

CHAPTER-1

1. FORMS OF BUSINESS ORGANISATION

(a) SOLE PROPRIETORSHIP:

- A sole proprietorship is a business owned by a single person.
- This is the simplest form of business with minimum regulation. Thus most firms start as sole proprietorship.
- The owner earns all profit and bears all losses.
- There is no diff b/w business and personal income and business income is taxed with personal income.
- Equity capital is limited to personal wealth of owner. Thus, difficult to expand.

(b) PARTNERSHIP:

- Partnership is a business shared / owned by 2 or more individuals. All the risk and profit is shared amongst partners.
- Partnerships are governed by Indian Partnership Act
- It is a tax entity. Tax rate is 30% of net profit

(c) LIMITED - LIABILITY PARTNERSHIP:

- Partnership must have at least 2 partners, of which atleast 1 should be Indian resident
- In this, the liabilities of the partners are limited.

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→ It is a tax entity with 30% tax on net profit

(d) COOPERATIVE:

→ A cooperative is an organization with objective of promotion of economic interest of members subject to certain cooperative principles

→ For being a cooperative:

(a) must have minimum of 10 members, and no limit on maximum no.

(b) the dividend capital varies to ceiling of 9%, and rest of the profit is distributed as bonus

(c) mgmt team is decided by "one member one vote"

(e) ADVANTAGE:

(a) No limit on members

(b) gets finances from govt.

(c) easily formed

(f) DISADVANTAGE:

(a) No benefit of ^{providing} capital because of low dividend funds

(b) cooperatives cannot employ any person

(c) Some influential people exploit cooperative for their benefit

(g) COMPANY:

→ A firm jointly owned by share-holders.

→ For a company to exist:

(a) Company name must be registered at ROC (Registrar of Company).

(b) Memorandum of Association and article of association must be in accordance to ROC.

→ Liability of share-holders is limited to Share-capital.

→ Tax has to be paid on profits share-holders pay tax on dividend received, thus double taxation

→ Very difficult to stand because it must follow Company Act.

→ 2-types of Companies:

(i) Public Limited Company

(ii) Private Limited Company

(iii) In Public limited atleast 7 shareholders
In Private limited, shareholders can be b/w 2-50

(iv) In Public limited, shares can be sold in public whereas this is not allowed in Private Limited.

→ Large companies (like Reliance) prefer to be Public limited because

(a) Investor risk is less

(b) growth is more due to public funding

2. FINANCIAL DECISIONS OF FIRM

(a) CAPITAL BUDGETING:

→ decide what all businesses the company or firm will invest in.

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→ decide whether they want to invest in long term assets like equipment, machinery, showroom, IT infrastructure, godowns etc

(b) CAPITAL STRUCTURE:

- Once we know businesses to invest, we decide how to gather the finances
- What is the ratio of debt vs equity funds
- What are the sources of debt and equity funds
- At what price should firm offer its securities.

(c) WORKING CAPITAL MGMT:

- Working capital is finances required for day-to-day operation of business.
- It comprises of current assets (cash, short-term investment) and current liabilities (short-debts)
- What is the liquid cash available to us.

3. GOALS OF FINANCE MGMT

(a) Maximising value of firm. Firm's value depend on debt and equity of firm. As debt is almost constant, we have to maximise the equity of firm

(b) Maximising the profit.

This has certain disadvantages like:

- (i) Profit is not absolute. It is a comparative term

(ii) There are no considerations of time and duration.

(c) Maximising the earning per share.

Handles problem (i) but not (ii)

(d) Given a share, we have 2 choices

(i) maximise current share value. This will improve short term finances of firm

(ii) maximise ^{intrinsic} share value. This will improve future long term finances of firm
So we maximise the weighted avg of
turn : $W_S C + W_E I$
_{current} _{intrinsic}

4. FUNDAMENTAL PRINCIPLE OF FINANCE

It states that, a business proposal, whether it is a new investment, or acquisition of some existing business, is said to be financially productive if:

"Present value of future cash benefits > initial cash outlay"

net present value (NPV) = present value of future cash benefits
- initial cash outlay.

