



# RAMA UNIVERSITY

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**FACULTY OF COMMERCE AND MANAGEMENT**

**COURSE: B.COM V SEM.**

**SUBJECT: FUNDAMENTAL TO FINANCIAL MANAGEMENT**

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**LECTURE: 26**

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## LECTURE-26



## Types of Leverage

There are three commonly used measures of leverage in financial analysis.

These are:

- (i) Operating Leverage
- (ii) Financial Leverage
- (iii) Combined Leverage

### Chart Showing Operating Leverage, Financial Leverage and Combined leverage

Profitability Statement			
Sales	xxx		
Less: Variable Cost	(xxx)		
Contribution	xxx	<input type="checkbox"/> Operating Leverage	<input type="checkbox"/>
Less: Fixed Cost	(xxx)	<input type="checkbox"/>	<input type="checkbox"/>
Operating Profit/ EBIT	xxx	<input type="checkbox"/> Financial Leverage	<input type="checkbox"/> Combined Leverage
Less: Interest	(xxx)	<input type="checkbox"/>	<input type="checkbox"/>
Earnings Before Tax (EBT)	xxx	<input type="checkbox"/>	<input type="checkbox"/>
Less: Tax	(xxx)	<input type="checkbox"/>	<input type="checkbox"/>
Profit After Tax (PAT)	xxx		
Less: Pref. Dividend (if any)	(xxx)		
Net Earnings available to equity shareholders/ PAT	xxx		
No. Equity shares (N)			
Earnings per Share (EPS) = (PAT ÷ N)			

### 1. Operating Leverage

Operating leverage (OL) may be defined as the employment of an asset with a fixed cost in the hope that sufficient revenue will be generated to cover all the fixed and variable costs.

The use of assets for which a company pays a fixed cost is called operating leverage. With fixed costs the percentage change in profits accompanying a change in volume is greater than the percentage change in volume. The higher the turnover of operating assets, the greater will be the revenue in relation to the fixed charge on those assets.

Operating leverage is a function of three factors:

- (i) Amount of fixed cost
- (ii) Variable contribution margin and
- (iii) Volume of sales.

$$\text{Operating Leverage (OL)} = \frac{\text{Contribution (C)}}{\text{Earnings before interest and tax (EBIT)}}$$

Where, Contribution (C) = Sales – Variable cost

$$\text{EBIT} = \text{Sales} - \text{Variable cost} - \text{Fixed cost}$$

## 2. Financial Leverage

Financial leverage (FL) may be defined as ‘the use of funds with a fixed cost in order to increase earnings per share.’ In other words, it is the use of company funds on which it pays a limited return. Financial leverage involves the use of funds obtained at a fixed cost in the hope of increasing the return

$$\text{Financial Leverage (FL)} = \frac{\text{Earnings before interest and tax (EBIT)}}{\text{Earnings before tax (EBT)}}$$

Where,  $\text{EBIT} = \text{Sales} - (\text{Variable cost} + \text{Fixed cost})$   
 $\text{EBT} = \text{EBIT} - \text{Interest}$

### Degree of Financial Leverage (DFL)

Degree of financial leverage is the ratio of the percentage increase in earnings per share (EPS) to the percentage increase in earnings before interest and taxes (EBIT). Financial Leverage (FL) is also defined as “the ability of a firm to use fixed financial charges to magnify the effect of changes in EBIT on EPS

$$\text{Degree of Financial Leverage (DFL)} = \frac{\text{Percentage change in earnings per share (EPS)}}{\text{Percentage change in earnings before interest and tax (EBIT)}}$$

or

$$\frac{\frac{\Delta \text{EPS}}{\text{EPS}}}{\frac{\Delta \text{EBIT}}{\text{EBIT}}}$$

$\Delta \text{EPS}$  means change in EPS and  $\Delta \text{EBIT}$  means change in EBIT

When DFL is more than one (1), financial leverage exists. More is DFL higher is financial leverage.

A positive DFL/ FL means firm is operating at a level higher than break-even point and EBIT and EPS moves in the same direction. Negative DFL/ FL indicates the firm is operating at lower than break-even point and EPS is negative.

## 3. Combined Leverage

Combined leverage may be defined as the potential use of fixed costs, both operating and financial, which magnifies the effect of sales volume change on the earning per share of the firm.

$$\begin{aligned} \text{Combined Leverage (Cl)} &= \text{Operating Leverage (OL)} \times \text{Financial Leverage (FL)} \\ &= \frac{C}{\text{EBIT}} \times \frac{\text{EBIT}}{\text{EBT}} \\ &= \frac{C}{\text{EBT}} \end{aligned}$$