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A STUDY ON CAPITAL STRUCTURE ANALYSIS

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Abstract:

A corporate's financing of its real investments has recently attracted considerable attention from academics who have proposed various theories. This paper firstly studies the Gordon growth model and the weighted average cost of capital formula with the empirical tests and the sensitivity analysis. Then, we exam changes in a company's market value concerning different combinations of capital structures and identify an arbitrage opportunity based on the Modigliani-Miller propositions. Finally, we investigate the relationship between a firm's funding sources and its profit using panel data regression to figure out the optimal way to financing. These studies enable us to realize the fundamental relationship between a corporate's price and its capital structure. In light of those studies, we could have some insightful ideas regarding funding decision-making in reality.

Index terms: *Capital Structure, Returns, Modigliani-Miller propositions, market value*

1.INTRODUCTION

Financial management refers to the efficient and effective management of money (funds) in such a manner as to accomplish the objectives of the organization. It is the specialized function directly associated with the top management[1]. The significance of this function is not seen in the 'Line' but also in the capacity of the 'Staff' in overall of a company. It has been defined differently by different experts in the field.

1.1 Objectives of Financial Management:

- Profit maximization happens when marginal cost is equal to marginal revenue. This is the main objective of Financial Management.
- Wealth maximization means maximization of shareholders' wealth. It is an advanced goal compared to profit maximization[2].
- Survival of company is an important consideration when the financial manager makes any financial decisions. One incorrect decision may lead company to be bankrupt.
- Maintaining proper cash flow is a short run objective of financial management. It is

necessary for operations to pay the day-to-day expenses e.g. raw material, electricity bills, wages, rent etc. A good cash flow ensures the survival of company.

- Minimization on capital cost in financial management can help operations gain more profit.
- It is vague: - There are several types of profits before interest, depreciation and taxes, profit before taxes, profit after taxes, cash profit etc.

1.2. Scope of Financial Management:

- Estimating the Requirement of Funds: Businesses make forecast on funds needed in both short run and long run, hence, they can improve the efficiency of funding. The estimation is based on the budget e.g. sales budget, production budget.
- Determining the Capital Structure: Capital structure is how a firm finances its overall operations and growth by using different sources of funds[3].
- Once the requirement of funds has estimated, the financial manager should decide the mix of debt and equity and also types of debt.
- Investment Fund: A good investment plan can bring businesses huge returns.

2. CAPITAL STRUCTURE ANALYSIS

Capital structure refers to a company's outstanding debt and equity. It allows a firm to understand what kind of funding the company uses to finance its overall activities and growth. In other words, it shows the proportions of senior debt, subordinated debt and equity (common or preferred) in the funding. The purpose of capital structure is to provide an overview of the level of the company's risk[4]. As a rule of thumb, the higher the proportion of debt financing a company has, the higher its exposure to risk will be.

2.1. sound or appropriate capital structure should have the following features:

- **Return** The capital structure of the company should be most advantageous. Subject to other considerations, it should generate maximum returns to the shareholders without adding additional cost to them.
- **Risk** The use of excessive debt threatens the solvency of the company. To the point debt does not add significant risk it should be used, otherwise its use should be avoided.
- **Flexibility** The capital structure should be flexible. It should be possible for a

company to adapt its capital structure with a minimum cost and delay if warranted by a changed situation. It should also be possible for the company to provide funds whenever needed to finance its profitable activities.

- **Capacity** The capital structure should be determined within the debt capacity of the company, and this capacity should not be exceeded. The debt capacity of a company depends on its ability to generate future cash flows. It should have enough cash to pay creditors' fixed charges and principal sum.
- **Control** The capital structure should involve minimum risk of loss of control of the company. The owners of closely-held companies are particularly concerned about dilution of control.

Capital structure of a company refers to the make up of its capitalization. A company procures funds by issuing various types of securities *i.e.,* ordinary shares, preference shares, bonds and debentures[5]. Before issuing any of these securities, a company should decide above the kinds securities to be issued. In what proportion will the various kinds securities be issued, should also be considered. However, in broader sense, capital structure includes all the long term capital resource including loans, bonds, shares issued, reserves etc., and the components of the total capital.

