00,000	Rs. 30,00,000	Rs. 30,00,000
DEBENTURES	0	Rs. 20,00,000	Rs. 20,00,000	Rs. 20,00,000
Total Assets	Rs. 50,00,000	Rs. 50,00,000	Rs. 50,00,000	Rs. 50,00,000
EQUITY SHARES	5,00,000	3,00,000	3,00,000	3,00,000
TAX RATE	50%	50%	50%	50%
CALCULATIONS				
EBIT	Rs. 6,00,000	Rs. 6,00,000	Rs. 6,00,000	Rs. 6,00,000
- INTEREST	Nil	Rs.1,60,000	Rs. 2,40,000	Rs. 3,20,000
Earnings before tax	Rs. 6,00,000	Rs. 4,40,000	Rs. 3,60,000	Rs.2,80,000
- Taxes	Rs. 3,00,000	Rs. 2,20,000	Rs. 1,80,000	Rs. 1,40,000
Earnings after tax	Rs. 3,00,000	Rs. 2,20,000	Rs. 1,80,000	Rs. 1,40,000
Divided by shares	5,00,000	3,00,000	3,00,000	3,00,000
Earnings Per Share(EPS)	Rs 00.60	Rs 00.73	Rs.00.60	Rs.00.46

T-1 reveals that if the ROI is 12%, Firm A which has no debt element and Firm C whose borrowing cost is the same as ROI have same EPS. Firm B has favourable leverage as its interest rate on debt is lower than ROI. It offers the highest EPS to shareholders. The reverse has is true in case of Firm D. Its rate of interest on debt is higher than ROI. As a result its EPS is the least.

T-2

	FIRM A	FIRM B	FIRM C	FIRM D
	NO DEBT	NO LEVERAGE	UNFAVOURABLE LEVERAGE	UNFAVOURABLE LEVERAGE
Data				
ROI	8%	8%	8%	8%
INTEREST RATE	0%	8%	12%	16%
EQUITY	Rs. 50,00,000	Rs. 30,00,000	Rs. 30,00,000	Rs. 30,00,000
DEBENTURES	0	Rs. 20,00,000	Rs. 20,00,000	Rs. 20,00,000
Total Assets	Rs. 50,00,000	Rs. 50,00,000	Rs. 50,00,000	Rs. 50,00,000
EQUITY SHARES	5,00,000	3,00,000	3,00,000	3,00,000
TAX RATE	50%	50%	50%	50%
CALCULATIONS				
EBIT	Rs. 4,00,000	Rs. 4,00,000	Rs. 4,00,000	Rs. 4,00,000
- INTEREST	Nil	Rs.1,60,000	Rs. 2,40,000	Rs. 3,20,000
Earnings before tax	Rs. 4,00,000	Rs. 2,40,000	Rs. 1,60,000	Rs.80,000
- Taxes	Rs. 2,00,000	Rs. 1,20,000	Rs. 80,000	Rs. 40,000
Earnings after tax	Rs. 2,00,000	Rs. 1,20,000	Rs. 80,000	Rs. 40,000
Divided by shares	5,00,000	3,00,000	3,00,000	3,00,000
Earnings Per Share(EPS)	Rs 00.40	Rs 00.40	Rs.00.27	Rs.00.13

In **T-2** it can be seen that when the ROI is 8 %, Firm A and Firm B have same EarningsPerShare (EPS). That is because Firm A has no debt funds in its capital structure and Firm B's rate of interest on borrowing is the same as its ROI. However, Firm C and Firm D both are experiencing the negative impact of Leverage, mainly because their ROI is lower than the rate of interest on borrowed funds. This again drives home the point that Financial Leverage can be beneficial and successful only if the firm is enjoying a higher rate of earnings when compared with the rate of interest to be paid on contracted debt.

T-3

	FIRM A	FIRM B	FIRM C	FIRM D
	NO DEBT	FAVOURABLE LEVERAGE	FAVOURABLE LEVERAGE	FAVOURABLE LEVERAGE
Data				
ROI	18%	18%	18%	18%
INTEREST RATE	0%	8%	12%	16%
EQUITY	Rs. 50,00,000	Rs. 30,00,000	Rs. 30,00,000	Rs. 30,00,000
DEBENTURES	0	Rs. 20,00,000	Rs. 20,00,000	Rs. 20,00,000
Total Assets	Rs. 50,00,000	Rs. 50,00,000	Rs. 50,00,000	Rs. 50,00,000
EQUITY SHARES	5,00,000	3,00,000	3,00,000	3,00,000
TAX RATE	50%	50%	50%	50%
CALCULATIONS				
EBIT	Rs. 9,00,000	Rs. 9,00,000	Rs. 9,00,000	Rs. 9,00,000
- INTEREST	Nil	Rs.1,60,000	Rs. 2,40,000	Rs. 3,20,000
Earnings before tax	Rs. 9,00,000	Rs. 7,40,000	Rs. 6,60,000	Rs. 5,80,000
- Taxes	Rs. 4,50,000	Rs. 3,70,000	Rs.3,30,000	Rs. 2,90,000
Earnings after tax	Rs. 4,50,000	Rs. 3,70,000	Rs.3,30,000	Rs. 2,90,000
Divided by shares	5,00,000	3,00,000	3,00,000	3,00,000
Earnings Per Share(EPS)	Rs 00.90	Rs 1.23	Rs.1.10	Rs.00.97

In **T-1** and **T-2**, Firm A which has no leverage did reasonably well in comparison with other firms because firstly there was no gap between ROI and interest rate in case of Firm C **(T-1)** and Firm B**(T-2).** In **T-1,** Firm B had favourable leverage but when the ROI equals rate of interest, the advantage of leverage is nullified. And when Firm D pays a higher rate of interest than ROI, it can be said to have contracted unfavourable leverage duly reflected in lowest EPS in both **T-1** and **T-2.**In **T-3**, Firm A has the least EPS because it has forgone the advantage of leverage and therefore it has no tax shield. Very high outgo in the form of taxes and greater no. of equity shares drastically bring down the EPS for equity shareholders. This is an example of

what it costs if debt is not included in the capital structure. Firm B has the least cost of borrowing and its ROI is high at 18 %, thereby fetching it the highest EPS among all the firms. This again exemplifies what a favourable leverage can do to the financial health of a firm. Firms C and D both are experiencing effects of favourable leverage because of positive equation between ROI and Interest rate.

If Preference shares are issued in place of Debentures, again the advantage of tax shield shall not be available as the preference dividend is not tax-deductible. To demonstrate this, let us take the same four firms with a different capital structure. The same four firms- A, B, C and D- each with Rs. 50,00,000of assets. All the firms earn 18% return on investment. Each firm has issued equity shares of Rs. 10 each. Firm A has issued Rs. 50,00,000 of Equity shares. Firms B,C and D have issued Rs. 30,00,000 of Equity shares and the balance capital amount Rs. 20,00,000 in the form of preference shares carrying dividend rates of8%, 12% and 16% respectively for the three firms.

T-4

	FIRM A	**FIRM B**	**FIRM C**	**FIRM D**
Data				
ROI	18%	18%	18%	18%
DIVIDEND RATE	0%	8%	12%	16%
EQUITY	Rs. 50,00,000	Rs. 30,00,000	Rs. 30,00,000	Rs. 30,00,000
PREFERENCE	0	Rs. 20,00,000	Rs. 20,00,000	Rs. 20,00,000
Total Assets	Rs. 50,00,000	Rs. 50,00,000	Rs. 50,00,000	Rs. 50,00,000
EQUITY SHARES	5,00,000	3,00,000	3,00,000	3,00,000
TAX RATE	50%	50%	50%	50%
CALCULATIONS				
EBIT	Rs. 9,00,000	Rs. 9,00,000	Rs. 9,00,000	Rs. 9,00,000

	FIRM A	FIRM B	FIRM C	FIRM D
- INTEREST	Nil	Nil	Nil	Nil
Earnings before tax	Rs. 9,00,000	Rs. 9,00,000	Rs. 9,00,000	Rs. 9,00,000
- Taxes	Rs. 4,50,000	Rs. 4,50,000	Rs. 4,50,000	Rs. 4,50,000
Earnings after tax	Rs. 4,50,000	Rs. 4,50,000	Rs. 4,50,000	Rs. 4,50,000
Preference Divi.	Nil	Rs. 1,60,000	Rs. 2,40,000	Rs. 3,20,000
Profit available for distribution	Rs. 4,50,000	Rs. 2,90,000	Rs. 2,10,000	Rs. 1,30,000
Divided by shares	5,00,000	3,00,000	3,00,000	3,00,000
Earnings Per Share(EPS)	Rs 00.90	Rs 00.97	Rs.00.70	Rs.00.43

In **T-4** it can be observed that the absence of tax-shield has an adverse impact on the EPS of the three firms. As the dividend rate rises from 8% to 12% and then to 16% the EPS of the Firms C and D plummets as can be seen in the table. The Firm A which has no debt at all has an EPS of Rs. 00.90. ROI, in the absence of tax-shield, is subject to direct taxation which clearly brings down the profit after tax(PAT) and then PAT is further reduced by the dividend on preference shares. In such a case for the leverage to be successful, the ROI has to be high enough so that post taxation the NET ROI is even higher than the rate of preference dividend.

If the Firms raise their finance through Debentures as well as Preference shares, such a capital structure can have the advantage of tax-shield provided by debenture interest and this will have positive impact on the EPS of the firms.

Suppose in the above cases, if the Firms B, C and D float debentures and preference shares in equal proportion and the rates of debenture interest are 8%, 12%and 16% respective for the firms and preference dividend rates are also the same for the three firms, the results would appear as under :

T-5

	FIRM A	FIRM B	FIRM C	FIRM D
Data				
ROI	18%	18%	18%	18%
INTEREST RATE	0%	8%	12%	16%
DIVIDEND RATE	0%	8%	12%	16%
EQUITY	Rs. 50,00,000	Rs. 30,00,000	Rs. 30,00,000	Rs. 30,00,000
DEBENTURES	0	RS. 10,00,000	RS. 10,00,000	RS. 10,00,000
PREFERENCE	0	Rs. 10,00,000	RS. 10,00,000	RS. 10,00,000
Total Assets	Rs. 50,00,000	Rs. 50,00,000	Rs. 50,00,000	Rs. 50,00,000
EQUITY SHARES	5,00,000	3,00,000	3,00,000	3,00,000
TAX RATE	50%	50%	50%	50%
CALCULATIONS				
EBIT	Rs. 9,00,000	Rs. 9,00,000	Rs. 9,00,000	Rs. 9,00,000
- INTEREST	Nil	Rs.80,000	Rs.1,20,000	Rs. 1,60,000
Earnings before tax	Rs. 9,00,000	Rs. 8,20,000	Rs.7,80,000	Rs. 7,40,000
- Taxes	Rs. 4,50,000	Rs. 4,10,000	Rs. 3,90,000	Rs. 3,70,000
Earnings after tax	Rs. 4,50,000	Rs. 4,10,000	Rs. 3,90,000	Rs. 3,70,000
Preference Divi.	Nil	Rs.80,000	Rs.1,20,000	Rs. 1,60,000
Profit available for distribution	Rs. 4,50,000	Rs. 3,30,000	Rs. 2,70,000	Rs. 2,10,000
Divided by shares	5,00,000	3,00,000	3,00,000	3,00,000
Earnings Per Share(EPS)	Rs 00.90	Rs 01.10	Rs.00.90	Rs.00.70

In **T-5** Firm B has the highest EPS as the interest rate and dividend rate are lowest among all the firms. As the interest rate and dividend rate rise from 8% to 12% and again to 16%,it can be seen that the EPS of the firms gradually declines. In case of Firm B the ROI is high and the corresponding rate of interest is very low as also the preference dividend and after deducting the taxes, the PBT is adequate to pay for the

preference dividend which is lowest at 8% and therefor it magnifies the EPS for the firm. However the Firms C and D both have a very high interest rate and preference dividend rate, which reduce not only the tax liability but also the profit available after tax. And again preference dividend is paid at a very high rate which further reduces the profit available for distribution. This,instead of increasing the EPS, actually reduces the EPS.

Financial Leverage is a double-edged sword which if used judiciously can maximise the shareholders' return and have a very positive impact on the financial performance of the company butif employed without considering the rate of earning and the cost of debt, it can have a very adverse impact on the financial performance of the company.

Financial performance has many more aspects to it. It is not just confined to Earning Per Share or Rate of Equity Dividend. It has many facets to it which need to be analysed and explained in detail.

1.5 FINANCIAL PERFORMANCE- DEFINITION & SIGNIFICANCE

The word 'Performance is derived from the word 'parfourmen', which means 'to do', 'to carry out' or 'to render'. It refers the act of performing; execution, accomplishment, fulfilment, etc. In border sense, performance refers to the accomplishment of a given task measured against preset standards of accuracy, completeness, cost, and speed. In other words, it refers to the degree to which an achievement is being or has been accomplished. In the words of FrichKohlar "The performance is a general term applied to a part or to all the conducts of activities of an organization over a period of time often with reference to past or projected cost efficiency, management responsibility or accountability or the like. Thus, not just the presentation, but the quality of results achieved refers to the performance. Performance is used to indicate firm's success, conditions, and compliance.

Financial performance refers to the act of performing financial activity. In broader sense, financial performance refers to the degree to which financial objectives being

or has been accomplished. It is the process of measuring the results of a firm's policies and operations in monetary terms. It is used to measure firm's overall financial health over a given period of time and can also be used to compare similar firms across the same industry or to compare industries or sectors in aggregation.

When a company raises finance to provide for the funds required to start the operations, it also becomes responsible to the providers of finance. There is a whole host of providers of finance including shareholders- equity & preference, creditors, customers, public and even government. These stake holders have provided fiancé with a view to earning good returns on the investments.it is, therefore, imperative that the funds raised are duly utilised so that the financiers and capital-providers could get the expected rate of return on their investments.

Financial performance is a comprehensive term and cannot be convincingly encapsulated in a few lines without compromising with its vastness. But it is an important phenomenon that conveys the financial health of a company. Financial analysts depend on financial statements to diagnose financial performance. They apply several accounting tools and techniques to analyse various aspects of financial performance. After an in-depth analysis of financial statements, much can be learnt about the firm’s short-term and long term liquidity, amount of debt against assets, financial soundness, availability of funds for future expansion, level of efficiency about the allocation of funds etc.

In simple words financial performance pertains to how the finance raised through all resources is invested so that the vital financial parameters show the company up to be enjoying good financial health.

According to **Prasanna Chandra** “.financial performance may range from simple analysis of short-term liquidity position of the firm to a comprehensive assessment of the strengths and weaknesses of the firm in various areas. It is also about corporate excellence, judging creditworthiness, forecasting bond ratings, predicting bankruptcy and assessing market risk.”

There are several users of information about a firm's financial performance. Reporting of Financial performance assists investors, creditors and other financiers in making sound investment decision. After all, investors are always keen to invest in a company that provide the greatest total return with the element of risk that is just reasonable or acceptable. It is also a mirror that reflects the efficiency with which the management has been utilising the funds and also the attendant accountability. It is a reflection of how diligently the managers of finance have protected the interest of the investors even in the face of adverse economic conditions whether on home front or on foreign shores. This accountability transcends the confines set by the pertinent laws of the country. The significance of financial performance analysis is greatly reflected in the purposes and objectives it serves of various stakeholders.

It is vital that the financial performance be reported to the seekers of financial information so that they can base their decision on the authentic information provided to them.

1.6 FINANCIAL PERFORMANCE ANALYSIS

In short, the firm itself as well as various interested groups such as managers, shareholders, creditors, tax authorities, and others seeks answers to the following important questions:

1. What is the financial position of the firm at a given point of time?
2. How is the Financial Performance of the firm over a given period of time?

These questions can be answered with the help of financial analysis of a firm. Financial analysis involves the use of financial statements. A financial statement is an organized collection of data according to logical and consistent accounting procedures. Its purpose is to convey an understanding of some financial aspects of a business firm. It may show a position at a moment of time as in the case of a Balance Sheet, or may reveal a series of activities over a given period of time, as in the case of

an Income Statement. Thus, the term ‘financial statements’ generally refers to two basic statements: the Balance Sheet and the Income Statement.

The Balance Sheet shows the financial position (condition) of the firm at a given point of time. It provides a snapshot and may be regarded as a static picture. “Balance sheet is a summary of a firm’s financial position on a given date that shows Total assets = Total liabilities + Owner’s equity.”

The income statement (referred to in India as the profit and loss statement) reflects the performance of the firm over a period of time. “Income statement is a summary of a firm’s revenues and expenses over a specified period, ending with net income or loss for the period.”

However, financial statements do not reveal all the information related to the financial operations of a firm, but they furnish some extremely useful information, which highlights two important factors profitability and financial soundness. Thus analysis of financial statements is an important aid to financial performance analysis. Financial performance analysis includes analysis and interpretation of financial statements in such a way that it undertakes full diagnosis of the profitability and financial soundness of the business.

“The analysis of financial statements is a process of evaluating the relationship between component parts of financial statements to obtain a better understanding of the firm’s position and performance.”

The financial performance analysis identifies the financial strengths and weaknesses of the firm by properly establishing relationships between the items of the balance sheet and profit and loss account. The first task is to select the information relevant to the decision under consideration from the total information contained in the financial statements. The second is to arrange the information in a way to highlight significant relationships. The final is interpretation and drawing of inferences and conclusions. In short, “financial performance analysis is the process of selection, relation, and evaluation.”

Interest of various related groups is affected by the financial performance of a firm. Therefore, these groups analyze the financial performance of the firm. The type of analysis varies according to the specific interest of the party involved.

[1] SHAREHOLDERS

The shareholders are the prime and foremost users of accounting information. The shareholders could be existing (Domestic and Foreign) and potential (again Domestic and Foreign). It is the duty of the company to convey accurately the financial position of the company to shareholders so that they have a clear idea about the company's financial strength and performance. They are generally interested in the earnings, dividend and growth trends of the firm. A company should prepare and maintain its financial reports about business affairs fairly and accurately in compliance with accounting and financial reporting standard. This is very important because shareholders base their decisions regarding share purchase or sale, takeovers and mergers and performance evaluation and risk assessment as also levels of transparency on such information.

[2] DEBENTURE HOLDERS

The debenture holders invest in a company with a view to earning a steady stream of income. Since debentures are a safe investment, it suits the orthodox investors' fine. However, they are interested to know the long term liquidity of the company. Financial decisions and its implications have to be thoroughly analysed to foresee capital structure changes, earning potential and expansion and growth plans and risk perception and assurance of easy redemption of their investment.

[3] CREDITORS

The creditors supply financial resources to the company. They are interested in the continuing profitable performance of the company. This will guarantee a regular receipt of interest and repayment of their capital. They would

closely investigate and monitor the company's financial and accounting policies to determine the degree of risk they may have to face. They are interested in short term liquidity of the company. The may also analyse past performance of the company in the light of controllable and non-controllable factors to decide their future investment strategy and credit granting decisions and terms of credit.

[4] GOVERNMENT

The government has an interest in financial statements for regulatory purposes. The tax department has an interest in determining the taxable income of the company. The government also determines its subsidy policy and regulatory policy accordingly. The financial reports also affect the govt.'s employment and macroeconomic policies. It would like to ensure that the company conducts its business in a socially and environmentally healthy manner. Its products and services should be eco-friendly and people friendly. Transparency should be achieved through appropriate Corporate Governance practice to promote a particular type of industry or business to ensure proper utilization of resources and thorough implementation of policies framed.

[5] EMPLOYEES

With the help of financial statements employees and trade unions can bargain for salary, bonus, fringe benefits or better working conditions. They are mainly interested in their social and economic welfare. They can also negotiate the terms of employment and ask for greater job security. If the contribution of employees is immense in the advancement of the company, they can ask for greater remuneration such as ESOPS etc. They may want to be directly involved in all financial matters that concern them if they find from various policies that their concerns and opinions and efforts are not given due weightage.

[6] CUSTOMERS

The customer in a way directly influences the future of a company. The customers would like to know whether the products or services they are using are perfectly healthy and not hazardous. They would like to know if the product/service will be in adequate supply in future and that they are what the company promises to be. Various ingredients used in the products are sourced from reputed companies. They want to be able to take pride in using the company's products/services.

[7] COMPETITORS

Financial statements reflect the economic progress of the company. Its profitability and liquidity comes under a close scanner. The competitors are always looking for an opportunity to pick loopholes for

(1) Taking competitive advantage
(2) Tarnishing the rival's image by bringing out its flaws and mistakes.

The reporting company should take into account all this while framing financial statements. After all, success is not defined just in terms of profits but also adherence to social and environmental obligations/norms.

[8] FINANCIAL INSTITUTIONS

A co should prepare and maintain its accounts very accurately in accordance with reporting standards and laws and regulations of the country. It should set a standard of ethical behavior both within and without the organization. The reporting should be timely and transparent-revealing all the mandatory information as well as voluntary information. Financial institutions are primarily interested in long term liquidity of the company, expansion plans, sources of finance, and pre-funding, post-funding and refunding changes in financial conditions. They want to assess the company's debt repaying capacity and the

attendant risk of bankruptcy. Their future association with the company depends on it.

[9] PUBLIC

The general users too would want to know the financial strength and performance of the company. They can also be potential investors or buyers. The public hold a high regard and opinion for a company that respects the rule of law i.e. all its operations are in accordance with the law and no financial malpractice is resorted to. The co must fulfill its social responsibility which is reflected in creation of infrastructure and no of employees working in a company, utilization of natural resources, charities and expenditure on public health and education etc. The environmental cost due to company's operations should be under thorough check.

[10] ANALYSTS

The job of an analyst is to dissect the financial reports and statements. Hence the company must follow the highest standard of reporting, Investment analysts advise their clients in matters of shares purchase/sale, forecasting future cash flows and liquidity position of the company, risk behavior, profitability trend, dividend policy, general direction the company is heading in, hedging and divestment etc. Thus the financial statements are extremely useful to the analysts and their performance depends on quality of company's financial reporting.

[11] ACADEMICIANS&RESEARCHERS

The last but not the least type of user of financial statements is Academicians. The main purpose of academicians is to analyse the reports thoroughly and study the impact of market and economic conditions on the financial performance of the company. They may want to apply their financial tools and techniques to verify their efficacy. The same can be interpreted and re-reported in a more simple language to knowledge-seekers. The financial reports can also provide basic ground for further research and new theories. It can also be used to test existing concepts, knowledge and body of work.

1.7 TYPES OF FINANCIAL PERFORMANCE ANALYSIS

You can see how your business is doing by checking your most recent ratios against previous ratios on a regular basis. This will help you improve the quality of business management decisions and the performance of your business. You can also check your ratios against ratios of other firms in your industry. This will tell you if your business is performing better or worse than other business firms in the industry. You can find information on the ratios typical to your business in publications such as Dunn and Bradstreet's Industry Norms and Key Business Ratios. This reference is available in many public libraries and university libraries. Also, industry trade associations often furnish important financial data, such as figures of differently sized businesses in terms of sales, expenses, capital requirements and profit percentages.

Financial analysis is the selection, evaluation, and interpretation of financial data, along with other pertinent information, to assist in investment and financial decision-making. Financial analysis may be used internally to evaluate issues such as employee performance, the efficiency of operations, and creditpolicies,andexternallytoevaluatepotentialinvestmentsandthecredit-worthinessof borrowers, among other things.

The analyst draws the financial data needed in financial analysis from many sources. The primary source is the data provided by the company itself in its annual report and required disclosures. The annual report comprises the income statement, the balance sheet, and the statement of cash flows, as well as footnotes to these statements. Certain businesses are required by securities laws to disclose additional information.

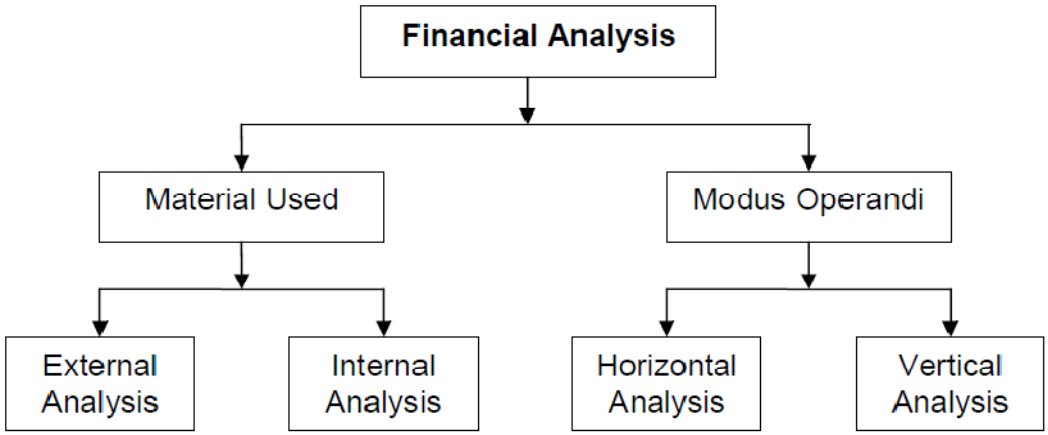
Besides information that companies are required to disclose through financial statements, other information is readily available for financial analysis. For example, information such as the market prices of securities of publicly-traded corporations can be found in the financial press and the electronic media daily. Similarly, information on stock price indices for industries and for the market as a whole is available in the financial press.

Another source of information is economic data, such as the Gross Domestic Product and Consumer Price Index, which may be useful in assessing the recent performance or future prospects of a company or industry. Suppose you are evaluating a company that owns a chain of retail outlets. What information do you need to judge the company's performance and financial condition? You need financial data, but it doesn't tell the whole story. You also need information on consumer spending, producer prices, consumer prices, and the competition. This is economic data that is readily available from government and private sources.

Besides financial statement data, market data, and economic data, in financial analysis you also need to examine events that may help explain the company's present condition and may have a bearing on its future prospects. For example, did the company recently incur some extraordinary losses? Is the company developing a new product? Or acquiring another company? Is the company regulated? Current events can provide information that may be incorporated in financial analysis.

The financial analyst must select the pertinent information, analyze it, and interpret the analysis, enabling judgments on the current and future financial condition and operating performance of the company. In this reading, we introduce you to financial ratios -- the tool of financial analysis. In financial ratio analysis we select the relevant information -- primarily the financial statement data --and evaluate it. We show how to incorporate market data and economic data in the analysis and interpretation of financial ratios. And we show how to interpret financial ratio analysis, warning you of the pitfalls that occur when it's not used properly.

Financial performance analysis can be classified into different categories on the basis of material used and modes operandi as under:



A Material used:

On the basis of material used financial performance can be analyzed in following two ways:

1. External analysis

This analysis is undertaken by the outsiders of the business namely investors, credit agencies, government agencies, and other creditors who have noaccess to the internal records of the company. They mainly use published financial statements for the analysis and as it serves limited purposes.

2. Internal analysis

This analysis is undertaken by the persons namely executives and employees of the organization or by the officers appointed by government or court whohave access to the books of account and other information related to the business.

B Modus operandi:

On the basis of modus operandi financial performance can be analyze in the following two ways:

1. Horizontal Analysis

In this type of analysis financial statements for a number of years are reviewed and analyzed. The current year's figures are compared with the standard or base year and changes are shown usually in the form of percentage. This analysis helps the management to have an insight into levels and areas of strength and weaknesses. This analysis is also called Dynamic Analysis as it based on data from various years.

2. Vertical Analysis

In this type of Analysis study is made of quantitative relationship of the various items of financial statements on a particular date. This analysis is useful in comparing the performance of several companies in the same group, or divisions or departments in the same company. This analysis is not much helpful in proper analysis of firm's financial position because it depends on the data for one period. This analysis is also called Static Analysis as it based on data from one date or for one accounting period.

1.8 COMPONENTS OF CORPORATE FINANCIAL PERFORMANCE

1.8.1 INTRODUCTION

The financial statements, drawn as usual, mainly contain number of balances, credit and debit, from perusal where off, it is not easy to know their economic or financial significance. To ascertain the functional relationship between relevant figures certain arithmetic calculations are needed, which are called 'Ratio Analysis'.

1.8.2 MEANING AND DEFINITION

The term 'ratio' refers to the mathematical relationship between any two inter-related variables.

According to J. Batty, Ratio can be defined as "the term accounting ratio is used to describe significant relationship which exists between figures shown in a balance

sheet and profit and loss account in a budgetary control system or any other part of the accounting management."

