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ORIGINAL ARTICLE

ANALYSIS OF CAPITAL MIX & COST OF CAPITAL WITH REFERENCE TO COOPERATIVES: A CASE STUDY

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Abstract:

Capital mix means the pattern of capital employed in the firm. It is a financial plan of the firm in which the various sources of capital are mixed in such proportions that those provide a distinct capital structure most suitable for the requirements of the firm. The capital mix is how a firm finances its overall operations and growth by using different sources of funds.Debt comes in the form of bond issues or long-term notes payable, while equity is classified as common stock, preferred stock or retained earnings. Short-term debt such as working capital requirements is also considered to be part of the capital structure.

INTRODUCTION

The assets of the company can be financed either by increasing the owner claims or the creditor claims. The owner claims increase when the firm raises funds by issuing ordinary shares or by retaining the earnings; the creditors' claims increase by borrowing. The various means of financing represent the financial structure of an enterprise.

MEANING & DEFINITION OF CAPITAL STRUCTURE:

The term capital structure refers to the relationship between the various long-term forms of financing such as debenture, preference share capital & equity share capital. The use of long term fixed interest bearing debt and preference share capital along with equity shares is called financial leverage or trading on equity.

It is indicated by equation: Capital structure = long term debt + preferred stock + net worth
or Capital structure = Total assets - Current liabilities
The appropriate capital structure maximizes the long term market price per share, also keeping in view the financial requirements of a company.

A sound or appropriate capital structure should have the following features:

1. Profitability: It should generate maximum returns to the shareholders without adding additional cost.
2. Solvency: There should not be the use of excessive debt to maintain long term solvency. Debt should be used till the point where debt does not add significant risk, otherwise, use of debt should be avoided.
3. Flexibility: The capital structure should be flexible, to provide funds to finance its profitable activities in future. The financial plan of the company should be flexible enough to change the composition of capital structure as warranted by operating needs.
4. Control: The capital structure should involve minimum risk of loss of control of the company. Use of more equity may lead to a loss of control of the company.
5. Conservation: The capital structure should be determined within the debt capacity of a firm & not beyond

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the firm's capacity. The debt capacity of a firm depends on its ability to generate future cash flows. It should have enough cash to pay its fixed charges & principle sum.

The size of company may influence its capacity and availability of funds from different sources. A small company finds it difficult to raise long term debt or long term loan at acceptable rate of interest and convenient terms. If small companies are able to approach capital markets, the cost of issuing shares is generally more than larger companies.

SOURCES OF CAPITAL:

The main sources of raising long term finance are: (i) Shares, (ii) Debentures (iii) Public deposits, (iv) Retained earnings, (v) loans from financial institutions

1.Shares: Share is a unit of capital of a company of a definite face value. Share indicates certain rights of its holder and the extent of his liability. It is the most important source for raising permanent or long-term capital. Section 86 of Companies Act, 1956 provides that share capital of a company formed after April 1, 1956 or the share capital issued after that date, shall be of only two kinds, viz. Preference share capital and equity share capital.

Preference shares: According to Section 85 of The Companies Act, 1956, a preference share is one, which fulfills the following conditions:

a.A preference share has a preferential right to dividend to be paid either as a fixed amount or amounts calculated by a fixed rate which may be either free of or subject to income tax.

b.A preference share has the right to the repayment of capital before anything is paid to equity shareholders on the winding up of the company.

Thus, Preference Shares are the shares, which carry preferential rights over the equity shares. These rights are (a) receiving dividends at a fixed rate, (b) getting back the capital in case the company is wound-up. Investment in these shares is safe, and a preference shareholder also gets dividend regularly.

Equity Shares: According to Section 85 of The Companies Act, 1956, an equity share is a share, which is not a preference share.

Equity shares are shares, which do not enjoy any preferential right in the matter of payment of dividend or repayment of capital. The equity shareholder gets dividend only after the payment of dividends to the preference shares. There is no fixed rate of dividend for equity shareholders. The rate of dividend depends upon the surplus profits. In case of winding up of a company, the equity share capital is refunded only after refunding the preference share capital. Equity shareholders have the right to take part in the management of the company. However, equity shares also carry more risk.

