Chapter 3

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Introduction:

Profit is the main goal for establising a business concern. Profit is the primary motivating force economic activity. Profit have to be earned and they have got to be earned on a regular or continuous basis. Business concerns that are unable to generate sufficient profit from their operations cannot remunerate the providers of their capital and this makes it difficult for them to maintain the continuity of their existence. Profits are needed not only to remunerate capital but also to finance growth and expansion. “Profit are the record card of the past, the inventive lode star for the future. If an enterprise fails to make profit, capital invested is eroded and in this situation prolongs the enterprise ultimately ceases to exist.”[1] Profit is a measure of surplus wealth generated by a business concern from its operations. The measurement of profits in a continuing business concentrates place on periodic basis. The word profit implies a comparison of the operations of business between two specific dates, which are usually separated by an interval of one year.

Profit is a single for the allocation of resources and a yardstick for judging the managerial efficiency. To the financial management, profit are the test of efficiency and a measure of control, to the owners, a measure of the worth of their investment, to the creditors, the margin of safety, to the employees a source of fringe benefits, to the government a measure of taxable capacity and the basis of legislative action, to the country profit are index of economic progress, national generated and rise in the standard living.[2]

Concept of Profit:

Profit is the main objective behind the establishment of an any business organization. It is the engine that drive the business enterprise.

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1 Souvenie Published at IV conference of Asia and Pacific Accountants, New Delhi 1965 P-143

2 J.F.Weston and E.F.Brigham “Managerial Finance” Illionis Dryden Press 1978 P-150

Importance of profit to different parties Weston and Brigham pointed "To the financial management, profit is the test of efficiency and a measure of control, to the owners; a measure of the worth of their investment, to the creditors, the margin of safety, to the government a measure of taxable capacity and basis of legislative action; and the country profit is an index of economic progress, national income generated and rise in the standard of living"[3]. Prof. Robbins "Profit are the motivating force for economic activity." Profit is defined in a number of ways by economist, accountant and others according to its use and purpose.

The survival of any business depends upon its earning capacity. Thus if an enterprise fails to make profit capital invested is eroded and if this situation prolongs, the enterprise ultimately ceases to exist. In fact profit is the soul of business without which it is lifeless. Indeed the efficiency of a business concern is measured by the amount of profits earned. The larger the profits the more efficient and profitable the business is demand to be. According to R.R.Gilchrist, the profit is the ultimate measure of effectiveness a profitable company is likely to after not only security of employment but also promotion prospects, job opportunities and the intense personnel motivation the comes from being associated with success.

Accounting Profit:

The excess of revenue over related costs applicable to a transaction, a group of transactions or the transactions of an operating period is profit. In accounting terminology "The profit of a business during given period is the excess of income over expenditure for the period."[4] General meaning of the profit is "Difference between the sale price and the cost of producing and selling that production is its profit."

Accounting profit is the classified into three categories:

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[3] Weston and Brigham "Managerial Finance" Illionis Dryden New Delhi -1965 P-143

[4] M.C. Gupta profitability Analysis. An empirical approach Jaipur pointer publisher 1989 P-1

1) **Gross Profit :**The excess of total gross revenue over the revenue expenditure is the gross profit.

2) **Operating Profit:** The excess of the total operating revenue over the total cost of operation is the operating profit.

3) **Net Profit:** The excess of the total gross revenue over the total cost of operation is the net profit.

Net profit further divided into three parts:

- Net Profit before interest.
- Net Profit before tax
- Net Profit before interest and tax.

Economic Profit:

Economists are of the view that deduction of 'implicit' as well as 'explicit' cost of a period from the revenue of that periods gives the figure of economic profit. 'Implicit' cost means the reward of those factor of production which are owned by the entrepreneur himself. The implicit costs are also termed as 'Opportunity Costs'.

Back in 1939 the famous economist J.R.Hicks defined a man's income as "the maximum value which he can consume during a weak, and still expect to be as well of at the end of the weak as he was at the beginning."

Economic Profit = Accounting Profit – Implicit costs

Or

Economic Profit = Total Revenue – (Explicit cost + Implicit cost)

In economics the accounting profit is known as gross profit while the profit remaining after substracting the implicit cost of owner's time and capital invested is known as 'pure profit'.

Social Profit:

Social profit may be defined as the difference between social benefit and social cost. In the social benefit include the creation of employment opportunities, providing jobs to the weaker sections of the society on a preferential basis, providing the consumer a wide range of variety, creating good township, offering good condition of work, improvement of tax base for the entire community and attract communication which would not otherwise be made available. In the social cost include the deficiency due to bank ruptcy, air pollution, water pollution, impairment of human factor of production, depletion and destruction of animal resource, costs associated with unemployment and idle resources, monopoly and social losses, and production of dangerous products and explosives.