As per Myers, "Ratio analysis is a study of relationship among various financial factors in a business."

1.8.3 OBJECTIVES

The objective of ratio analysis is to judge the earning capacity, financial soundness and operating efficiency of a business organization

1.8.4 PRESENTATION AND USE

Absolute figures by themselves do not mean much, but they mean a lot, when compared with the other relevant figures. Comparison is the pre-condition for a meaningful interpretation, which may be of:

I. One period with another period of the same company.
II. One company's figures with another company's
III. One products figures with another's, and
IV. Actual figures with standard or budgeted figures.

It can be used in the form of (I) Percentage, (II) Proportion (2:1) and (III) Pure number or quotient (5 times).

The following principles were considered for selection of ratios :

I. Ratio must measure a material fact of business.
II. Ratio should be logically inter-related.
III. Ratio should facilitate comparison.
IV. Ratio should be in minimum numbers.

1.8.5 ADVANTAGES OF RATIO ANALYSIS

The advantages of accounting ratios are given as under:

1) **Useful in simplifying accounting figures**:

Accounting ratio simplifies summarizes and systematizes a long array of accounting figures to make them understandable. In the words of **Biramn and Dribin,** "Financial ratios are useful because they summarize briefly the results of detailed and complicated computation"

2) **For communication:**

Ratios are an effective means of communication and informing about financial soundness made by the business concern to the proprietors, investors, creditors and other parties.

3) **Useful in judging the operating efficiency of business:**

Accounting Ratio is also useful for diagnosis of the financial health of the enterprise. This is done by evaluating liquidity, solvency, profitability etc. Such a evaluation enables management to access financial requirements and the capabilities of various business units.

4) **Useful for forecasting:**

Helpful in business planning, forecasting andwhat should be the course of action in the immediate future is decided on the basis of trend ratios, i.e., ratio calculated for number of years.

5) **Useful in locating the weak spots**:

Locating the weak spots in the business, even though the overall performance may quite good. Management can then pay attention to the weakness and take remedial action. For example if the firm finds that the increase in distribution

expense is more than proportionate to the results achieved, these can be examined in detail and depth to remove any wastage that may be there.

6) **Useful in Inter-firm and Intra-firm comparison:**

A firm would like to compare its performance with that of other firms and of industry in general. The comparison is called inter-firm comparison. If the performance of different units belonging to the same firm is to be compared, it is called intra-firm comparison. Such comparison is almost impossible without accounting ratios. Even the progress of a firm from year to year cannot be measured without the help of financial ratios. The accounting language simplified through ratios is the best tool to compare the firms and divisions of the firm.

1.8.6 LIMITATIONS OF RATIO ANALYSIS

The limitations of accounting ratios are given as under:

1) **False Results**

Ratio analysis is used on the basis of financial statements. Number of limitations of financial statements may affect the accuracy or quality of ratio analysis. If Financial Statements are not correct, Financial Ratio Analysis will also be not correct.

2) **Different meanings are put on different terms**

Elements and sub-elements are not uniquely defined. An enterprise may work out ratios on the basis of profit after Tax and interest while others work on profit before interest and Tax .So, the Ratios will also be different so cannot be compared. But before comparison is to be done the basis for calculation of ratio should be the same.

Different operating methodologies may be employed to run a business may render the comparison of financial ratios irrelevant. For instance, one business may lease most of its assets while another may own them. If this is the case,

some of the ratios, such as debt to total assets, fixed-charge coverage, total assets turnover, and return on total assets, would be unrelated.

3) **Not comparable**

If different firms follow different accounting Policies, competition is not possible. If, two enterprises may follow different Policies like some enterprises may charge depreciation at straight line basis while others charge at diminishing value. Such differences may adversely affect the comparison of the financial statements.

Limitation of ratios emerges when a particular set of ratios of a business is compared to other businesses or industry averages. Although there are accepted accounting principles and conventions of, constructing financial statements, several different numbers can be used to calculate a ratio. For example, for calculating the inventory turnover one business may use the cost of goods sold as the numerator, while another may wish to use its sales figures. Even though both com are part of the same industry, and are equally efficient in the management of inventory, they will show different ratios. In another situation, a business may use the operating profit to calculate its total assets turnover, while another may use the net income after taxes. What is important to remember is that before ratios are compared, some of the numbers on the financial statements may have to be adjusted for comparison purposes.

4) **Affect of Price level changes**

Normally no consideration is given to price level changes in the accounting variables from which ratios are computed. Changes in price level affect the comparability of Ratios. This handicaps the utility of accounting ratios.

5) **Ignores qualitative factors**

Financial Ratios are on the basis of quantitative analysis only. But many times qualitative facts override quantitative aspects. **For Example**: Loans are given

on the basis of accounting Ratios but credit ultimately depends on the character and managerial ability of the borrower. Under such circumstances, the conclusions derived from ratio analysis would be misleading.

6) **Ratios may be worked out for insignificant and unrelated figures**

A ratio may be worked out for sales and investment in Govt. securities. Such ratios will only be misleading. Care should be exercised to work out ratios between only such figures which have cause and effect relationship. One should be reasonably clear as to what the cause is and what the effect is.

7) **Difficult to evolve a standard Ratio**

It is very difficult to evolve a standard ratio acceptable at all times, as financial and economic scenarios are dynamic. Again the underlying conditions for different firms and different industries are not similar, so an acceptable standard ratio cannot be evolved.

8) **Window Dressing:**

Financial Ratios will be affected by window dressing. Manipulations and window dressings affect the financial statements so they are going to affect the financial ratios also. Therefore a particular ratio may not be a definite indicator of good or bad management.

9) **Personal Bias**

Ratios have to be interpreted, but different people may interpret same ratios in different ways. Ratios are only tools of financial analysis but personal judgment of the analyst is more important. If one does not possess requisite qualifications or is biased in interpreting the ratios, the conclusions drawn prove misleading.

Although financial ratios can be effective tools for gauging financial performance and managerial effectiveness, they should not be used blindly.

First, they should be used as only one instrument in the management tool kit. Essentially, a financial ratio gives an indication of the weak and strong points in a business. Ratios will not say why something is going wrong and what to do about a particular situation; they only pinpoint where a problem is. For example, the inventory turnover may have gone from 10 to 7 over a period of three years, and the industry average may be at 9; this means that management will have to investigate further to see what is going wrong and what to do about it.

10) **Inflation Factor**

Inflation can make the ratio of a particular business look good or bad over time, when trends are examined. For example, inventory turnover may have deteriorated over a three-year period; the problem here may not be due to the increase in physical inventory, but rather, to substantial increase in the cost of the goods. Also, an increase in return on total assets may not mean that the company is more efficient; it may reflect the fact that sales prices (and not volume) have increased rapidly and that the capital assets, which are shown on the financial statements at book costs, have remained unchanged.

It can be comprehended that there so many users of information relating to corporate financial performance. They all have different purposes to serve. They are interested in financial information for different reasons. They are looking for different sets of information relating to financial performance because their vested interest is not served by the same set of information. Such different sets of information relating to financial performance can be broadly categorised into four major components.

They are

1) PROFITABILITY
2) LIQUIDITY
3) SOLVENCY
4) EFFICIENCY

PROFITABILITY

Profitability is an imperative measure of a company's efficiency. It reflects the company's operating efficiency and its ability to generate adequate returns to its shareholders. The owners and the management are keenly interested in the financial performance of the business unit. In fact, the quest for profitability also leads to a pleasant discovery of efficiency. What it implies is that a company can never be satisfactorily profitable unless it is also efficient in using its resources.

Profitability ratios, much like the operational performance ratios, give users a good understanding of how well the company utilized its resources in generating profit and shareholder value. The long-term profitability of a company is vital for both the survivability of the company as well as the benefit received by shareholders. It is these ratios that can give insight into the all-important "profit".

Few people are in a position to sit back and watch the profits roll in. Creating and increasing profitability depends on doing many little things better than the competition.

If you are lucky, a single change could provide an immediate boost to your profitability. More often, you will need to put the right building blocks in place to provide the framework for gradual, but continuous, improvements.

MEANING- Profitability is a measure of operating efficiency of a firm and also its ability to generate returns to its shareholders.

DEFINITION- Profitability can be defined as a barometer that measures the efficiency with which a company is operating and its capacity to earn profits so as to dole out decent returns to its investors and repay debt along with interest.

CHARACTERISTICS- The following characteristics encapsulate the concept of profitability:

1. It is a precise measurement
2. It reflects operating efficiency –overall and departmental
3. It also reveals the firm's ability to generate returns and profits

4. It is an assurance of availability of resources for future expansion plans
5. There are many ratios measuring long & short term profitability
6. It is a result of the firm's myriad policies and decisions and strategies.

SIGNIFICANCE

Profitability is a tell-all measure that reveals the operating efficiency as well as the firm's ability to generate adequate returns to the investors. The average investor is interested in knowing how much dividend he is earning for the investments made. It can also be a major source of relief for the management in that it also provides internal accruals for growth plans. The following are the major profitability ratios

1) Return on capital employed
2) Earnings per share
3) Gross profit margin
4) Net profit margin
5) Return on assets
6) Return on shareholders' equity.

LIQUIDITY

Liquidity is a significant measure showing the firm's ability to meet its short-term obligations. A firm may face many vicissitudes but how successfully it overcomes the lean patches, is reflected in its liquidity position. Liquidity is therefore vital to its survival. Excess liquidity or poor liquidity both are danger signals to the management and indicate impending crisis.

Liquidity reflects the ability of a company to meet its short-term obligations using assets that are most readily converted into cash. Assets that may be converted into cash in a short period of time are referred to as liquid assets; they are listed in financial statements as current assets. Current assets are often referred to as working capital because these assets represent the resources needed for the day-to-day operations of the company's long-term, capital investments. Current assets are used to satisfy short-term obligations, or current liabilities. The amount by which current assets exceed current liabilities is referred to as the net working capital. Liquidity ratios attempt to measure a company's ability to pay off its short-term debt

obligations. This is done by comparing a company's most liquid assets (or, those that can be easily converted to cash), its short-term liabilities.

In general, the greater the coverage of liquid assets to short-term liabilities the better as it is a clear signal that a company can pay its debts that are coming due in the near future and still fund its ongoing operations. On the other hand, a company with a low coverage rate should raise a red flag for investors as it may be a sign that the company will have difficulty meeting running its operations, as well as meeting its obligations.

The biggest difference between each ratio is the type of assets used in the calculation. While each ratio includes current assets, the more conservative ratios will exclude some current assets as they aren't as easily converted to cash. The ratios that we'll look at are the current, quick and cash ratios and we will also go over the cash conversion cycle, which goes into how the company turns its inventory into cash.

MEANING- Liquidity is a measure that reflects the firm’s ability to meet short-term obligations and therefor it’s a prerequisite for the very survival of the firm.

DEFINITION- Liquidity can be defined as the measure that conveys the financial adequacy and strength of a firm to be able to meets its immediate (short-term) obligations.

CHARACTERISTICS- The following attributes capture the concept of liquidity:

1. It is a precise measure
2. It reflects the firm’s ability to meets its short-term obligations
3. It addresses the vital issue of survival of the firm
4. It exposes the firm’s weak decisions with respect to raising and investment of funds
5. Liquidity precedes profitability
6. Overly liquid firm stands to incur opportunity cost and loss
7. Under-liquid frim stands to lose financiers’ confidence and faith and its own reputation.

8. It is a direct result of capital structure decisions made by the firm

SIGNIFICANCE-

Liquidity is an important measure revealing the firm's ability to make good its short-term debt and in other words it shows to what extent the funds provided by the investors are safe. It clearly holds the key to a company's survival. But the key really lies in maintaining proper balance between excess liquidity and inadequate liquidity. Both are an invitation for financial trouble. The following are the major liquidity ratios:

1) Current ratio
2) Liquid ratio or Quick ratio or Acid test ratio

SOLVENCY:

The long-term solvency of a firm depends on its ability to meet all its liabilities including those which are not to be met immediately. It is reflective of the claim that creditors and shareholders has against the firm's assets as also fixed interest bearing funds in the capital structure as against the proportion of equity share capital. Excessive liabilities can be a cause for future insolvency.

Solvency measures the degree to which the business relies on debt financing. Two common solvency ratios are the leverage ratio and the debt to assets ratio. The leverage ratio measures the degree to which the business uses borrowed versus owner's money in the business. The debt to assets ratio measures the degree to which total assets are being financed by creditors. Generally, the larger the ratio, the less solvent the business.

Acceptable solvency ratios will vary from industry to industry, but as a general rule of thumb, a solvency ratio of greater than 20% is considered financially healthy. Generally speaking, the lower a company's solvency ratio, the greater the probability that the company will default on its debt obligations.

Solvency Ratio = (After tax net profit+Depreciation)/(Long term Liabilities+Short term Liabilities)

Target Solvency position with a Solvency Ratio in the range of 5.00 to 10.0% revenues should be targeted to demonstrate management control of financial performance. An Iowa school corporation with a Solvency Ratio at the targeted level presents a sound risk for the timely repayment of operating obligations throughout the fiscal year and should be able to meet most unforeseen financing requirements. Smaller school districts may benefit from a higher solvency target, up to two months revenues, given the greater vulnerability of smaller budgets to finance shortfalls.

An Acceptable Solvency position with a Solvency Ratio in a 0 to 4.99% range should prove adequate for meeting most short-term cash flow needs as long as other local economic trends, such as property tax collections and enrolment, are sound. Continued close monitoring of the school corporation budget to prevent operating shortfalls and the deterioration of financial position is necessary.

A Solvency Alert exists if the school corporation has a Solvency Ratio in the range of 0% to-3.00%. A negative financial Solvency Ratio in this range warrants prompt management response but could be caused by operating revenue/expenditure fluctuations within one budget year. Liquidity is constrained at this solvency level and cash flow financing, like ISCAP, is likely to be necessary to bridge cash flow needs in July and August when State Foundation Aid payments are not paid, and larger property tax collections are near. School officials should consider more conservative budgeting of revenues in the next budget year and more stringent cost controls. Alternatively, more aggressive use of the School Board’s discretionary tax levies, those levies which can be implemented by Board actions for Operating (Cash Reserve and Instructional Support), Management (Unemployment Compensation, Insurance and Early Retirement), Playground and the Physical Plant and Equipment Levy should be sufficient to return the school corporation to a stronger financial solvency position by the end of the next fiscal year.

A Solvency Threat exists if the school corporation has a negative Solvency Ratio in excess of -3.00% of Actual General Fund Revenues. This negative position likely reflects more chronic budgetary problems, which may indicate a fundamental imbalance between on-going revenue sources and expenditure requirements. Financial operations, including the ability to pay operating obligations on time, become more constrained, even acute, as the level of negative fund equity position worsens. School officials will need to implement more severe measures to reduce expenses as well as take actions to secure additional revenues. Reductions in personnel, the use of School Board discretionary tax levies and additional voter approved revenues may be necessary to alleviate the financial deficit. Correcting a severe negative financial solvency position may require implementation of a multi-year strategy by school officials, including the development of a more structured plan and careful monitoring of progress towards improving the financial position.

MEANING & DEFINITION- Solvency as a measure of financial performance reflects the long-term ability of a firm to meet all its obligations including long-term obligations. It is also an indicator of long-term financial stability of a firm. It shows the proportion of debt against total funds raised.

CHARACTERISTICS-

1. It is a precise measure of long-term solvency of a firm
2. It reflects the financial soundness of the firm in the long-run
3. It also takes into account ‘internal-external’ aspect of capital structure
4. It shows the proportion of shareholders’ funds vis-à-vis total assets employed and therefore the extent of control enjoyed by outsiders
5. It also reveals the extent to which a company is geared- highly geared or moderately geared or poorly geared. This has a direct bearing on the shareholders’ dividend earnings
6. Solvency as a measure also helps the financiers to decide whether they are safe in the event of liquidation

SIGNIFICANCE

A company may enjoy a good liquidity position in the short-run but in the long-run it may face financial crisis if it is not properly geared. So short-term solvency is no guarantee for long-tern financial soundness or longevity of the firm. Excess liabilities are detrimental to the financial health of the company, but having no debt at all can also deprive a company of the advantages of trading on equity. There are several accounting ratios to measure this. Too much dependence on the outsiders for funds can endanger a company's solvency and can significantly erode the confidence of investors. Solvency measures are definitely a tight rope to walk for any firm.

The following ratios can help gauge solvency enjoyed by a firm:

1) Debt-equity ratio
2) Shareholders' equity ratio
3) Debt-networth ratio
4) Capital gearing ratio
5) Fixed-assets to long term funds
6) Dividend coverage
7) Interest coverage

EFFICIENCY:

In this age of cut-throat competition, it is important for a company to not only achieve its targets but also to exercise efficiency in achieving them. Resources are limited and there may be many claimants to the resources which are already scarce. Efficiency as a measure tries to ascertain whether the output from a particular process or business activity is in accordance with inputs committed in the form of materials, time and labour, financial investments or other productive resources.

Efficiency measures the degree to which the business is effectively utilizing its resources in generating sales and profits for the business. Two common efficiency ratios are the asset turnover ratio and the inventory turnover ratio. The asset turnover ratio measures the degree to which the total assets of the firm are being used to generate sales. The inventory turnover ratio measures how well the business's inventory is being managed. Generally, the larger the ratio, the more efficient the business.

Ratios that are typically used to analyse how well a company uses its assets and liabilities internally. Efficiency Ratios can calculate the turnover of receivables, the repayment of liabilities, the quantity and usage of equity and the general use of inventory and machinery.

Some common ratios are accounts receivable turnover, fixed asset turnover, sales to inventory, sales to net working capital, accounts payable to sales and stock turnover ratio. These ratios are meaningful when compared to peers in the same industry and can identify business that is better managed relative to the others. Also, efficiency ratios are important because an improvement in the ratios usually translate to improved profitability.

MEANING & DEFINITION- Efficiency is a measure that shows how effectively a company has employed its resources to magnify its earnings resulting from operating efficiency. In other words, how efficient the company is in converting its inputs into targeted outputs within the constraints of time-limit, availability of raw-materials, labour, finance etc. It is also a measure of level of efficiency achieved by a company in asset management, the speed at which assets are converted into sales, turnover, receivables management ect.

CHARCTERISTICS

1. It is a precise measure of how efficiently activities are conducted
2. It reflects the rapidity of turnover or assets being turned into sales
3. Efficiency directly compares output with input
4. It establishes relationship between amount of sales and the various assets of the firm
5. It shows how quickly inventory is sold
6. reveals whether there is over or reasonable or under investment in inventory
7. It shows how fast debtors and other receivables are converted into cash or how quickly debts are disposed of.

8. Efficiency can be used as a control technique because it is bound to reveal the deviations resulting from non-performance or under-performance by comparing actual performance with pre-determined standards of performance

SIGNIFICANCE

It is very important to measure the efficiency in the realms of asset management, credit-extension policy, borrowing policy etc. Efficiency is the key to surviving tough competition posed by rivals. The key to price control and reduction is operating efficiency. By bring down the cost of operating a company, its management not only offers the cost advantages to the customers and buyers but also allows itself an opportunity to remain competitive in the future. Efficiency can be enhanced by finding out deviations between standard and actual performance and correcting the deviations in future.

The level of efficiency can be gauged using the following ratios:

1) Stock-turnover ratio
2) Debtors' turnover ratio or velocity ratio
3) Creditors' turnover ratio orvelocity ratio
4) Fixed assets turnover ratio
5) Sales to capital employed ratio
6) Operating ratio
7) Dividend pay-out ratio
8) Price earnings ratio

CHAPTER 2 :REVIEW OF LITERATURE

Knowledge is growing by leaps and bounds in all the fields. This can be ascribed mainly to constant research work being undertaken by scholars, researchers and writers. There is a tremendous increase in the number of publications: books and periodicals in the concern subject. This implies thata researcher has to read voraciously and regularly update himself with relevant issues in a particular subject. This calls for a meticulous survey of the available literature in the chosen field by the researcher. Such a survey of various books, periodicals, journals, reports, dissertations and theses is also known as Review of literature.

In India, there have been significant changes in the capital market over the last few decades. The government rules and regulations have also been changing from time to time. Hence, the expectations of the investing community have also changed in keeping with the aforementioned changes. How the corporates raise funds and utilize the same has become a make or break point so far as the financial performance of the corporate world is concerned. Leverage has always been and continues to be the buzz-word for the corporates and the investors as well as other stakeholders.

The word ‘Leverage’ sounds like it has a positive ring to it. But the reality is as different as chalk from cheese. It has its pros under a particular set of financial circumstances and also its cons in a different set of financial circumstances. Financial Leverage has always been a favourite topic with the business community as well as the academia. It evokes a full gamut of responses from both the teaching community and the business community. To fully gauge this diversity of opinion and body of work, several books, journals and articles were reviewed to undertake theoretical study of Financial Leverage and its impact on Financial Performance of corporate entities. In this study utmost care has been taken to include as diverse literature as possible on the theoretical aspect of the topic and findings and exploratory studies. In marketing the concept of Product Life Cycle (PLC) prevails. According to this concept every product undergoes four stages during its entire life, as it were. The stages begin with introduction of the product and end with death or decline of the product. In a similar fashion, every business entity has to pass through different

stages. In the initial stages the degree of Financial Leverage should be rationally incorporated. The debt as a source of fund has to be rationally employed or else it can endanger the survival of the firm in the very first stage of its inception. As the business unit gets more stable, mature and growth bound with greater certainty of income, it can enhance the debt element in its capital structure. However a firm facing dwindling of financial performance due to intense competition or stagnation cannot afford to resort to debt funding. Thus all the firms must take the call on use of debt with utmost care and caution.

The review of literature has briefly summarized as follows:

FINANCIAL LEVERAGE AND LIQUIDITY AND PROFITABILITY

Rajan and Zingales (1995) discuss various accounting based measures of leverage and their information-related content. They have suggested that to facilitate the proper measurement of leverage, the measure itself should be based on the objective of analysis. It cannot be selected randomly. They propound that the ratio of total liabilities to total assets cab be considered appropriate if the matter pertains to what is left for the shareholders after liquidation, but it is not at all a good indicator of whether the firm is likely to experience bankruptcy in the near future. They also state that the bills (payable and receivable) which are invariably included for ratio calculations are in fact used only for financial transactions so their inclusion leads to inaccurate assessment of the financial position of the firm. There is still one issue of concern since the measure contains liabilities that are not related to financing e.g. pension liabilities, thereby underestimating the size of leverage. The ratio of total debt to capital is defined as total debt plus equity, is assumed to solve this problem and they opine that it can be seen as the best accounting based proxy for leverage.

DoronNissimandStephenPenman (2001)havetriedtoanalysethe favourable and unfavourable impact of leverage on the profitability of various companies. The paper also distinguishes the profitability of Operations from the profitability of Financing Activities.

The paper outlines the mathematical equations and derivations regarding the impact of financial leverage on the shareholders' profitability. The authors have also presented the impact that financial leverage has on the shareholders' value. The authors have briefly stated the age-old theories of capital structure such as the pecking order theory or traditional trade-off theory etc. the paper goes on to analysing the shareholder profitability that arises from operations and it also distinguishes such profitability from that which arises from borrowing to finance operations. The paper presents a financial statement analysis that identifies the effects of financing liabilities on rates of return on book value with explicit leveraging equations that explain when the leverage is favourable and when unfavourable with the help of a case of Dell Computers, USA. The authors have stretched the concept of leverage from very basics to its intricate impact on the profitability and the mathematical presentations of the same.

The authors Ram Kumar Kakani, BiswatoshSaha and V. N. Reddy (2001) have attempted to provide an empirical evidence of the widely held existing theories on the determinants of firm performance in the Indian context. The authorsemphasiseonthefactthatanalysisofthedeterminantsoffirm performance is of utmost importance to all stakeholders of a firm, especially to its common equity investors. For this purpose, the authors have used financial statement and capital market data of 566 large Indian firms over a time frame of eight years divided into two sub-periods (viz., 1992-96, and 1996-2000) to study Indian firms. Financial performance across various dimensions viz., shareholder value, accounting profitability and its components, growth and risk of the sample firms and leverage component the capital structure. It reveals that even on the samedata,thedeterminantsofmarketbasedperformancemeasuresand accounting-based performance measures differ due to influence of capital market conditions. In the process of research the authors have found that unlike leverage component, the size, marketing expenditure, and international diversification had a positive relation with a firm's market valuation. Apart from thesefirm attributes that reflect either operating parameters of firms or strategic choice of firm managers, the authors also found that a firm's ownership composition, particularly the level of equity ownership by Domestic Financial Institutions and Dispersed Public Shareholders, and the leverage of the firm

were important factors affecting its financial performance. The different implications of the findings for various stakeholders of a firm have al also been discussed in the paper.

Jean-Philippe Bouchaud, Andrew Matacz and Mark Potters (2001) have triedtoinvestigatequantitativelytheso-calledleverageeffect,which corresponds to a negative correlation between returns earned in the past and future volatility. The authors have worked on the impact of financial leverage on the liquidity and possibility of returns and the resultant variations in stock prices of different companies. They aver that the perception of the investors is affected by the use of leverage. As such stock prices variations and its impact on derivatives are not in the purview of this research work. They have presented several models for the same such as a one factor leverage model, retarded model etc. which are again not within the purview of this research work. However, the authors have observed that most (57%) of the companies which are listed in France and those which have issued debt instruments to raise finance have done so when the markets were not under recessionary pressure. But when the markets showed signs of slow-down, the investors almost had a panicky approach and viewed the presence of debt in the capital structure as a sure recipe for lower returns. They got rid of the stocks expecting the companies to experience financial distress. This further adversely impacted the prices at which such stocks were traded at the bourses. This research again reaffirms the beliefs about leverage that have always been prevalent.

In a paper titled " Theory Of Capital Structure - A Review" published in a business magazine called " Norway Business World" in 2004 the author Stein Frydenberg has initially examined the popular capital structure theories such as pecking order theory and trade-off theory. He then proceeds to propose that leverage increases with fixed assets, non-debt tax protection as also with firm's size and other investment opportunity. Conversely leverage decreases with volatility,advertisingexpenditure,andtheprobabilityofbankruptcy, profitability and niche products. The author portrays the effects of tax reforms in Norway on the financial markets and the subsequent views of the investing community on the profitable avenues of investments and how they look upon the instruments of debt as

an investment avenue. He proves that tax system matters for the debt ratio. That so many firms resort to debt funding merely because it reduces the tax burden on the corporate and that the control over management is not compromised. He opines that debt plays a major role in deciding the type of industry that is promoted.

The capital-intensive industry is assumed to fetch better returns than the labour-intensive industry. He opines that debt can be used to control management incentives by setting debt level so high that an investment in labour-intensive industry is not feasible. He concludes that how a company gathers its finance remains enigmatic. And that the capital structure is not bound in any watertight compartment, hence a firm may float bonds and debentures at one time and the same firm may choose equity for capital formation at another. Not always these decisions are governed by a single criterion. Debt employment is interplay between what interests are sacrificed and what interests are retained.

Long Chen and Xinlei Zhao (2005) have sought economic interpretations for twowell-knownempiricalregularities.First,itiswellknownthatmore profitable firms tend to have lower leverage ratios, a pattern driven by the preference on internal funds by these profitable firms. Some recent theoretical development has used dynamic tax considerations to explain this phenomenon. The authors have tried to show that the phenomenon largely remains even after these factors are controlled for. Second, through both theoretical and empirical illustrations, the paper attempts to show that leverage ratios can revert to mean mechanically regardless of which theory better describes financial decisions; and thatoppositeconclusionscanbedrawndependingonwhetherfinancing decisions or leverage ratio changes are studied. Therefore, leverage ratio changes might not be informative in distinguishing the competing theories. The authors also warn that the common practice of relying on the dynamics of leverage ratio changes to draw conclusions on the validity of capital structure theories should be dispensed with. After discussing various capital structure theories in the initial section of the paper, the authors state that more profitable firms have lower leverage ratio. This is observed from the fact that the leverage ratios are too low for profitable and liquid firms. More profitable firms then raise a significant portion of capital from internal accruals or

internal funds and hence they avoid contracting debt. In such a situation, the firms do not really see tax benefits as a major incentive they have to forgo. The authors argue that the amount of deb raised by a firm is dependent on the availability of internal equity. They aver that all the past theories and their own observations point to the fact that there is a negative relation between profitability and leverage ratio. To substantiate this, the authors selected 94,571 observations for the period from 1972 to 2002. The authors carry out univariate analysis, multivariate analysis and multiple regressions analysis of the collected data to draw conclusions. The authors conclude that studying financial decisions and leverage rations can lead to opposite conclusions. Inferences based solely on leverage ratios changes can be misleading. They contend that the future research that relies on leverage ratio changes to draw conclusions should also show how the leverage ratio changes are achieved through financing decisions. They reiterate that highly profitable firms tend to borrow less and prefer internal funds.