2.Debentures: When a company desires to borrow a considerable sum of money for a long but fixed period, for its expansion, it invites the public to subscribe to its debentures. The total amount to be borrowed is divided into units of fixed amount say of Rs.100 each. These units are called Debentures. A debenture is a certificate issued by the company acknowledging the debt due by it to its holders. It specifies the terms and conditions, such as rate of interest, time repayment and security offered, etc. These are offered to the public to subscribe in the same manner as is done in the case of shares. A debenture is issued under the common seal of the company.

3.Public Deposits: Public deposits are the fixed deposits accepted by a business enterprise directly from the public. Public deposits channelise savings into business. They are unsecured. They bear fixed rate of interest. Deposits generally are for one year to three years. An advertisement is required for inviting public deposits.

4.Ploughing back of profits: Like an individual, companies also set aside a part of their profits to meet future requirements of capital. Companies keep these savings in various accounts such as General Reserve, Debenture Redemption Reserve and Dividend Equalisation Reserve etc. These reserves can be used to meet long-term financial requirements. It means reinvestment by concern of its surplus earnings in the business.

5.Loans from Financial Institutions: Several financial institutions like LIC, State Finance Corporation, Industrial Development bank, etc. also provide loans. This source is more suitable for medium term demands of working capital. Interest is charged at fixed rate on these loans.

COST OF CAPITAL:

The cost of capital is an integral part of investment decisions as it is used to measure the worth of investment proposal. It is used as a discount rate in determining the present value of future cash flows associated with capital projects. Conceptually, it is the minimum rate of return that a firm must earn on its investments so as to leave market price of its shares unchanged. It is also referred to as cut-off rate, target rate, hurdle rate, required rate of return and so on.

The cost of capital is the required rate of return that a firm must achieve in order to cover the cost of generating funds in the marketplace. Based on their evaluations of the riskiness of each firm, investors will supply new funds to a firm only if it pays them the required rate of return to compensate them for taking the risk of investing in the firm's bonds and stocks. If, indeed, the cost of capital is the required rate of return that the firm must pay to generate funds, it becomes a guideline for measuring the profitability of different investments. When there are differences in the degree of risk between the firm and its divisions, a risk-adjusted discount-rate approach should be used to determine their profitability.

According to Eugene F. Brigham "Capital is a necessary factor of production and, like any other factor, it has a cost." In the case of debt capital, the cost is the interest rate that the firm must pay in order to borrow funds. For equity capital, the cost is the returns that must be paid to investors in the form of dividends and capital gains.

Thus, the cost of capital is the rate of return that the enterprise must pay to satisfy the providers of funds. The cost of equity is the return that ordinary stockholders expect to receive from their investment. The cost of loan stock is the rate, which the company must provide its lenders. The weighted average cost of capital (WACC) firm's capital structure is the average of the cost of its equity, preferred stocks and loan stocks.

A] COST OF DEBT (Kd)

The cost of debt is the effective rate that a company pays on its current debt. It is the interest rate, which equates the present value of the expected future receipts with the cost of the project. Interest qualifies for tax deduction in determining tax liability. Therefore, the effective cost of debt is less than the actual interest payment made by the amount of tax shield it provides.

Kd = Interest (1 - tax)

Net sale proceed

The cost of debt is generally the lowest among all sources partly because the risk involved is low but mainly because interest paid on debt is tax deductible.

B] COST OF PREFERRED CAPITAL (Kp)

Preferred Stock has a higher return than bonds, but is less costly than common stock. The reason behind that is, in case of default, preferred stockholders get paid before common stock holders. However, in the case of bankruptcy, the holders of preferred stock get paid only after short and long-term debt holder claims are satisfied.

Preferred stock holders receive a fixed dividend and usually cannot vote on the firm's affairs.
Kp=Preferred stock dividend /market price of preferred stock

OR if issuing new preferred stock

Kp= Preferred stock dividend / market price of preferred stock (1 – flotation cost)

Unlike the situation with bonds, no adjustment is made for taxes, because preferred stock dividends are paid after a corporation pays income taxes. Consequently, a firm assumes the full market cost of financing by issuing preferred stock. In other words, the firm cannot deduct dividends paid as an expense, like they can for interest expenses.

C] COST OF EQUITY CAPITAL

The cost of equity is the cost of the estimated stream of enterprise capital outlays derived from equity sources. It is the rate of return that investors require to make an equity investment in a firm. Common stock does not generate a tax benefit as debt does because dividends are paid after taxes.

The cost of common stock is the highest.