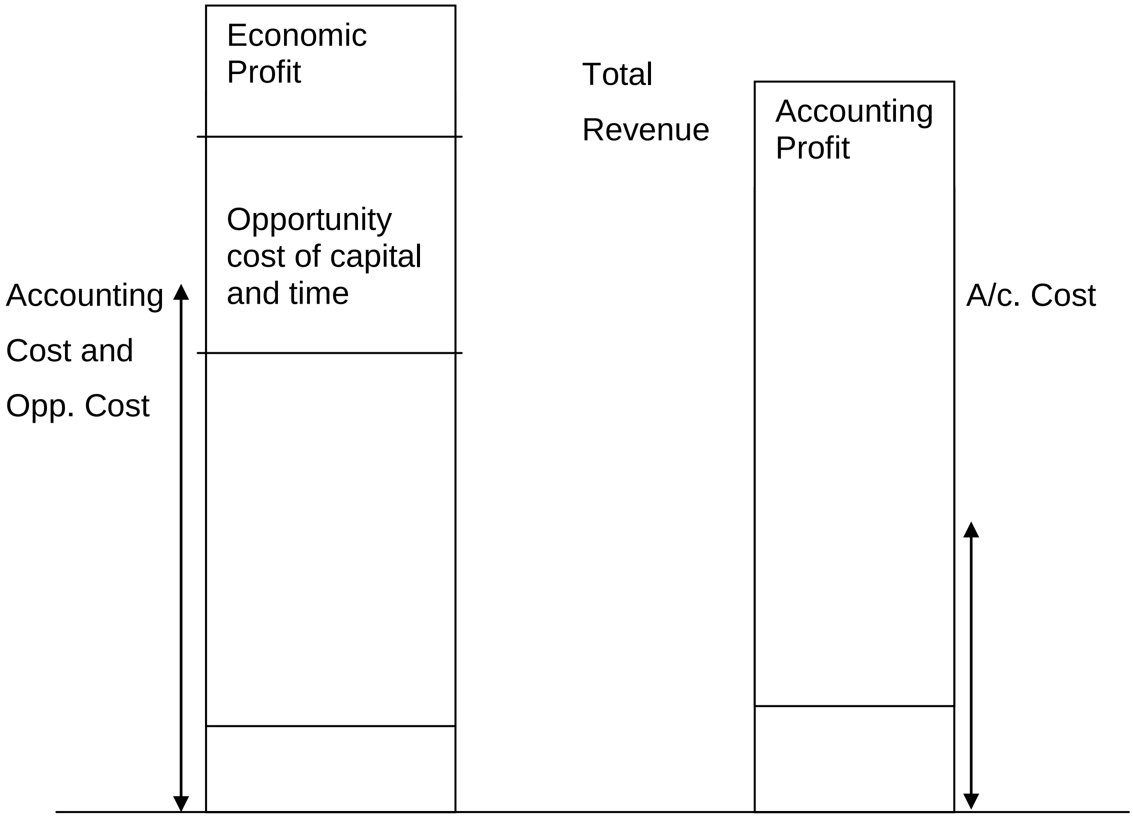
Business Profit:

Businessmen and accountants usually look upon the entire return to stock holders as profit or income, and do not regard any part of return as a cost. Thus, business profit is pure profit plus the normal return on investment, which is also the difference between end-of-period wealth and initial investment.

Accounting profit V/s. Economic profit:

The concept of accounting profit and economic profit are clear from the view point of opportunity cost of capital invested and cost of owner's time. economic profit in include the opportunity cost of capital invested and cost of owner's time is considered while calculating accounting profit it is ignored by accountants. In accounting the profit is deemed to be the joint result of various factors of production while in economic it is termed as the rent liabilities the wages of owner and the reward of risk bearing.

Diagrammatically the relationship of accounting profit and economic profit as under:



(Source : R.L. Miller, Economic Today New York 1979-P-391)

Concept of Profitability:

The word 'Profitability' is composed of two words viz. 'Profit' and 'Ability', To obtain profit from accounting point of view total expenses are less from the total revenues for a given period. On the basis of the concept profitability may be defined as the ability of the investment to earned as the return from its use. The words ability means the earning power or operating performance of the concern on its investment.

The word profitability is a modulation of two words profit and ability. Profit is the bottom line of the financial statement the meaning of profit derives according to the purpose and usages of figures. While term ability indicate the power of the business organization to generate profits. Ability is also referred to as "earning power or operating performance of the concerned investment.[5]

[5] B. I. Verma "Analysis of Financial Statement" Arihant Publisher, Jaipur 1988 P-98

The word ‘Profitability’ may be defined as the ability of a given investment to earn a return from its use.[6] It can be remarked that ‘profitability’ is helpful in providing a useful basis for measuring business performance and overall efficiency.

B.B.Howod and M.Upton observed that the word profitability may be defined as the ability of an investment to earn to return on its use. Thus profitability is the ability of an organization to earn profits in other words, profitability is a composite concept relating the efficiency of an organization to earn profit.

Gibson and Boyer “Profitability is the ability of the firm to generate earning”.[7] Franks and Broyles “The expected return from the capital markets represents an opportunity cost. Since incrementally companies can employ their funds in the capital market. That market provides the appropriate reference point against which to measure profitability. Put another way a profitable investment project is one which provides a return sufficient to attract capital from the capital market”.[8]

Profitability is distinguished from “Profit”. Profit refer to the absolute quantum of profits. Whereas the profitability refers to the ability to earn profit. W. M. Harper Profitability is a relative measure, It indicates the most profitable alternative. Profit on other hand, is an absolute measure, it indicates the overall amount of profit earned by a transaction. Very high profit does not always indicate a sound organizational efficiency and low profitability is not always a sign of organizational sickness.

