

# ***FINANCIAL MANAGEMENT***

---

# Chapter -01

## *Introduction*

## Meaning of Business Financial

- Business finance refers to money and credit employed in business. Finance is the basic of business. It is required to purchase assets, goods, raw materials and for the other flow of economic activities.



# *Meaning of Financial Management*

- Financial management may be defined as planning, organising, directing and controlling the financial activities of an organisation. According to Guthman and Dougal, financial management means, “the activity concerned with the planning, raising, controlling and administering of funds used in the business.” It is concerned with the procurement and utilisation of funds in the proper manner.

# *Roles of financial management*

- Accounting and Bookkeeping
- Accounts Payables and Accounts Receivables
- Investment Opportunities
- Risk

# *Goals of Financial management*

- Disseminating
- Planning
- Managing Risks
- Exerting Controls

# PROFIT MAXIMIZATION

- Profit maximization is also called as cashing per share maximization. It leads to maximize the business operation for profit maximization.
- Ultimate aim of the business concern is earning profit.
- Profit is the parameter of measuring the efficiency of the business concern
- Profit maximization objectives help to reduce the risk of the business.





# Wealth Maximization



**Wealth  
Maximization**



# *Meaning of wealth maximization*

- **Wealth maximization is a modern approach to financial management. Maximization of profit used to be the main aim of a business and financial management till the concept of wealth maximization came into being. It is a superior goal compared to profit maximization as it takes broader arena into consideration. Wealth or Value of a business is defined as the market price of the capital invested by shareholders.**

# Chapter -02

## *Capital Budgeting*

# Meaning of capital budgeting

- *Capital budgeting, and investment appraisal, is the planning process used to determine whether an organization's long term investments such as new machinery, replacement of machinery, new plants, new products, and research development projects are worth the funding of cash through the firm's capitalization structure (debt, equity or retained earnings). It is the process of allocating resources for major capital, or investment, expenditures.<sup>[1]</sup> One of the primary goals of capital budgeting investments is to increase the value of the firm to the shareholders.*

# *Process of capital budgeting*

The capital budgeting process consists of five steps:

- ***Identify and evaluate potential opportunities***
- ***Estimate operating and implementation costs***
- ***Estimate cash flow or benefit***
- ***Assess risk***
- ***Implement***

# *Technique of capital budgeting*

## ***1. Traditional method***

- ***Pay back period***
- ***Accounting rate of return method***

## ***2. Discount method***

- ***Net present value method***
- ***Internal rate of return memethod***

# *Pay back period*

- The **payback period** refers to the amount of time it takes to recover the cost of an investment. Simply put, the **payback period** is the length of time an investment reaches a breakeven point. ... Shorter paybacks **mean** more attractive investments.

1. Company C is planning to undertake another project requiring initial investment of \$50 million and is expected to generate \$10 million net cash flow in Year 1, \$13 million in Year 2, \$16 million in year 3, \$19 million in Year 4 and \$22 million in Year 5. Calculate the payback value of the project.

Year	(cash flows in millions)	
	Annual Cash Flow	Cumulative Cash Flow
0	(50)	(50)
1	10	(40)
2	13	(27)
3	16	(11)
4	19	8
5	22	30

$$\text{Payback Period} = 3 + 11/19 = 3 + 0.58 \approx 3.6 \text{ years}$$



# Accounting rate of return method

- Accounting rate of return, also known as the Average rate of return, or ARR is a financial ratio used in capital budgeting.<sup>[1]</sup> The ratio does not take into account the concept of time value of money. ARR calculates the return, generated from net income of the proposed capital investment. The ARR is a percentage return.

**Example 1:** An initial investment of \$130,000 is expected to generate annual cash inflow of \$32,000 for 6 years. Depreciation is allowed on the straight line basis. It is estimated that the project will generate scrap value of \$10,500 at end of the 6th year. Calculate its accounting rate of return assuming that there are no other expenses on the project.

### **Solution**

**Annual Depreciation = (Initial Investment – Scrap Value) ÷ Useful Life in Years**

**Annual Depreciation = (\$130,000 – \$10,500) ÷ 6 ≈ \$19,917**

**Average Accounting Income = \$32,000 – \$19,917 = \$12,083**

**Accounting Rate of Return = \$12,083 ÷ \$130,000 ≈ 9.3%**

# Meaning of Net present value

- Net present value (NPV) is a method used to determine the current value of all future cash flows generated by a project, including the initial capital investment. It is widely used in capital budgeting to establish which projects are likely to turn the greatest profit.