Retained earnings are considered to have the same cost of capital as new common stock. Their cost is calculated in the same way, EXCEPT that no adjustment is made for flotation costs.

The traditional formula for cost of equity (COE) is the dividend capitalization model:

$$\text{Cost of Equity} = \frac{\text{Dividend per share}}{\text{Current market value of Stock}} + \text{Growth rate of Dividend}$$

A firm's cost of equity represents the compensation that the market demands in exchange for owning the asset and bearing the risk of ownership.

CAPITAL STRUCTURE OF COOPERATIVES:

The capital plays a key role in the development of any economic activity and when it comes to cooperatives, it is their main source of funds, representing, as well, a guarantee for third parties that work with them. At the same time, they are at a disadvantage in terms of their ability to raise capital.

The need for finance in a cooperative is no different from that in commercial companies, yet the role it is given in determining the success or failure of the organisation is different. Part of the difference stems from the fact that cooperatives represent people-centered organisations, as opposed to a capital centered commercial companies. This, in turn, translates into different organizational aims. Capital structure is closely connected to the nature of the capital markets and also to the legal form of company the business takes. The equity or share capital of a cooperative differs from that of a joint-stock company in that:

Share capital varies in size. It is not fixed in the same way as the capital of a joint-stock company.
Share capital is accumulated either in proportion to member purchases or investments of the same sum. Members do not invest according on the basis of risk as in joint-stock companies.
An investment in share capital is not freely transferable or sellable to another person as is a normal share.
Unlike equity share, the value of an investment in share capital is not determined by the market i.e. repayment of shares is at par value, neither does it reflect any appreciation arising from expected future earnings. In other words, any added value in a cooperative enterprise cannot be realised by the sale of shares but only by winding up the society.

Although cooperative members are frequently referred to as shareholders, their liability is either linked to the share capital they contributed, or has been limited even further to the value of just one or two shares. The surplus earned by the enterprise, rather than being divided between investments and dividends, as it would happen in a commercial company, is usually distributed in three ways:

Some goes to the members according to the capital they have invested in the cooperative;
Some serves to reimburse them according to their trade volumes with the cooperative (patronage refunds, reimbursements or discounts)
Some is retained (institutional capital) in order to finance the growth and development of the organisation.

Thus, a cooperative's overall financial "structure" may look quite similar to other businesses. The balance sheet will reflect assets on the one side and current liabilities, long-term liabilities, and owners' equity on the other. The primary distinguishing feature of a cooperative's structure is the members' equity section.

Capital for the operation and improvement of the cooperative business can come from three main sources:

a) From members

Long-term own capital (members' funds, members' share capital, equity) is the foundation on which a successful cooperative can be built. No individual member could alone afford heavy investments, but the small investment funds of a member can become an important source of funds when all members agree to invest. Members may be poor, but willing and able to contribute from their funds for good development. They help finance the operations and growth of the cooperative through:

One-time or annual membership fees
Member contributions with no individual ownership attached, such as service fees.
Member share capital
Individual member deposits with the cooperative which may be used for business
Deferred payment to members for part or all of their produce delivered to the cooperative
Member share capital represents individual member commitment to the cooperative form of business. It also identifies the individual member's financial stake. It is withdrawn only when the member leaves the cooperative.

b) From cooperative business surpluses

The surpluses of a cooperative can be allocated in three different ways: to strengthen the capital base by establishing reserves; to pay a "dividend"; to pay members limited interest on capital. The reserves of a cooperative are collective and only in exceptional cases can they be distributed to members. This reserve fund allows the cooperative to mitigate the effects of periods of weak activity. Some cooperators, however, tend to reject the existence of reserve funds and ask for the money to be allocated to dividends but up till now this practice has remained marginal because the absence of a demand for a minimum capital outlay to start a cooperative makes it preferable, and a legal requirement, to create a reserve fund.1

Funds created through the retention of cooperative business surpluses that are not directly allocated to members are another important source of cooperative capital. The members of a cooperative will have to decide what the best option for their particular business is. In the early stages of business growth, it may be necessary to put back a lot of the profits into the business. This finance can be used to buy new equipment and machinery as well as more stock or raw materials and hopefully make the business more efficient and profitable in the future.

c) From outsiders

In addition to institutional capital and member capital, cooperatives often make use of external sources of funds to run their operations or to finance investments. These non-member sources of funds may include cooperative or commercial banks, suppliers, government or donor agencies.