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[6] Upton “Introduction to Business Finance” MCGraw Hill Book Co. 1961 P-150

[7] Gibson and Boyer “Financial Management Analysis” CBI Publishing Co. inc. Boston 1979 P-189

[8] Franks and Broyles “Morden Managerial Finance” John witey and sons ltd. Chichester 1979 P-20

$$\text{Profitability} = \frac{\text{Sales}}{\text{Operating Assets}} \times \frac{\text{Operating income}}{\text{Sales}}$$

$$= \frac{\text{Operating income}}{\text{Operating Assets}}$$

It can be remarked that profitability is helpful in providing a useful basis for measuring business performance and overall efficiency. Profitability is the relation between profit and investment made.

Measurement tools of Profitability:

According to Murthy V.S. “The most important measurement of profitability of a company is ratio i.e. profitability of assets variously referred to as earning power of the company return on total investment or total resources committed to operations.”[9]

According to Block and Hirt “The income statement is the major device for measuring the profitability of a firm over a period of time.”[10] Some managerial decision like raising of additional finance, further expansion, problem of bonus and dividend payments rest upon this measurement. It can be measured for a short term and long term.

Profitability provides overall performance of a company and useful tool for forecasting measurement of a company’s performance. The overall objective of a business is to earn a satisfactory return on the funds invested in it, while maintaining a sound financial position, profitability measures financial success and efficiency of management.”[11]

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[9] Murthy V.s. “Management Finance”. Vikils Feller and simons Ltd. Bomaby 1978 P-79

[10] Block and Hire “Fundamental of Financial management” Richard D. Irwid Inc. Homewood Illinois 1978 P-24

[11] N.V. Dave “Industrial sickness and some key areas of management”, A thesis submitted for the degree of Ph. D. in comm. Sau. Uni. Rajkot 1984. P-61

Significance of Profitability:

The aim of a firm is to derive maximum profit. Profit and profitability play the same role in business as blood and pulse in human body. Without adequate blood and ability to generate blood, human existence is not possible. The same is true for any business. It is very difficult for a firm to service without prospects and ability to earn adequate profit.

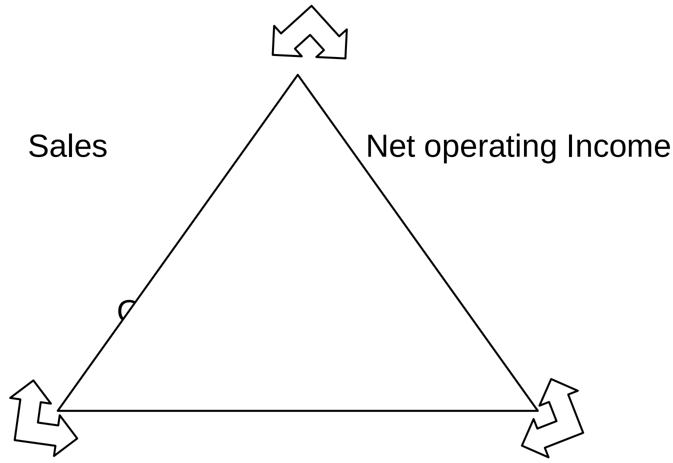
The profitability is the most powerful motive factor in any business. Any company goal is to maximize profit or not the users of an accounts are certainly interested in its profitability. Therefore the overall objective of a business to earn at least a satisfactory return on the funds invested, in it, consistent with maintaining a sound financial position.

Factors affecting to profitability:

The following two factors which affected the profitability of any organization

1) The Operating Profit Margin
2) The Rapidity of Turnover of Capital Employed.

Profitability is the product of two factors and therefore maximum or operating profit can be earned only by maximizing them. In technical terms the combination of these two factors is known as the 'Tringular Relationship'. Its significance exits not only in its use as an analytical tool but also because the profitability ratio can be calculated directly from the specific earnings and investment data.



It can also be presented in an equation form in the following manner.