3. FACTORS AFFECTING CAPITAL STRUCTURE:

The following factors should be taken in view while devising a capital structure of the company:-

1. Trading on equity.
2. Desire to control business.
3. Nature of business i.e. manufacturing, merchandising, financing, extractive, etc.
4. Purpose of financing i.e. betterment or productive.
5. Period of finance.
6. Elasticity of capital structure.
7. Need of investors.
8. Cost of financing.
9. Market conditions and sentiments of investors.
10. Legal restrictions.
11. Possibilities of regular and fixed income.

1. Trading on equity:

A company earns the profits on its total capital (borrowed and owned) on the borrowed capital (including preference capital) company pays interest or dividend at a fixed rate. If the fixed rate is lower than the general rate of earnings of the company, the ordinary share holders will have an advantage in the form of additional profits. These may be referred to as trading on equity. These trading on equity is an arrangement under which a company makes use of borrowed funds including preference capital bearing a fixed rate of interest or dividend in such a way as to increase the rate return on equity shares[6], otherwise the rate of dividend on equity shares cannot go beyond the general rate of earning if whole of its capital is raised by the issue of equity shares.

2. Desire to Control the Business:

Quite often, the promoters want to retain the control of the affairs of the company. They raise the capital from the public by issuing deferent types of securities in such a way as to retain the control of whole or substantially the whole of the affairs of the company with them. For the purpose of they raise a large proportion of funds by the issue of debentures and preference shares. Debenture holders and preference share holders or usually not given any voting rights as enjoyed by the equity share holders. Equity share capital is generally held by the promoters and their near relatives. Thus the company collects its requirement of funds from the public, though the control rest with the promoters.

3. Mature of Business:

Nature of business must be taken into account while preparing the financial plan and determining the capital structure a manufacturing company may have a deferent capital structure from merchandising, financing extractive or public utility concerns. These enterprises differ in regard to the amount of investment, risk of failures involved trade cycles and freedom from competition[7]. These deference enable one type of business to issue securities which are not profitable to other businesses. So, public utility concern may enjoyed advantages of fixed interest securities like bonds and debenture because of their monopoly and stability of income. But on the other hand, manufacturing concerns do not enjoy such advantages and rely a great extent on equity share capital.

4. Purpose of financing:

The purpose for which funds are being raised must be taken into account the time of devising financial structure of a company. If funds are raised for betterment expenditure it is quite apparent that it will add nothing to the earning capacity of the company.

Such expenditure may be incurred either out of funds raised bi issue of shares or still better out of retained earnings but in on case, out of borrowed funds. On the other hand productive projects may be financed out of borrowings. Borrowings should never be used to meet out losses unless they are caused by paucity of funds.

5. Period of finance:

Normally funds which are required for a short time say for 5to 14 years should be arranged through borrowing because these can easily be repaid as soon as company` s financial position improves. In such cases shares should not be issued because, share capital except redeemable preference share capital is in possession of its own funds. Issue of redeemable preference shares, too, should be avoided as it requires certain legal formalities.

6. Elasticity of capital structure:

The capital structure should be as elastic as possible so as to provide for expansion for future development or to make it feasible to reduce the capital when it is not needed. Too much dependence on debentures and preference shares from the very beginning makes the capital structure of the company rigid because of payment of fixed interest or dividend. These sources should be kept in reserve for emergency or for expansion of funds is not a problem and it can very easily be done either by issue of fresh shares or debentures or by obtaining loan from financial institutions or from public but contraction of capital is really a problem. To make it feasible, redeemable preference shares or redeemable debentures which may be paid off after a fixed period should be issued.

7. Need of investors:

An ideal capital structure is that which suits the needs of different types of investors having varying financial status and varying psychologies. Some investors who prefer security of investment and stability of income usually go in for debentures. Preference shares will be preferred by those who want a higher and stable income with enough safety of investment. Equity shares will be taken up by those who are ready to take risks for higher income and capital appreciation. Those who want to acquire control over the affairs of the company like equity shares.