The process of capital accumulation in cooperatives is shaped, and to some extent constrained, by a unique set of principles that help define the cooperative's identity and set it apart from other businesses. Its egalitarian rule of "one member-one vote" and anti-profiteering percept of "limited return on capital" make the cooperative form of business appealing to a broad audience but create genuine problems in mobilizing capital for business growth.2

Cooperatives with their narrower ownership basis, have limited opportunities for accumulating capital, because this has to be collected from the members rather than via the securities market. Moreover, the socio-economic profile of the great majority of members of the cooperative organisation, with low or middle income, prevents individual contributions from being an efficient way to raise capital. This tends to increase the importance of debt financing in cooperatives. In recent times, the importance of debt financing as a management control mechanism has been emphasised as the burden of debt ties managers' hands and forces them to work efficiently in order to service the debt at regular intervals. There is also less cash flow available at their disposal. The controlling effect of debt is firstly that, as it is normally granted for a relatively short period, management must make a real effort to find productive ways of operating in order to amortise the loan, and secondly, if the company is unable to meet its debts, the creditors have the right to apply for bankruptcy and realise the loan guarantees.

COST OF CAPITAL OF COOPERATIVES:

A cooperative can be designed to be safer for lenders, which implies a lower cost of debt, than an otherwise identical firm structured as an investor-owned firm.3

The traditional theories of capital structure are based on some minimisation process of the organisation's cost of capital. The considerable significance of cost of capital in terms of its practical utility notwithstanding, it is probably the most controversial one. There are varying opinions as to how this can be

computed. As for profit seeking, for non-profit organisation this cost is the weighted average of the cost of equity and the cost of debt. How the weights are to be determined in practice is not entirely clear, as, contrary to the situation of company, market values of debt and equity of cooperative are not readily available. It is not easy for a member to measure and compare the return on capital invested in a cooperative. Costs of capital may be direct or indirect. Indirect costs of obtaining outside equity may include the diminution of the strength of cooperative principles, limitations on strategies and practices in which the cooperative may otherwise engage noted above, or impositions of new governance burdens and requirements as noted below. Direct cost of the outside equity capital is generally the monetary outlay required to compensate investors. Intermediary costs are those that diminish the value of the cooperative for its member/patrons because it may not maximize its value to them as member/patrons given restraints associated with its obligations to outside investors. All these factors influence the total cost of outside equity in the cooperative. Their measure is unfamiliar to cooperatives with no outside equity. Outside equity creates a requirement that the various facets of obligation with direct and indirect implications for costs be measured. Such is not an easy task but incorrect conclusions can be seriously harmful to the financial condition of the cooperative.4

The Patronage Refund System

The cooperative's sole purpose is to provide and distribute benefits to its users on the basis of their use. The patronage refund system is the main instrument of the User-Benefits principle. Funds remaining in the cooperative's account after all operating expenses, interest and depreciation have been accounted for are called net margins. Net margins might be distributed to member-patrons as patronage refunds in accordance with bylaw provisions and board actions.

Patronage refunds are best described as "group savings," returned to the individual patron in proportion to the volume of business he/she does with the cooperative. They typically occur when the cooperative is relatively efficient and realizes savings. Patronage refunds may be cash or non-cash. Cash patronage refunds are those returned to patrons after each year's operations end, while noncash refunds are those that members invest in their cooperative.5

The profit distribution system and equity structure of cooperative firms are examples of the unique characteristics that influence strategic decisions. Because profits are distributed in proportion to use, a cooperative member does not receive a direct return on their invested equity but rather benefit through continued use (patronage) of the cooperative. This creates unique issues when changes in Strategic direction will involve new users. Because much of a cooperative's equity is created from retained profits, a new user may receive benefits, which are disproportional to their share of the equity investment. Existing members may be reluctant for the cooperative to use the equity created through their patronage to fund operations benefiting new users.6

Patronage refunds are a quintessential feature of agricultural cooperatives. They are the primary means by which cooperatives return earnings to member producers according to use, a concept critical to the definition of a cooperative.7

Table No. 1
Analysis of Capital structure (Rs. in lacs)