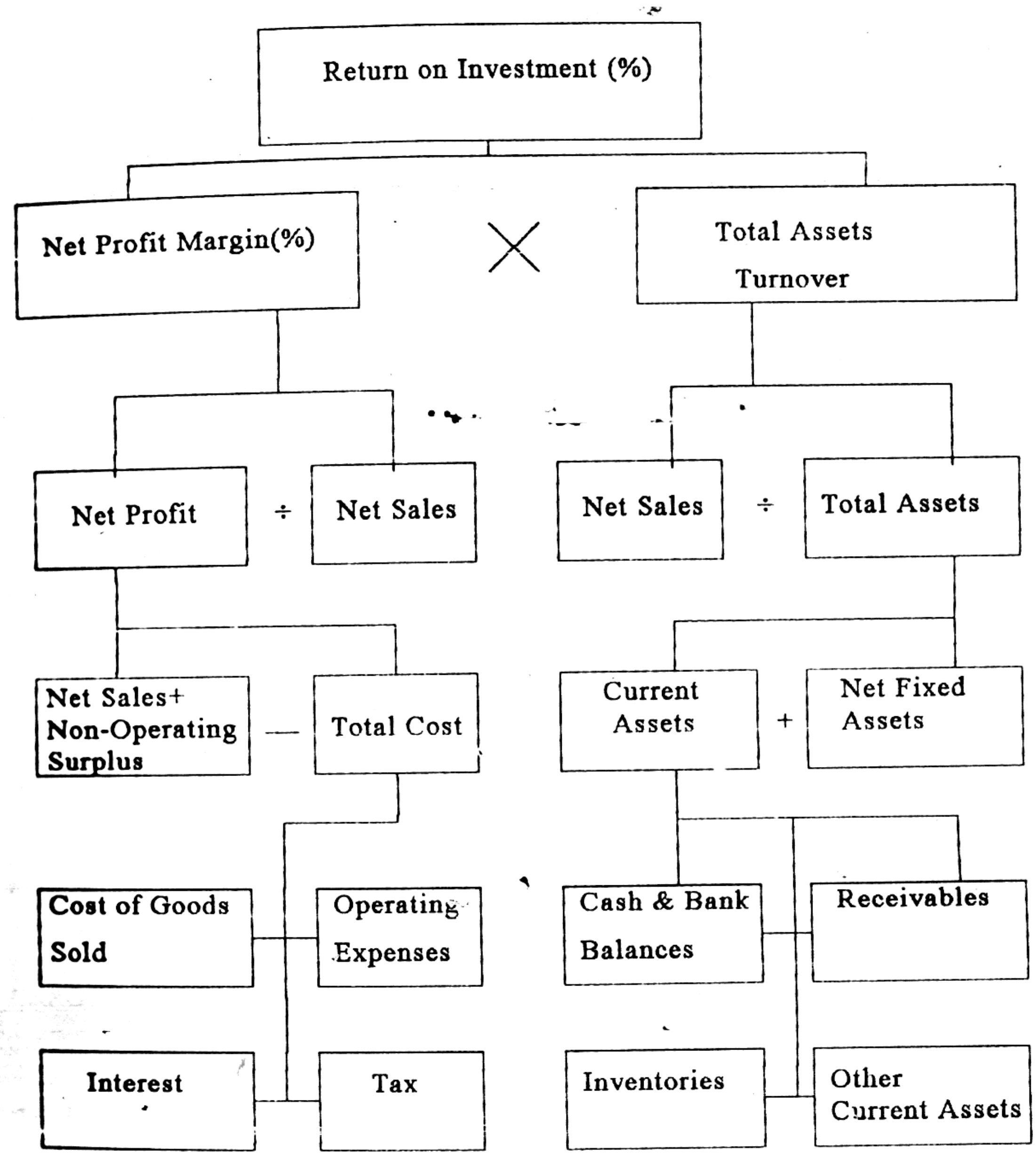
$$\text{Profitability} = \frac{\text{Sales}}{\text{Operating Assets}} \times \frac{\text{Operating Income}}{\text{Sales}}$$

$$= \frac{\text{Operating Income}}{\text{Operating Assets}}$$

The term operating income and the operating assets are used to describe capital employed and income from utilization of capital employed in the business. The inter relationship of the above ratios has to be understood with a view to analyzing profitability. The inter relationship can be understood on the basis of the Du-Pont chart.

The Du-Pont Chart

The chart was originally developed by E.I. Du-Pont De Nemours & Company, Welmington USA. This chart popularly known as DU – Pont chart in 1921. It is an operationally useful tool for evaluating profitability. The profit performance of business firms can be analyzed with the help of Du – Pont chart.



It is evident from the Du – Pont chart that a number of factors contribute a great deal to the final rate of return on investment. The first sequence starts with the net profit margin shown in percentage, which is calculated by dividing net profit Net Profit means the net sales plus non operating surplus minus total cost. Total cost include the cost of goods, sold, operating expenses, Interest and tax. The second sequence starts with total assets turnover, determined by dividing net sales by total assets. Total assets of course represents current assets plus net fixed assets. Current assets includes cash and bank balance, receivables, inventories and other current assets.

The two tier approach concentrates attention on the separate forms contributing to profit. Improvement can be accomplished either through more effective use of available capital measured by the turn over sequence or through a better relationship between sales and expenses measured by the profit margin sequence. For providing standard of evaluations, calculation are made on the ratio of return on investments assets turnover and profit margin for comparable companies. Financial decisions affect both the size of earnings stream or profitability and riskness of the firm. Policy decisions affect risk and profitability. [12]

Lastly, the financial decisions and policy matter decisions to the various factors shown in Du-Pont chart also affect the profitability. Financial decisions after both the size of earnings stream or profitability and riskiness of the firm, policy decisions affect risk and profitability.[13]

Profit and Profitability:

Profit are the cream of the business without it may not serve the purpose its true that "profit are useful intermediate beacon towards which a firms capital should be directed"[14] West on and Brigham mentioned that "To the financial management profit is the test of efficiency and a measure of control, to the owners a measure of the worth of their investment, to the creditors the margin of safety, to the government a measure of taxable capacity and a basis of legislative action and the country profit is an index of economic progress national income generated and the rise in the standard of living.[15]

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12 Sncial.C.Kurchhal, "Finance Management" Chaitanya Publishing House,1977 P-71

13 J.F.Weston and E.F.Brigham "Essentials of Marginal Finance" P-4

14 Bradley J. F. "Administrative Financial Management" New York 1964 P-104

15 Westen and Brigham "Management Finance" cited in Sharma Akhileshwar "Profitability Analysis of Drugs and Pharmaceutical Companies in India" A Thesis submitted for the degree of Ph.D. in the faculty of Commerce Saurashtra University 1992 P-1

Which profitability is an outcome of profit? In the words no profit derived to words any profitability. It may be remarked that the profit making ability might denote a constant or improved or deteriorated state of affairs during a given period. Thus profit is an absolute connotation where as profitability is a relative concepts.[16]

Profit and profitability are two different concepts, although they are closely related and mutually interdependent, playing distinct role in business. R.K. Kulshrestha mentioned that "profit in two separate business concerns might be the same and yet more often that note their profitability could differ when measured in terms of the size of investment."[17] Hence, it can be said that profitability is broader concept comparing to the concept of profit.