Murray Z. Frank and Vidhan K. Goyal (2005) have examined the relative importanceofmanyfactorsintheleveragedecisionsofpubliclytraded American firms from 1950 to 2003. The most reliable factors are median industry leverage, market-to-book ratio, tangibility, profits, log of assets and expected inflation.

They opine “when corporations decide on the use of debt finance, they are reallocating some expected future cash flows away from equity claimants in exchange for cash up front.” From the American experience they state that they have disclosed the most reliable factors on the basis of which leverage can be predicted. It is also possible to know the pattern of financing. They have come out with interesting set of factors affecting leverage which are as under:

1) Industry median leverage: Firms in industries in which the median firm has high leverage tend to have high leverage.
2) Tangibility: Firms that have more tangible assets resort to higher leverage.
3) Profits: Firms that have higher profits tend to have lower leverage
4) Firm size: Firms that are large tend to have higher leverage.

5) Expected inflation:When the inflation is expected to be high, firms tendto have high leverage.

They opine that all these factors are not equally reliable. The last factor-inflation-istheleastreliableofall,theysuggest.Rathertangibilityand profitability are more reliable among the factors. To conclude this they carried out several mathematical tests extensively using the sample data that was largely in congruence with the companies under study. The authors have discussed various theories of capital structure with their own views expressed in absolute clarity. They have also examined the growth story of a firm vis-à-vis leverage. Those firms which are still growing have higher costs of financial distress and reduced cash flow problems and this exacerbates the debt related problems.

A.CevdetAydemir, Michael Gallmeyer and Burton Hollifield (2007) have studied the effect of leverage at market and firm level where the firm is exposed to market risk. The authors have also associated stock volatility with leverage which again given the nature of this research work has very little relevance. Among the observations, the authors aver that the presence of leverage not only influences the firm's profitability and liquidity but also the perception that outside investors or potential investors hold of the company. Financial leverage works in tandem with interest rate prevailing in the market.The authors have theorised the relationship that exists between the proportion of leverage and the profitability and liquidity of a firm. They have also discussed the effect that leverage has at market level. This encompasses the investors' perception of use of debt, the outlook of the potential investors in the backdrop of fluctuating market conditions. They also aver that cash-flows projection also changes the investors' vision of degree of risk involved. And cash flow is influenced by debt in the capital structure. They have used time-series as a statistical tool for analysis.

Tobias Adrian and Hyun Song Shin (2008) have attempted to document the relationship between balance sheet size and leverage. They have tried to show that leverage is strongly procyclical and that expansions and contractions of balance sheets have an impact on risk appetite of the corporates. The authors have redefined liquidity

as the rate of growth of aggregate balance sheets. They opine that the financial market commentators often use the metaphors such as “liquidity sloshing around in the market” or markets awash with liquidity do not capture the precise meaning of the term liquidity. The authors have explained the meaning of leverage using household leverage. They aver that leverage is inversely related to total assets. They authors have analysed the financial data of Lehman Brothers, Merrill Lynch , Morgan Stanley, Bear Stearns, Goldman Sachs and Citigroup for the years 1998-2008. They conclude that indeed leverage is procyclical and that leverage is heaving dependent on the size of the balance sheet. In manufacturing firms, they say, it’s the surplus capacity which the firms strive to utilise and for that they have to expand their balance sheet. In the process such firms have to resort to short-term borrowing. Thus expansion of balance sheet also results in expansion of debt-funds.

Murray Z. Frank and Vidhan K. Goyal (2009) aver that the literature on financialleveragehasmisinterpretedtherelationshipbetweenprofitsand leverage and that highly profitable firm typically issue debt and repurchase equity and typically low profit firms reduce debt and issue equity. In order to analyse and corroborate their opinion they took a sample of 2, 26,355 firm year observations from 1971-2006. They used time series analysis and regression analysis and scaling technique for the purpose of analysis. They conclude that the results of their research are consistent with the trade-off theory of capital structure. That implies that profits positively influence debt issuance. They also state, on the basis of the results, that the size of the firms is important because larger firms make more active use of debt and small firms make more active use of equity. It also means that the smallest firm will quite certainly resort to equity and the largest firm will most certainly resort to debt. The effect of firm size is substantially larger on debt issuances than it is on equity issuances. This tendency also affects the profitability of the firms. In the initial section of the paper the authors have discussed the fine aspects of capital structure theories and their impact on the firms. The authors state that the market conditions also influence the choice of debt as a source of finance. The good times at the financial market means that the firms desirous to seek funds would invariably opt for debt. But when the times are turbulent at the markets, firms become shy of contracting debt. That is not

all, even the largest of the firms show aversion toward debt when the markets show slightest sign of sluggishness or recession.

Ricardo Bebczuk and Arturo J. Galino (2010) have used the data of 185 listed companies in Latin America and have studied the impact of leverage on profitability among other things such as tangibility, firm size, firm growth etc. This study has been carried out in the backdrop of subprime crisis that afflicted the whole of America in the recent past. They authors aver those firms which have recorder high profitability and whose profits are on the rise over the number of years tend to borrow less and less for capital requirements. This, the authors have observed, is mainly due to the fact that the highly profitable firms enjoy good internal accruals in the form of profits and other incomes. These are diverted toward the deficient areas and external-borrowings are thus averted.

The authors selected several companies based in different regions of America so as to avoid bias as regards locational advantages or disadvantages and the set of laws governing the corporates and environmental restrictions peculiar in certain regions. Among the conclusions they have drawn from the research, the one that is significant is that with the cost of borrowing rising in America, the demand for debt has been steadily declining. And that the firms which are expecting to grow tremendously in the near future and expecting to come out with public issue for additional capital avoided the debt instruments so as to avoid being seen by public as a firm with a heavy burden of fixed charges. This view by the investing public can adversely impact its prospects of raising capital through equity. This research paper once again drives home the point that even during the financial crisis the firms did not flinch from raising finance through debt instruments, particularly long-term debt finance. The behaviour of companies towards debt did not change significantly. However, the risk aversion of the investing public does get affected by the prevailing economic conditions in the short-run.

V.V. Acharya and S.Viswanatahn (2010) aver that financial firms raise short-term debt in order to finance asset purchases. When asset fundamentals worsen, debt

induces firms to risk-shift which also limits their funding liquidity to roll over debt. Firms can de-liver by selling assets to better-capitalized firms. They opine that that the market liquidity of assets depends on the severity of the assets shock and the system-wide distribution of leverage. The authors exhort a model that illustrates that in good times firms contract leverage but in the times of the financial crisis this outlook changes. The trigger for this response, in their observed opinion, is nation-wide financial crunch. The authors attempt to study the microeconomic foundation for the connection between market liquidity and the ease of selling assets or the ease of rolling over the debt. The paper discusses in detail the model formation and all the aspects of measurement that are covered by such model. It is followed by elaborate mathematical formulations explaining the model. Among the concluding remarks, the one that is relevant here is that since good economic times are associated with a low cost of short-term debt and in turn greater entry of highly-levered financial institutions, adverse asset shocks thatfollowsuchtimesleadtojettisoningofleverageandasset-price deterioration. It all boils down to how the leverage has been distributed in the financial sector.

FabrizioCoricelii, Nigel Driffield, Sarmistha Pal and Isabelle Roland (2010) have examined the relationship between leverage and growth in a group of emerging central and eastern European countries, which are at different levels of financialmarketdevelopment.Thebeganbyhypothesizinganon-linear relationship in that moderate leverage could boost growth while very high leverage could lower it by increasing the likelihood of financial distress and bankruptcy. They are of the opinion that there is a connection between leverage decisions and the wider economy of any country. The research paper in the initial stage identifies those firms which have excess leverage - excess of optimal leverage (instrumented by the fitted values of leverage). They have attempted to determine endogenously a threshold level of leverage beyond which leverage has an adverse effect on productivity growth. Firm level data for twelve transition countries has been obtained from the World Bank for the period from 2001 to 2005. As such the financial norms in European countries are such that not too many firms resort to leverage. This fact has been confirmed by the paper.

The authors observe that the larger firms tend to have greater leverage and smaller firms tend to minimise the use of leverage. This scenario is prevalent in certain European countries and in the rest of the countries it varies from country to country inconclusively.

In countries where excess leverage has been found, it is largely due to poor management of debt issuance on part of the regulatory authorities. The authors employ an Endogenous Threshold Model to base their inferences on. They conclude that indeed excessive use of leverage could hamper growth particularly of those firms operating in countries where the government norms are not stringent enough to prevent it or due to microeconomic inefficiencies in such countries. This adverse impact is further magnified in case of those firms which have failed to post profits in the recent past.

Dr. Umar Butt (2011) attempted to study the relationship between the policies adopted by the corporates and the degree of leverage in their capital structures. The author avers that those firms which have proper corporate governance practices in place also tend to have higher leverage ratios. He further states that those firms which are enjoying positive relationship between profit and financial leveragehavegoodgovernmentpracticesfirmlyestablished.Theauthor investigates as to what are the considerations for selecting various sources for finance and how corporate governance influences the selection of the source. So financial leverage is in the end influenced by corporate governance. The author also segregate various firms into democratic firms and dictatorship firms and observes that the democratic firms resort to debt much more than the dictatorship firms. The author concludes that all the previous studies have not given complete andconsistentaccountofrelationshipbetweenfinancialLeverage and CSR and that empirical studies point to divergent directions which in reality may not be the case. The author uses the data base of 2229 firms for the years 1990-2009 and for the corporate governance practices he uses the G-index. TheG-indexreflectsthetwentyfourprovisionsofcorporategovernance observed by the firms. He uses Pearson correlation coefficients among the financial leverage, profitability and industry specific control variables for all firms. After univariate and multivaraite

analysis and robustness test, the paper concludes what some of the prior theories have concluded which is that there is a negative relationship between profits and financial leverage. He also concluded that with strong corporate governance structures in place, managements will employ more debt when profits increase which is not the case with firms with poor corporate governance practice.

Prashant Gupta, AmanShrivastav and Dinesh Sharma (2011) reveal the distinct relationship between capital structure decisions and their impact on the performance of the corporates. For the purpose, they have applied the data of 100 companies listed National Stock Exchange (NSE) of India in a 5-year time horizon. The results of the study conducted by them establish that the capital structure does influence financial performance. They attempted to seek answers to these questions:

1. Is there optimal capital structure?
2. Do firms get influenced by the traditional capital structure of theirindustries?
3. Are there other reasons influencing the combination of debt and equity?

They have also tested the theory given by Modigliani and Miller (1953) with respect to tax deductibility of interest expenses and its impact on the firm's value. They opine that the optimal capital structure represents a level of leverage that balances bankruptcy costs and benefits of debt finance. The authors have discussed in detail the impact of financial leverage on the financial performance of the firm and have cited all the authors who agree with their opinion or who are in total disagreement with their opinion. They subjected the data of 100 companies to various mathematical testing procedures and concluded that the firms which employ high leverage beyond the optimal level do experience some dwindling in their profitability factor and it can result in significant financial distress. They also derived that the company that has high profitability and good performancehavelessdebt.Theysubstantiatetheseresultswiththose promulgated by other prominent authors namely Mayers, Stulz, Rajan and Zingales. They also suggest that to investigate the changes in capital structure of any firms, the data selected should cover a longer period of time because the changes in the financial performance due to changes in the capital structure are imperceptible in the short run and can be influenced by a particular economic cycle. They also believe that the analysis could

be improved by differentiating between types of debt such as long-term and short-term.

Aasia Asif, WaqasRasoolandYasir Kamal (2011)have examined the relationship between dividend policy and financial leverage of 403 companies, listed with Karachi Stock Exchange during the period 2002 to 2008.In the initial section the paper discusses the relation between earrings of a company and its impact on dividend distribution. The paper discusses in detail the age-old conundrum of the company that huge dividend pay-out means too much reliance on external equity and miniscule dividend pay-out means disappointing the shareholders. The paper tests the dividend policy, vastly followed by the companies, by applying the extended model of Linter (1956) with the debt ratio of the firm, the previous year's dividend yield as its independent variables and change in earnings as a dummy variable. At first, the authors calculate the descriptivestatisticsforentirevariablesandthencorrelationmatrixwas calculated to identify the preliminary relationship among all the variables,
followed by regression analysis on panel data to examine the significance and magnitude through fixed and random effects models. Theoretical assertions have been justified through random effect model that the level of corporate debt (leverage)andwidelypracticeddividendpolicy,significantly,affectthe dividend policy of the Pakistani firms. On the other hand, financial leverage is found to have a negative impact on dividend pay-out, indicating less dividend payments by highly levered firms. The authors also concluded from the findings that change in earnings has no significant impact on dividend policy in case of Pakistani firms while the dividend yield has positive impact and vice versa. Fixed effect model, applied for the study, supports only the significant effect of dividend yield on dividend per share. The paper brings to the fore an amusing point that sometimes firms have to borrow for its financial requirements and then notwithstanding the huge financial burden that these borrowing entail, the firms borrow even more, although at subsided rate, to distribute sufficient dividend to equity shareholders.

PuwanenthirenPratheepkanth (2011)states that the relationship between capital structure and financial performance is one that has received considerable attention in

the finance literature. How important is the concentration of control for the company performance or the type of investors exerting that control are questions that authors have tried to answer for long time. The study of effects of capitalstructure onfinancial performance will help the academia and the financial managers and the stakeholders to know the potential problems in performanceinrelationtocapitalstructure.Theauthorclearlystatesthe hypotheses as H0:-There is a negative relationship between capital structure and financial performance.H1:-The capital structure has significant impact on financialperformance.H2:-Thereisapositiverelationshipbetweencapital structure and financial performance. To produce the above mentioned research objective, the data for this study was gathered from the financial statements as published by Business Companies. Another source of data was through reference to the review of different articles, papers, and relevant previous studies. For this purpose, data of those Business firms are used which are listed on Colombo Stock Exchange. All firms are taken for the study representing the period of 2005-2009.Aftercarryingoutthecorrelationanalysisofthedata,the conclusions suggest that the null hypothesis is accepted. So there is a negative relationship between capital structure and financial performance. The author also suggestsin the end that performance standards should be established and communicated to the investors so that investors can take better investment decisionsandthatthelimitationsandpossiblenegativefalloutfromthe investmentsshouldbeclearlyidentifiedtoimprovethefirm'sfinancial performance.

CA SachchidanandPachori and Dr.NavindraTotala (2012) made an attempt to study the influence of financial leverage on the shareholders' return and marketcapitalisationofautomoteclustercompaniesofPithampur, Madhyapraesh, India. Their study covers five years' time period from 2006-07 to 2010-2011. Apart from dealing with the basics of Financial Leverage, the paperclearlyexplainstheimpactofleverageontheprofitabilityofthe automotive industries of the region. The authors opine that the shareholders returns are affected by the efficiency of all commercial, operational and financial activity of the enterprise. The authors have discussed in the detail the financial ergonomics for the automobile part manufacturing units. Pithampur is also known as the Detroit of India as all the major

auto companies are based here. All these companies operate in a huge cluster and have not only similar products portfolio but also employ similar sources of finance to finance their operations.

The authors have traced a common pattern in some of the major companies of the region and the obvious advantages of operating in a cluster. The have observed that shareholders of the firms with risk-laden debt will invest only when or up to the point at which, the expected return on investment is at least as great as the promised payment to bondholders. They imply that if the expected return is less than the promised payment, the shareholders invest less than the optimal amount or do not invest at all. Then, the firm value declines resulting in restricted use of debt. They suggest that even if the rate of return on equity is high but if the amount of financial leverage is very high the shareholder will ask for premium to cover the added risk. Their findings indicate that there is not significant influence of financial leverage on shareholders' return and market capitalisation. They conjecture that there may be other non-quantitative factors which may lead to nullify the impact of financial leverage on shareholders return like recession, saturation of auto industry, competition and government policy.

They conclude that financial leverage is a speculative technique and that there are special risks and costs involved with financial leverage and there is no guarantee that financial leverage strategy will be successful during any period in which it is employed.

FINANCIAL LEVERAGE AND OVERRIDING CONCERN OF CORPORATE

Alan J. Auerbach (1983) has revealed that the financial policy of any country is widely distorted by differential treatment of debt and equity. He attempted to examineusingfirm-levelpaneldataof 200corporations,therelationship between real and financial decisions by corporations, in part to determine the extent to which biases offset or reinforce each other. He has critically evaluated all the capital structure theories in detail including the 'all debt' theory by Modigliani- Miller and the Bankruptcy/Agency Cost theory. He has explained the determinants affecting the type

of debt-funds raised by the firms and also their tenure i.e. long-term borrowing and short-term borrowing. The author has analysed the relationship between optimal financial structure in the context of prevailing tax-structure and the choice of debt-equity ratio. He opined that under some models of debt-equity choice, there may be a tax advantage to the use of debt finance which is dissipated by other costs to the firm as leverage increases. He pointed out that the choice of debt as a source of finance was highly dominated by the consideration of obvious tax benefits. He has observed that the firms which had huge amount of debt in its capital structure were also highly inclined to undertake very risky projects which upped the possibility bankruptcy and that the shareholders should constrain such firms so asto avoid the untoward consequences. The firm with narrow choice of sources of funds would generally never walk the path of debt thereby avoiding the pitfall of possible bankruptcy.

He concludes that the risky firms and fast growing firms should borrow less becauseoffluctuationsinearningandgreatertaxshieldavailablefrom depreciation on assets and investments inducing tax-deductions. For the same reasons other firms which have assets and investment which can reduce taxliability should also avoid contracting significant amount of debt.

Michael S. Long and Ileen B. Malitz (1988) have tried to investigate the type of investment opportunities facing a firm influencing the financial make up of it. They began by assuming that if the firms had no compulsions, it would choose lower degree of leverage in its capital structure. Then as the pecking theory suggests the firm will use up its internal resources first since they are least costly and least burdensome. The authors have delineated the theories given by Modigliani- Miller, Myers and Baxter in the context of choice of leverage and its impact on the capital structure of a firm.

Theyconcurthatthetypeofinvestmentopportunitiesavailablelargely dominates the choice of dosage of leverage. If a firm can focus its R & D on projects with a low probability of extremely high returns, it is difficult for others to evaluate the level of risk involved because R & D is closely guarded bastion for any company. Here the firms may indulge in higher degree of leverage and then shift the risk imperceptibly.

In the 1980 theses issues were hotly debated in the world of finance and hence the authors have discussed them in great detail. This paper reveals that when firms chose to be levered or not to be levered, the parameters to do so are vastly different such as taxation, the type of business, investment opportunities, financial market trends, actual internal accruals and projected accruals, government policies, general market conditions, type of assets i.e. tangible assets and intangible assets, etc. it cannot be predicted or takes for granted that the firms are leverage- averse.

M.Barclay, C. Smith and R. Watts (1995) have observed that those firms which are on the growth path have been found to have lesser and lesser amount of leverage. Not only that but even those firms which contract less amount of debt also tend to grow faster when their results are compared with their own historical records. They have also revealed that majority of the borrowing firms were considering ways to dispose of debt but were not able to do so for lack of finance. Debt also hampers the inclination of the firms to dole out dividends. This observation they have based on the data of various corporations. They have observed a distinct possibility that when the firms contract debt they are very circumspectwithregardtogivingouthugeamountofdividendoutof apprehension that in future when they are not able to service debt they can fall back on the cash reserves to get rid of the debt. This sense of urgency drags their feet when it comes to giving dividends that are due to the shareholders.

Gerald Garvey and Gordon Hanka (1997) have presented a model in which a manager controls the firm's dynamic capital structure in his own interest, increasing leverage to stave off takeovers and decreasing leverage to fend off financial distress. They are of the opinion that those firms which have high degree of leverage can easily protect themselves against any takeover bids. At the same time, the thing that the firm has to take care of is to ensure that the cost of servicing the debt should not be so much that it puts undue financial distress on the firm. The takeover aspects are not exactly within the purview of this research work but this paper is worth taking note of in that it teases out a completelynewstrandfromthewholeissue.Asusualtheauthorshave discussed the theories of capital structure in detail in the context of conditions - favourableandunfavourable-forraisingfinancethroughdebtandits implications. The

paper also deals with managerial discretion with respect to the accepted maxim of wealth-maximisation. They have categorically stated that the managers while contracting debt do not always have the axiom of wealth-maximisation in their mind. If the company is profitable and the burden of debt is light, the managers will gladly perpetuate such sub-optimal composition until some rival firms let them get a whiff of possible take-overs, if the managers don't realise that lower degree of leverage will make the firm vulnerable to takeover bids. The paper delves into the mathematical aspects of leverage and analyses it vis-à-vis hostile takeover incidents in the companies across Canada. It concludes that leverage in the capital structure is a shield not just against taxation but also against the preying claws of the rival companies.

Kuljot Singh and James E. Hodder (1999) have addressed the multinational capital structure decisions and the overriding concerns for the same. They have propounded that when the companies reduce the use of leverage or avoid employing debt in their capital structure, the valuations of the firm improve drastically. Also that those firms which are in the negative light due to high amount of debt can change the scenario by getting rid of excessive debt. Their opinions rhyme with myriad other opinions that tax-bite mitigation is not the only criterion to indulge in debt. And that leverage is a dangerous weapon as it can hurt the holder of such weapon if used indiscriminately. They have carried out data analysis of several MNCs to deduce that when the business environment experienced by the MNCs is eclectic by nature that the companies have to manage the parent units and subsidiary units within the country of origin and beyond the borders to other country/countries on in terms of foreign currency fluctuations and earnings and exchange rate differences and differences of vastly different tax regimes. This research is of great value in terms of comparative analysis of different companies with very different backgrounds and therefore governed by different set of laws. They conclude that the companies that operate in low tax imposing countries have relatively stable market value because the debt or no debt situations do not impact them significantly. When this is compared with single country company within high tax imposing country and having sizable amount of debt in its capital structure, the authors say that such companies do experience negative market valuation and have adverse impact on the profitability and liquidity of the companies in the face of uncertain market

conditions.Theyhaveconsideredpoliticalstabilityasoneofthefactors affecting the financial performance of various companies or the expansion plans within the country or outside the country.

Bernadette Minton and Karen Wruck (2001) have examined the phenomenon of financial conservatism by studying firms that adopt a persistent policy of low leverage. The word financial conservatism is taken to mean that the firms adopt a highly cautious approach to borrowing of funds and therefore tend to be under-levered.Thisbehaviourbeliesthedominantcapitalstructuretheories promulgated by well-known authors of finance. They have taken a sample data of 5,613 companies for a period of 25 years (1974-1998) to examine and test the aforementionedpolicyoflow-leverageorfinancialconservatism.After thoroughly analysing the data and applying empirical evidence they found that those firms which are capable of raising funds through debt but have sufficient internal resources do not give top priority to debt as a source of finance. Secondly, when such companies change their financial policy they do increase the leverage component and more than half of the companies did drop the aversion to debt completely, they observe. They have also concluded that once such companies drop the policy of low leverage, they never return to the policy of financial conservatism. They have also concluded that such behaviour is just peculiar to any one particular industry but rather prevalent in all types of industries. That means that the low-leverage phenomenon is transitory, they aver. They also propound that the companies stick to the low-leverage policy as long as they have high internal flow of funds and cash balances. The companies consider leverage as option only when either their cash flows deplete or when their cash outlays increase. They conclude the discussion that those companies which are avoiding high leverage are those that do not have low tax rates or have other tax shields to make up for the absence of debt as tax-shield. This shows, as they opined, that taxes are an unimportant factor in leverage decisions. Taxes neither make contracting debt look attractive nor do they make conservative firms avoid debt as an instrument of finance.

SusanaMenedezRequejo (2002)examinedtheimportanceofdifferent theoretical proposals that explain a firm's capital structure in relation to the existence of an optimal debt ratio, the preference of the firm for internal financing and the overriding

concern of financial constraints.The author carries out the contrast of the relative importance of these theoretical proposals from a structural equation model on the database of the (Business Strategies Survey) for Spanish firms in 1998. The database is made up of the firms selected by the Spanish Ministry of Industry and Energy. The sample thus chosen consists of 1,425 small and large Spanish firms which is the very basic point in order to examine the theoretical proposals. The paper discusses the basic capital structure theories interspersed with opinions of well-known authors in the initial stage. The analysis of the importance of different theoretical proposals is carried out with the help of estimation of Structural Equation Model. The author confirms what has been stated before by many researchers, that the preference of a firm to optforinternalfinancingasagainstexternaldebtfundingisreasonable.

Agreeing with the empirical studies, the author states that a firm's capital structure is a result of hierarchical financing and that debt funding comes much lower down the order on the list of preferred sources of finance even in case of large firms. The author observes that the small firms had 62% leverage which is higher compared to 54 % in large firms. That is because the large firms have greater internal fund generation to fall back on in case of financial needs. And that capital structure decisions ,be it for small firms or big firms, are heavily influenced by availability of internal funds and that sectorial debt ratios are determinants of capital structure in almost equal proportion. The findings also suggest that small firms do not defer the investment decision and leverage decision even if the financial costs are higher.

Nancy Huyghebaert and Linda M. Van de Gucht (2002) investigate the initial financialstructureofbusinessstart-ups.Thepaperfocusesontrue entrepreneurial start-ups that are first-time operations. In other words, these firms do not arise from the split-up of another firm. The reasons why this niche was chosen have been stated as being that the new start-ups are not new divisions of existing firmsor incorporations of a previously self-employed activity. Such start-ups are unique relative to established firms in that they have no prior financial and operating history, and hence no reputation.Such firms manage to borrow mainly on the basis of what they purportedly bring to the table for the lending agency with no benefits of prior history or established reputation. Ownership and managerial control are not separated, and

entrepreneurial private benefits of control can be quite large. Furthermore, the anticipated default risk is high compared to more mature firms. The paper argues that the impact of determinants of capital structure will vary depending upon the stage of firm life cycle.

If such firms are spin-offs from well-known corporates, they have a certain amount of history and reputation and so they don't exactly fall in the category of "just born" firms. Although it has little relevance to this research work in terms of form of business, the overriding financial concerns and the ways to mitigate risk and taking the call on important issues of liquidity and profitability are of universal importance. The paper states that such firms opt for bank loans as against bank credits chosen by mature firms. For the research purpose, the authors randomly chose the sample of 244 firms founded in 1992 in the manufacturing sector after removing complexity and heterogeneity of data, thus ensuring homogeneity in the entire sample. The paper carries out cross-sectional regression analysis of the data. The authors conclude that in the initial stage of life cycle, the firm contracts debt whose maturity period is longer and the firm tends to borrow on slightly tough terms as dictated by the lending agency. That is also the reason why they face high default risk. However, as the authors state, the lending agencies do not maintain very stringent screening and monitoring policy as normally seen in case of giant corporates. That spawns reckless borrowing on the part of newly born firms. This is possible because the lending agencies are not perfectly informed about the quality and sustainability of the new venture. The firms which prefer to retain control over the business, also resort to bank loans because banks do not interfere in the day to day conduct of the business and they intervene only in case of financial exigency. The paper observes that the greater the need for control by the firm, the longer will be the duration of bank finance.

Michael Faulkender and Mitchell Peterson (2003) have begun with a belief that majority of the firms are under levered. They have studied the behaviour of those companies which are governed by and are constrained by debt regulations in comparison with those firms which are free to choose their source of finance without any constraints at all. They say that the empirical evidence they have come across suggests that if the firms are not restricted to raise finance through debt, they tend to

contract 35 % more debt than under normal condition of restriction.Thepaperalsoattemptstoanalysetheimpactofdisclosure requirements and the firm's inclination to raise debt. They also confirm what has always been believed that as firm is able to build more tangible assets, it also significantly whets its appetite to incorporate debt in its capital structure. And the firms with volatile assets foresee greater financial distress and therefore carefully avoid high degree of leverage. Such firms prefer to go to banks and do not access public markets. They have touched upon the rating aspect of a firm. The firms with bond rating tend to issue long-term bonds and those without tend to opt for shorter tenure of debt. They observe from the capital market study that the big manufacturing companies resort to debt funds eagerly and successfully because they are relatively better known in the established and categorised market. They have observed typical debt- aversion in the small firms primarily because they are fettered by the law.