Let us say Nice Ltd wants to expand its business and so it is willing to invest Rs 10,00,000. The investment is said to bring an inflow of Rs. 100,000 in first year, 250,000 in the second year, 350,000 in third year, 265,000 in fourth year and 415,000 in fifth year. Assuming the discount rate to be 9%. Let us calculate NPV using the formula.

Year	Flow	Present value	Computation
0	-1000000	-1000000	
1	100000	91743	$100000/(1.09)$
2	250000	210419	$250000/(1.09)^2$
3	350000	270264	$350000/(1.09)^3$
4	265000	187732	$265000/(1.09)^4$
5	415000	269721	$415000/(1.09)^5$

**Here NPV is Rs. 29881.**  
Since the NPV is positive the investment is profitable and hence Nice Ltd can go ahead with the expansion.

## *Meaning of Internal rate of return method*

- **The internal rate of return is a measure of an investment's rate of return. The term internal refers to the fact that the calculation excludes external factors, such as the risk-free rate, inflation, the cost of capital, or various financial risks. It is also called the discounted cash flow rate of return**

# What is the IRR Formula?

The IRR formula is as follows:

$$0 = CF_0 + \frac{CF_1}{(1 + IRR)} + \frac{CF_2}{(1 + IRR)^2} + \frac{CF_3}{(1 + IRR)^3} + \dots + \frac{CF_n}{(1 + IRR)^n}$$

Or

$$0 = NPV = \sum_{n=0}^N \frac{CF_n}{(1 + IRR)^n}$$

*Where:*

$CF_0$  = Initial Investment / Outlay

$CF_1, CF_2, CF_3 \dots CF_n$  = Cash flows

$n$  = Each Period

$N$  = Holding Period

$NPV$  = Net Present Value

$IRR$  = Internal Rate of Return

Here is an example of how to calculate the Internal Rate of Return.

A company is deciding whether to purchase new equipment that costs \$500,000. Management estimates the life of the new asset to be four years and expects it to generate an additional \$160,000 of annual [profits](#). In the fifth year, the company plans to sell the equipment for its salvage value of \$50,000.

Meanwhile, another similar investment option can generate a 10% return. This is higher than the company's current hurdle rate of 8%. The goal is to make sure the company is making best use of its cash.

To make a decision, the IRR for investing in the new [equipment](#) is calculated below.

Excel was used to calculate the IRR of 13%, using the function, `=IRR()`. From a financial standpoint, the company should make the purchase, because the IRR is both greater than the hurdle rate and the IRR for the alternative investment

Year	Cash Flows	PV of Cash Flows
0	-\$500,000	-\$500,000
1	\$160,000	\$141,247
2	\$160,000	\$124,692
3	\$160,000	\$110,077
4	\$160,000	\$97,176
5	\$50,000	\$26,808
NPV		0
IRR		13%

# Chapter -3

## ***Capital structure***



# Meaning of capital structure

- **The capital structure is the particular combination of debt and equity used by a company to finance its overall operations and growth. Debt comes in the form of bond issues or loans, while equity may come in the form of common stock, preferred stock, or retained earnings.**

# *Factors determining capital structure*

- **General Factors**
- **Internal Factors**
- **Macro Economic Factors**

# Calculation on Earnings Per Share

Number of shares outstanding as on 01-01-2010 are 2000. Fresh issue of 600 shares for cash on 31-05-2010. Buy back of 300 shares on 01-11-2010.

## Solution

The weighted average outstanding number of shares =  $(2000 \times 12/12) + (600 \times 7/12) - (300 \times 2/12) = 2300$  shares

# Meaning of Financial leverage and Formula

- **Financial leverage** is the use of debt to buy more assets. **Leverage** is employed to increase the return on equity. However, an excessive amount of **financial leverage** increases the risk of failure, since it becomes more difficult to repay debt.