4. PRACTICAL CONSIDERATIONS IN DETERMINING CAPITAL STRUCTURE:

The determination of capital structure in practice involves additional considerations in addition to the concerns about EPS, value and cash flow. Attitudes of managers with regard to financing decisions are quite often influenced by their desire, not to lose control to maintain operating flexibility and to have convenient and cheaper means of raising funds. The most important considerations are

- Concern for dilution of control
- Desire to maintain operating flexibility
- Ease of marketing capital inexpensively
- Capacity for economics of scale
- Agency costs.

Widely-held Companies:

The ordinary shareholders elect the directors of the company. If company issues new shares, there is risk of dilution of control[8]. This is not a very important consideration in the case of a widely-held-company. The shares of such a company are widely scattered. Most of the shareholders are not interested in taking active part in the company's management. Nor do they have time and money to attend the meetings. They are interested in dividends and capital gains. If they are not satisfied, they will sell their shares. Thus, the best way to ensure control and to have the confidence of the share holders is to manager the company most efficiently and compensate shareholders in the form of dividends and capital gains. The risk of loss of control can be reduced by distribution of shares widely and in small lots.

Closely-held Companies:

The consideration of maintaining control may be significant in case of a closely-held small company. A shareholder or a group of shareholders can purchase all or most of the new shares and control the company. Even if the majority shares are held by the owner-managers, their freedom to manage the company will be curtailed when they go for initial public offerings (IPOs). Fear of sharing control and being interfered by others often delays the decision of the closely-held companies to go public. To avoid the risk of loss of control, small companies may slow their rate of growth or issue preference shares or raise debt capital. If the closely-held companies can ensure a wide distribution of shares, they need not worry about the loss of control so much.

Flexibility:

Flexibility is one of the most erious considerations in setting up the capital structure. Flexibility means the firm's ability to adapt its capital structure to the needs of the changing conditions. The company should be able to raise funds, without undue delay and cost, whenever needed, to finance the profitable investments. It should also be in a position to redeem its preference capital or debt whenever warranted by the future conditions.

Loan covenants:

Restrictive covenants are commonly included in long-term long agreements and debentures. These restrictions curtail the company's freedom in dealing with the financial matters and put it in an inflexible position[9]. Covenants in long agreements may include restrictions to distribute cash dividends, to incur capital expenditure, to raise additional external finances or to maintain working capital at a particular level.

5. CAPITAL STRUCTURE AND PLANNING:

Capital structure refers to the mix of long-term sources of funds. Such as debentures, long-term debt, preference share capital including reserves and surplus (i.e., retained earnings) The board of directors or the chief financial officer (CEO) of a company should develop an appropriate capital structure, which are most factors to the company.

5.1. Limitations of EPS as a Financing – decision criterion:

EPS is one of the most widely used measures of the company's performance in practice. As a result of this, in choosing between debt and equity in practice, sometimes too much attention is paid on EPS, which however, as some serious limitations as a financing – decision criterion.

5.2. EPS variability and financial risk:

The EPS variability resulting from the use of leverage in called functional risk. Financial risk is added with the use of debt because of (a) the increased variability in the shareholders' earnings and (b) the threat of insolvency. A firm can avoid financial risk altogether if it does not employ any debt in its capital structure. But then the shareholders will be deprived of the benefit of the expected increases in EPS. Therefore, a company may employ debt to the extent of the financial risk perceived by shareholders which does not exceed the benefit of increased EPS will continue to increase, but the value of the company will fall because of the greater exposure of shareholders to financial risk in the form of financial distress.

5.3. Debt Capacity:

The technique of cash flow analysis is helpful in determining the firm's debt capacity. Debt capacity is the amount which a firm can service easily even under adverse conditions; it is the amount that the firm should employ. There may be lenders who are prepared to lend to you. But you should borrow only if you can service debt without any problem.

5.4. Cash Flow Analysis versus EBIT-EPS Analysis:

Is cash flow analysis superior to EBIT-EPS analysis? How does it incorporate the insights of the financial theory? The cash analysis has the following advantages over EBIT-EPS analysis.

- If focuses on the liquidity and solvency of the firm over a long-period of time, even encompassing adverse circumstances. Thus, it evaluates the firm's ability to meet fixed obligations.
- It goes beyond the analysis of profit and loss statement and also considers charges in the balance sheet items.
- It identifies discretionary cash flows. The firm can thus prepare an action plan to face adverse situations.
- It provides a list of potential financial flows which can be utilized under emergency.