Year	Equity Capital	Reserve & other funds	Profit & loss a/c	Total
2000-01	88.33 (5.39)	1320.72 (80.53)	230.99 (14.08)	1640.04 (100)
2001-02	114.75 (5.26)	1616.64 (74.07)	451.2 (20.67)	2182.59 (100)
2002-03	129.93 (4.81)	2353.24 (87.04)	220.45 (8.15)	2703.62 (100)
2003-04	152.08 (4.60)	3025.13 (91.57)	126.57 (3.83)	3303.78 (100)
2004-05	181.27 (5.09)	3273.37 (91.99)	103.79 (2.92)	3558.43 (100)
2005-06	229.95 (5.76)	3598.84 (90.18)	162.00 (4.06)	3990.79 (100)
2006-07	470.23 (10.55)	3921.26 (87.95)	66.96 (1.50)	4458.45 (100)
2007-08	617.36 (12.45)	4245.1 (85.62)	95.36 (1.92)	4957.82 (100)
2008-09	825.64 (14.32)	4757.76 (82.51)	182.68 (3.17)	5766.08 (100)
2009-10	1054.08 (16.73)	4931.76 (78.26)	315.71 (5.01)	6301.55 (100)

Note: Figures in the parentheses indicate the percentage to grand total

Source: Annual reports of Rajarambapu Sahakari Bank Ltd., Peth.

Above Table No. 1 indicate the capital structure of Rajarambapu Sahakari Bank Ltd. for the last 10 years from 2000-01 to 2009-10. In the year 2000-2001, the share of equity capital in capital structure is only 5.39 percent thereafter it show decreasing trend in its share up to year 2004-05. In the year 2005-06, the equity share capital is 5.76 percent of total capital structure that shows a little beat increase than last years. However, thereafter a tremendous increase can be seen in it that is from 5.76 percent in year 2005-06 it raised to 10.55 percent in the year 2006-07. The increasing trend remained continue for the next 3 years i.e. 12.45 percent in the year2007-08, 14.32 percent in 2008-09 & 16.73 percent in the year 2009-10.

Table No. 1 depicts that share of Reserve & other fund is around 80 % on an average in the total capital during the study period. In the year 2003-04, 2004-05 & 2005-06 it shows increase in its share i.e. more than 90% in the total capital structure thus it is clear that the share of equity capital & profit and loss a/c is less than 10 % in the total capital structure of Rajarambapu Sahakari Bank Ltd.

The share of Profit & loss a/c is 14.08 % in the year 2000-01 then it increased by 6.59 % in the year 2001-02 afterward it registered a continuous decrease in its share. In the year 2006-07, its share is very low i.e. only 1.50 % in the total capital structure. Then again, it started increasing. In year 2007-08, it shows a little beat increase (0.42 %), in year 2008-09 it increased by 1.25 % & in the last year of study period i.e. 2009-10 it increased by 1.84 % & share of Profit & loss a/c reached to 5.01 % in total capital structure.

Cost of Capital:

Table No. 2
Table showing Cost of Capital

Year	Dividend on Equity (Rs. in lacs)	Dividend on Equity (in %)
2000-01	16.20	20 %
2001-02	18.00	20 %
2002-03	19.50	15 %
2003-04	22.81	15 %
2004-05	27.00	15 %
2005-06	34.50	15 %
2006-07	35.00	10 %
2007-08	67.00	12 %
2008-09	86.00	12 %
2009-10	92.70	10 %

Source: Annual reports of Rajarambapu Sahakari Bank Ltd., Peth.

Table No.2 shows the dividend paid on equity capital by Rajarambapu Sahakari Bank Ltd. for the last 10 years from 2000-01 to 2009-10. In rupees, the amount paid as dividend shows increasing trend while in percentage it is fluctuating.

The dividend paid in percentage is more i.e.20% in first two years 2000-01 & 2001-02 then it decreased to15% for the next 4 years. In the year 2007-08 & 2008-09, it came down to 12% and it show again decrease in it by 2% in the year 2006-07 & 2009-10.

FINDINGS:

It comprises of (a) equity capital, (b) reserve & other funds, (c) profit & loss a/c. Total capital shows increasing trend while the components of capital shows fluctuating trend over the study period. After studying the capital structure of the Rajarambapu Sahakari Bank Ltd. it can be seen that the share of equity capital & profit & loss a/c is approx. 20% in total capital, which less when compared with the total amount of capital.

The dividend paid by Rajarambapu Sahakari Bank Ltd. in rupees show increasing trend While in percentage shows decreasing trend during the study period. This is because of the increasing amount of share capital.

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