PetiaTopalova (2004) has used firm level data to examine the performance of India's non-financial corporate sector since 1989 and to evaluate its financial vulnerabilities. The author states that in the early 1990s, particularly the reforms oftheyear 1991,thetrendsinliquidity,profitabilityandleveragewere promising but after 1996, the Indian corporate sector has seen a sort of reversal in the trends. The author maintains that although the key parameters and indicators are at comfortable levels, examinationof the balance sheets of Indian companies reveal that there are quite a few companies having problems servicing their debts obligations and this, he says, is a wake-up call for the Indian economy. The author also discusses the legal frame work for the corporate sectorin detail. Due to growing equity funding, the debt-equity ratios of the firms under study has fallen consistently, he observes. Indian companies do depend on debt finance including bank finance. The average debt to equity ratio for Indian companies bottomed out at 1.2 in 1996 but in 2002 it again rose to 1.4. The paper also observes that the in 1990s Indian companies became less liquid as the current ratio which was 1.64 in 1990 dropped to 1.49 in 2001. The relevant observation is that as the profitability of Indian companies declined, the maturity structure of debt shifted towards short-term borrowing. In 2002, 30 % of the companies were not able to generate enough cash to cover interest payments which is risky for the investors. The paper is useful with respect to study of financial behaviour

of Indian companies and the paradigm shift in its preferred sources of finance and the attendant impact on the financial performance the Indian corporates.

VassilMihov (2005) attempts to investigate the motives for issuance and the debt choices of 427 U.S.A. firms which issue long-term debt for the first time in their history between 1971 and 1999 which in author's opinion is a natural laboratory to investigate such issues. Their first debt issues are very large relative to firm size and represent a permanent shift in firm financing policy. The author states that the amount of debt issued was mainly because of deficits in internally generated funds needed to finance investments and not so strongly related to deviations from target leverage structure. For the purpose of analysis the author employs Linear Regression Analysis technique. In the three (or five) years following the initial issuance, the firms remain significantly under levered, and their deviations from target leverage are not strongly related to subsequent issues of debt and equity. The firms tend to remain under levered in the initial 3 to 5 years even after issuing debt which indicated that they adopt financial conservatism. However, firms finance their external deficits with large amounts of external equity as well - while internal cash flows provide 80% of the their funds and subsequent debt issues track deficits more closely than equity issues, equity issues fund approximately 40% of the initial and subsequent deficits. He further states that financial deficits also affect strongly the likelihood of issuance of debt and equity together. He also examines the source and maturity of new debt and avers that initial debt issues have relatively short maturity and are overwhelmingly not rated, with the number of rated issues increasing afterwards. He states that firms with large financial needs are more likely to issue rated debt andlongermaturitydebt.Overall,financialdeficitsappeartobemain motivating factor for the firms to opt for debt. He further concludes that the firms prefer to borrow only so much as is required .i.e. internal funds are used first and then if need be, debt funding is resorted to. 2.30 Thomas Dangl and Josef Zechner (2006) propound that if the debt maturities are long, and if the firm is performing poorly, there is naturally a need for the firm to reduce the amount of debt. But because the maturity period is so long, it will negate the incentives to equity holders to reduce leverage in response. By contrast, a sufficiently short debt maturity commits equity holders to implement suchleveragereductions.However,ashortdebtmaturityalsogenerates transactions costs

associated with rolling over maturing bonds. In the paper the authors have attempted to show that this trade-off between higher expected transactions costs against the commitment to reduce leverage when the firm is doing poorly is possible and this can also give the firm an optimal debt structure in terms of maturity period. The paper further states that since firms with high costs of financial distress stand to benefit the most if the leverage is reduced, they have a stronger incentive to issue short-term debt. The debt maturity required to commit to future leverage reductions decreases with the volatility of the firm's cash flows. If the firm is pushed to bankruptcy by a persistent series of low cash flows, then equity holders lean towardsissuing debt to refinance maturing bonds, even when debt maturities are short. So the behaviour of equity shareholders is not adamant and it rests on the financial performance of the firm. Apart from discussing the basic theories of leverage and capital structure, the paper also highlights the fine aspects of re-negotiations with debenture holders if the firm has to resort to debt restructuring. More importantly, the authors conclude what they had started off with. The paper also suggests a model with help of which a firm can decide the proper duration for which the debt can be issued such that the positive effects of short debt maturities can be balanced against the dreadful transaction costs associated with floating long maturity debt. This the authors call as an optimal debt maturity theory. They also aver that their research work agrees with empirical studies which show that firms readjust their capital structure if they are highly levered and that if the firms have a huge amount of long-term debt in their capital structure and are facing financial distress, they show reluctance to reduce debt. But if their capital structure has a high portion of short-term debt, they may be willing to tinker with it to reduce it.

Rahul Kumar (2007) has attempted to critically investigate the underlying factors that affect firm's financial leverage from the perspective of theoretical underpinnings. The paper reviewed 107 papers published from 1991 to 2005 in the core, non-core and other academic journals. On the basis of critical review, the paper has identified a number of determinants of financial leverage based upon logical arguments identified in the literatures. Major findings show that various frameworks like leverage irrelevance, static trade off, pecking order, asymmetric information signalling framework are useful in understanding the

underlyingfactorsdeterminingthefirm'sfinancialleverage,thereisno consensus and there is no universal factor determining financial leverage. The paper sets out two challenges for future research: one, how to integrate different factors determining firm's financial leverage into a common framework and second, what are the explanatory factors determining firm's financial leverage in a network phenomenon. In the initial sections the paper discusses all the basic theories of financial leverage and implications of different financial situations. The distinct part of the paper is where the author has listed out all the possible factors or determinants affecting the leverage decision and their impact on the financial position of a firm coupled with various authors' opinions on the same. The author has reviewed a huge body of the research work done the leverage and presented the same from different viewpoints. He has also pointed out the areas where old theories do not explain the full impact of leverage in the dynamic market conditions. He has also mentioned the topics on which consensus exists among authors and those areas where they hold divergent views. The paper is useful in that it has thrown insightful light on issues such as impact of tax rate, firm size, market conditions, value of assets held by the firm, market regulations and government control on the leverage decision by the firm. He has also mentioned the holding pattern and growth potential of the company or even the uniqueness of the products or services of the company as factors influencing the leverage decision.

AnastasiyaShamshur (2009)states that the choice of capital structure by firms is a fundamental issue in financial literature and as such its capital structure stability is of paramount importance. According to the recent findings that the author has come across, the capital structure of firms remains almost unchanged during their lives meaning that leverage ratios are significantly stable over time.

The stability of leverage ratios is mainly generated by an unobserved firm-specific effect that is liable for the majority of variation in capital structure. However, the study focuses on the US economy, which is relatively stable. The outstanding feature that the paper has is that it contains the study of how substantial changes in the economy affect the stability of firms' capital structure and its leverage decisions and the proportion of leverage in transition countries. Specifically, the paper focuses on

Central and Eastern European economies that passed through transition from central planning to a market economy and privatization, the Russian financial crisis, and EU membership. In addition, the author investigates whether the ownership structure of firms is responsible for the part of the unexplained variation in leverage. The author reiterates that on the one hand debt is used to reduce agency cost and is a tax shield, as also a monitoring device to prevent the manager from building their own empires. But if the information asymmetry is very high (moral hazard, adverse selection etc.), even the large firms which otherwise gladly contract debt, would prefer to use their own internal funds first and this depicts a negative relationship between profitability and leverage. Among the conclusions drawn, the relevant part states that in most countries in the sample, it is found that it is not easy for a firm to raise sufficient finance for its projects mainly because of information asymmetry and hence such under-levered firms do not get swayed by the fluctuations of economy and are too sluggish to change their capital structure.

ErikDevos,UpinderDhillon,MuraliJagannathanandSrinivasan rishnamurthy (2010) have examined the reasons why some firms do not opt for debt financing. The paper begins with the hypothesis that such firms do not have access to debt market, these are small firms and young firms and hence have no credit rating and tend to make less investments. The authors aver that it has always been a puzzle as to why some firms tend to go unlevered or under levered in spite of obvious advantages of tax shield and control retention and a good resistance to takeover bids. To test this hypothesis, the authors selected unlevered firms or zero-debt firms in USA for a period from 1990 to 2008.The data was analysed using univariate analysis and multivaraite analysis techniques. The authors observe that the zero-debt firms have a lot of cash on hand and it helps them in capitalising on the opportunities available in the market. They want financial flexibility and so restrained access to debt market is not such a major issue for not contracting debt. Although it is observed that the public markets fail to issue debt to such firms. Moreover, such firms have been found to have significant level of investments contrary to the hypothesis. But the age hypothesis holds true in that unlevered firms are younger. Such firms can significantly take advantage of tax-shield if they opt for debt. So neglecting debt because of low tax shield benefits is not the reason. The paper observes that the firms have debt contracting capacity but they

retain it and not use it. The authors state that the supply side constraints also prevent the firms form contracting debt and that firms are eager to take benefit of tax shield. Such firms also do not have credible investment to get the bank to provide them finance and so resort to private sources for financial requirement that too after convincing them of the quality of the firm's investments.

Franklin John and Muthusamy. K. (2011)attempted to zero in on the variables that influence the use of debt funds in the Indian pharmaceutical industry. The authors reveal that their results are largely in congruence with the previous research findings by various researchers and authors. They have tried to investigate the relationship between a firm's financial leverage and its sales, interest, cash flows, asset structure interest coverage, firm's size, retained earnings, EBIT or Earnings before Interest and Taxation, intrinsic value of a share and return on asset in Indian pharmaceutical industry which in their opinion is the prime sector of the Indian economy and has an inclination to contract debt to the extent possible. They authors used the data sourced through ProwessDatabasemaintainedbyCentreForMonitoringIndian Economy(CMIE) for top 25 pharmaceutical companies in India on the basis of sales value for the period from 1998 to 2009. They used the multiple regress analysis to point out the variables that influence leverage. They have used the correlation analysis ascertain variables associated with leverage. Path analysis has been used to know the direct and indirect effects of the selected variables on leverage. They conclude in the paper with the rationale that the variables sales, interest, cashflow, asset structure, interest coverage, firm's size, retained earnings, earnings before interest and taxation and intrinsic value of shares influence financial leverage. They aver that interest has the highest positive direct effect on leverage. They agree with previous findings that the Indian firms prefer debt capital financing for their projects and it also dominates their capital structures exposing the firms to a very high degree of total risk reflected in high degree of operating leverage and financial leverage.

As a corollary, they face minor liquidity crunch to extreme cases of bankruptcy. They also state that cash flows and interest coverage are negatively associated with leverage.

Edward Owens and Joanna Shuang Wu (2011) have taken several bank holding companies to investigate the fact that such companies used short-term borrowing top resort to window-dressing. They have tried to gauge the public reaction to such sensitive financial information being divulged in the last quarter of a financial year. They define window-dressing in this context as “a short-term deviation around quarter-end reporting dates of a financial variable from its quarterly average level”. They began with the hypothesis that firms with greater financial leverage in their financial make up are more likely to window dress such liabilities in their accounts. Finally they also assume that the investing public always reacts negatively to divulgence of this information. The gist of the issue is that those firms which have high degree of financial leverage tend to attract negative assessment from the investors and are in general perceived to be more susceptible to financial failure. To avoid this, the firms resort to window-dressing. From the evidence the authors have gathered it clearly is evident that there is significant downward window dressing of short-term borrowing causing understatement of financial leverage in the quarter-end financial position. The paper frequently makes a point that the investors and other stakeholders are hugely concerned with the liquidity and profitability of a firm which, in the view of investors, is negatively impacted by the existence of borrowed capital. This is an incentive and a motive for a firm to hide its actual level of borrowings. The paper goes on to suggest the possible amendments required in the disclosure policies to reveal such misleading practices by the companies. This will also safeguard the investors’ capital in the company. The authors have used various accounting ratios to measure thechanges inliquidityand profitability of different companies. After elaborate sampling and testing they conclude that their hypothesis was correct and that indeed because of heightened media and regulatory attention this practice has been subdued. The financial crisis of 2007-2009 has taught many lessons to the companies and the investors and also to the law making agencies. This has not completely put an end to such practice. The companies with very high leverage do invariably resort to some kind of masquerading to seem risk-less to the market.

OzdeOztekin (2011)hasexaminedastowhichfactorsareconsistently important for capital structure decisions of firms around the world. The most reliable determinants are past leverage, tangibility, firm size, and industry leverage, the author opines. He

states that a country's legal and financial institutions have important effects on capital structure adjustments and on how its corporations are financed. Better institutions faster adjust to optimal leverage. As is a common practice, the paper briefly mentions all the popular theories of capital structure and its association with leverage. The paper mentions that timelier,lesscostlybankruptcyprocedures;strongerdebtholder,weaker shareholder protection; weaker accounting, disclosure, liability and enforcement standards; more prevalent insiders trading; and poor information sharing in debt markets are associated with higher leverage. The author has examined the reliability of a number of factors that have been found to be robust in the U.S. samples in the international data. The paper attempts to suggest a dynamic panel model on basis of world data. In the middle section, the author examines the fact that institutional factors such as timeliness, cost, efficiency, effective tax rate and creditor rights, law and order of the system, governance, enforceability of contracts also affect the propensity of a firm to opt for debt funds. The sample consists of 15,177 firms culled from 37 countries for a period from 1991 to 2006, totalling1, 01,264 firm-years. The paper draws several conclusions such as the fact that leverage is higher in countries with timelier and less costly bankruptcy procedures, strong creditor and weaker shareholder protection and weaker accounting, disclosure, liability and enforcement standards, prevalent insider trading and lack of transparency. This is not in complete congruence with all that has been professed in the traditional theories, the author admits.

Dr.InnaRomanova (2012)propoundsthatgiventhenatureofmodern economies being of cyclical nature, the firms have to be innovative and therefor technologically sound. The author states that due to European economic crisis the supply of finance was shrinking and at the same time the firms there needed more funds to sustain and augment growth. This was a period when the funds became costlier and the investing public had not much money left in the hands to invest in equities. That she states is an example of macroeconomic conditions affecting the availability of finance.To be technologically sound and prepared tomeetchallengesthefirmrequireshugecapitalinvestmentandhence fulfilmentofcapitalrequirementsissacrosanctforgrowth.Andthatthe enterprise financial leverage and capital structure are determined by numerous factors, an in-depth

analysis of prevalent macroeconomic conditions and its impact on leverage decision made by the firm, is an absolute must. In the paper the author purports to analyse the dependence of enterprise financial leverage on themacroeconomicconditionsinthecountry.Becauseofvariabilityin macroeconomic conditions there is a need for active leverage and capital structure management under such divergent macroeconomic conditions. This, the author, says should be done taking into account interest of shareholders and debt holders. In the initial section the paper reviews the theoretical research made on the dependence of financial leverage on macroeconomic conditions. Thereafter, the author proceeds to carry out an assessment of recent trends in changesofleverageofnon-financialcorporationsunderparticular macroeconomic conditions in different European Union (EU) countries. For this the author selects aggregate statistical data on financial balance sheets of European countries for a period from 2005 to 2010 and employs correlation and regression analysis techniques. The results suggest that under conditions of economic downturn, external funding becomes decisive for survival and growth of an enterprise and that the macroeconomic conditions influence financial leverage and capital structure decisions as well as the ways the capital is raised. Thus, macroeconomic conditions are important determinant of capital raising and leverage level changing decision. Economic conditions influence both the availability of financing as well as the ability of enterprises to raise capital and this is also country-dependent. Based on the analysis made, author concludes that there is a need for active leverage and capital structure management under changing macroeconomic conditions.

HarshanaKasseeah (2012) studies the relationship between debt and cash flow, the two main sources of finance for most firms by taking into account the internal and overall financial constraints that firms face. The author states that unlike previous studies, the focus of the paper is on both internal and overall financial constraints and as also on Small and Medium-Sized firms (SMES) as these firms are likely to suffer more from financial constraints. Distinguishing between internal and overall constraints clearly bring to the fore as to which constraints are more important. Internal constraints refer to those constraints that determine whether a firm would go for external financing. Hence, in this case, the level of internally generated funds

(mainly cash flow) would determine the amount of debt that a firm has in its capital structure. The other factor that would determine the amount of debt in the capital structure of firms is the overall financial constraints that firms might face, which refer to how easy or how difficult it is for firms to have access to external financing. The results of the research suggest that firms follow a financial hierarchy when deciding what sources of finance to use. The author reiterates that internal financial constraints are important factors that influence the amount of debt that a firm has in its capital structure. The results obtained also seem to suggest that however large a firm might be and however easy it is for a firm to have access to debt, firms inherently do not like to increase debt in their capital structure. Furthermore, cash flow is a vital source of financing of SMEs and they seem to follow a financial hierarchy when deciding what sources of finance to use. If firms experience an increase in cash flow, they tend to reduce the amount of debt they hold, possibly by paying off debt but if cash flow falls firms increase leverage in their capital structure. The paper presents a brief review of literature on the financing decisions of firms and the impact of financial constraints on their decisions followed by the dataset and empirical specification and in the last section it elaborates on the descriptive statistics and discusses the estimation methodology as also the conclusions.

FINANCIAL LEVERAGE AND STAKEHOLDERS

Myles Zyblock (1997) has mentioned that firms can sell their assets to finance their capital requirements. Usually the firm would sell its non-performing assets for the purpose but it will have negative impact on its creditworthiness in terms of its public image and critics among the shareholders. Apart from the usual discussions on the issue of benefit of tax- shield and leverage , the author opines that if the interest rates keep rising the firms eager to contract debt will feel discouragedtocontractdebtbecausetheexpectedrateofreturnonthe investments made by the investors rises rapidly also. This puts tremendous pressure on the firm to augment its earning capacity which is not possible in the short-term. The author justifies the selection of the two countries because of their similarity with respect to trade and business laws and environment as well as the business and economic cycles experienced by them. The author traces

investmenttrendsandleveragetrendsinthetwocountriestofacilitate comparison. Even he has inflation-adjusted these trends to take out the factor of unusual fluctuations in prices. The author has also studied the Merger and Acquisition trends in the two countries and correlated them with the favoured way of financing such M & As. He has observed that as the economic activity augments the incidence of contracting debt also picks up. In Canada there were many family-run and controlled businesses which did not want to dilute their control nor wanted to increase debt and hence used internal accruals to satisfy the capital requirements. It was not so in America.

Short-term debt instruments were very popular in the business because of the mismatch between the duration of assets and liabilities. The author admits, however, that he is not able to cast light on whether the amount of leverage in the corporations of both countries is high or not and whether it can be justified. In Canada, during the recession of 1980s the firms with high degree of leverage were deep in trouble and the possibility of their bankruptcy grew dramatically. Even in US the firms (with debt) took a very long time from an economic slowdown although the incidence of bankruptcy was low.

Jan Ericsson (2000) has chosen a continuous time model for debt and equity valuation where leverage and maturity structure are chosen optimally by the firm's management. He opines that the debt- equity proportion and other capital structure related decisions are greatly influenced by tax benefits, financial distress costs and the agency costs associated with risk shifting incentives. He has provided ample of quantitative illustrations to demonstrate how the capital structure decision is influenced by the potential for asset substitution. If the firm does not choose the asset substitution path, it distinctly opts for 20 % more leverage, he suggests. The author presents a model which is able to measure directly the impact of the agency costs or risk shifting on the market value of the firm as well as the leverage and maturity that maximise it. Moreover, he propounds that when the management acting in the interests of shareholders change the level of risk to higher degrees, then as a result the financiers and creditors rationally anticipate and demand higher compensation because of the change in the way the firm operates. The ultimate bearers of the brunt

of all of this are the shareholders who do not take easily to the cost of agency problem.

The author then proceeds to mathematical formulae and algebraic calculations to illustratetheabovementionedobservations.Theauthoralsodevelops mathematical models to examine the mathematical relationship between the market value of firm's securities and the phenomenon leverage and other factors such as agency costs and bankruptcy costs and asset substitution which are not in the ambit of this research.

Putu Anon Mahadwartha (2002) has attempted to analyse the extent to which firms employ leverage in their capital structure when they are run and managed by professionals. The author strongly believes that there is connect between the pattern of management and degree of leverage. He has taken managerial ownership as a dependent variable regressed with dividend and leverage policy .He states that shareholders, debt holders and management or managers all have different interest and perspective regarding value of firm. Shareholders will tend to maximise their share and debt holders want security of their capital and assured returns on investment. The conflict of between the two is known as agency problem which the author says, is to some taken care of by leverage. The paper also discusses the agency theory in detail with all its aspects. The author opines that the managers themselves become the owners sometimes so as to tackle the agency cost of equity and the agency cost of debt. He begins by assumingthatpreviousstudieshaverightlyconcludedthatmanagerial ownership greatly influenced the policies regarding leverage and dividend but the reverse is not true.

At the same time inclusion of dent funds in the capital structure can reduce the interference of equity shareholders and the owners can retain control on the company as a whole. Apart from the above objective, the author says that debt conveys a very good impression to the outside shareholders that they are willing to lose control if they fail to perform. The issue of ownership affecting the choice of source of finance is beyond the purview of this research work but how the managers look upon debt is of great relevance. The author selected 81 manufacturing firms listed on Jakarta Stock Exchange for a period starting from 1993 to 2000 to carry out the research using

empirical statistical models and theories. His research concludes that the lower level of leverage prompted the companied to opt for managerial ownership to solve the agency problem and that managerial ownership is important in controlling agency cost of equity, beside the use of debt and dividend.

acobSagi, U.C.Berkely and Mark Seasholes (2002) have related the presence of financial leverage to the increased expected returns and future cash flows. They select randomly top 100 companies traded publicly and analysed the data with the help of mathematical tools. Their tests reveal that it is widely influenced by the prevailing market conditions as also the type of business that the firm is in. That apart, many other non-quantifiable factors are also at play. They have exemplified that if a firm is operating in an industry that is subject to frequent changes in the business prospects, such a firm despite being able to use leverage successfully,willnotpassontheincreasedprofitstoinvestors.The precautionary motive of holding cash takes over. The more volatile the nature of industry, the more reluctant the firm will be in sharing of the profits available for distribution. This however ensures that the future cash flows are taken care of. The paper also touches upon many other aspects such as real options and momentum and asset pricing which are not pertinent to this research work.

FINANCIAL LEVERAGE AS DELINEATED IN FINANCIAL LITERATURE

Prof.M.Y. KHAN and Prof.P.K.JAIN (1997) have delineated the concepts of financial leverage and operating leverage using practical illustrations. The basic theoryofleveragehasbeenexplainedindetailwithsuitablepractical illustrations. According to them, the funds which can be raised for capital requirements can be categorised into two categories: 1) those which carry a fixed financial charges and can lend the tinge of financial leverage to a firm and 2) those which do not involve any fixed charges and therefore do not give rise to leverage. The same have been amply illustrated in the book.

The authors have also discussed the topic of financial leverage with the help of the algebraic approach, devising formulae to solve practical problems.

The graphic approach to the aforementioned topic has also been explained with the help of various charts depicting Earnings before Interest and Tax (EBIT) and Earnings per Share (EPS).

The effects and financial implications of financial leverage on a firm have been demonstratedwiththehelpofhypotheticalfinancialdata.Theyopine "…..financial leverage results from the presence of fixed financial charges in the firm's income stream. These fixed charges do not vary with the earnings before interest and taxes (EBIT) or operating profits. They have to be paid regardless of the amount ofEBIT available to pay them. In a way, therefore, use of fixed-interest sources of funds provides increased return on equity investment without additional requirement of funds from the shareholders. Although all the facets of financial leverage have been dwelt upon satisfactorily and in a comprehensible way, the real-world scenario is a glaring omission. The work is silent on the real-life cases arising from corporates or any debt-dependent firms. The authors have completelycoveredtherudimentaryaspectsoffinancialleveragewhich contribute to the laying of sound foundation of understanding of the topic of this research work.

Prof.I.M.Pandey (1997) has defined leverage from different viewpoints and has explained elaborately the effects of leverage on Shareholders' return. The point to be noted is that he has devoted a special section to the tax-shield effect of leverage. He has dissected the effects of leverage under different scenarios wherein sometimes the EBIT is varying and rate of taxes also varies. As a practical case- study, he has analysed the employment of leverage in Voltas Ltd. which is followed by many examples and illustrations.

AswathDamodaran (1999) has tried to provide a practical, comprehensive guide to converting corporate finance theory into applied, real-world solutions with special reference to use of debt in corporate funding. He propounds that a firm whose actual debt ratio is very different from its optimal has several choices to make. First, it has to decide whether to move forward the optimal or preserve the status quo. Second, once it decides to move toward the optimal, the firm has to choose between changing its

leverage quickly or moving more deliberately. Impatient shareholders and bond-rating agency concerns and many other external factors may put pressure and govern the decision. The moot question before the firm is whether to take new projects, or to shift its financing mix on existing projects.

In this work the author has discussed the process of adjusting the element of leverage in its capital structure and has categorically stated that such a decision is based on two factors viz. 1) the speed with which they want to change their financing mix and 2) the availability of new projects that can be financed with the new debt or equity. He goes on to analysing the ways to increase leverage quickly and its resultant effects.He mentions 1) borrowing money and buying back stock 2) debt-equity swap and 3) liquidating assets to repurchase stock as the ways to increase leverage quickly.

He mentions 1) renegotiating with the providers of debt for a stake in equity 2) liquidating assets and retiring debt as the ways to decrease leverage quickly. These tools and techniques have been discussed in detail and demonstrated using live case study. He provides ample examples to suggest that various firms and companies across US and UK have applied them to get desired results. This particular piece of work is of great help in analysing the financial implication of capital structure changes on the financial aspects of the results.

Prasanna Chandra (1999)has briefly explained the meaning of financial leverage , application of financial leverage, total leverage and application of total leverage. He has also discussed various leverage ratios along with their formulae and what they denote or how they should be interpreted. There is nothing outstanding given in the book that can satisfy a researcher. Only the elementary ideas and concepts have been touched upon. The real-world scenario is totally absent. This work at best can be useful to a new entrant in the field of finance but cannot propel the research work of higher level.

TadeuszDudycz (2006) has teased out several angles from which to look at the concept of leverage. The author states that the concept of leverage is very general and can be defined and measured in many ways. There are basically two approaches to it :

static and dynamic. The author avers that these two approaches can send contradictory information and hence clarity is needed on the issue. The contribution of debt fund in the financing of an enterprise has profound impact on the return on equity when it is raised or reduced depending upon the cost of debt and the profit it could generate. This is the static approach. The dynamic approach states that the leverage as arrived at by dividing the percentage change in EPS by the percentage change in EBIT is the real measure of financial leverage. In order to drive home the point, the author uses graphic approach to leverage and depicts the relationship between Rate Of return on Equity and EBIT. The same is then presented in terms of formulae. In the dynamic approach the sensitivity of change in return on equity to changes in EBIT in terms of percentages is tested. The author proceeds to examine the relationship between static and dynamic approaches to financial leverage. He concludes that the static approach is a measurement irrespective of changes in sales or EBIT, so it characterises the enterprise. But the dynamic approach reflects the current value of the leverage changing along with changes in sales and profits. Because both these measurements can be contradictory, using terms such as “high leverage” or “low leverage” should always be accompanied by information about the method of measurement.

Sandip Sinha (2009)has attempted to study all the aspects related to the topic suchasphysicalleverage,corporateleverage,financialleverageandalso operating leverage and combined leverage which are beyond the purview of this research work itself. In its uniqueness the work has in the initial stage describes the mechanics of lever which is a simple machine that can magnify an applied effort to overcome a resistance by generating a magnified force by tweaking the fulcrum. He discusses the physics part of lever operated machines to correlate it with corporate leverage. This analogy has not been come by so far anywhere else during the course of perusal of review of literature. The author insists on using the term ‘financing leverage’ to denote financial leverage. The author has also discussed the relationship between financial leverage and financial risk. He has generalised the concept of corporate leverage with fixed expense. In order to explain the impact of financial leverage on the profitability of a firm the author has resorted to various mathematical formulations and interpretations to exhibit the results, again in the form of mathematical formulations. The book also discusses the usual accounting formulae for calculating

financial leverage. Then the author also expounds what he calls the ‘de-leverage’ in capital structure. This he says is the exact opposite effect of financial leverage.This reflects the firm’s ability to de-magnify the effect of a relative change in the initial value of an independent financial variable on the change in the value of a dependent financial variable by employing fixed-revenue bearing assets in the assets structure. This aspect clearly is not within the ambit of this research work and hence it is pertinent not to discuss this aspect in detail here.