Techniques of Measuring Profitability:

The measurement of profitability is as essential as the earning of profit itself for a business concern. To measure such a crucial phenomenon the ratio analysis techniques may be use.

Ratio Analysis:

Ratio Analysis is the principal technique used to measure the profitability of a business enterprise. The growth development and the present position of a business in terms of profit can be analyzed through the calculation of various ratios. The term accounting ratio is used to describe significant relationship which exist between figures shown in financial statement Profit and Loss Account and Balance Sheet. In financial analysis a ratio is used as an index or yardstick for evaluation of the financial position and performance of a firm. The technique involves four steps determining the

[16] Ghoyal B. R. "Financial Management of State Enterprise" Print well Publisher, Jaipur 1986 P- 172

[17] R.K. Kulshrestha "Profitability in India's steel industry during the 1960-70" A thesis submitted for the degree of Ph.D. department of commerce University of Rajashthan Jaipur 1973 P-83

accounting ratio to be used computation of the ratio comparison of ratio with the standard set and interpretation. The interpretation of ratio required careful and detailed study and sound judgment on the part of the analyst.

Significance of Ratio Analysis:

Ratio analysis is an important tool of financial analysis. The significance of the ratio analysis depends on the purpose of which it is made by the analyst. The important point of significance are as under:

- Simplifies Accounting Figures
- Measure Liquidity Position
- Measure Long-term Solvency
- Measure Operational Efficiency
- Inter – firm comparision is Possible
- Trend Analysis may be Easier
- Managerial Uses

Limitation of Ratio Analysis:

Ratio analysis suffers from a number of draw back :

- Difficulty in comparision due to
    - Different procedures and practice followed by different firms,
    - Different accounting periods
    - Every firms differs in age, size, etc.
- Price level changes between two period
- Difference in accounting method
- Several ratio to draw conclusions
- Ratio analysis conveys observations
- Ratio may be misleading

Classification of Ratios:

Ratio can be classified into two different categories depending upon the basis of classification:

1) The Traditional Classification
2) Classification Based on Nature of Ratios

The Traditional Classification:

This is the conventional mode of classifying ratios where the ratios are classified on the basis of information given in the financial statement.

- **Profit and Loss Account Ratios:**

The figures used for the calculation of these ratios are usually taken out from the profit and loss account. These ratios are also called 'Income Statement Ratios' or 'Operating Ratios'.

- **Balance Sheet Ratios:**

The components for computations of these ratios are drawn from balance sheet. These ratios are called 'Financial Ratios'.

- **Combined Ratios:**

The information required for the computation of these ratios is normally drawn from both the Balance Sheet and Profit and Loss Account.

Classification Based on Nature of Ratio:

Now –a-days it is the most popular mode of classifying the ratios. To get a correct view of the profitability and financial soundness of a firm and to make a systematic study. Ratio are classified as under :

Liquidity Ratio:

These ratios are used to measure the ability of the firm to meet its short term obligations out of its short term resources. Such ratios highlight short term solvency of the firm

- Current Ratio
- Liquid or Quick Ratio
- Absolute Liquidity Ratio

Activity Ratios:

These ratios enable the management to measure the effectiveness or the usages of the resources at the command of the firm.

Following ratios are included in this category :

- Stock Turnover Ratio
- Debtors Turnover Ratio
- Creditors Turnover Ratio
- Total Assets Turnover Ratio
- Fixed Assets Turnover Ratio
- Current Assets Turnover Ratio
- Working Capital Turnover Ratio
- Capital Turnover Ratio

Profitability Ratios:

These ratios are intended to measure the end result of business operations. Profitability is a measure of the ability to make a profit expressed in relation to the sales or investment.

Based on Sales:

- Gross Profit Ratio
- Net Profit Ratio
- Operating Ratio
- Expenses Ratio
- Operating Profit Ratio

Based on Investment:

- Return on Capital Employed
- Return on Proprietors Funds
- Return on Total Assets

Leverage Ratios:

These ratios help in measuring the financial contribution of the owners as compared to that of creditors and also the risk in debt financing following are such important ratios:

- Debt – Equity Ratio
- Proprietary Ratio
- Solvency Ratio
- Fixed Assets Ratio
- Capital Gearing Ratio
- Debt Service Ratio

Investment Analysis Ratio:

These ratios are helpful to the shareholders in analysing the perspective investment in the company. Following ratios are included in these ratios:

- Earning Per Share
- Price Earning Ratio
- Dividend Per Share
- Dividend Yield Ratio
- Dividend Payment Ratio
- Reserve to Capital Ratio