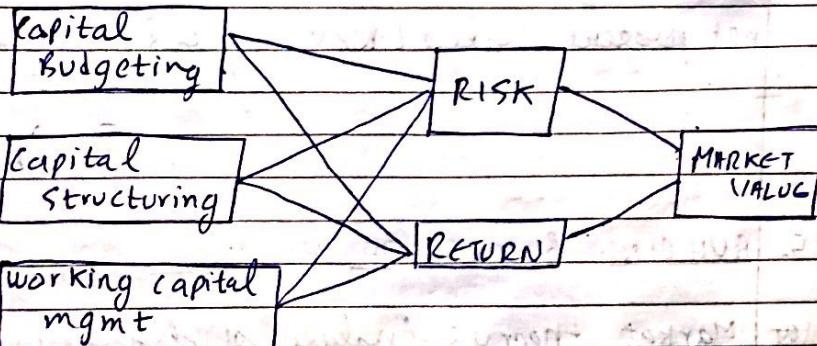
5. BUILDING BLOCKS OF FINANCE

- (a) Market theory: Analysis of change in market price over time in past

- (b) Portfolio theory: Formulation of optimal portfolio theory
- (c) Asset Pricing theory: Determination of asset price under uncertain scenarios
- (d) Option Pricing theory: Determination of option price
- (e) Agency theory: Analyses of conflicts in contracts

6. RISK-RETURN TRADEOFF

- Different financial decisions face different risk-return implications
- (i) whether to buy a larger plant or smaller plant. Larger plant implies high risk and high return. Smaller plant implies low risk and low return.
- (ii) whether to keep debt-equity ratio at 2:1 or 1:1. 2:1 ratio saves us from taxes but increases risk. 1:1 ratio keeps us safe.
- Before any financial decision, we must study risk-return characteristics and its impact on market value.



- 7. AGENCY PROBLEMS
 - In large companies, the owners usually have professional managers. So mgmt and ownership is separate.
 - ADVANTAGE
 - (i) Professional managers are skilled people with technical expertise and thus are advantageous for firm.
 - (ii) Some companies have hundreds-thousands of owners. Active participation of all owners is not possible.
 - DISADVANTAGE
 - (i) There are conflicts b/w mgmt and ownership.
 - (ii) Managers work in way that doesn't maximise shareholder's profit.
 - (iii) Managers have sufficient autonomy so they work to satisfy individual goals.
 - This causes Agency cost. It is defined as difference of actual and hypothetical value of firm when mgmt and ownership works in sync.
 - To minimize this:
 - (i) regular check & audits on managers
 - (ii) set restrictions on access given to mgmt
 - (iii) incentives in form of bonus, cash reward.

8. BUSINESS ETHICS AND SOCIAL RESPONSIBILITY

BUSINESS ETHICS

- (a) Business ethics deals with moral of

conduct and moral values related to business

- (b) An organization that interacts with people customers, suppliers, workers etc must work in a fair way.
- (c) Following business ethics is directly positively correlated to profit. If we work ethically, * we earn trust of people * save ourselves from legal expenses/ fines * gain support of staff * help in growth and sustainability of business.

CORPORATE SOCIAL RESPONSIBILITY

- (a) CSR can be defined as running a business that is beneficial for economic growth of enterprise, and also helps in improving lives of workers and their families and contribute towards society in a large way.
- (b) Govt has made it compulsory to spend 2% of net-profit for public limited and 1% of net-profit for private limited companies for CSR.
- (c) Arguments in favour of CSR say that business entities have massive resources to help in benefit of society. Arguments against CSR say that aim of business is to earn profit for shareholders, working of society is job of govt.