- $FL = EBIT \div EBT$

Here EBIT = operating profits

Bob and Jim are both looking to purchase the same house that costs \$500,000. Bob plans to make a 10% down payment and take a \$450,000 mortgage for the rest of the payment (mortgage cost is 5% annually). Jim wants to purchase the house for \$500,000 cash today. Who will realize a higher return on investment if they sell the house for \$550,000 a year from today

	Bob	Jim
Down Payment	\$50,000	\$500,000
Debt	\$450,000	\$0
Cost of Debt	\$22,500	\$0
Sale of House	\$550,000	\$550,000
Profit (After Debt Paid)	\$27,500	\$50,000
Return on Investment	55%	10%

Although Jim makes a higher profit, Bob sees a much higher return on investment because he made \$27,500 profit with an investment of only \$50,000 (while Jim made \$50,000 profit with a \$500,000 investment).

## *Meaning of operating leverage and formula*

- **Operating leverage** is a cost-accounting formula that measures the degree to which a firm or project can increase **operating** income by increasing revenue. A business that generates sales with a high gross margin and low variable costs has high **operating leverage**

- **OL = Contribution ÷ Operating profits**

Here ,

**Contribution = Sales – Variable cost**

1. John’s Software is a leading software business, which mostly incurs fixed costs for upfront development and marketing. John’s fixed costs are \$780,000, which goes towards developers’ salaries and the cost per unit is \$0.08. The company sells 300,000 units for \$25 each. Given that the software industry is involved in the development, marketing and sales, it includes a range of applications, from network systems and operating management tools to customized software for enterprises.

Based on the company’s sales, fixed costs, and variable cost per unit, its operating leverage is calculated like this:

$$\text{DOL} = [\text{Quantity} \times (\text{Price} - \text{Variable Cost per Unit})] / [\text{Quantity} \times (\text{Price} - \text{Variable Cost per Unit}) - \text{Fixed Operating Costs}]$$
$$= [300,000 \times (25 - 0.08)] / (300,000 \times (25 - 0.08) - 780,000) = 7,437,000 / 6,657,000 = 112\% \text{ or } 1.12.$$

This means that a 10% increase in sales will yield a 12% increase in profits (10% x 11.2 = 120%).  
If the company increase sales to, let’s say, 450,000 units for \$20 each, the new DOL will be calculated like this:  
$$[450,000 \times (20 - 0.08)] / (450,000 \times (20 - 0.08) - 780,000) = 8,964,000 / 8,184,000 = 110\% \text{ or } 1.10.$$
  
This means that a 10% increase in sales will yield an 11% increase in profits (10% x 11 = 110%), but the company generates \$1,527,000 more in sales revenues (8,964,000 - 7,437,000 = 1,527,000). Note that costs remain unchanged and only by lowering the price the company increases its sales revenues.

Operating Leverage

112% = 
$$\frac{300,000 \times (25 - 0.08)}{(300,000 \times (25 - 0.08) - 780,000)}$$

Operating Leverage

110% = 
$$\frac{450,000 \times (20 - 0.08)}{(450,000 \times (20 - 0.08) - 780,000)}$$

# *Meaning of Combined Leverage and Formula*

- Combined leverage is a leverage which refers to high profits due to fixed costs. It includes fixed operating expenses with fixed financial expenses. It indicates leverage benefits and risks which are in fixed quantity. ... Degree of combined leverage indicates benefits and risks involved in this particular leverage.

$$CL = FL \times OL$$



Let’s assume that two companies have the following financial results:

Company Y:

•Sales: \$1,000,000 ,Total variable operating costs: \$400,000 , Fixed operating costs: \$200,000 , Interest: \$50,000

Company Z:

•Contribution margin: \$400,000 , Earnings before interest and taxes: \$300,000 , Interest: \$75,000

•Preferred dividends: \$35,000 , Tax rate is 30%.

The degree of combined leverage of Company Y is 1.71 and 2.29 for Company Z.

				\$1,000,000 -			
DFL of CompanyZ =	Contribution Margin		=	\$400,000		= 2.29	
	EBIT - I -	D		\$300,000 - \$75,000 -	\$35,000		
		1 - T			1 - 0.30		

If both companies face a 5% decrease in sales, Company Y loses 8.55% (5 × 1.71) of EPS and Company Z loses 11.45% (5 × 2.29).