

COURSE. : III B. COM ( CA)

SEMESTER. : 6

SUBJECT. : FINANCIAL MANAGEMENT (18BCA62C)

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### UNIT – III

Leverages: Financial Leverage – Operating leverage – EBIT and EPS analysis – Theories of Capital Structure – Net income approach – Net operating income Approach – The Traditional approach - Modigliani and Miller (MM) Approach – Determinants of capital structure- Capitalisation – Over and Under capitalisation - Merits and Demerits.

### UNIT - 3

#### LEVERAGE :

Leverage is an investment strategy of using borrowed money—specifically the use of various financial instruments or borrowed capital—to increase the potential return of an investment. Leverage can also refer to the amount of debt a firm uses to finance assets.

#### FINANCIAL LEVERAGE

In finance, leverage is any technique involving using debt rather than fresh equity in the purchase of an asset, with the expectation that the after-tax profit to equity holders from the transaction.

A company has a choice of the following two financial plans. you are required to calculate the financial leverage. Interest at 10% on debt in all cases.		
particulars	X rs	Y rs
Equity capital	2,000	1,000
Debt	2,000	3,000

Operating profit	400	400
<b>CALCULATION OF FINANCIAL LEVERAGE</b>		
Particulars	X rs	Y rs
Operating profit	400	400
Less : interest 10 %	200	300
<b>PBT</b>	<b>200</b>	<b>100</b>
<b>FINANCIAL LEVERAGE :</b>		
<u>EBIT</u>	<u>400</u>	<u>400</u>
PBT	200	100
<b>FL</b>	<b>2</b>	<b>4</b>

### OPERATING LEVERAGE

Operating leverage is a measure of how revenue growth translates into growth in operating income. It is a measure of leverage, and of how risky, or volatile, a company's operating income.

The installed capacity of a factory is 600 units. Actual capacity used is 400 units. Selling price per unit is ₹ 10 variable cost is ₹ 6 per unit. Calculate the operating leverage in each of the following three situations;

When fixed costs are Rs.400

When fixed costs are Rs.1,000

When fixed costs are Rs.1,200.

<b>STATEMENT SHOWING OPERATING LEVERAGE</b>			
Particulars	Situation 1	Situation 2	Situation 3
Sales (400 x 10)	4,000	4,000	4,000
Less: variable cost (400 x 6)	2,400	2,400	2,400
<b>contribution</b>	<b>1,600</b>	<b>1,600</b>	<b>1,600</b>
Less: fixed cost	400	1000	1200
<b>Operating profit</b>	<b>1200</b>	<b>600</b>	<b>400</b>

Operating leverage = $\frac{C}{op}$	$\frac{1600}{1200} = 1.33$	$\frac{1600}{600} = 2.66$	$\frac{1600}{400} = 4$
	1200	600	400

### EBIT EPS ANALYSIS

EBIT-EPS analysis is a technique used to determine the optimal capital structure in which the value of earnings per share (EPS) has the highest amount for a given amount of earnings before interest and taxes (EBIT). In other words the objective of EBIT-EPS analysis is to determine the effect of using different sources of financing on EPS.

A company has the following capital structure. 10,000 equity shares of ₹ 10 each ₹1,00,000. 2000 10% preference shares of ₹ 100 each ₹ 2,00,000. 2000 10% debentures of ₹ 100 each ₹ 2,00,000. Calculate the EPS for each the EBIT i) 1,00,000 ii) 60,000 iii) 40,000 the company in 50% of tax, calculate financial leverage taking EBIT.

CALCULATION OF EPS			
Particulars	EBIT 1	EBIT 2	EBIT 3
EBIT	1,00,000	60,000	1,40,000
Less: Interest on debentures	20,000	20,000	20,000
<b>PBT</b>	<b>80,000</b>	<b>40,000</b>	<b>1,20,000</b>
Less: Income tax at 50%	40,000	20,000	60,000
<b>PAT</b>	<b>40,000</b>	<b>20,000</b>	<b>60,000</b>
Less: preference dividend	20,000	20,000	20,000
<b>Earning available for equity shareholders</b>	<b>20,000</b>	<b>-</b>	<b>40,000</b>
EPS = $\frac{EAES}{No\ of\ equity\ shares}$	20,000		40,000
No of equity shares	10,000		10,000

	EPS	2	NIL	4
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## THEORIES OF CAPITAL STRUCTURE

Capital Structure means a combination of all long-term sources of finance. It includes Equity Share Capital, Reserves and Surplus, Preference Share Capital, Loan, Debentures and other such long-term sources of finance. A company has to decide the proportion in which it should have its own finance and outside finance particularly debt finance. Based on the proportion of finance, WACC and Value of a firm are affected. There are four capital structure theories for this, viz. net income, net operating income, traditional and M&M approach.

### NET INCOME APPROACH

This approach was suggested by Durand and he was in favor of financial leverage decision. According to him, a change in financial leverage would lead to a change in the cost of capital. In short, if the ratio of debt in the capital structure increases, the weighted average cost of capital decreases and hence the value of the firm increases.

### NET OPERATING INCOME APPROACH

This approach is also provided by Durand. It is opposite of the Net Income Approach if there are no taxes. This approach says that the weighted average cost of capital remains constant. It believes in the fact that the market analyses a firm as a whole and discounts at a particular rate which has no relation to debt-equity ratio. If tax information is given, it recommends that with an increase in debt financing WACC reduces and value of the firm will start increasing.

### TRADITIONAL APPROACH

This approach does not define hard and fast facts. It says that the cost of capital is a function of the capital structure. The special thing about this approach

each is that it believes an optimal capital structure. Optimal capital structure implies that at a particular ratio of debt and equity, the cost of capital is minimum and value of the firm is maximum.

#### MODIGLIANI AND MILLER APPROACH (MM APPROACH)

It is a capital structure theory named after Franco Modigliani and Merton Miller. MM theory proposed two propositions.

Proposition I: It says that the capital structure is irrelevant to the value of a firm. The value of two identical firms would remain the same and value would not be affected by the choice of finance adopted to finance the assets. The value of a firm is dependent on the expected future earnings. It is when there are no taxes.

Proposition II: It says that the financial leverage boosts the value of a firm and reduces WACC. It is when tax information is available.

#### DETERMINANTS OF CAPITAL STRUCTURE

Trading on Equity

Desire to Retain Control

Size of Company

Nature of Business

Amount of capital Required

Cost of Financing

Growth Rate

Period of Finance

Flexibility

Profitability

Timing

Taxes

Attitude of Lenders

Purpose of Financing

## CAPITALISATION

Capitalisation is combination of owner's capital and borrowed capital. That means, it tells about total fund invested in a company. Share capitals, debentures, loans etc.

## OVER CAPITALISATION

In this, profits are not enough to pay interest on debentures and dividends to shareholders over a period of time. That means, amount generated is used to raise capital than required capital, which results decline in rate of returns.

## UNDER CAPITALISATION

Company will earn high profit than estimated, which gives additional funds to the company for expansion in form of profits. Goodwill of the company increases and return of capital increases