6. THEORIES OF CAPITAL STRUCTURE:

Different kinds of theories are have been

1. Net Income Approach(NI)
2. Net Operating Income Approach(NOI)
3. The Traditional Approach
4. Modigliani and Millar Approach(MM)

1. Net Income Approach (NI): This approach introduced by 'Durand'. A firm can minimize weighted average cost of capital and increase the value of the firm and share value in the market.

This approach is based upon the following assumptions:

(I) The cost of debt is less than the equity.

(ii) There are no taxes.

(iii) The risk percentages of inversion are not changed by the use of the debt.

Degree of leverage: The reasons for assuming cost of debt is less then cost of Equity are that interest rates are lower than divided rates due to element of risk and the benefit of tax as the interest is a deductible expenses.

The total market value of a firm on the basis of NI is:

V=S+D

V=Total market value of firm.

S=Total market value of equity shares

(Or)

NI/Equity capitalization rate.

D=market value of debt.

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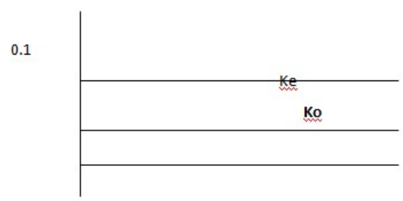
Weighted Average Cost of Capital can be calculated as:

KO=EBIT



Cost of Capital 0.05

2. Net Operating Income Approach: This theory suggested by 'Durand'. It is opposite to the NI approach .Here Change in the capital structure of a company does not effect in the market value of the firm and the weighted cost of capital remains constant whether the debt-equity mix is 50:50 or 20:80 or 0:140. This theory presumes that:

(i) The market capitalizes the value of the firm as a whole

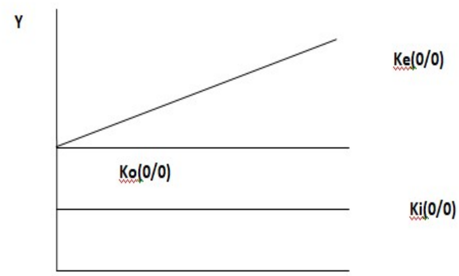
(ii) The business risk remains constant.

(iii) There are no corporate taxes.

The value of the firm can be determined as:

V=EBIT/KO

KO=Overall cost of capital



Leverage and cost of capital (NOI)

The market value of equity is:

S=V-D

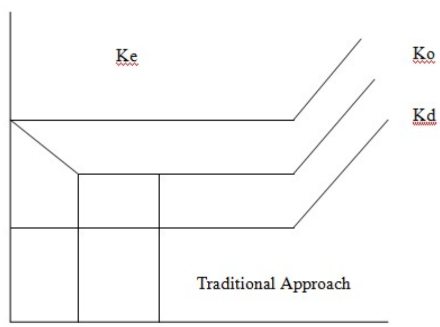
S=Market value of equity shares

V=Total market value of firm

D=Total market value of debt

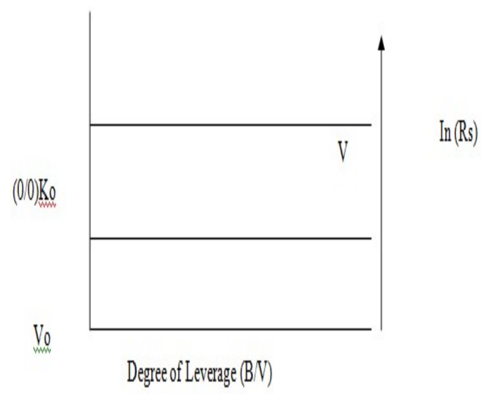
3. The Traditional Approach:

The traditional approach also known, as 'Intermediate Approach' is a compromise between the two extremes of income approach and net operating Income approach. According to this theory, the value of the firm can increase initially or the cost of capital can be decreased by use more debt is a cheaper sources of funds than equity. Thus, a proper debt-equity mix can reach the capital structure When the increased cost of equity can't be offset by the advantage of low cost debt. Thus the overall cost of capital according to this theory[10], decrease up to a certain point, remains more are less unhinged for moderate increase in debt thereafter, and increase or rise beyond a certain point.