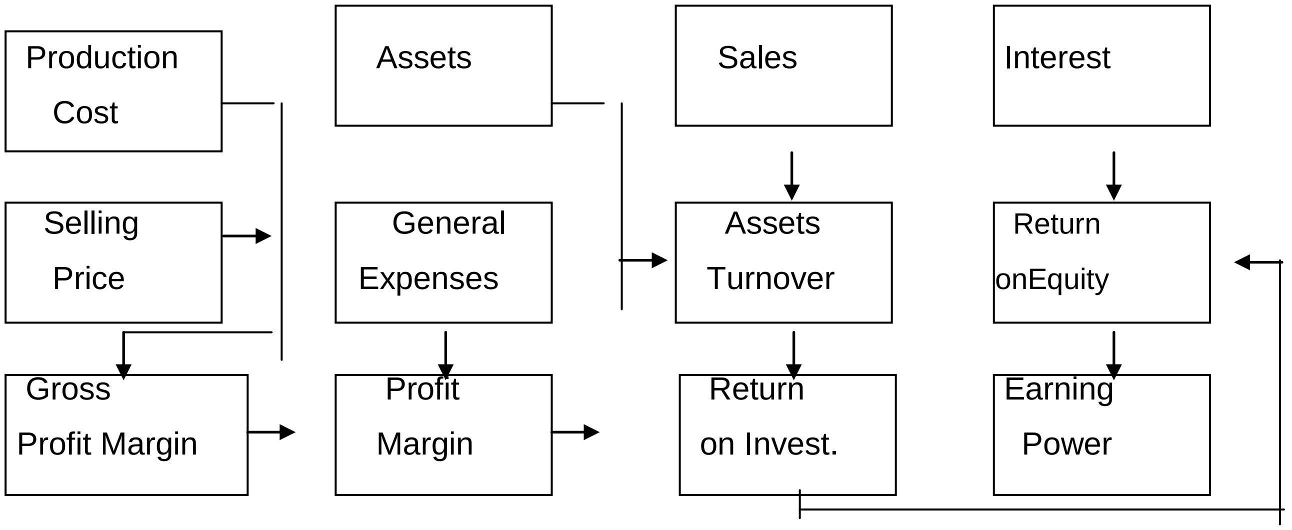
Coverage Ratio:

The coverage ratio measure the relationship between what is normally available from operations of the firm's and claims of the out – siders. The following ratios are included.

- Interest Coverage Ratio
- Dividend Coverage Ratio
- Total Coverage Ratio

Factor Affecting to Profitability Ratio:

However there are few factors affected to the firm's profitability. Each factor in term will affect the profitability ratio.



(Source: John J. Hampton op cit P-No-104)

Above figure stated that every factor affects to the earning power, directly or indirectly. The reason is one ratio explains to another.

Step in Ratio Analysis:

The important steps involved in Ratio Analysis are four in number which are presented below

1. Collect all data required for computing the necessary ratio which in turn depends upon the purpose of calculating the ratios.
2. With the help of the about information, compute the necessary accounting ratio.
3. Compute the ratio so computed either with the ratios of the same company for the previous years or with the standards set or with the ratios of its competing firms or with the ratios of its industry's averages and
4. Interpret the ratios in the light of the comparisons, draw interences and prepare and submit reports to management.

Concept of Capital Structure:

The term ‘structure’ has been associated with the term ‘capital’. The term ‘capital’ may be defined as the long term funds of the firm. Capital is the aggregation of the items appearing on the left hand side of the balance sheet minus current liabilities. In other words capital may also be expressed as follows Capital= Total assets- Current Liabilities.[18]

The Random House Dictionary of the English defines the word ‘Structure’ as mode of building of construction or organization or arrangement of parts, elements or constituents, a pyramidal structure. Anything composed of parts arranged together in someway and organization. The system of relations between the constituent groups of a society. To give a structure organization or management to, construct a systematic framework for. Essential the word structure is a term used in the science of engineering. In case of construction of a building there are some standard proportions in which various element are integrated together.

For getting a good quality construction, sand and cement are mixed in the ratio 4:1. Taking use from this analogy it is expected that business enterprises while raising the resources of capital. This is the basis for the concept of capital structure.

The concept of capital is understood variously. Capital structure is defined in two ways. According to some authors capital structure refers to the relationship between the long term debts and equity. In other words it takes into consideration only the long term sources of capital. It includes short term capital from its purview. The R.B.I. and all Indian financial institutions also use the turm in this sense. As a matter of fact, the controller of capital issues fixed a guideline for the capital structure of companies basing on the relation between long turm debt and equity. On the other hand some believe that capital structure refers to the relationship among all sources of capital. They

[18] Ravi M. Kishor “Financial Management” Taxmann Allied Services Pvt. Ltd. New Delhi

do not want to distinguish between long turm and short term sources. In the opinion of Walker and Baughn Capital structure is synonymous with total capital this term refers to the make up the credit side of claims among trade creditors, bank creditors, bond holders etc.[19]

Lindsay and Sametz feel that in view of the great importance of bank credit and trade credit it seems artificial to omit short term or informal debt from capital structure problems especially for small firms where current liabilities compromise a large part of the sources of funds.[20]

In the words of Prof. Panday Capital Structure is the term known as financial plan that refers to the composition of long term sources of funds such as debentures, long turm debts, preference share and ordinary shares capital including reserves and surplus.[21] Again capital structure is frequently used to indicate the long term sources of funds employed in a business enterprise.[22]

The optimal capital structure would be the one at which the total value of the firm is greatest and the cost of capital is the lowest at the structure, the market price purchase of stock is maximized.[23] generally, capital denotes the proprietary equity. It includes paid up value of the share capital, reserve and surplus or that means total assets minus total external liabilities. Capital structure is the permanent by long turm debt, preferred stock and networth.[24]

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[19] W. Wakker, Ernest Essentials of Financial Management. The Prentice Hall of India 1980 2nd Edition P-97

[20] Lindsay and A.W.Robert Sametz, Financial Management An Analytical Apporch P-428

[21] Panday I.M. “Financial Management” p-223

[22] Wessel R.H. “Principal of Financial Analysis” p-29

[23] Van Horne James “Financial Management and Police” P-225

[24] Weston Brigharm “Managerial Financial”p-258

Though the concept of optimal capital structure is controversial and the issue is of unsettled nature it is hoped that the following presentations will provide the conceptual background necessary to evaluate capital structure. David Durand, Modigliani and Miller, Donaldson, Alichian Kessal, Schwartz and Ezra soloman and other have made a great contribution to the development of theories at capital structure. Basically there are two opposite schools one of which is headed by Ezra soloman and the other by Modigliani and Miller.