Prof.SheebaKapil (2011) as seen in lots of literature on Financial Management has dealt with the basics of financial leverage in a very precise manner. The outstanding piece of work is that the author has punctuated all the concepts and theories with citation of relevant cases of those corporates which have adopted the same method of raising finance or are suffering from the same financial malady or are experiencing similar financial situations as discussed in the book. Not only the author has cited cases but has also conjectured the future trends for a few of such companies which throws open many a vista for further research.

Thefavourableandunfavourableeffectsoffinancialleveragehavebeen explained using hypothetical data. The author is of the opinion that in India the financial leverage is more pronounced in the banking sector. The author has presented the situation of leverage in companies like Whirlpool, Bharat Earth Movers, ITI, Jindal Strips Century Textiles, and Arvind Mills etc.. The author opines “…these companies have higher financial leverage and always show advantage when the economy shows the signs of growth, i.e., growth in demand and overall economy. In these companies, the growth in earnings will be greater than the growth in revenue under positive market conditions, i.e., conditions of growth in demand...”

The book prescribes what it calls the rules for employing leverage which are

1) Employing optimum leverage
2) Highly levered firms or companies or individuals should exercise cautionin time of uncertainty
3) Eschew financial leverage in times of deflation and market recession

The author further generalises that the real estate is one business which is riddled with greater degree of financial risk resulting from financial leverage. She expounds "….When the real estate developers build a few houses, they make good money due to financial leverage. When the market is booming, they overdo the whole thing and land up making five or ten houses at one time. Here as the equity involved is very less whereas the money of creditors is large, they end up undercapitalized to carry the payments in a slow market. After all, all the hoses do not sell at one go and thereby running the risk of becoming bankrupt..." Exhorting the remedies in peculiar financial situations, the author firmly states that in times of boom, financial leverage enhances the wealth of the companies resorting to it, but in the times of slow-down or collapse, it can staggeringly destroy the wealth so created. Further, risk diversification is also a way to minimise the adverse impact of overleverage. The financial planners must have alternative plans in case original plans fail. Every investment of equity must always have a contingency plan for worst-case scenarios and that contingency plan must be incorporated in the overall strategy for investment before putting the equity at risk. This work is of great value in that it has theorised many practical aspects of leverage and debt management. The same can be utilised to actually evaluate the impact of financial leverage embraced by selected companies from selected industries on their financial performance.

CHAPTER 3 : RESEARCH METHODOLOGY

3.1 TITLE OF THE STUDY

"An Empirical Study of Social Impact of Leveraging Financial Strategies for Indian Corporates"

3.2 OBJECTIVES OF THE STUDY

The broader objective of the study is to learn the Social impacts of leverage on overall performance of corporate and to know the mind sets of management for leverage finance.

1. To evaluate the social impact of financial performance of Leverage base companies.
2. To measure the degree of leverage of Indian Corporates for the purpose of social impacts.
3. To analysis and interpretation of leveraging financial strategies for Indian Corporates.
4. To suggest the appropriate strategy to overcome the weakness

3.3 SAMPLE DESIGN

Proposed study focused on Leveraging Financial and Non-Financial Strategies for BSE 84 Manufacturing Leverage based companies as on March, 2015.

GROUP	PROPER NAME	INDUSTRY
GROUP-A	ABB Ltd	HEAVY ELECTRICAL EQUIPMENT
GROUP-B	Abbott India Ltd.	PHARMACEUTICAL INDUSTRIES
GROUP-A	ACC Ltd	CEMENT INDUSTRY
GROUP-A	Adani Power Limited	POWER/ ELECTRIC UTILITIES
GROUP-C	Aditya Gears Limited	AUTO PARTS & EQUIPMENT
GROUP-B	Aditya Ispat Ltd.	IRON AND STEEL
GROUP-C	Aimco Pesticides Ltd.	AGROCHEMICALS

GROUP-A	Ambuja Cements Ltd	CEMENT INDUSTRY
GROUP-C	Anjani Portland Cement Ltd.	CEMENT INDUSTRY
GROUP-B	Atul Ltd.	AGROCHEMICALS
GROUP-C	BalPharma Ltd.	PHARMACEUTICAL INDUSTRIES
GROUP-A	Bayer CropScience Ltd.	AGROCHEMICALS
GROUP-C	BF Utilities Ltd.	POWER/ ELECTRIC UTILITIES
GROUP-B	BGR Energy Systems Ltd	HEAVY ELECTRICAL EQUIPMENT
GROUP-A	Bharat Heavy Electricals Ltd.	HEAVY ELECTRICAL EQUIPMENT
GROUP-A	Bhushan Steel Ltd	IRON AND STEEL
GROUP-C	Bhuwalka Steel Industries Ltd.	IRON AND STEEL
GROUP-A	Bosch Ltd.	AUTO PARTS & EQUIPMENT
GROUP-A	Cadila Healthcare Ltd.	PHARMACEUTICAL INDUSTRIES
GROUP-C	Caplin Point Laboratories Ltd.	PHARMACEUTICAL INDUSTRIES
GROUP-A	Century Textile & Industries Ltd.	CEMENT INDUSTRY
GROUP-A	Cipla Ltd.	PHARMACEUTICAL INDUSTRIES
GROUP-A	Crompton Greaves Ltd.	HEAVY ELECTRICAL EQUIPMENT
GROUP-C	Deccan Cements Ltd.	CEMENT INDUSTRY
GROUP-A	Dr. Reddy`s Laboratories Ltd.	PHARMACEUTICAL INDUSTRIES
GROUP-B	Elder Health Care Ltd.	PHARMACEUTICAL INDUSTRIES
GROUP-C	Emco Ltd.	HEAVY ELECTRICAL EQUIPMENT
GROUP-B	Energy Development Co. Ltd.	POWER/ ELECTRIC UTILITIES
GROUP-B	Everest Industries Ltd.	CEMENT INDUSTRY
GROUP-A	Exide Industries Ltd.	AUTO PARTS & EQUIPMENT
GROUP-B	Gujarat Industries Power Co. Ltd.	POWER/ ELECTRIC UTILITIES
GROUP-B	GVK Power & Infrastructure Ltd.	POWER/ ELECTRIC UTILITIES
GROUP-B	India Cements Ltd.	CEMENT INDUSTRY
GROUP-C	Indowind Energy Ltd.	POWER/ ELECTRIC UTILITIES
GROUP-B	Ind-Swift Ltd.	PHARMACEUTICAL INDUSTRIES
GROUP-B	Jaiprakash Power Ventures Ltd	POWER/ ELECTRIC UTILITIES

GROUP-C	Jay Ushin Ltd.	AUTO PARTS & EQUIPMENT
GROUP-B	JK Lakshmi Cement Ltd.	CEMENT INDUSTRY
GROUP-A	JSW Steel Ltd.	IRON AND STEEL
GROUP-B	Jyoti Structures Limited	HEAVY ELECTRICAL EQUIPMENT
GROUP-B	Kalpataru Power Transmission Ltd.	HEAVY ELECTRICAL EQUIPMENT
GROUP-C	Kalyani Forge Ltd.	AUTO PARTS & EQUIPMENT
GROUP-B	Kalyani Steels Ltd.	IRON AND STEEL
GROUP-C	KappacPharma Limited	PHARMACEUTICAL INDUSTRIES
GROUP-B	Lloyds Steel Industries Ltd.	IRON AND STEEL
GROUP-A	Madras Cements Ltd.	CEMENT INDUSTRY
GROUP-A	MothersonSumi Systems Ltd.	AUTO PARTS & EQUIPMENT
GROUP-B	National Steel and Agro Industries Ltd.	IRON AND STEEL
GROUP-B	Novartis India Ltd.	PHARMACEUTICAL INDUSTRIES
GROUP-A	NTPC Ltd.	POWER/ ELECTRIC UTILITIES
GROUP-B	Omax Autos Ltd.	AUTO PARTS & EQUIPMENT
GROUP-C	Paushak Ltd.	AGROCHEMICALS
GROUP-B	Pfizer Ltd.	PHARMACEUTICAL INDUSTRIES
GROUP-B	PI Industries Ltd.	AGROCHEMICALS
GROUP-A	Power Grid Corporation of India Ltd.	POWER/ ELECTRIC UTILITIES
GROUP-B	Pradeep Metals Ltd.	AUTO PARTS & EQUIPMENT
GROUP-B	Prism Cement Ltd.	CEMENT INDUSTRY
GROUP-A	Ranbaxy Laboratories Ltd.	PHARMACEUTICAL INDUSTRIES
GROUP-C	Rathi Steel & Power Ltd	IRON AND STEEL
GROUP-C	Sagar Cements Ltd.	CEMENT INDUSTRY
GROUP-B	SAL Steel Ltd	IRON AND STEEL
GROUP-C	SamratPharmachem Ltd.	PHARMACEUTICAL INDUSTRIES
GROUP-B	Sanghi Industries Ltd.	CEMENT INDUSTRY
GROUP-A	Sesa Goa Ltd.	IRON AND STEEL
GROUP-C	Shree Digvijay Cement Co. Ltd.	CEMENT INDUSTRY

GROUP-C	Socrus Bio Sciences Ltd.	AGROCHEMICALS
GROUP-C	Southern Ispat& Energy Ltd	IRON AND STEEL
GROUP-A	Steel Authority of India Ltd.	IRON AND STEEL
GROUP-B	Sterlite Technologies Ltd	HEAVY ELECTRICAL EQUIPMENT
GROUP-A	Sun Pharmaceutical Industries Ltd.	PHARMACEUTICAL INDUSTRIES
GROUP-B	Suryachakra Power Corporation Ltd.	POWER/ ELECTRIC UTILITIES
GROUP-A	Suzlon Energy Ltd.	HEAVY ELECTRICAL EQUIPMENT
GROUP-A	Tata Power Co. Ltd.	POWER/ ELECTRIC UTILITIES
GROUP-A	Tata Steel Ltd.	IRON AND STEEL
GROUP-A	Thermax Ltd.	HEAVY ELECTRICAL EQUIPMENT
GROUP-A	Torrent Power Ltd.	POWER/ ELECTRIC UTILITIES
GROUP-B	Transformers & Rectifiers (India) Ltd.	HEAVY ELECTRICAL EQUIPMENT
GROUP-B	Triton Valves Ltd.	AUTO PARTS & EQUIPMENT
GROUP-C	Triveni Turbine Ltd.	HEAVY ELECTRICAL EQUIPMENT
GROUP-A	Ultra Tech Cement Ltd.	CEMENT INDUSTRY
GROUP-A	United Phosphorus Ltd	AGROCHEMICALS
GROUP-C	Vallabh Steels Ltd.	IRON AND STEEL
GROUP-C	Vista Pharmaceuticals Ltd.	PHARMACEUTICAL INDUSTRIES
GROUP-C	Voltamp Transformers Ltd.	HEAVY ELECTRICAL EQUIPMENTS

3.4 PERIOD OF STUDY

BSE-100 Manufacturing Leverage based Companies, for the period of Ten years from the year 2006-2007 to 2015-2016

3.5 DATA COLLECTION

The present proposed study is based on secondary data has been collected with proper means of it and the required secondary data has been collected from Annual Published Report of selected sample units for the purpose of the study of BSE-100 Manufacturing companies has been covered.

3.6 LIMITATIONS OF THE STUDY

1. This study will be based on secondary data which would be taken from official websites, Annual Reports and various published reports and as such finding depends entirely on the accuracy of such data.
2. There are different methods of measure efficiency, effectiveness and profitability.
3. The present study would be based on Ratio-Analysis on the base of degree of leverage as an accounting tools and Mean, Standard deviation and ANOVA as statistical tools and it has its own limitations that apply to this study also.

CHAPTER 4 : DATA ANALYSIS

THE FOLLOWING ARE THE STATISTICAL RESULTS OF CORRELATIONS AND REGRESSION:

1. AGROCHEMICALS INDUSTRY

LEVERAGE AND CSR

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.319(a)	.102	.090	8.67342

a Predictors: (Constant), DEBTEQTY

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	640.056	1	640.056	8.508	.005(a)
	Residual	5642.118	75	75.228		
	Total	6282.174	76			

a Predictors: (Constant), DEBTEQTY

b Dependent Variable: CSR

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.145	1.057		2.976	.004
	DEBTEQTY	.738	.253	.319	-2.917	.005

This model is appropriate in the context of AGROCHEMICALS INDUSTRY.

There is also correlation between Leverage and CSR. The Regression model is appropriate. The following equation is derived:

CSR = 3.145 + 0.738 (Debt-Equity Ratio). It follows that on an average all the companies in the Agrochemical industry under study have been able to make gainful use of the borrowed funds and have accelerated their profitability. The employment of debt funds can be profitable only when the company's earnings rate is higher than the rate of interest on the debt funds employed. This is also a good indicator for the investors to base their investment decisions on. The investors who are eager to invest in profitable and well managed companies should invest in the companies in the Agrochemical industry and the investors who have already invested in the companies should continue to stay invested in the companies in this industry.

2. **AUTO PARTS AND EQUIPMENT INDUSTRY**

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	-.414(a)	.171	.161	4.12278

a Predictors: (Constant), DEBTEQTY

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	301.584	1	301.584	17.743	.002(a)
	Residual	1461.766	86	16.997		
	Total	1763.350	87			

a Predictors: (Constant), DEBTEQTY

b Dependent Variable: CSR

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	7.691	.662		11.613	.000
	DEBTEQTY	-2.224	.528	-.414	-4.212	.002

This model is appropriate in the context of AUTO PARTS &EQUIPMENTS INDUSTRY. There is also correlation between Leverage and CSR. The Regression model is appropriate. The following equation is derived:

CSR = 7.691 - 2.224 (Debt-Equity Ratio). It can be observed that on an average the companies in the Auto Parts and Equipment industry have used the borrowed funds for financial requirements but the same has a negative impact on their profitability .The use of debt can be profitable only when the company's earnings rate is higher than the rate of interest on the debt funds employed and if the rate of borrowed funds is higher than the rate of earnings, then it can be financially disastrous for the company. This serves as a good indicator for the investors. The investors looking for good companies to invest in or potential investors should invest in these companies after careful evaluation of the companies' future profitability and their propensity to use debt. This result is an average of selected companies of this industry. It is possible that some companies may have positive impact of debt on their profitability and some may have adverse impact of debt on their profitability. It can be concluded that negative impact is greater than positive impact thus final impact is reported as negative influence.

Thus it is suggested that potential investors should examine the status of individual company before parking their funds. If such companies employ more and more debt than it would be advisable for the investors not to invest in these companies and the existing investors may choose to get rid of their investment and exit at the right time to minimize losses or to walk away with reasonable amount of appreciation of their shareholding.

In the context of the last suggestion, the data of individual company should be analysed and performance analysis of the company during the period of study should be done because the data has been averaged out for eleven years. It may be possible that in majority period of time the company has performed well but due to abnormal circumstances the company might have significant adverse impact in a year or two. Therefore finally existing investors and potential investors should check status of

individual company for the period of study before taking any investment-related decision.

3. **CEMENT INDUSTRY**

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.297(a)	.088	.082	8.70121
a Predictors: (Constant), DEBTEQTY				

ANOVA(b)						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	**Regression**	1109.518	1	1109.518	14.655	.002(a)
	Residual	11508.086	152	75.711		
	Total	12617.604	153			
a Predictors: (Constant), DEBTEQTY						
b Dependent Variable: CSR						

Coefficients(a)						
		Unstandardized Coefficients		**Standardized Coefficients**	**t**	**Sig.**
Model		**B**	**Std. Error**	**Beta**		
1	**(Constant)**	9.411	.907		10.380	.000
	DEBTEQTY	1.790	.468	.297	-3.828	.002

This model is appropriate in the context of CEMENT INDUSTRY.

There is also correlation between Leverage and CSR. The Regression model is appropriate. The following equation is derived:

CSR = 9.411 + 1.790 (Debt-Equity Ratio). It also brings forth the fact that on an average all the selected companies in the Cement industry have been able to use the borrowed funds profitably. The use of debt funds can be profitable only when the company's earnings rate is higher than the rate of interest on the debt funds. This is also a barometer for the investors in that the investors who are eager to invest in those companies which would fetch them greater returns would be attracted toward such Cement manufacturing companies and the investors who have already invested in the companies should continue to stay invested in the Cement companies for greater and greater appreciation of their investment.

4. **HEAVY ELECTRICAL EQUIPMENT INDUSTRY**

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.021(a)	.0004	.007	7.31625

a Predictors: (Constant), DEBTEQTY

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	102.699	1	102.699	1.919	.003(a)
	Residual	6958.574	130	53.527		
	Total	7061.272	131			

a Predictors: (Constant), DEBTEQTY

b Dependent Variable: CSR

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	5.358	.780		6.871	.000
	DEBTEQTY	1.530	1.105	.021	-1.38	.003

This model is appropriate in the context of HEAVY ELECTRICAL EQUIPMENTS INDUSTRY. There is also correlation between Leverage and CSR. The Regression model is appropriate. The following equation is derived:

CSR = 5.358 + 1.530 (Debt-Equity Ratio). It also reveals the fact that on an average all the selected companies in the Heavy Electrical Equipments industry have been able to use the borrowed funds judiciously and the same has been used to augment profitability. The use of debt funds can enhance profitability only when the company's earnings rate is higher than the interest rate on the debt funds. This is a good barometer for the investors because the investors who are keen to invest in profitable companies which would fetch greater returns to them would naturally gravitate towards such companies. As for the existing shareholders, they should continue to stay invested in the Heavy Electrical Equipments companies for greater returns on the investment.

5. **IRON AND STEEL INDUSTRY**

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	-.072(a)	.005	-.002	10.66921
a Predictors: (Constant), DEBTEQTY				

ANOVA(b)						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	**Regression**	84.342	1	84.342	.741	. 0034(a)
	Residual	16050.332	141	113.832		
	Total	16134.674	142			
a Predictors: (Constant), DEBTEQTY						
b Dependent Variable: CSR						

Coefficients(a)						
		Unstandardized Coefficients		**Standardized Coefficients**	**t**	**Sig.**
Model		**B**	**Std. Error**	**Beta**		
1	**(Constant)**	6.969	.902		7.727	.000
	DEBTEQTY	-1.722	.043	-.072	-.861	.0034

This model is appropriate in the context of IRON AND STEEL INDUSTRY. There is also correlation between Leverage and CSR. The Regression model is appropriate. The following equation is derived:

CSR = 6.969 - 1.722 (Debt-Equity Ratio). It can be observed that on an average the companies in the Iron and Steel industry have contracted debt funds for financial requirements. However, the debt employed has a negative impact on their profitability .The use of debt cannot be profitable and can be even counter-productive when the rate of interest on the borrowed funds is higher than the borrowing company's rate of earnings. This serves as a as a wakeup call for the existing investors who may sell off their shares and exit at the right time to minimize losses or to get reasonable amount of appreciation of their shareholding. The potential investors may do well to carefully evaluate the companies' borrowing tendencies and future earnings potential and then take the call to invest or to look elsewhere for investment.

However, the result is an average of selected companies of this industry. It is possible that some companies may have favourable impact of debt on their profitability and some may have unfavourable impact of debt on their profitability. It can be concluded that negative impact is greater than positive impact when all the companies in this industry are considered and thus the final impact is reported to mean that debt has negative influence. Thus it is suggested that potential investors should investigate and analyse the status of individual company before investing their funds. If such companies are to be deficient in financial wisdom as regards used of debt, then it would be advisable for the investors not to invest in these companies and the existing investors may choose to get rid of their investment and exit at the right time to

minimize losses or to disinvest with reasonable amount of appreciation of their shareholding.

Concerning what is mentioned above, it may further be noted that the data of individual company should be analysed and performance of the company during the period of study should be analysed as the data has been averaged out for eleven years and the suggestion is based on the eleven years' average. It may be possible that the company may have performed exceedingly well for majority number of years out of eleven years but due to abnormal circumstances in a couple of years the company might have adverse impact of debt on profitability. Therefore, finally existing investors and potential investors should check status of individual company for the period of study before taking any investment-related decision.

6. **PHARMACEUTICAL INDUSTRY**

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.591(a)	.349	.030	13.95274
a Predictors: (Constant), DEBTEQTY				

ANOVA(b)						
Model		**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	**Regression**	1043.898	1	1043.898	5.362	.0022(a)
	Residual	27449.721	141	194.679		
	Total	28493.620	142			
a Predictors: (Constant), DEBTEQTY						
b Dependent Variable: CSR						

Coefficients(a)						
		Unstandardized Coefficients		**Standardized Coefficients**	**t**	**Sig.**
Model		**B**	**Std. Error**	**Beta**		
1	**(Constant)**	9.333	1.347		6.929	.000
	DEBTEQTY	2.282	.986	.591	-2.316	.0022

This model is appropriate in the context of PHARMACEUTICAL INDUSTRY. There is also correlation between Leverage and CSR. The Regression model is appropriate. The following equation is derived:

CSR = 9.333 + 2.282 (Debt-Equity Ratio). It also reveals the fact that on an average all the selected companies in the Pharmaceutical industry have been able to make use of the debt funds judiciously and the same has been successfully used to augment profitability. It also follows that on an average the companies in this industry have been able to use debt in a profitable manner by following the financial wisdom that the company's earnings rate must be higher than the interest rate on the debt funds. This also serves as a good barometer for the investors because the investors who wish to invest in profitable companies would generously invest in such companies. And the existing shareholders should continue to hold onto their shares for greater returns on the investment.

7. **POWER/ELECTRIC UTILITIES INDUSTRY**

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.571(a)	.32	.045	1.42549

a Predictors: (Constant), DEBTEQTY

ANOVA(b)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.383	1	18.383	.044	.0034(a)
	Residual	54236.062	130	417.200		
	Total	54254.445	131			

a Predictors: (Constant), DEBTEQTY

b Dependent Variable: CSR

Coefficients(a)

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	16.189	2.094		7.733	.000
	DEBTEQTY	0.230	1.094	.571	-.210	.0034

This model is appropriate in the context of POWER/ELECTRIC UTILITIES INDUSTRY. There is also correlation between Leverage and CSR. The Regression model is appropriate. The following equation is derived:

CSR = 16.189 + 0.230 (Debt-Equity Ratio). It can safely be surmised that all the selected companies in the Power/Electric Utilities industry, on an average, have been able to use the borrowed funds profitably. It also implies that on an average the companies' earnings rate must have been higher than the interest rate on the debt funds, for only then the leverage can give enhanced profitability. The investors who wish to invest in profitable companies would generously invest in such companies. And the existing shareholders would going by the profitability alone would continue to hold onto their shares for greater appreciation of their investment.

4.1 AGROCHEMICALS INDUSTRY

4.1.1 OVERVIEW

India is the fourth largest producer of agrochemicals globally, after United States, Japan and China. The agrochemicals industry is a significant industry for the Indian economy. The Indian agrochemicals market grew at a rate of 11% from USD 1.22 billion in FY08 to an estimated USD 1.36 billion in FY09. India's agrochemicals consumption is one of the lowest in the world with per hectare consumption of just 0.58 Kg compared to US (4.5 Kg/ha) and Japan (11 Kg/ha). In India, paddy accounts for the maximum share of pesticide consumption, around 28%, followed by cotton (20%). Indian population is increasing and the per capita size of land decreasing, the use of pesticides in India has to improve further. Besides increasing in domestic consumption, the exports by the Indian Agrochemicals Industry can be doubled in the next four years if proper strategies and sophisticated technologies are adopted by the industry.

In spite of the increasing population and high emphasis on achieving self-sufficiency in food grains, we can see here that production (technical grade) has remained almost stagnant over the past five years. The reasons for the same could be:

1. The costs associated with discovery, development and registration of a new molecule have increased substantially over the years. On an average, it takes more than nine years between the first researches to final authorization of the products.

Indian companies have not focused on developing newer molecules due to the absence of patent protection.

2. India is dominated by generic producers. Even if they produce off-patent products, these companies still have to go through the complex and time-consuming registration process when they launch their products.

4.1.2 EXPORTS

India is a major exporter of pesticides. Exports in value terms have almost doubled from Rs.27.9 billion in 2006 to Rs.52.2 billion in 2010. Exports have grown at 13.48% over the past five years. Manufacturers have shifted their focus more towards exports due to domestic seasonal demand, better price realization in the global market, domestic overcapacity and low credit periods.

It can be mentioned here that the seasonal nature of demand (timing and coverage of monsoon) forces companies to maintain high levels of inventory. Hence, working capital requirement goes up substantially.

Since pesticide is the last input in the agricultural production cycle, farmers generally have no surplus money left. This forces them to go in for longer credit periods. India also has an advantage of low manufacturing cost due to availability of cheap and high quality scientific pool.

4.1.3 FORECASTS OF INDIAN AGRICULTURE INDUSTRY

Since the Indian agricultural sector is highly dependent on monsoons, the market for agrochemicals is expected to grow at a conservative growth rate of 7.5% to reach USD 1.95 billion by FY14. Key market drivers include:

1. Growth in demand for food grains: India has 16% of the world's population and less than 2% of the total landmass. Increasing population and high emphasis on achieving food grain self-sufficiency as highlighted in the FY10 budget, is expected to drive growth.

2. Limited farmland availability and growing exports: India has ~190 million hectares of gross cultivated area and the scope for bringing new areas under cultivation is severely limited. Available arable land per capita has been reducing globally and is expected to reduce further. The pressure is therefore to increase yield per hectare which can be achieved through increased usage of agrochemicals. Indian agrochemical exports accounted for ~50% of total industry size in 2009.

3. Growth of horticulture & floriculture: Buoyed by 50% growth experienced by Indian floriculture industry in last 3 years, Government of India has launched a national horticulture mission to more than double production by 2015. Growing horticulture and floriculture industries will result in increasing demand for agrochemicals, especially fungicides.

4. Increasing awareness: As per Government of India estimates, total value of crops lost due to non-use of pesticides is around USD 17 billion every year.

Companies are increasingly training farmers regarding the right use of agrochemicals in terms of quantity to be used, the right application methodology and appropriate chemicals to be used for identified pest problems. With increasing awareness, the use of agrochemicals is expected to increase.

4.1.4 KEY CHALLENGES

1. High R&D costs: R&D to develop a new agrochemical molecule takes an average of 9 years and ~ USD 180 million. Indian companies typically have not focused on developing newer molecules and will face challenges in building these capabilities, while continuing to remain cost competitive.

2. Threat from Genetically Modified (GM) seeds: Genetically modified seeds possess self-immunity towards natural adversaries which have the potential to negatively impact the business of agrochemicals.

3. Need for efficient distribution systems: Since, the number of end users is large and widespread, effective distribution via retailers is essential to ensure product availability. Lately, companies have been directly dealing with retailers by cutting the distributor from the value chain thereby reducing distribution costs, educating retailers on product usage and offering competitive prices to farmers.

4. Support for Integrated Pest Management (IPM) & rising demand for organic farming: Promotion of IPM, zero budget farming and usage of bio-pesticides by Indian Government and NGOs is gaining momentum. With increasing demand for

organic food, farmers in certain states like Karnataka have reduced chemical usage and have adopted organic farming. Agrochemical companies will have to tackle the rising environmental awareness and address concerns on negative impact of pesticide usage.

5. Counterfeit Products: The spurious or fake pesticides market size in India is estimated to be USD 233 million in 2009. This negatively impacts the revenues of the organized sector.

4.1.5 KEY OPPORTUNITIES

1. Scope for increase in usage: With ~35-40% of the total farmland under crop protection, there is a significant UN served market to tap into. By educating farmers and conducting special training programmes regarding the need to use agrochemicals, Indian companies can hope to increase pesticide consumption.

2. Huge export potential: The excess production capacity is a perfect opportunity to increase exports by utilizing India's low cost producer status.

3. Patent expiry: Between 2009 and 2014 many molecules are likely to go off patent throwing the market open for generic players. The total viable opportunity through patent expiry is estimated at over USD 3 billion.