4. Modigliani -Miller (MM) Approach:

The MM thesis relating to the relationship between capital structures, cost structures, cost of capital and valuation is a kin to the NOT approach, in other words, does not provide operational justification for the irrelevance of the Capital Structures. The MM proportion supports the NOT approach relating to the independence of the independence of the capital of the degree of leverage level of debt-equity ratio.



7. DATA ANALYSIS & INTERPRETATION

1. Capitalization Information

	Particulars	Rs. In lakhs
A.	Debt: a)Secured loans b)Un secured loans	 97146.02 24375.36
	Total debt	**121521.38**
B.	Equity Capital: a)Equity share capital b)Reserves and surplus	 4574.16 93617
	Total Equity Capital	**98191.16**
C.	Total Value: a)Capital Employed	 219672.54
	Total Value of the Company	**219672.54**
D.	Debt/Equity Ratio	**1.23**

2. EBIT-EPS ANALYSIS

Particulars	2022-23(Rs. In Lakhs)
EBIT Less: Interest	60658.93 5405.74
Profit before Tax Less: Provision for Tax Less: Provision for Fringe Benefit	55253.19 16500.00 418.19
Profit After Tax	38335
Proposed/Interim Dividend & Tax	6943
Earning Per Shares(**EPS**) [(PAT/Share capital)X 14]	38335/4574.3318X14=83.80

Overall cost of=EBIT/value of the companyX140

Ko=60658.93/219672.54X140=38.67%

Cost of debt=Interest/Market value DebtX140
KD=
5405.74/161781.38X140=4.45%

2. Ratios 2023-22

Return on capital employed	48.16%
Return on Net worth	39.04%
Debt/Equity ratio	1.21

INTERPRETATION:

i) Total net value of NETWORK was increased in the year 2022-22 from87280.00 to161781.

ii) Equity capital of the NETWORK Same as the previous year. The value is 4574.16 Lakhs.

iii) Debt Equity ratio was recorded as1.23 in the year 2022-23.

iv) Net worth of the company 39.04 in the financial year 2022-23.

v) Earning per share of the company was Rs.83.80.

KESORAM CEMENT INDUSTRIES LIMITED'S Sources of Finance as 31st March, 2022

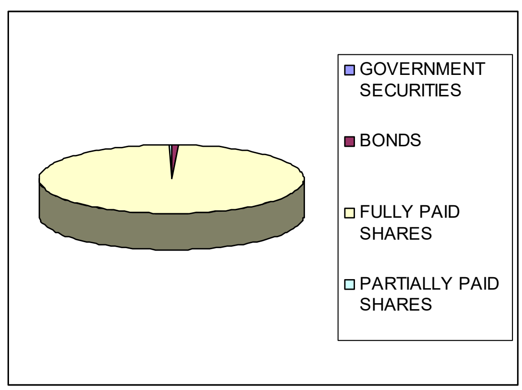
Total Investment Rs.2887.28 Lakhs

GOVERNMENT SECURITIES 0.17

BONDS 19.64

FULLY PAID SHARES 2591.64

PARTIALLY PAID SHARES 5.72



8. CONCLUSION

1. After analyzing the financial position of net worth and evaluating its Capital Structure Analysis in respect of Ratio Analysis and source and utilization of founds. The

following conclusions are drawn from the project preparation.

2. The progress of net worth shows that Equity Capital to Rs.41605.00 Lakhs from during the year 2022-23 and the Net worth of the Company 39.04%.
3. Regarding Capital Structure Analysis Equity Capital was decreased from 2017-18 to 2022-23 and t0otal Debt Value increased from 87289.00 to 151781.00 Lakhs during the year.
4. Regarding Capital Structure Analysis Turn Over was increased and decreased in the year 2020-21 and profit after tax was increased during the year 2022-23.
5. Regarding Capital Structure Analysis Equity Ratio was decreased from 1.23 to 1.33 and current ratio decreased from 2.8to 2.39.
6. From the above study can be said that the net worth financial position on Capital Structure Analysis is quite satisfactory.

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