David-Durand's Approach:

Durand has proposed two extreme views for the valuation of the earning of a company. The Net Income Approach and Net Operating Income Approach

Net Income Approach:

This approach has been suggested by Durand. According to this approach capital structure decision is relevant to the valuation of the firm. Under this approach higher debt content in the capital structure will result in decline in the overall or weighted average cost of the capital. This will cause increase in the value of the firm and consequently increase in the value of equity shares of the company. Reverse will happen in a converse situation.

Assumptions:

The net income approach is based on the following assumption.

- The cost of debt is cheaper than the cost of equity
- The income tax has been ignored
- The cost of debt capital and cost of equity capital remain constant i.e. investors in evaluating the risk.

The value of the firm on the basis of NI approach can be ascertained as follows

V= S+B Where,

V= Value of Firms

S= Market Value of Equity

B= Market Value of Debt

Market Value of Equity can be ascertained as follow

$S = Ni / Ke$ Where,

S= Market Value of Equity

Ni= Earnings available for equity shareholders

Ke= Equity Capitalization rate

Net Operating Income Approach:

This approach has been suggested by Durand. In the Net Operating Income Approach the value of a company is determined by capitalizing the company's net operating income. It means the cost of equity is assumed to increase linearly with leverage. As a result the weighted average cost of capital remains constant and the total of the firm also remains constants as leverage is changed.

Assumptions:

This approach is based on the following assumption.

- The split of total capitalization between debt equity is not essential or relevant
- The equity shareholders and other investors i.e. the market capitalizes the value of the firm as a whole
- The business risk at each level of debt equity mix remains constant therefore overall cost of capital also remains constant
- The debt capitalization rate is constant
- The corporate income tax does not exist.

According the NOI approach the value of a firm can be determined by the following equation

$V = EBIT / k$ Where,

V= Value of Firm

EBIT= Earning Before Interest and Tax

K= Overall Cost of Capital

Optimum Capital Structure:

According to Net Operating Income Approach the total value of the firm remains constant irrespective of the debt equity mix or the degree of leverage.

The market price of equity shares will, therefore also not change on account of change in debt equity mix. Hence, there is nothing like optimum capital structure. In those cases where corporate taxes are presumed, theoretically there will be optimum capital structure when there is 100% debt content. This is because with every increase in debt content 'k' declines and the value of the firm goes up. However due to legal and other provisions, there has to be a minimum equity. This means that optimum capital structure will be at a level where there can be maximum possible debt content in the capital structure.

Traditional Approach:

This traditional approach was given by Ezra Soloman[25] Treditional Approach is the mid-way between the Net Income and Net Operating Incone approaches. If is a compromise between the two approaches It is also known as "Intermediate Approach". Traditional approach partly takes some futures of NI approach and NOI approach.

Traditional approach is similar to NI approach to the cost of capital and value of the firm are dependent of capital structure affects the cost of capital and value of the firm but it does not accept that the value of firm will necessarily increase for all degree of leverage. Traditional approaches support the view of NOI approach that beyond a certain level of degree of leverage the overall cost of capital increases, leading to decrease in the total value of the firm. But it differs from NOI approaches in the sense that the overall cost of capital will not remain stable for all degree of leverage. Traditional approach views that judicious use of debt equity mix helps to increase the firms total value and reduce the overall cost of capital. The rationale behind this view is that debt is relatively cheaper source of long term fund when compared to rising fund by issue of equity share.[26]In other words the overall cost of capital will decrease with the use of debt.

[25] Soloman E. "The theory of Financial Management" New York Colombia University Press 1963 P-92

[26] Barges Alexander "The Effect of Capital Structure on the Cost of Capital" New Delhi Prentice Hall Inc. 1963 P-11

Main Propositions:

The following three are the main propositions of traditional approach

- The pretax cost of debt remains more or less constant up to a certain degree of leverage but rises thereafter of an increasing rate.
- The cost of equity capital remains more or less constant rises slightly up to a certain degree of leverage and rises sharper there after, due to increased perceived risk.
- The overall cost of capital as a result of the behavior of pretax cost of debt and cost of equity behavior the following manner, It
  - Stage-I Increasing firm value
  - Stage-II Optimum value of firm
  - Stage-III Decline in firm value.

  The traditional approach suggests that three is a range of capital structure in which the cost of capital is the minimum and the value of the firm is maximum.

There are many variations of the traditional approach, but all the supporters of the traditional approach agree that the cost of capital declines and value of firm increases with use of debt in capital structure.