4. Product portfolio expansion: Threats like genetically modified seeds, Integrated Pest Management, organic farming etc. can be turned into opportunities if

the industry re-orients itself to better address the needs of its consumers and broadens its product offering to include a range of agro-inputs instead of only agrochemicals.

4.1.6 SWOT ANALYSIS

4.1.6.1 STRENGTH

1. Key producers have direct accessibility via distribution to the market.

2. Process of consolidation of Indian manufacturers has already commenced due to global impact and competition pressure within India.

3. Exports to a large number of countries.

4. Managerial / Technical pool of Professionals.

5. Low cost manufacturing base.

6. Quality - at par with the Multi-National Corporations. Development of new and eco-friendly formulations etc.

4.1.6.2 WEAKNESSES

1. High R&D costs: R&D to develop a new agrochemical molecule takes an average of 9 years and~ USD 180 million. Indian companies typically have not

focused on developing newer molecules and will face challenges in building these capabilities, while continuing to remain cost competitive.

2. Need for efficient distribution systems: Since, the number of end users is large and widespread, effective distribution via retailers is essential to ensure product availability. Lately, companies have been directly dealing with retailers by cutting the distributor from the value chain there by reducing distribution costs, educating retailers on product usage and offering competitive prices to farmers.

4.1.6.3 OPPORTUNITIES

1. Limited farmland availability and growing exports: India has 190 million hectares of gross cultivated area and the scope for bringing new areas under cultivation is severely limited. Available arable and per capita has been reducing globally and is expected to reduce further. The pressure is therefore to increase yield per hectare which can be achieved through increased usage of agrochemicals. Indian agrochemical exports accounted for ~50% of total industry size in 2009.

2. Growth of horticulture & floriculture: Buoyed by 50% growth experienced by Indian floriculture industry in last 3 years, Government of India has launched a national horticulture mission to double production by 2012. Growing horticulture and floriculture industries will result in increasing demand for agrochemicals, especially fungicides.

3. Increasing awareness: As per Government of India estimates, total value of crops lost due to non-use of pesticides is around USD 17 billion every year. Companies are increasingly training farmers regarding the right use of agrochemicals

in terms of quantity to be used, the right application methodology and appropriate chemicals to be used for identified pest problems. With increasing awareness, the use of agrochemicals is expected to increase

4. Growth in demand for food grains: India has 16% of the world's population and less than 2% of the total landmass. Increasing population and high emphasis on achieving food grain self-sufficiency as highlighted in the FY10 budget, is expected to drive growth.

5. Scope for increase in usage: With ~35-40% of the total farmland under crop protection, there is a significant UN served market to tap into. By educating farmers and conducting special training programs regarding the need to use agrochemicals, Indian companies can hope to increase pesticide consumption.

6. Huge export potential: The excess production capacity is a perfect opportunity to increase exports by utilizing India's low cost producer status.

7. Patent expiry: Between 2009 and 2014 many molecules are likely to go off patent throwing the market open for generic players. The total viable opportunity through patent expiry is estimated at over USD 3 billion.

8. Product portfolio expansion: Threats like genetically modified seeds, Integrated Pest Management, organic farming etc. can be turned into opportunities if the industry re-orients itself to better address the needs of its consumers and broadens its product offering to include arrange of agro-inputs instead of only agrochemicals

4.1.6.4 THREATS

1. Threat from Genetically Modified (GM) seeds: Genetically modified seeds possess self-immunity towards natural adversaries which have the potential to negatively impact the business of agrochemicals.

2. Integrated Pest Management (IPM) & rising demand for organic farming: Promotion of IPM, zero budget farming and usage of bio-pesticides by Indian Government and NGOs is gaining momentum. With increasing demand for organic food, farmers in certain states like Karnataka have reduced chemical usage and have adopted organic farming. Agrochemical companies will have to tackle the rising environmental awareness and address concerns on negative impact of pesticide usage.

3. Counterfeit Products: The spurious pesticides market size in India is estimated to be USD 233 million in 2009. This negatively impacts the revenues of the organized sector.

4.2 AUTO PARTS & EQUIPMENT INDUSTRY

4.2.1 OVERVIEW

India ranks just behind China with the world's second largest population at over 1 billion people. Less than 1 percent of the population currently owns automobiles, which is a much smaller proportion than the rest of the Southeast Asia region. For example, the regional average of ownership is 16.45 percent.1 Nonetheless, sales of

passenger vehicles in India have more than doubled since 2001 to over 1.5 million units. India also has one of the fastest growing economies, and many U.S. companies view India as a potentially lucrative market. It is expected that the automotive industry will play an important role in helping the economy to continue this growth. Not only are domestic sales expected to grow dramatically, but India will play a significant role in the global automotive market. The world's top manufacturers, General Motors, Ford, Toyota, Honda, and others, have a significant share of already established manufacturing bases. These manufacturers hope to not only capture an emerging market, but also to use these bases as export hubs to serve the region and the global market. As can be seen in the Table, exports of passenger vehicles have more than quadrupled since 2001. The auto-parts industry is growing at a rate of 28% currently and the future trends suggest that India is becoming a hub for manufacturing automobiles and hence the global demand for automobiles will helping India to achieve even greater growth.

The auto components manufacturing industry in India is one of the larger markets in the world and the passenger and commercial vehicles sales growth (domestic and international) had previously been one of the fastest growing globally, but is now seeing flat or negative growth rates. India's passenger car and commercial vehicle manufacturing industry is the sixth largest in the world, with an annual production of more than 3.9 million units in 2011. According to recent reports, India overtook Brazil and became the sixth largest passenger vehicle producer in the world (beating such old and new auto makers as Belgium, United Kingdom, Italy, Canada, Mexico, Russia, Spain, France, Brazil), grew 16 to 18 per cent to sell around three million units in the course of 2011-12.In 2009, India emerged as Asia's fourth largest exporter

of passenger cars, behind Japan, South Korea, and Thailand. In 2010, India beat Thailand to become Asia's third largest exporter of passenger cars.

As of 2010, India is home to 40 million passenger vehicles. More than 3.7 million automotive vehicles were produced in India in 2010 (an increase of 33.9%), making the country the second (after China) fastest growing automobile market in the world in that year. According to the Society of Indian Automobile Manufacturers, annual vehicle sales are projected to increase to 4 million by 2015, no longer 5 million as previously projected. The year 2014 could be sluggish because of political uncertainty and the conservative approach of the prospective buyers.

The majority of India's car manufacturing industry is based around three clusters in the south, west and north. The southern cluster consisting of Chennai is the biggest with 35% of the revenue share. The western hub near Mumbai and Pune contributes to 33% of the market and the northern cluster around the National Capital Region contributes 32%. Chennai, with the India operations of Ford, Hyundai, Renault, Mitsubishi, Nissan, BMW, Hindustan Motors, Daimler, Caparo, and PSA Peugeot Citroën is about to begin their operations by 2014. Chennai accounts for 60% of the country's automotive exports. Gurgaon and Manesar in Haryana form the northern cluster where the country's largest car manufacturer, Maruti Suzuki, is based. The Chakan corridor near Pune, Maharashtra is the western cluster with companies like General Motors, Volkswagen, Skoda, Mahindra and Mahindra, Tata Motors, Mercedes Benz, Land Rover, Jaguar Cars, Fiat and Force Motors having assembly plants in the area. Nashik has a major base of Mahindra & Mahindra with a UV assembly unit and an Engine assembly unit. Aurangabad with Audi, Skoda and

Volkswagen also forms part of the western cluster. Another emerging cluster is in the state of Gujarat with manufacturing facility of General Motors in Halol and further planned for Tata Nano at their plant in Sanand. Ford, Maruti Suzuki and Peugeot-Citroen plants are also set to come up in Gujarat. Kolkata with Hindustan Motors, Noida with Honda and Bangalore with Toyota are some of the other automotive manufacturing regions around the country. In the view of all these the spare parts manufacturing companies have reported stellar performances and the same is reflected in their buoyant vision for the future.

4.2.2 MARKET GROWTH

Indian Automotive Industry growth decades started in the 1970s. Between 1970 and 1984 cars were considered a luxury product; manufacturing was licensed, expansion was restricted; there were Quantitative Restriction (QR) on imports and tariff structure designed to restrict the market but starting in 2000, several landmark policy changes like QR and 100% FDI through automotive route were introduced. In 2003, Core group on Automotive R&D (C.A.R) was set up to identify priority areas for automotive R&D in India. Indian Auto Industry is 2nd in Two Wheelers, 3rd in Small Cars and 5th in Commercial Vehicles among the top 10 in World.

India is a global hub of automobile industry having:

- 15 Manufacturers of passenger cars and multi-utility vehicles
- 9 Manufacturers of commercial vehicles

- 16 Manufacturers of 2/3 wheelers
- 14 Manufacturers tractors
- 5 Manufacturers of engines

The evolution of the automotive component industry predictably followed the evolution of the auto industry itself. With the startup of local production of cars, trucks, and two-wheelers in the 1950s, many of the associated component manufacturers started operations in India. Over a period of time, many of the major manufacturers had established plants for manufacture or assembly of parts. These included companies like Bosch (fuel injection systems and spark plugs) and Mahle (pistons) from Germany; Lucas (auto electrical), Girdling (brakes), and Lockheed (clutches) from the United Kingdom; and Champion (spark plugs), Armstrong (shock absorbers), and Union Carbide-Exide (batteries) from the United States. From the Indian perspective, these units were primarily intended to aid import substitution. In the process,

There was gradual transfer of technology from the parent company. The domestic two-wheeler industry has grown steadily at a rate of 8.5 per cent from 4.2 million in 2001 to 7.43 million in 2009. The motorcycle segment continues to dominate the market. Entry-level bikes (engine power below 125cc and price in the range of US$ 850–1,000) account for around 80 per cent of sales. The cost of ownership and economics of operations are key purchase criteria. The premium-bike segment

(engine power above 150cc and price in the range of US dollar 1,200–2,000 is growing at a faster pace than entry-level vehicles; this is an indication of the increasing affluence of customers.

Recent trends indicate that 100cc bikes are being preferred over 125cc bikes by the market. Consumers are opting for more powerful bikes and are willing to pay reasonable amount.

4.2.3 EXPORTS BUSINESS

India's automobile exports and auto spare parts have grown consistently and reached $4.5 billion in 2009, with United Kingdom being India's largest export market followed by Italy, Germany, Netherlands and South Africa. India's automobile exports are expected to cross $14 billion by 2015.

According to New York Times, India's strong engineering base and expertise in the manufacturing of low-cost, fuel-efficient cars has resulted in the expansion of manufacturing facilities of several automobile companies like Hyundai, Nissan, Toyota, Volkswagen and Maruti Suzuki and their suppliers of components.

In 2008, South Korean multinational Hyundai Motors alone exported 240,000 cars made in India. Nissan Motors plans to export 250,000 vehicles manufactured in its India plant by 2011. Similarly, US automobile company, General Motors announced its plans to export about 50,000 cars manufactured in India by 2011.

In September 2009, Ford Motors announced its plans to set up a plant in India with an annual capacity of 250,000 cars for US$500 million. The cars will be manufactured both for the Indian market and for export. The company said that the plant was a part of its plan to make India the hub for its global production business. Fiat Motors also announced that it would source more than US dollar 1 billion worth auto components from India.

In July 2010, The Economic Times reported that PSA Peugeot Citroën was planning to re-enter the Indian market and open a production plant in Andhra Pradesh with an annual capacity of 100,000 vehicles, investing EUR 700M in the operation. PSA's intention to utilize this production facility for export purposes however remains unclear as of December 2010. In 2009 India (0.23m) surpassed China (0.16m) as Asia's fourth largest exporter of cars after Japan (1.77m), Korea (1.12m) and Thailand (0.26m) by allowing foreign carmakers 100% ownership of factories in India, which China does not allow. The revised estimates are banking heavily on the performance of the Indian economy and the expectation is for greater growth at an increasing rate.

In recent years, India has emerged as a leading center for the manufacture of all the necessary auto spare parts for world-known auto giants like Ford, Suzuki, Hyundai etc. and this is largely because the entire manufacturing is centralized in India for small cars as well as some sedans. Hyundai, the biggest exporter from the country, now ships more than 250,000 cars annually from India. Apart from Maruti Exports' shipments to Suzuki's other markets, Maruti Suzuki also manufactures small cars for Nissan, which sells them in Europe. Nissan will also export small cars from its new Indian assembly line. Tata Motors exports its passenger vehicles to Asian and African

markets, and is in preparation to launch electric vehicles in Europe in 2010. The firm is also planning to launch an electric version of its low-cost car the Tata Nano in Europe and in the U.S. Mahindra & Mahindra is preparing to introduce its pickup trucks and small SUV models in the U.S. market. Bajaj Auto is designing a low-cost car for Renault Nissan Automotive India, which will market the product worldwide.

Renault Nissan may also join domestic commercial vehicle manufacturer Ashok Leyland in another small car project. While the possibilities are impressive, there are challenges that could thwart future growth of the Indian automobile industry. Since the demand for automobiles in recent years is directly linked to overall economic expansion and rising personal incomes, industry growth will slow if the economy weakens. The boom in passenger markets translates in good news for auto components manufacturers.

4.2.4 INDIAN ECONOMY

India’s economy has experienced a continued high level of growth in recent years. Some predictions are that India’s rapidly expanding economy will soon be the world’s third largest. While growth is expected to slow this year, it is still expected that India will continue to be one of the fastest-expanding economies. Foreign direct investment (FDI) in India tripled from $4.7 billion to $15.7 billion from FY2005/06 (April 2005-March 2006) to FY2006/07 (April 2006-March 2007). The automotive industry is one of the leading industries in India for FDI, and the U.S. automakers have made considerable investments since the early-1990s. According to statistics from the

Government of India, FDI in the transportation sector, the fourth largest sector in India, totaled $3.5 billion from August 1991 through December 2006.

4.2.5 SWOT ANALYSIS

4.2.5.1 STRENGTHS

1. Domestic Market is large

2. Government provides monetary assistance for manufacturing units

3. Reduced Labor cost

4.2.5.2 WEAKNESSES

1. Infrastructural setbacks

2. Low productivity

3. Too many taxes levied by government increase the cost of production

4. Low investments in Research and Development

4.2.5.3 OPPORTUNITIES

1. Reduction in Excise duty

2. Rural demand is rising

3. Income level is at a constant increase

4.2.5.4 THREATS

1. Increasing rates of interest

2. Too much competition

3. Rising cost of raw materials

4. Slowdown of the economy

4.2.6 FORECASTS OF INDIAN AUTO PARTS & EQUIPMENT INDUSTRY

1. Passenger vehicle market of India will even cross Japan by selling about 5 million vehicles by 2017-18

2. India's passenger vehicle production projections:

In 2014: 3.5 Million Vehicles

By 2015: 5.1 Million Vehicles

By 2020: 9.7 Million Vehicles

4.3 CEMENT INDUSTRY

4.3.1 OVERVIEW

The cement industry presents one of the most energy-intensive sectors within the Indian economy and is therefore of particular interest in the context of both local and global environmental discussions. Increases in productivity through the adoption of more efficient and cleaner technologies in the manufacturing sector will be effective in merging economic, environmental, and social development objectives. A historical examination of productivity growth in India's industries embedded into a broader analysis of structural composition and policy changes will help identify potential future development strategies that lead towards a more sustainable development path.

Issues of productivity growth and patterns of substitution in the cement sector as well as in other energy-intensive industries in India have been discussed from various perspectives. Historical estimates vary from indicating an improvement to a decline in the Sector's productivity. The variation depends mainly on the time period considered, the source of data, the type of indices and econometric specifications used for reporting productivity growth. Regarding patterns of substitution most analyses

focus on inter fuel substitution possibilities in the context of rising energy demand. Not much research has been conducted on patterns of substitution among the primary and secondary input factors: Capital, labor, energy and materials. However, analyzing the use and substitution possibilities of these factors as well as identifying the main drivers of productivity growth among these and other factors is of special importance for understanding technological and overall development of an industry

4.3.2 FORECASTS OF INDIAN CEMENT INDUSTRY

Given the rampant growth of the Indian cement industry, few are betting against continued capacity additions in the short- to medium-term. The extent of capacity addition, however, and whether or not demand will rise to match it more closely than at present, is up for debate.

In November 2012 the India Brand Equity Foundation (IBEF) said that it expected double-digit growth in the cement industry for the 2013 and 2014 fiscal years, which end on 31 March 2013 and 31 March 2014 respectively.12 It reported that the cement industry would increase production by around 71Mt/yr..over the same time-frame to reach over 300Mt/yr.. in 2014.

Meanwhile, the Indian Government's 12th Five-Year Plan, which runs for 2013 to 2017, states that India will require a cement capacity in the region of 480Mt/yr. By the end of 2017.12 It states that a further 150Mt/yr. of capacity will be required to accomplish this. Separately, ACC expects India to have a capacity of 500Mt/yr. by 2020.13

This represents more than twice the cement that India currently consumes in a year and so it is worth asking, if this capacity is reached, what will the capacity utilization rate be? The government promises significant investment in infrastructure, although bureaucracy has hampered such investments in the past. Industry experts say that land acquisition is a big issue and opine that no state government is providing land to set up units. They state Capacity creation in India is very difficult because there is no land (in some places) and no limestone deposits at others. Several cement companies have written down assets. They aver that capacity additions going forward will not be as aggressive as in the past. Expansion will be slower than demand growth, they forecast.

With prices remaining low due to overcapacity and low demand, the potential for future collusion between producers and the difficulty of setting up new capacity, it is possible that producers, under pressure to meet the expectations placed on them by the Five-Year Plan, will see increased pressure on margins in the next few years, especially if fuel prices continue to rise.

In the midst of this, smaller companies are likely to suffer more than most, possibly making them acquisition targets for better-equipped multinationals. Indeed, in January 2013 Prism Cement, one of India's smaller cement producers, actually reported a net loss for the quarter to 31 December 2012. It cited low demand, high fuel costs and increased electricity prices. How long can such producers continue as the Ultratechs, ACCs and Ambujas of this world keep adding new capacity?

An academic report carried out for the Competition Commission of India in 2012 hints at this possibility of future consolidation in the industry-.6 the study found that, despite capacity utilization falling across all cement producers in India from 2006 to 2011, it was those with the smallest market share that experienced by far the worst reduction. Binani Cement, for example, recorded utilization rates of only around 55-60%. Conversely mega-players like Ultratech have been more stable, with rates of 80-95%. In January 2013 India Ratings reported that smaller businesses were less likely to benefit from the expected improvement in the industry.15

A major reason behind this phenomenon is rising fuel costs, which have hit producers from two directions in the past year. Firstly, demand for power in India is high and domestic fuels are dedicated predominantly to electrical generation.

Industrial companies are forced, in many cases, to import costly foreign fuel, which must be shipped inland to be used. A second effect of increased fuel prices is that cement is more costly to transport once it has left the factory.

Due to their size allowing greater economies of scale, larger cement companies are better positioned to import fuel on a large scale and are more likely to have flexible vehicle fleets to respond as demand fluctuates in different areas. Another crucial difference between the larger and smaller companies is that larger players are more likely to have a pan-Indian presence. This enables them to ride-out periods of difficulty in one area while maximizing margins elsewhere. Local producers do not have this luxury. Smaller local producers are less well equipped to deal with

expansion and their relative size will gradually diminish compared to the top 12 producers.

4.3.3 SWOT ANALYSIS

4.3.3.1 STRENGTHS

1. Second largest in the world in terms of capacity

2. Low cost of production

4.3.3.2 WEAKNESS

1. Effect of global recession on

2. Real Estate and Infrastructure.

3. Demand-Supply gap, Overcapacity

4. Increasing Cost of Production

5. High Interest rates

4.3.3.3 OPPORTUNITIES

1. Strong growth of economy in the long run.

2. Increase in infrastructure projects

3. Growing middle class

4. Technological Changes

5. Increase in govt spending

4.3.3.4 THREATS

1. Imports from Pakistan affecting markets in Northern India.

2. Excess over capacity can hurt margins as well as prices.

4.4 HEAVVYLETRICALEQUIPMENTS INDUSTRY

4.4.1 OVER VIEW

The Indian Electrical and Electronics Manufacturers Association (IEEMA), the apex Indian industry association of manufacturers of electrical, industrial electronics and allied equipment released the Q1 FY13 performance of the US$25billion Indian electrical equipment industry. For the first time in 10 years, the Indian electrical equipment industry has seen a negative growth of 2.4% in the first quarter (Q1) of the

current fiscal (2012-13) compared to the corresponding period of Q1 FY12 (13.82%) and sequential quarter Q4 FY12 (14.10%).

The transformer industry has seen a negative growth of 7.6% in Q1 FY13 against the growth of 6.6% for the corresponding period of Q1 FY12. The capacitor and cable industry has witnessed a double digit negative growth of 24.8% and 12.9% respectively compared to the positive growth of 20.9% (capacitor) and 44.6% (cable) in Q1 FY12. The rotating machines industry has witnessed a negative growth of 2.6% in Q1 FY13 against the growth of 9.6% for corresponding quarter of last year.

The transformers, rotating machines and capacitor industries has been decelerating every sequential quarter and has seen a negative growth in Q1 FY13, implying distinct slowdown in industrial capex activities and slowdown in off-take by users due to credit squeeze, high interest costs, etc.

4.4.2 GROWTH

The growth in switchgear industry has been consistent, registering an increase by 2.4% compared to 2.5% in corresponding quarter of last year.

Commenting on the Q3 FY13 results, Ramesh Chandak, President, IEEMA said “Ironically in Q1 of FY13, there was over-achievement of the country’s power generation and transmission &sub-stations capacity addition targets. So, under ideal conditions, domestic manufacturers of power equipment should have correspondingly gained business, but reality is otherwise. In recent years, a surge in imports of cheap

and inferior quality electrical equipment from abroad is significantly impacting the Indian electrical equipment industry with under-utilization of recently enhanced capacities across several products. The commercial viability of the industry is getting dented and can have severe long term consequences, leading to a situation of unnecessary dependence on imports at the cost of domestic manufacturing.''(As quoted on FICCI website)

"The domestic electrical equipment industry, because of its heterogeneous character and despite its critical role in the economy, has not received focused attention of the policy makers. In the telecom sector, the government has initiated a move to make it mandatory for all telecom companies to procure at least 30% of all electronic equipment domestically on security grounds. The power sector is of at least as much strategic importance as the telecom sector, if not more. Disproportionate reliance on imported power equipment, with uncertain quality and lifecycle, and with no domestic manufacturing facility to provide immediate spares, replacements, etc. especially for heavy equipment, is fraught with long term risks".

The double whammy is that while the Indian electrical equipment industry has recorded a negative growth, imports have increased by 100% for insulators, motors and generators. According to IEEMA, Indian electrical equipment manufacturers are facing a tough competition in the domestic market from foreign suppliers. Absence of a level playing field for the domestic industry to compete with imported electrical equipment, especially from China, is a clear and present threat. While, Indian imports of electrical equipment have grown in the past five years at a CAGR of 28.28%, China's share in Indian imports of electrical equipment has dramatically increased in

the last few years and now it stands at around 44% of the total from around 15% in 2005-06. Imports from China have grown at a CAGR of 59% in the last five years.

The domestic electrical equipment industry is not looking for any protection but wants a level playing field. The government needs to provide greater encouragement to indigenous manufacturing in strategic sectors, as done by several countries including China. IEEMA has been asking for (1) limiting participation in tenders for bidding for domestically funded projects to domestic manufacturers only with tightened quality requirements so that only good quality & reliable equipment comes into the country;

(2) putting in place a mandatory requirement of setting up a manufacturing facility in India, within a specified time frame of the award of the tender, where foreign bidding is allowed, to provide for level playing field bidding, that is, phased manufacturing process (PMP) should be made mandatory in the country for supply of major equipment; (3) stipulating a minimum percentage of the total procurement by any utility to be of 'Made in India' products; and (4) Protecting the domestic industry's interests under different Regional Trade Arrangements (RTAs).

Thus, the Industry seeks urgent intervention from the Central Government at the highest level for conducive policy initiatives while entering into 12th Plan so as to meet laid down targets of power generation capacity and related transmission & distribution capacity expansions.

4.4.3 INDUSTRY COMPETITIVENESS

While the performance of the domestic electrical industry has been strong over the last decade, it is important to maintain sustained high rate of growth if it has to meet the demand arising out of the targeted generation capacity addition, meet the growth of other sectors of economy and also become globally competitive and increase exports,. Therefore, it is important to provide a level playing field in the country to domestic EE manufacturers' vis-à-vis foreign manufacturers, who are enjoying support from their respective governments with respect to subsidies on raw material, incentives for exports, low cost of funds, better infrastructure etc.

Indian industry can be supported by levying higher import duty on electrical equipment, allowing import of cold rolled grain oriented (CRGO) electrical steel at zero customs duty, replacing the L1 criteria of procurement by power utilities in India with two part bidding, augmenting domestic testing facilities to cover the type testing of all equipment, mandating type testing of imported equipment in Indian labs, supporting SMEs in technology up gradation and testing, standardization of product ratings and specifications, keeping a provision for type testing of small equipment picked up from site, etc.

The government also needs to support industry by providing funds at globally competitive rates of interest and help industry to establish clusters of electrical and component manufacturers and provide them funds for technology up gradation. Foreign suppliers of heavy equipment should also be insisted upon to set up phased manufacturing facilities in India.

4.4.4 EXPORTS

Exports of electrical equipment in 2011-12 were US$ 4.6 billion, which is about 1.5% of total exports from India, and imports were US$ 15.7 billion, which is about 3.2% of total imports. During the last five years, exports of electrical equipment have increased at a CAGR of 9.7% whereas imports have increased at a CAGR of 27.2%. Clearly, there is an urgent need for reducing the increasing trade deficit.

Some countries provide very effective support to their domestic manufacturers of electrical equipment, which results in them being more competitive vis-à-vis Indian manufacturers in the global market. Indian industry is also unable to compete because of the industry's lack of focus on quality of the products, delivery commitments, high cost of shipment, lack of infrastructure, no recognition of testing facilities by some countries, high cost of production, high cost of finance, lack of interaction of the industry with missions and trade commissions, etc.

A study of the emerging markets in Africa, Latin America and Central Asian countries should be conducted to identify the countries and the equipment that have good scope for exports from India. The Foreign Trade Policy should provide specific incentives for exports of electrical equipment.

The Export-Import Bank of India (EXIM Bank) should provide project specific lines of credit to other countries with an emphasis on acceptance of equipment / material only from India for such projects. The government should provide loans to

underdeveloped countries for power plants, transmission and distribution projects or barter for oil and gas and other minerals. In order to reduce the shipping cost and the time taken for clearance of documents and actual shipment of consignment, all the recommendations of the Task Force on Transaction Cost, set up by the Department of Commerce, should be implemented at the earliest.

The Central Power Research Institute (CPRI) should initiate action to see that its certification is accepted in all foreign countries. The participation of foreign buyers in specialized trade fairs of electrical equipment in India should be encouraged. Likewise, Indian manufacturers of electrical equipment should be encouraged to take part in specialized trade fairs abroad. A larger number of business delegations of Indian electrical equipment manufacturers should be organized to target foreign markets.

4.4.5 GLOBAL ELECTRICAL EQUIPMENT INDUSTRY

The global EE industry consists of the following two segments:

a. The global heavy electrical equipment market, including boilers, turbines, generators, wind turbines, solar power systems, etc.

b. The global T&D equipment market, including electric power cables, transformers, electrical switchgear, and transmission line towers, conductors, control equipment, meters,etc.

The global EE market is expected to increase from a cumulative size of more than US$ 3 trillion (2008-15) to US$ 6.8 trillion (2016-30). This translates into around 2% growth rate over the long term.

Asia-Pacific and Europe together account for more than 70% of the global market, with the Asia-Pacific region's share being 45%. This region is expected to see the strongest demand in future due to the region's strong expected economic growth rates.

In spite of less-than-impressive growth rates in recent years in the electrical equipment market, there is scope for expansion in certain areas, such as the emerging markets in the Asia-Pacific and Africa region. Robust economic growth in emerging countries such as China and India, combined with rapid urbanization and strong growth in investment in these countries, is expected to boost the demand for electrical equipment in these countries.

4.4.6 DOMESTIC DEMAND FOR THE ELECTRICAL EQUIPMENT

The demand for electrical equipment in India is expected to witness significant expansion on the back of the growth of the power sector. The government is likely to add around 78 GW and 100 GW, respectively, as was expected under its Twelfth and Thirteenth Five Year Plans.

Investment required for the Twelfth Five Year Plan period in the generation and T&D segment is expected to be US$ 85 billion in generation, US$ 45 billion in transmission and US$ 70 billion in distribution13.

Based on investment estimates and capacity addition targets, it is expected that the domestic demand for generation equipment (BTG) will be in the range of US$ 25-30 billion by 2022, while that of the T&D equipment industry will be US$ 70–75 billion.

India‘s electrical equipment industry is expected to grow steadily and witness growth opportunities as a result of government’s focus on capacity augmentation across generation, transmission and distribution. The government has stipulated “Power to all by 2012” under its National Electricity Policy (NEP), with a target of achieving 1,000 KWh per capital consumption of electricity by 2012. Significant infrastructure investments have been planned across the generation, transmission and distribution segments to realize this target by 2012.

4.4.7 SWOT ANALYSIS

4.4.7.1 STRENGTH

1. Diversified, mature and strong manufacturing base, with robust supply chain, fully equipped to meet domestic demand / capacity addition.
2. Rugged performance design of domestic electrical equipment to meet tough network demand. Good mix of large private and public sector enterprises, multinational companies and small and medium companies.
3. Domestic presence of major foreign players, either directly or through technical collaborations with domestic manufacturers.
4. State-of-art technology in most sub-sectors at par with global standards.

5. Domestic availability of low-cost skilled manpower.

6. Emerging global reputation of Indian electrical equipment for sourcing products and components and also of Indian transmission and other EPC contractors.

4.4.7.2 WEAKNESSES

1. Upwards volatility in raw material and other metal prices.

2. High cost, poor quality and shortage of raw material and other inputs.

3. Dependence of some sub-sectors on imports of critical inputs.

4. Low investment in R&D and no structured long-term approach for basic research.

5. Looming shortage of skilled technical manpower and low productivity.

6. Inadequate and costly domestic testing and calibrating facilities for electrical equipment.

7. Lack of standardisation of product specifications, design parameters and ratings for generation & distribution equipment across different utilities.

8. Lack of appropriate planning and decision making by utilities leading to bunching of orders by customers, primarily utilities, resulting in sub-optimal utilisation of available domestic manufacturing capacity.

9. Badly designed and diverse procurement policies and qualifying criteria of utilities.

10. Out-dated tendering procedures and contract awarding.

4.4.7.3 OPPORTUNITIES

1. Domestic demand: to sustain the envisaged annual GDP growth rate of around 8-9% over the next 20 years, it has been estimated that India will require to increase its electricity generation capacity by around five times by 2032.

2. Rapid growth in metros, airports and other infrastructure projects is expected to generate huge demand for matching BTG and T&D equipment.

3. External demand: Currently, share of India's exports in the global market is less than 1 per Cent. With the electricity sector being a sunrise sector across the entire developing world, there exists a significant export potential for the domestic industry.

4.4.7.4 THREATS

1. Problems of fuel linkages, land acquisition, environmental clearances, etc. are impeding growth in the country's power sector which may lead to less than anticipated growth in demand for electrical equipment.

2. Absence of a level playing field for the domestic industry to compete with escalating imports of electrical equipment.

3. Poor financial health of discoms and very high losses may have a cascading effect on the growth equipment industry.

4. Rising global concerns on the trade-offs between economic growth, energy security and environmental sustainability.

4.5 IRON & STEEL INDUSTRY

4.5.1 OVERVIEW

Steel production in India has expanded rapidly in recent decades and, as a result, India has become the world's fourth-largest producer of crude steel. Relative to the size of its economy, India's steel consumption, however, remains low; with large additions to steelmaking capacity planned to meet expected growth in steel demand, the nation's steel industry is expected to expand as India develops further.

While India has large reserves of relatively high-quality iron ore, its reserves of coking coal are limited and mostly unsuitable for steelmaking; accordingly, Indian steelmakers import much of the coal required for producing steel. Australia is a major source of India's coking coal imports, and given its proximity to India, these exports are likely to grow as Indian steel production expands. This article discusses the Indian steel industry, focusing on its structure, the production technologies used and the sources of its steelmaking commodities.

The Indian steel market is one of the fastest growing markets in the world. The steel industry in India plays such a significant role that they have their own Ministry of

Steel (MoS), According to MoS and other recent sources, the Indian steel industry has emerged as the 5th largest steel producing country in the world between 1. China 2. Japan 3. United States 4. India 5. Russia. The Indian steel production was around 72.2 million tons in 2011.

4.5.2 INDIAN IRON & STEEL CURRENT MARKET

- The Indian steel industry per capita consumption is around 55 kg compared to the world's average consumption of 206 kg of steel.

- The steel sector contributes to nearly 2% of the GDP and employs over 500.000 people

- In order to preserve iron ore resources for domestic use on cheaper rates, export duty on iron ore has been increased to 30% ad valorem on all varieties of iron ore in 2011

- The Indian steel industry is making a mark in the Asian region with India's leading steel company, TATA Steel being the 10th largest steel producing company in Asia between Shougang in China on the 9th and Shandong Iron and Steel Group in China on the 11th position.

4.5.3 GROWTH DRIVERS

- The Indian steel industry is strong because of easy availability of raw material and workforce

- The growth of the construction industry, which is growing at a rate of around 8-9% is one of the major consumers of steel in the country.

- The 12 five-year plan by the Indian government, has allocated investment of US$ 1 trillion for the core infrastructure sector, comprising power, roads, railways, ports, airports, which are some of the major consumers of steel.

- The expansions in the Indian automotive industry and the oil and gas sector.

4.5.4 INVESTMENTS IN THE INDIAN IRON AND STEEL INDUSTRY

- RashtriyaIspat Nigam Ltd has announced that US$ 961.54 million worth of new units would come up in the plant as a part of its expansion project.

- Steel Authority of India Limited (SAIL) is planning to set up a 12 million tones plant in Jharkhand, North West India.

- In UICUdyog Ltd, a leading manufacturer of steel wires and wire products, plans to set up a facility for manufacturing of steel wires with a total investment of US$100 million

- Stainless steel manufacturer and exporter, Varun Industries, is setting up a US$ 171.8 million stainless steel-cum-alloy steel plant in West India.

- Jindal Steel Works (JSW) has invested around US$ 1.6 billion and plans to increase capacity of its Bellary plant in South India from 9 million tons p.a. in 2012-13 to 12 million tons p.a.by the end of 2013-14.

4.5.5 SWOT ANALYSIS

4.5.5.1 Strengths

- Availability of iron ore and coal in bulk quantity
- Low cost efficient and abundant labor
- Strong managerial capabilities
- Modern new plants and modernized old plants

4.5.5.2 Weaknesses

- Dependence on imports for steel manufacturing equipment and technology
- Low R&D investments
- Inadequate infrastructure
- Slow statutory clearance for development of mines

4.5.5.3 Opportunities

- Unexplored rural markets
- Rapid urbanization
- Growing domestic demand and increased level of exports
- Indian steel producers looking for overseas acquisitions in steel as well as raw materials
- Strong growth in steel heavy industries e.g. the automotive industry and within the infrastructure
- Increasing interest of foreign steel producers in India

4.5.5.4 Threats

- Slow growth in infrastructure development
- Market fluctuation and increase in China’s export possibilities
- Global economic slow down
- Higher duties and taxes

- CSR related issues: increased focus on the environment and labor conditions

4.5.6 IRON AND STEEL DEMAND AND TRADE

The production of finished steel in India is fairly evenly split between 'long products' (bars, rods, wires, etc.), which are typically used in construction, and 'flat products' (steel strips, plates, sheets, etc.), which are used in manufacturing. Construction and infrastructure are estimated to account for roughly 40 per cent of steel consumption, and manufacturing (including automobile production) for around 30 percent of consumption (Indicus Analytics 2009).

While domestic steel production has historically been sufficient to satisfy domestic demand, India has recently become a net importer of steel, reflecting strong growth in Indian steel consumption (Graph 3). Imports of flat products have grown particularly strongly in recent years, as manufacturing production grew strongly in the years leading up to the global financial crisis and has recovered strongly subsequently. At the same time, India's steel exports have fallen (with the exception of shipments of pipes and tubes). Nonetheless, steel remains an important source of export revenue, accounting for around 4 per cent of the total value of India's exports in 2010.

Most of India's imports of steel come from other large steel-producing countries. Imports from China have grown strongly over the past five years or so, with China now accounting for around one-third of the value of India's steel imports (Table 2). Sizeable steel imports from advanced economies suggest that there are certain types of products that are either not produced in India or for which domestic capacity is

insufficient to meet demand; for example, Indian automakers import much of the high-grade steel used for manufacturing outer panels of cars (Mazumdar 2010). While the United States is the largest destination for Indian steel exports, around one-third of exports go to oil-producing countries in the Middle East. Detailed export data reveal that a large share of the shipments to the Middle East consists of steel pipes suitable for oil and gas pipelines. India was the world's largest exporter of steel pipes for oil and gas pipelines in 2010, and lower shipping costs (owing to the relative proximity of India to the Middle East) are reflected in the region's oil-producing countries sourcing the majority of their imports of pipelines from India.

4.6 PHARMACEUTICAL INDUSTRY

4.6.1 OVERVIEW

The Indian pharmaceuticals industry has gained significant global presence in the last few years and has been competing with China, Brazil, major African countries like South Africa, etc. on equal terms. Its remarkable growth can be attributed to its ability to rapidly access and adopt new technologies and also to its success in evolving an effective mechanism to strengthen research and development. The industry's advanced manufacturing facilities have earned laurels from global regulatory authorities. As a result, the world today turns to the Indian pharmaceutical industry not only for high-quality and low-cost generic drugs, but also for 'in-licensing' and 'out –licensing' of drugs. The robust Indian pharmaceutical industry today produces a range of formulations, has the expertise for active pharmaceutical ingredients (APIs) and sees significant opportunities for value-creation.

India ranks third in the manufacture of pharmaceutical products, by volume and 14th in value terms, globally. The Indian industry produces around 20 to 24% of the global generic drug production. Significant changes in the global pharmaceutical market offer immense opportunity for the Indian pharmaceutical industry. Patents of blockbuster drugs valued at around US$ 13 billion in revenues expired in 2007 and patents worth US$ 60 billion will expire by 2012. As a result, there will be a newly available market for generics worth US$ 73 billion.

The estimated turnover of the Indian pharmaceutical industry is Rs. 84,000 crores or US$ 21 billion, with an annual growth rate of 13%.The country is a leading global provider already, with an export turnover of over Rs. 40,000 crores or US$ 10 billion, spread across 200 countries. India has strong manufacturing infrastructure with approximately 161 US Food and Drug Administration, 90 Medicines and healthcare Products Regulatory Agency and 1,000 World Health Organization Good manufacturing Practice approved world-class manufacturing facilities. Almost 25% of the global Abbreviated New Drug Application (ANDA) filings are from India. There is also an abundance of scientific manpower in the country. It is proving to be an excellent center for clinical trials in view of the diversity of population.

The Indian pharmaceutical sector is highly fragmented with more than 20,000 registered units. It has expanded drastically in the last two decades. The Pharmaceutical and Chemical industry in India is an extremely fragmented market with severe price competition and government price control. The Pharmaceutical industry in India meets around 70% of the country's demand for

Bulk drugs, drug intermediates, pharmaceutical formulations, chemicals, tablets, capsules, orals. There are approximately 250 large units and about 8000 Small Scale Units, which form the core of the pharmaceutical industry in India (including 5 Central Public Sector Units).

4.6.2 GOVERNMENT SUPPORT

The Indian government has been very supportive. It established the Department of Biotechnology in 1986 under the Ministry of Science and Technology. Since then, there have been a number of dispensations offered by both the central government and various states to encourage the growth of the industry. India's science minister launched a program that provides tax incentives and grants for biotech start-ups and firms seeking to expand and establishes the Biotechnology Parks Society of India to support ten biotech parks by 2010. Previously limited to rodents, animal testing was expanded to include large animals as part of the minister's initiative. States have started to vie with one another for biotech business, and they are offering such goodies as exemption from VAT and other fees, financial assistance with patents and subsidies on everything ranging from investment to land to utilities.

The Department of Pharmaceuticals has prepared a "Parma Vision 2020" for making India one of the leading destinations for end-to-end drug discovery and innovation. In order o do so it provides requisite support by way of world class infrastructure, internationally competitive scientific manpower for research and development (R&D) in pharmaceutical, venture fund for research in the public and private domain and

such other facilities. The Drugs and Pharmaceuticals Manufacturers Association has received an in-principle approval for its proposed special economic zone (SEZ) for pharmaceuticals, bulk drugs, active pharmaceutical ingredients (APIs) and formulations to be located at Nakkapallimandal in the Visakhapatnam district.

The government plans to open 3,000 Jan Aushadhi stores, which sell unbranded generic drugs at heavy discounts as compared to branded drugs, in the next two years.100% foreign direct investment (FDI) is allowed under the automatic route in the drugs and pharmaceuticals sector, including those involving the use of recombinant technology. The Government plans to set up a US$ 639.56 million venture capital (VC) fund to give a boost to drug discovery and strengthen the pharmaceutical infrastructure in the country. The drugs and pharmaceuticals sector has witnessed major merger and acquisition and attracted FDI worth US$ 1,825.43 million between April 2000 and September 2010.

The increase in FDI inflows to Drugs and Pharmaceuticals industries in India has helped in the expansion, growth, and development of the industry leading to an improvement in the quality of the products of the industry. The government has also taken steps to encourage foreign investment in its biotech sector. An initiative passed earlier this year allowed 100% foreign direct investment without compulsory licensing from the government. In April 2011, a delegation headed by the KapilSibal, the minister of science and technology and ocean development, visited five cities in the U.S. to encourage investment in India, with special emphasis on biotech. Just twomonths later, Sibal returned to the U.S. to unveil India’s biotech growth strategy at

the BIO2005 conference in Philadelphia. 100% of FDI (foreign direct investment) is allowed in India.

4.6.3 CHALLENGES

Over the past decade, pharmaceutical companies have witnessed a difficult phase where shareholders, the market and regulators have created significant pressures for change within the industry. The core issues for most drug companies are declining productivity of 'in-house' R & D, patent expiration of a number of block buster drugs, increasing legal and regulatory concerns, and pricing issues. As a result some of the larger pharmaceutical companies are shifting to a new business model with greater outsourcing of discovery services, clinical research and manufacturing. The biotech sector faces some major challenges in its quest for growth. Chief among them is a lack of funding, particularly for firms that are just starting out. The most likely sources of funds are government grants and venture capital, which is a relatively young industry in India. Government grants are difficult to secure, and due to the expensive and uncertain nature of biotech research, venture capitalists are reluctant to invest in firms that have not yet developed a commercially viable product.

The current global financial conditions, the threat of recession along with lower corporate stock prices and an increasingly cost-averse customer have accelerated the time frame for implementing transformational changes in global pharmaceutical organizations. Leaders of the largest global pharmaceutical companies now recognize the need for transformational change in their organizations, but will need to move swiftly to ensure sustained growth.

Transformations in the business model of the larger pharmaceutical industry spell more opportunities for Indian pharmaceutical companies. Pharmaceutical production costs are almost 50 percent lower in India than in the western nations, while overall R&D costs are about one-eighth and clinical trial expenses around one-tenth of western levels.

The Indian stock market may be dreading a possible recession but Indian pharmaceutical companies seem unfazed by slowdown fears. Riding on better sales in the domestic and export markets, the Indian pharmaceutical industry is expected tocontinue with its good performance. Today this industry can look forward to the years to come, with great expectations. There are profitable opportunities in traditional plays such as in expanding the range of generic products (as more molecules come off patent), outsourcing, and above all, in-focusing on drug discovery. At the same time, the Indian Pharmaceutical Industry would have to contend with several challenges particularly the,

- Effects of new product patents
- Drug price controls
- Regulatory reforms
- Infrastructure development

- Quality management and

- Conformance to global standards.

4.6.4 ADVANTAGE OF INDIA

The Indian Pharmaceutical Industry, particularly, has been the front runner in a wide range of specialties involving complex drugs' manufacture, development, and technology. With the advantage of being a highly organized sector, the pharmaceutical companies in India are growing at the rate of $ 4.5 billion, registering further growth of 8 - 9 % annually.

More than 20,000 registered units are fragmented across the country and reports say that 250leading Indian pharmaceutical companies control 70% of the market share with stark price competition and government price regulations.

Competent workforce: India has a pool of personnel with high managerial and technical competencies also skilled workforce. It has an educated work force and English is commonly used. Professional services are easily available.

Cost-effective chemical synthesis: Its track record of development, particularly in the area of improved cost-beneficial chemical synthesis for various drug molecules isexcellent. It provides a wide variety of bulk drugs and exports sophisticated bulk drugs.

Legal & Financial Framework: India has a 53 year old democracy and hence has a solid legal frame work and strong financial markets. There is already an established international industry and business community.

Information & Technology: It has a good network of world-class educational institutions and established strengths in Information Technology.

Globalization: The country is committed to a free market economy and globalization.

Above all, it has a 70 million middle class market, which is continuously growing.

Consolidation: For the first time in many years, the international pharmaceutical industry is finding great opportunities in India. The process of consolidation, which has become a generalized phenomenon in the world pharmaceutical industry, has started taking place in India.

4.6.5 INDUSTRY GROWTH AND FUTURE

- The pharmaceutical industry generally grows at about 1.5-1.6 times the growth rate of the Gross Domestic Product.

- In the recent past, India exported drugs worth US$7.2 billion to the US and Europe followed by Central and Eastern Europe, Africa and Latin America.

- The Indian vaccine market which was worth US$ 665 million in 2007-08 is growing at a rate of more than 20%.

- The retail pharmaceutical market in India is expected to cross US$ 16-19 billion by 2014.

With several companies slated to make investments in India, the future prospects of the pharmaceuticals industry in India looks quite promising. The country's pharmaceutical industry has tremendous potential for growth, considering all the projects that are in the pipeline. Some of the future initiatives are:

1. According to a study by FICCI-Ernst & Young, India will open a probable US$ 8 billion market for MNCs selling expensive drugs, by 2015.

2. The study also says that the domestic pharmaceutical market is likely to reach US$ 20 billion by 2015. The Ministry of Commerce estimates that US$ 6.31 billion will be invested in the domestic pharmaceutical sector by 2015.

3. Public spending on healthcare is likely to rise from 7% of GDP in 2007 to 13% of GDP by 2015.
4. Due to the low cost of R&D, the Indian pharmaceutical off-shoring industry is expected to turn out to be a US$ 2.5 billion opportunity by 2014.
5. Innovation, not original research alone, is the order of the day.

6. MNCs will make an aggressive bid for the Indian market, as India moves towards trade-related aspects of intellectual property rights

7. International companies register their new drugs for patenting after 10 years.

8. Generics will have a huge demand.

9. International companies could set up their own R&D labs in India and develop drugs for tropical diseases.

10. Indian pharmaceutical companies are expected to move up the value chain from merely being reverse engineers to developers of proprietary products in the US market.

Imports -As per the Directorate General of Commercial Intelligence and Statistics(D.G.C.I.S.)Kolkata, the value of imports of “Medicinal and Pharmaceuticals Products” for the latest period2007-08 to 2010-11 is as under:

In the year 2010-11 the imports shown declined in growth compared to previous year. The country is almost self-sufficient in production of most of formulations/ pharmaceutical products. As such imports are being resorted to on quality & economic considerations and not necessarily due to non-availability from domestic sources. Manufacturers of Drugs &Pharmaceuticals are free to produce any drugs approved by the Drug control authorities.

Exports - As Per DGCIS, Kolkata Exports of “Drugs and Pharmaceuticals and Fine Chemicals” for the period 2007-08 to 2010-11 are below:-

4.6.6 SWOT ANALYSIS

4.6.6.1 STRENGTH

1. Vast market growth potential
2. Low cost production
3. Low R&D costs
4. Innovative manpower
5. Cheap/skilled English-speaking labour force
6. Increasing western work methods and mind-set
7. Long-established trade patterns with Western Europe and the US
8. Strong local manufacturing sector
9. Governmental focus and investment in the R&D area
10. Increasing FDI in the industry

4.6.6.2 WEAKNESSES

1. Low pharma consumption levels per capita

2. Biased drug pricing and bad compensation policy

3. Underdeveloped healthcare infrastructure

4. Vast regional disparities in healthcare coverage

5. Many pharmaMILLIONCs already supplying the market at lower prices

4.6.6.3 OPPORTUNITIES

1. Large and growing population

2. Rising demand for generic drugs globally

3. Increased demand for APIs – active pharmaceutical ingredients

4. Increasing R&D activity by domestic firms

4.6.6.4 THREATS

1. Failure to properly enforce WTO compliant patent legislation for drugs.

2. Government imposing further price controls on essential medicine

3. India's patent laws threatened by litigation

4. Weak copy right policies threatening the legal entities in the industry.

4.7 POWER/ ELECTRIC UTILITIES INDUSTRY

4.7.1 OVERVIEW

After China, India is the second-largest market for coal plants, expecting to add approximately 20 GW of coal plants per year until at least 2020 (or 30 GW later in the decade if coal supply catches up). This is almost 90% of the international market that the big three plan to exploit. There is no doubt that the success of the big three's export strategy will be highly dependent on their execution in India.

So far, the big three have done very well in obtaining orders. In 2010, there were several high profile wins by Chinese power equipment makers in India, including SEG's (Society of Exploration Geophysicist) US$8.291 billion contract for 36 x 660 MW supercritical thermal generation equipment with Reliance ADAG in October;

HPEC's(High Plains Electric Company) contract from Lanco for a 10.5 GW order in September; and mostly recently, during Premier Wen's visit to India, DEC signed a contract with Abhijeet Group to deliver 10 x 660 MW for US$2.5 billion. The orders totaled 41 GW worth of power equipment. The most noteworthy is DEC's (Dongfang Electric Corporation) surprise win from Abhijeet Group as the latter traditionally ordered from BHEL.

Unlike other technological developments in the West, which were introduced in

India after a time lag, electricity was introduced in India in the form of galvanic electricity (both electro chemical and electromagnetic) through telegraphy. The first experimental line was set up in Kolkata in 1839 at the Botanical Gardens along the river Hooghly.

Electricity in the form of lighting arrived 35 years later with the former princely state of Bikaner introducing electricity in the subcontinent. In 1886 Jamsetji Tata installed a dynamo driven power plant in his residence, which was later extended to the adjacent Gymkhana Chambers ten years later. When the TajMahal Hotel was built in 1903, it was equipped with a modern power generator.

The Government of India invited Crompton to help in the preparation of an Electric Lighting Act in 1896. Subsequently, the Indian Electric Company Ltd. was registered in London in January 1897, which changed its name to become the Calcutta Electric Supply Corporation (CESC). A CESC power station started its operation on April 17, 1899.

The first major hydroelectric project (4.5 MW) in India was on the Cauvery River at Sivasamudram, commissioned by the Maharaja of Mysore in 1899. It commenced power supplies to the Kolar Gold Mines in 1902. The capacity was increased to 42 MW in stages by 1927.In 1903, the Madras Electric Supply Corporation of India Ltd. installed a power plant and subsequently set up power plants in different cities including Karachi, Kanpur, Allahabad, Nagpur, Rangoon and Tibet. The Tata Hydroelectric Power Supply Co. was registered on November 7, 1910 and the license obtained by the syndicate for power generation was transferred to the Company. The country's largest hydropower station was commissioned in 1911 with a 32 MW capacity which transmitted power to Bombay on a 110 kV transmission line. To meet the increased load demand, Tata Sons Ltd. promoted a new Company - Andhra Valley Power Supply Co. in 1916 and commissioned a 72 MW power plant at Shivpuri in 1922. A third company – Tata Power Co. Ltd. was incorporated in 1919 and set up an 88 MW generating station at Bihar in 1927.

During this decade major railway workshops, defense installations, ordnance factories, collieries, dockyards, oil, flour, jute and textile mills were equipped with diesel or steam driven generators and electric drives.

Despite this achievement, the ever-increasing demand for power has led to a widening gap between the supply and demand. The Indian power sector is a core infrastructure sector and its expansion is essential for the success of economic development of India. The Government has therefore, rightly laid emphasis on this sector and plans to add 70,000 MW of new installed generating capacity by the end of 2012. In other words, it means an addition of 10,000 MW every year on an average.

According to database, we estimate China's big three together take approximately 20% market share in India's 12th plan (2013-17) BTG orders, with SEG, HPEC and DEC at 9%, 8% and 4%, respectively (Figure 30). We note that market share estimates have already taken into account the orders mentioned above: the Chineseequipment makers' market share is not as high as perceived since the short- to medium-term benefit of these orders is diluted by their very long dated nature. In addition, so far Indian utilities have acquired 25% of the land required for these plants at most. We estimate less than 14 GW to be delivered before FY17.

If India is to construct 100 GW in its 13th plan period (2018-22), the three mega orders' tailed portion would give the big three a 27% market share. Given this, we would not be surprised to see Chinese equipment makers' take market share in the 30% range in India's BTG orders in the long run. But in the short to medium term, we do not see the big three's market share much higher than 20%, as more than 75% of the FY2013-17 orders have already been awarded and more than half of the remaining will be public orders that the big three cannot bid for.

4.7.2 POWER/ENERGY DEMAND IN INDIA

The main energy products consumed in India are primary electricity, oil, coal, biomass and gas, and are represented by bars. Primary electricity includes electricity consumption plus the upstream energy inputs and losses in transmission and distribution. Total electricity consumption represents 1,654 PJ (472 TWh) in 2005, while primary electricity represents 6,977 PJ, meaning more than 4 unit of primary energy was necessary to deliver 1 unit of electricity energy at the end consumer.

Moreover, it is important to keep in mind that in India, electricity is produced for a large share (71%) from coal, hydro power represents 14%, natural gas 8%, and diesel and nuclear each represent 3%. Absolute fuel consumption is shown by the dark black line with the y axis on the right size. Primary electricity is by far the largest energy product used in India, followed by oil, while gas remains the lowest energy product in use.

Electricity has the widest variety of uses, with industry other than energy intensive ones representing 23%, agricultural pumping 18%, residential appliances 18% (among which fan is 6%, television is 3%, and refrigerator is 3%), residential lighting 13% and services 12%. The remaining primary electricity consumption consists in energy intensive industry demand, and small quantity of transport activities (railways mostly).

Oil is mostly used in the transport sector with freight being the largest user (18%), followed by equal shares of public and personal transport (9%) and finally air travel which represents 3% of total oil used in India. Unlike in developed countries, oil remains an important source of energy for cooking in India, through the use of kerosene. Its consumption represents 14% of total oil use. Kerosene is also used as a source of lighting, representing 6% of total oil use. Oil is also used in the agriculture sector for farming (4%) and pumping water (3%). Finally oil is a source of energy for the commercial and industrial sectors, which use it in many cases to run generators in order to supplement shortages of electricity

4.7.3 POWER/ENERGY FLOW IN INDIA

Knowing the current patterns of energy use and assumptions about future trends in economic activity, we constructed an activity driven model to forecast what would be the natural short term evolution of energy use in India for each end use segment by 2020. Through analysis of current patterns of energy use, drivers of energy use were collected at the sub-sector level in activity drivers and with evolution of GDP to determine what would be the impact of economic growth on drivers of energy use.in the same context it is pertinent to note that all the businesses in India also considered fuel or technology switching in the forecast of future demand for energy and the likely gap between demand and supply.

The first observation is that the current picture of energy consumption breakdown is not expected to dramatically change as demand for all end uses will grow simultaneously. The same activities that require energy today will continue to consume energy in 2020.

The primary energy requirement is expected to be multiplied by 2.2 over the next 15 years to 38.8 PJ. In the same period, GDP is projected to multiply by 2.8, corresponding to an annual rate of 7%. Hence, the decoupling between energy and GDP growth observed over the last 15 years is expected to continue at the same path. Over the period 1990 to 2005, GDP had multiplied by 2.3 while energy consumption had multiplies by 1.9 only. Form the information available, it can be said that energy efficiency improvements were considered in some sectors e.g. the primary factor is expected to continue its decline at an annual rate of -0.8% due to the dual effect

ofincreasing input from non-fossil fuel and slight decrease in transmission and distribution loses, to reach a rate of 3.7. The industry and transport energy intensity are also projected to continue their decline due to small technology improvements, as it has been observed in the past.