Modigliani Miller Approach:

Franco Modigliani and Morton Miller both Nobel Prize winner in financial economics have propounded the capital structure theory. The M.M. theory is identical with net operating income theory in the absence of corporate taxes and net income theory when corporate taxes exist.[27]

Basic Propositions:

The following three basic propositions of the MM approach

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[27] M.M. "The Cost of Capital, Corporate Finance and the theory of investments" American Economics Review XL VIII June 1958

- The overall cost of capital and the value of the firm are independent of the capital structure. In other words k and v are constant for all levels of debt and equity mix. The total market value of the firm is given by capitalizing the expected NOI by the rate appropriate for the risk class.

- The cost of equity is equal to capitalization rate of a pure equity stream plus a premium for the financial risk. The financial risk increases with more debt content in the capital structure. As a result cost of equity increases in a manner to off set exactly the use of a less expensive source of funds represent by debt.

- The cut-off rate for investment purposes is completely independent of the way in which an investment is financed.

Assumption:

- **Perfect Capital Market:** Investor are free to buy or sale securities. They are rational and every information is available to them.

- **No Transaction Cost:** No cost like commission, brokerage etc. is invested in purchase or sale of securities.

- **Homogeneous Risk Class:** The expected earnings of all the firms have identical risk characteristics. The firms with in a class have the same degree of risk.

- **Risk:** The risk in terms of expected earning should also be identical for determination of market value of shares.

- **No Corporate Texes:** Initially M-M have assumed that no corporate tax is paid but later on in 1969 they removed this assumption.

Arbitrage Process:

Arbitrage process is the process of selling a security in a market of higher value by purchasing it in a market of lower market.[28]

A. When the value of the Levered firm is Higher:
   - An investor will sell his investment in the levered firm
   - Investor will borrow proportionate to his share of debt of the levered firm
   - Investor will purchase securities of the unlevered firm equal to his percentage equity holding in the levered firm
   - In the switching over process, investor will earn from the unlevered firm the same or higher income as from the levered firm with reduced or full investment outlay

B. When the value of the unlevered firm is Higher:
   - Investor will sell his investment in the unlevered firm
   - Investor will buy securities of the levered firm equal to his percentage holding in the unlevered firm
   - In the process investor will earn the same income from the levered firm with a reduced investment outlay or higher income with his total investment.

Choice of Capital Structure:

A firm has the choice to raise funds for financing its investment proposed from different sources in different proportions. It can,

1. Exclusively use debt or
2. Exclusively use equity capital or
3. Exclusively use preference capital or
4. Use a combination of 1 and 2 in different proportion or
5. Use a combination of 1,2 and 3 different proportion or
6. Use a combination of 1 and 3 different proportions.

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[28] M.Y.Khan and P.K.Jain “Financial Management” 2nd Edition MCGraw Hill 2003 P-10.2

The choice of an appropriate capital structure depends on a number of factors such as the nature of the company's business, regularity of earnings, condition of the money market, attitude of the investor, etc. It is regarding the basic difference between debt and equity. Debt is a liability on which interest has to be paid irrespective of the company's profit. While equity consists of shareholders or owners fund on which payment of dividend depends upon the company's profit. A high proportion of the debt content in the capital structure increases the risk and may lead to financial insolvency of the company in adverse times. However, raising funds through debt is cheaper as compared to raising fund through shares. This is because interest on debt is allowed as an expense for tax purpose. Dividend is consider to be an appropriation of profit hence payment of dividend dose not result in any tax benefit to the company.[29]

Factor affecting capital structure:

Capital structure directly affected the financial soundness of a business enterprise. These factors can be divided in two categories.

1. Internal factors:
    - Size of Business
    - Nature of Business
    - Regularity of Income
    - Assets Structure
    - Age of Firm
    - Design to Control
    - Future of Plans
    - Period and Purpose of Financing
    - Operating Ratio
    - Trading on Equity
2. External Factors:
    - Capital Market Conditions

[29] Maheshwary S.N. "Management Accounting and Financial Control" Sultanchand and sons, New Delhi, Thirteenth Edition 2002 P-32

- Nature of Investors
- Policy of Financial Institutions
- Taxation
- Government Control
- Cost of Capital
- Seasonal Variances
- Economic Fluctuations
- Nature of Competition

Capital Structure Practices in India

Rising of funds to finance the firm’s investment is an important function of the financial manager. In practice, it is observed that financial managers use different combinations of debt and equity. A practical question therefore is: what motivates them to do so? More fundamental questions to be answered are:

Does use of debt create value?

If so, do firms gravitate towards an optimum mix of debt and equity?

In theory, it is argued that the financing decision is irrelevant under perfect capital markets. When within the framework of perfect capital market, taxes and bankruptcy costs are assumed, the financial economists argue that an optimum capital structure which maximizes the market value of the firm can exist. In the financial literature, two alternate theories are also found justifying the optimum capital structure in the absence of bankruptcy costs and taxes. One theory justifies optimum capital structure in terms of the agency costs while another justifies it in terms of the information signaling. Agency costs are costs of monitoring the performance of managers. To protect their interests debt holders will provide for various covenants in the loan agreement. Similarly the new shareholders will have to incur monitoring costs for safeguarding their interests. Thus, agency costs are involved both in raising debt and equity. At the optimum mix of debt and equity total agency cost will be minimized. Alternatively, it is also plausible that managers may use the decision of debt and equity mix to convey information to investors as market prices of shares do not reflect entire information. In practice, firms in developed countries like USA or in developing countries like India are found following different financing policies some aggressive and some conservative.

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