Industry and residential sectors remain the largest sources of primary energy use. However, the fastest growth is from the transport sector at a rate of 6.4%, followed by the industrial and commercial sectors with rates of 5.8% and 5.3% respectively. Growth in the residential sector is also strong at 5.2%, with opposite forces between significant decrease of biomass and considerable increase of primary electricity consumption. Innovation in energy conservation techniques and equipment only can show the way forward.

Primary electricity consumption is expected to grow the fastest at 6.4% annually over the period 2005 to 2020, driven by increased appliance ownership in the residential sector and increase in equipment penetration and floor space development in the commercial sector. Oil will remain the second most used fuel in use in the final sectors throughout this period, reaching 11.6 EJ in 2020. The transport sector represents the largest user of oil with a share of 43% of total oil consumption. The residential sector represents about 18% of oil use for the need of LPG and kerosene for cooking and lighting. Biomass energy consumption will decrease slightly at an annual rate of 0.4% over the same period, while natural gas will continue to increase at a rate of 5.3%, lower than in the previous period of 7.3%. Coal consumption will continue to increase at a faster rate than during the period 1990 to 2005, driven by the growth from industrial activities.

4.7.4 INVESTMENTS

The investment climate is very positive in the power sector. Due to surge in the sector, the power sector has witnessed higher investment flows than envisaged. The power ministry has set a target for adding 76,000 MW of electricity capacity in the 12th Plan and 93,000 MW in the 13th Five-Year Plan (2017-2022).

The Working Group on Power for formulation of the 12th Five Year Plan has estimated total fund requirement of Rs 1,372,580 crores (US$ 252.4 billion) for the power sector. The main sources of financing are commercial banks, public financial institutions, dedicated infrastructure/power finance institutions, insurance companies, overseas markets, bilateral/multilateral credit, bond markets and equity markets. In addition, steps have been taken by the Government to make available funds through Credit Enhancement Schemes and Infrastructure Debt Fund etc.

The industry attracted foreign direct investment (FDI) worth US$ 7.54 billion (Rs 36,084.54 crores) during April 2000 to January 2015.

Some of the major investments made into the Indian power sector are as follows:

- Renewable energy company Greenko has closed funding of £100 million (US$ 153.95 million) through equity participation by the Government of Singapore Investment Corporation Ltd (GIC). The company, whose hide clusters arelocated in Himachal, Sikkim and Karnataka, has started work on six new hide projects with total capacity of 425 MW to its development pipeline

- Crompton Greaves (CG), in consortium, has received a Rs 239 crores (US$ 43.96 million) order from Van Oord Offshore Wind Projects for the construction of an offshore high voltage substation for a wind farm in the Netherlands

- Infosys has signed a five-year agreement with RWE Supply and Trading (RWEST), a leading European energy trading house, to provide technology services. The technology services will be used to power the trading platform systems of RWEST

- National Thermal Power Corporation (NTPC) has commissioned its first 5 megawatt-peak (MWP) solar PV plant at the Dadri thermal power station in Uttar Pradesh (UP).

- The Mahindra Group which entered the solar power sector three years ago, has said that it plans to add another 500 MW over the next two to three years. The company plans to leverage its presence in rural areas, looking at off-grid solar products as well.

4.7.5 GOVERNMENT INITIATIVES

The Government has initiated several policies to promote and garner investments in the power sector. To accelerate capacity addition, several policy initiatives have been undertaken by the Ministry of Power. The National Electricity Policy (NEP) in fact,

stipulates power for all and annual per capita consumption of electricity to rise to 1,700 units by 2014.

In order to attract foreign investments in the power sector, FDI up to 100 per cent is permitted under automatic route for projects of electricity generation (except atomic energy), transmission, distribution and power trading.

Some of the initiatives taken by the Government of India to boost the power sector are:

- The Government of Meghalaya is planning a hi-tech, environment-friendly approach to meet the state's power needs besides contributing to the environment through its Meghalaya Renewable Energy Policy

- The State Government has decided to develop up to 150 MW of solar PV based projects which are to be set up on the 'chaur'/pond where pisciculture is being undertaken. Bihar Renewable Energy Development Agency (BREDA) has been designated as the nodal agency for providing necessary support to facilitate the development of solar PV projects in the state
- Hydro Projects worth 2,500 MW across various states have been given clearance by the Forest Advisory Committee (FAC) and Ministry of Environment and Forest (MoEF)

- Dr Farooq Abdullah, the then Union Minister for New and Renewable Energy, Government of India and Ms Carmen Vela Olmo, Minister of State for Research,

Development and Innovation, Government of Spain, have agreed to enhance research, cooperation and technologies in the field of renewable energy

- India plans to develop a forecasting model for energy demand and supply that will help in policy decisions. The proposal has in-principle approval of the Prime Minister and the task to set up a model is entrusted to the Planning Commission

4.7.6 ENVISIONING FUTURE

Renewable energy is fast emerging as a major source of power. Wind energy is the largest source of renewable energy in India; it accounts for an estimated 87 per cent of total installed capacity in renewable energy. The country aims to increase the importance of wind power even further; there are plans to double wind power generation capacity to 20 GW by 2022.

Biomass is the second largest source of renewable energy, accounting for 12 per cent of total installed capacity in renewable energy. There is strong upside potential in biomass in the coming years.

Solar energy accounts for 1 per cent of total renewable energy installed capacity. However, the share is not indicative of the country's true potential, which stands at an estimated 5,000 TWh p.a. .In order to fully meet both energy and peak demand by 2015, there is a need to create adequate reserve capacity margin. In addition toenhancing the overall availability of installed capacity to 89 per cent, a spinning

reserve of at least 5 per cent, at national level, would need to be created to ensure grid security and quality and reliability of power supply.

Renewable energy sector growth in India during the last 8 years has been significant and the need to increase the use of renewable energy sources for sustainable energy development has been recognized by the Government. There has been significant thrust to research, development and induction of renewable energy technologies in different sectors.

The National Solar Mission under the National Action Plan on Climate Change envisages a 20,000MW solar capacity addition by 2022. India's renewable growth so far has been financed domestically. Majority of financing has been asset financing in the area of wind where captive power generators have been investing to expand wind-manufacturing capacity and project development. The investment perception of industry is changing due to the growing awareness, government's changing priorities and the inevitability of renewable to supplement India's energy mix. In the conventional bio fuels sector there exists a huge opportunity in manufacturing, technology development and, operations and maintenance services. Going forward the 2nd and 3rd generation bio fuels offer opportunity in research and development area.

4.7.7 SWOT ANALYSIS

4.7.7.1 STRENGTH

1. Historically, demand for petroleum products has traced the economic growth of the country. With GDP expected to grow at near 7% in the long-term, the energy sector would benefit from the same, going forward.

To put things in perspective, diesel sales grew by nearly 12% (which constitutes 40% of the entire petro-products basket), petrol sales by 9% and a double-digit growth in LPG (liquefied petroleum gas) in 1QFY05. While this rate is not likely to sustain, we expect the industry to witness a 4% growth in the entire product basket in FY05 and beyond.

2. The recent price increases and also the decision to allow oil companies to increase prices within a band of 10% augur well for the industry.

This step is likely to reduce government interference and provide some autonomy to oil companies when it comes to increasing petrol and diesel prices in order to protect margins. Further, the duty cuts are also likely to result in reduced under-recoveries by way of subsidies on LPG and kerosene.

4.7.7.2 WEAKNESSES

1. Nearly 70% of India's crude requirements are fulfilled by imports and this figure is likely to increase going forward. Crude prices have breached the $45 barrier again and are likely to remain at around $40 per barrel range.

As per IEA, India is one of the most inefficient countries among developing nations as far as energy usage is concerned. Such high crude prices are likely to impact margins of oil marketing companies. Given the political implications, retail prices may continue to lag the rise in input cost.

2. Although the government has decided to provide autonomy to oil companies to increase petrol and diesel prices within a 10% band, other products such as LPG and kerosene continue to remain under the government controlled price mechanism.

As per the current estimates, the subsidies on LPG amount to Rs 90 per cylinder after factoring in duty cuts and that on kerosene is over Rs 6 per litre.

While the government has managed to reduce its share in subsidies, select oil companies are being forced to absorb the losses.

4.7.7.3 OPPORTUNITIES

1. Major oil marketing companies are now venturing into upstream exploration and production activities so as to secure crude supply.

To put things in perspective, IOC and OIL India are likely to jointly bid for oil fields aboard. At the same time, ONGC's wholly owned subsidiary, ONGCVidesh (OVL) has acquired stakes in over 9 countries in its quest to attain the 20 MMT (million metric tonnes) by 2020. This backward integration is an opportunity for IOC to secure at least 25% of its crude oil requirements for the refineries.

2. Natural gas has the potential to be the fuel of the future with demand outpacing supply by more than two times. Such high scarcity of natural gas provides a big opportunity for oil companies. The below mentioned table indicates the allocation to the various core sectors and the shortage faced by them, thereby giving an idea of the potential for growth.

Although Petronet LNG has now started importing natural gas, the future holds promise as Reliance Industries' Krishna Godavari Basin goes into commercial production in FY06 and Shell commences its terminal at Hazira. More exploration activities are in the pipeline and this could reduce the country's dependence on crude in the long term.

4.7.7.4 THREATS

1. Until FY04, oil-marketing companies had complete control over the downstream marketing business while private sector players were restricted to only refining.

However, with entry of private players such as Reliance, Essar Oil [Get Quote] and Shell (in the waiting), the sector is likely to witness increased competition going forward. The oil PSUs had hitherto developed a fortnightly pricing mechanism, which is likely to discontinue.

The price of petrol and diesel is artificially kept high so as to cross-subsidize LPG and kerosene. Since private players will not be bound to provide for these subsidies, PSU marketing players are likely to suffer from lower throughput per outlet.

3. During the first six months of the current fiscal year, the oil marketing companies were refrained from increasing product prices due to political reasons. This affected margins of downstream players. Going forward, if the government interference continues, oil-marketing companies will be at a disadvantage.

From the industry analysis it can be concluded that all the industries are poised for astounding growth opportunities and formidable challenges ahead. They have glorious stories to tell about the obstacles they overcame, the flaccid demand they had to convert into booming markets and the mammoth task of convincing the India government to open up the sector and allow FDI to infuse fresh capital in the businesses.

CHAPTER 5 : CONCLUSION AND RECOMMENDATIONS

5.1 CONCLUSION

This model is appropriate in the context of AGROCHEMICALS INDUSTRY. There is also correlation between Leverage and CSR. The Regression model is appropriate. The following equation is derived:

CSR = 3.145 + 0.738 (Debt-Equity Ratio). It follows that on an average all the companies in the Agrochemical industry under study have been able to make gainful use of the borrowed funds and have accelerated their profitability. The employment of debt funds can be profitable only when the company's earnings rate is higher than the rate of interest on the debt funds employed. This is also a good indicator for the investors to base their investment decisions on. The investors who are eager to invest in profitable and well managed companies should invest in the companies in the Agrochemical industry and the investors who have already invested in the companies should continue to stay invested in the companies in this industry.

This model is appropriate in the context of AUTO PARTS &EQUIPMENTS INDUSTRY. There is also correlation between Leverage and CSR. The Regression model is appropriate. The following equation is derived:

CSR = 7.691 - 2.224 (Debt-Equity Ratio). It can be observed that on an average the companies in the Auto Parts and Equipment industry have used the borrowed funds for financial requirements but the same has a negative impact on their profitability .The use of debt can be profitable only when the company's earnings rate is higher

than the rate of interest on the debt funds employed and if the rate of borrowed funds is higher than the rate of earnings, then it can be financially disastrous for the company. This serves as a good indicator for the investors. The investors looking for good companies to invest in or potential investors should invest in these companies after careful evaluation of the companies' future profitability and their propensity to use debt. This result is an average of selected companies of this industry. It is possible that some companies may have positive impact of debt on their profitability and some may have adverse impact of debt on their profitability. It can be concluded that negative impact is greater than positive impact thus final impact is reported as negative influence.

Thus it is suggested that potential investors should examine the status of individual company before parking their funds. If such companies employ more and more debt than it would be advisable for the investors not to invest in these companies and the existing investors may choose to get rid of their investment and exit at the right time to minimize losses or to walk away with reasonable amount of appreciation of their shareholding.

In the context of the last suggestion, the data of individual company should be analysed and performance analysis of the company during the period of study should be done because the data has been averaged out for eleven years. It may be possible that in majority period of time the company has performed well but due to abnormal circumstances the company might have significant adverse impact in a year or two. Therefore finally existing investors and potential investors should check status of individual company for the period of study before taking any investment-related decision.

This model is appropriate in the context of CEMENT INDUSTRY.

There is also correlation between Leverage and CSR. The Regression model is appropriate. The following equation is derived:

CSR = 9.411 + 1.790 (Debt-Equity Ratio). It also brings forth the fact that on an average all the selected companies in the Cement industry have been able to use the borrowed funds profitably. The use of debt funds can be profitable only when the company's earnings rate is higher than the rate of interest on the debt funds. This is also a barometer for the investors in that the investors who are eager to invest in those companies which would fetch them greater returns would be attracted toward such Cement manufacturing companies and the investors who have already invested in the companies should continue to stay invested in the Cement companies for greater and greater appreciation of their investment.

This model is appropriate in the context of HEAVY ELECTRICAL EQUIPMENTS INDUSTRY. There is also correlation between Leverage and CSR. The Regression model is appropriate. The following equation is derived:

CSR = 5.358 + 1.530 (Debt-Equity Ratio). It also reveals the fact that on an average all the selected companies in the Heavy Electrical Equipments industry have been able to use the borrowed funds judiciously and the same has been used to augment profitability. The use of debt funds can enhance profitability only when the company's earnings rate is higher than the interest rate on the debt funds. This is a good barometer for the investors because the investors who are keen to invest in profitable companies which would fetch greater returns to them would naturally gravitate towards such companies. As for the existing shareholders, they should

continue to stay invested in the Heavy Electrical Equipments companies for greater returns on the investment.

This model is appropriate in the context of IRON AND STEEL INDUSTRY. There is also correlation between Leverage and CSR. The Regression model is appropriate. The following equation is derived:

CSR = 6.969 - 1.722 (Debt-Equity Ratio). It can be observed that on an average the companies in the Iron and Steel industry have contracted debt funds for financial requirements. However, the debt employed has a negative impact on their profitability .The use of debt cannot be profitable and can be even counter-productive when the rate of interest on the borrowed funds is higher than the borrowing company's rate of earnings. This serves as a as a wakeup call for the existing investors who may sell off their shares and exit at the right time to minimize losses or to get reasonable amount of appreciation of their shareholding. The potential investors may do well to carefully evaluate the companies' borrowing tendencies and future earnings potential and then take the call to invest or to look elsewhere for investment.

However, the result is an average of selected companies of this industry. It is possible that some companies may have favourable impact of debt on their profitability and some may have unfavourable impact of debt on their profitability. It can be concluded that negative impact is greater than positive impact when all the companies in this industry are considered and thus the final impact is reported to mean that debt has negative influence. Thus it is suggested that potential investors should investigate and analyse the status of individual company before investing their funds. If such companies are to be deficient in financial wisdom as regards used of debt, then it would be advisable for the investors not to invest in these companies and the existing

investors may choose to get rid of their investment and exit at the right time to minimize losses or to disinvest with reasonable amount of appreciation of their shareholding.

Concerning what is mentioned above, it may further be noted that the data of individual company should be analysed and performance of the company during the period of study should be analysed as the data has been averaged out for eleven years and the suggestion is based on the eleven years' average. It may be possible that the company may have performed exceedingly well for majority number of years out of eleven years but due to abnormal circumstances in a couple of years the company might have adverse impact of debt on profitability. Therefore, finally existing investors and potential investors should check status of individual company for the period of study before taking any investment-related decision.

This model is appropriate in the context of PHARMACEUTICAL INDUSTRY. There is also correlation between Leverage and CSR. The Regression model is appropriate. The following equation is derived:

CSR = 9.333 + 2.282 (Debt-Equity Ratio). It also reveals the fact that on an average all the selected companies in the Pharmaceutical industry have been able to make use of the debt funds judiciously and the same has been successfully used to augment profitability. It also follows that on an average the companies in this industry have been able to use debt in a profitable manner by following the financial wisdom that the company's earnings rate must be higher than the interest rate on the debt funds. This also serves as a good barometer for the investors because the investors who wish to invest in profitable companies would generously invest in such companies. And the

existing shareholders should continue to hold onto their shares for greater returns on the investment.

This model is appropriate in the context of POWER/ELECTRIC UTILITIES INDUSTRY. There is also correlation between Leverage and CSR. The Regression model is appropriate. The following equation is derived:

CSR = 16.189 + 0.230 (Debt-Equity Ratio). It can safely be surmised that all the selected companies in the Power/Electric Utilities industry, on an average, have been able to use the borrowed funds profitably. It also implies that on an average the companies' earnings rate must have been higher than the interest rate on the debt funds, for only then the leverage can give enhanced profitability. The investors who wish to invest in profitable companies would generously invest in such companies. And the existing shareholders would going by the profitability alone would continue to hold onto their shares for greater appreciation of their investment.

5.2 RECOMMENDATIONS

- The selection of area of corporate social responsibility must be need based.
- The choice of selection of corporate social responsibility must be based on requirement of respective geographical area of the states or nations.
- The detailed study on economic, social, medical, transport, education problems and other areas must be undertaken an all companies should work in those areas.
- The central and state government should provide some incentive to those companies which perform their duties for social responsibility.

- India is considered as young country. The young population is very significant. Thus India has to focus on problem like education and health. These two components would enhance economic status of the country. Another important area of corporate social responsibility is environment. The protection of environment will be the gift to the next generation.

- This study also suggests that when area wise analysis is done, areas like education, medical, environment and community welfare fall under A grade. This shows that many companies have selected relevant areas of social responsibility performance. The study suggests that infrastructure, safety, charity and Human Resource Development fall under B grade. It shows some companies have selected these areas of social responsibility. Today companies cannot ignore employees, customers and society. These areas are also very important for the different stakeholders of the company. The study also suggests that Art & Culture, Beauty, Sports and Agriculture fall under C grade. So the performance of these areas is very poor. These are the traditional areas of the country and historical past is associated with these areas. Therefore it is the responsibility of the companies to do significant contribution in these areas. Agriculture sector contributes significantly to GDP (Gross Domestic Product). So government also should encourage companies to work in this area.

REFERENCES

1. A.CevdetAydemir, Michael Gallmeyer and Burton Hollifield (2007), "Financial Leverage and the Leverage Effect- A Market and Firm Analysis", Tepper School Of Business, Commerce Chronicle Database (2007)

2. Aasia Asif, WaqasRasool and Yasir Kamal (2011) "Impact of Financial Leverage on Dividend Policy: Empirical evidence from Karachi Stock Exchange-listed Companies", African Journal of Business Management (Feb. 2011, vol. 5/4, ISSN 1993-8233)

3. Alan J. Auerbach (1983) "Real Determinants of Corporate Leverage", NATIONAL BUEREAUOFECONOMIC RESEARCH (NBER) WORKING PAPERSERIES (PAPER NO 1151), Cambridge

4. AnastasiyaShamshur (2009) "Is the Stability of Leverage Ratios Determined by the Stability of the Economy?" CERGE-EI (Centre for Economic Research and Graduate Education) Working Paper Series (ISSN1211-3298) paper No. 393 (Sept., 2009) and on www.ssrn.com (paper no 1502827)

5. AswathDamodaran (1999) "APPLIED CORPORATE FINANCE" JOHN WILEY & SONS (pp 305-347)

6. Bernadette Minton and Karen Wruck (2001), "Financial Conservatism: Evidence on Capital Structure from Low Leverage Firms" Journal Of Financial and Quantitative Analysis pp. 211-254

7. CA SachchidanandPachori and Dr.NavindraTotala (2012) "Influence of Financial Leverage on Shareholders Return and Market Capitalization: A Study of Automotive Cluster Companies of Pithampur, (.M.P., India)." 2nd International Conference on Humanities, Geography and Economic (ICHGE'2012) Singapore

8. CA SachchidanandPachori and Dr.NavindraTotala (2012) “Influence of Financial Leverage on Shareholders Return and Market Capitalization: A Study of Automotive Cluster Companies of Pithampur, (.M.P., India).” National University of Singapore’s Business Journal

9. DoronNissim and Stephen Penman (2001), “Financial Statement Analysis of Leverage and How It Informs About Profitability and Price-to-book Ratios”, Journal of Finance 52 pp169-214 ISSN 4536-7651

10. Dr. Umar Butt (2011), “Profits, Financial Leverage and Corporate Governance” The DeGroote School of Business Research Day, Business Day (2011, Vol. 56),Ontario in Canada

11. Dr.InnaRomanova (2012) “Leverage Dynamics and The Macroeconomic Conditions” “New Challenges of Economic and Business Development-2012”, University Of Latvia,

12. Edward Owens and Joanna Shuang Wu (2011) “Window Dressing of Financial Leverage” Wall street Journal

13. Erik Devos, UpinderDhillon, MuraliJagannathan and Srinivasan Krishnamurthy (2010) “Why are Firms Unlevered?” on www.ssrn.com (paper no 1107839) (DEC. 2010)

14. FabrizioCoricelii, Nigel Driffield, Sarmistha Pal and Isabelle Roland (2010), “Excess Leverage and Productivity Growth in Emerging Economies: Is There A Threshold Effect?” (IZA DP NO.4834), Institute for the Study of Labour

15. Franklin John and Muthusamy. K. (2011) “Determinants of Financial Leverage in Indian Pharmaceutical Industry” Asian Journal of Management Research

16. Gerald Garvey and Gordon Hanka (1997), "The Management Of Corporate Capital Structure: Theory and Evidence", University Of Texas, Austin

17. HarshanaKasseeah (2012) "Financial Constraints and Leverage Decisions in Small and Medium-Sized Firms" Journal of Economics And Behavioural Studies (Vol. 4, No. 1, pp. 55-65, Jan 2012, ISSN: 2220-6140),

18. J. Batty (1976) "Accounting For Managers" (Oxford Press, 1980) e-book available on google books and amazon online.

19. Jacob Sagi, U.C.Berkely and Mark Seasholes (2002) "When Good News Means Higher Risk…" Communique MIT, 2003 Revised, 2nd Issue (2003)

20. Jan Ericsson (2000) "Asset Substitution, Debt Pricing, Optimal Leverage and Maturity" the Working Paper series published by McGill University

21. Jean-Philippe Bouchaud, Andrew Matacz and Mark Potters (2001), "The Leverage Effect in Financial Markets: Retarded Volatility and Market Panic", Capital Fund Management

22. Kuljot Singh and James E. Hodder (1999) "Multinational Capital Structure and Financial Flexibility" community magazine of University of Wisconsin – Madison

23. Long Chen and XinleiZhao(2005), "Profitability, Mean Reversion of Leverage Ratios, and Capital Structure Choices", Social Science Research Network

24. M.Barclay ,C. Smith and R. Watts (1995) "Determinants Of Corporate Leverage and Dividend Policies" Journal Of Applied Corporate Finance 7, pp 4-19

25. Michael Faulkender and Mitchell Peterson(2003) "Does the source of Capital Affect Capital Structure?", National Bureau of Economic Research in its Working Paper Series (NO 2057)

26. Michael S. Long and Ileen B. Malitz (1988) “Investment Patterns and Financial Leverage”, NATIONAL BEREAUOFECONOMIC RESEARCH (NBER) WORKING PAPER SERIES, Paper No 1145(revised),

27. Murray Z. Frank and Vidhan K. Goyal (2007), “Capital Structure Decisions: Which Factors are Reliably Important?” on www.ssrn.com

28. Murray Z. Frank and Vidhan K. Goyal (2009), “Profits and Capital Structure” AFA San Francisco Meetings Papers Series

29. Myles Zyblock (1997) “Corporate Financial Leverage: A Canada – U.S.Comparison, 1961-1996” (No.111)

30. Myers S. (2004) “Principles Of Corporate Finance” –McGraw-Hill/Irvin 9the edition

31. Nancy Huyghebaert and Linda M. Van de Gucht (2002) “The Determinants of Financial Structure: New Insights from Business Start-ups” (paper no. 0203), Katholieke Universities Leuven, Social Science Research Network

32. OzdeOztekin (2011) “Capital Structure Decisions Around the World: Which Factors are Reliably Important?” communique of University Of Kansas

33. PetiaTopalova (2004) “Overview of the Indian Corporate Sector : 1989-2002”, International Monetary Fund, 2004 Working Paper Series (WP/04/64),

34. Prasanna Chandra (1999) “FINANCIAL AMANAGEMENT- THEORY AND PRACTICE” sixth edition, TATA McGraw-Hill (pp. 598)

35. Prashant Gupta, AmanShrivastav and Dinesh Sharma (2011), “Capital Structure and Financial Performance: Evidence from India” UK based journal “ACCOUNTING” (Vol. 12, 2011)

36. Prof.I.M.Pandey (1979 & 1997) “FINANCIAL MANAGEMENT” VIKAS PUBLISHING HOUSE PVT. LTD. (seventh edition pp. 575)

37. Prof.M.Y. KHAN and Prof.P.K.JAIN (1997), “Financial Management- Text and Problem” TATA McGraw HILL (SECOND EDITION, pp. 417-444)

38. Prof.SheebaKapil (2011) “Financial Management”, PEARSON (FIRST EDITION, pp. 249)

39. Putu Anon Mahadwartha (2002) “The Association Of Managerial Ownership With Dividend Policy And Leverage Policy: INDONESIAN FIRMS” “Surviving Strategies to Cope with The Future”, Universities Atmajaya Yogyakarta, Indonesia

40. PuwanenthirenPratheepkanth (2011) “Capital Structure And Financial Performance: Evidence From Selected Business Companies In Colombo Stock Exchange Sri Lanka” “ResearchersWorld– Journal of Arts, Science and Commerce” (Vol. – II, Issue –2, April 2011, ISSN NO. 2231-4172)

41. Rahul Kumar (2007) “Determinants Of Firm’s Financial Leverage : A Critical Review”(id1080883)

42. Rajan and Zingales (1995), “What do we know about Capital Structure? Some Evidence from International Data”, Journal of Finance, Vol. 50, No. 5 pp.1421-1460

43. Ram Kumar Kakani, BiswatoshSaha and V. N. Reddy “Determinants Of Financial Performance Of Indian Corporate Sector In The Post-liberalisation Era : An Exploratory Study”, National Stock Exchange Of India Limited, NSE

Research Initiative (November 2001, paper no.5), www.ssrn.com (paper no.904983),

44. Ravi M. Kishore (1997) "Advanced Management Accounting", Taxmann's Publication 1997 2nd Edition.

45. Ricardo Bebczuk and Arturo J. Galino (2010), "Corporate Leverage, Cost Of Capital and Financial Crisis in America", Research Department of the Inter-American Development Bank,

46. Sandip Sinha (2009) "Corporate Leverage- Revisited" (ISBNNO.9788184651430)

47. Stein Frydenberg (2004), "Theory Of Capital Structure – A Review", Norway Business World,

48. Susana MenedezRequejo (2002) "Small Vs. Large Firms Leverage: Determinants and Structural Relations" European Financial Management Association (EFMA), Social Science Research Network

49. TadeuszDudycz "The Different Faces of Leverage" on www.ssrn.com

50. Thomas Dangl and Josef Zechner (2006) "Debt Maturity and the Dynamics of Leverage", European Finance Association Meeting, Zurich, Social Science Research Network (paper id- 890228)

51. Tobias Adrian and Hyun Song Shin (2008), "Liquidity and Leverage", Federal Reserve Bank of New York, Staff Reports(report no. 328),

52. V.V. Acharya and S.Viswanatahn (2010), "Leverage, Moral Hazard and Liquidity", New York University Stern School of Business, Journal Of Commerce, (vol. 5, pp 32, revised 2011)

53. VassilMihov (2005) “The Effect of Financial Deficit and Target Leverage on Capital Structure and Debt Characteristics: Evidence from First-time Debt Issuers” M.J. NEELEY SCHOOL OF BUSINESS JOURNAL (2005 Vol. 12)