ROLE OF FINANCIAL MANAGER

9. → Due to some changes, role of financial manager in India has been intensified.
 - (a) freedom is given to companies to price their securities
 - (b) industrial license is relaxed
 - (c) mergers, acquisitions and restructuring are all racing fast
 - (d) investors are more complaining & demanding
- Some responsibilities of financial manager are:
 - (a) Investor relations
 - (b) Performance mgmt
 - (c) Risk mgmt
 - (d) Working capital mgmt
 - (e) Financial structure
 - (f) Investment planning
 - (g) Mergers, Acquisition and restructuring

ROLE OF ECONOMICS AND ACCOUNTING IN FINANCE

ECONOMICS

- (a) Economics is closely related to finances of the firm in 2 ways : macro-economic and micro-economic
- (b) Macro-economic conditions decide the region where a financial firm operate. No financial manager can ignore macro-economic factors like taxation policy of ^{govt} firm, rate of inflation, real rate of interest, risk associated etc. that may affect the firm
- (c) Micro-economic conditions decide and

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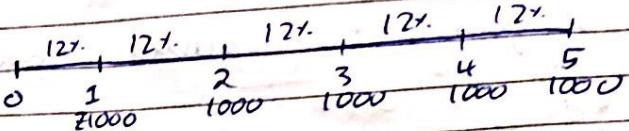
govern the financial decisions made by the firm

→ ACCOUNTING

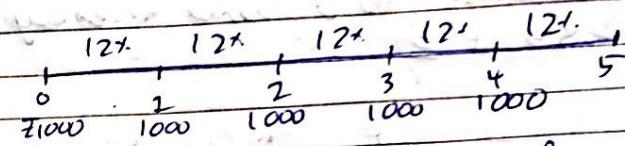
- Accounting and Finance are 2. very closely related terms
- Score keeping VS VALUE MAXIMISATION. Accounting deals with score keeping. All the financial records are maintained in accounting. In financing, we try to study the records and maximise the value of firm.
- CERTAIN VS UNCERTAIN. Accounting deals with past records of the firm. Thus accounting is highly certain. Financing deals with taking financial decisions of future thus it is highly un-certain.

→ TIME-LINES

Option 1: we pay ₹1000 after end of every year



Option 2: we pay ₹1000 start of every year



→ FV = Future value of single amount
PV = Present value of single amount

$$FV = PV (1+r)^n \rightarrow \text{Time}$$

↳ Interest rate

↳ Future Value Interest Factor

$$PV = \frac{FV}{(1+r)^n}$$

↳ $\frac{1}{(1+r)^n}$

where $\frac{1}{(1+r)^n}$ = discounting factor / present value interest factor.

- PV means we get money today and we repay it in future. e.g. loan
- FV means we deposit money today, what we will get in future. e.g. FD's
- COMPOUND INTEREST
= interest is re-invested every year

SIMPLE INTEREST

→ No interest is earned on interest
 $\rightarrow FV = PV(1 + rt \times r)$

→ RULE OF 72

Time required to double money
 $= \frac{72}{r}$

→ RULE OF 69

Time required to double money
 $= 0.35 + \frac{69}{r}$

→ PRESENT VALUE OF UNEVEN SERIES

$$PV_1 = A_1 + A_2 + \dots + A_n$$

$$\frac{1}{1+r} + \frac{1}{(1+r)^2} + \dots + \frac{1}{(1+r)^n}$$

→ FUTURE VALUE OF ANNUITY

ANNUITY can be defined as a stream of constant cash flows occurring at regular intervals. If ANNUITY is given at end of each period, it is called ORDINARY OR DEFERRED ANNUITY, and if ANNUITY is given at beginning of each period, it is called ANNUITY DUE.

* FUTURE VALUE OF ANNUITY = DEFERRED ANNUITY

$$FVA_n = PV \left[\frac{(1+r)^n - 1}{r} \right]$$

↓
Future value of Annuity

↓ Future value of annuity interest factor

→ PRESENT VALUE OF ANNUITY

$$PVA_n = FV \left[\frac{1 - (1+r)^{-n}}{r} \right]$$

↓
Present value of annuity

↓ Present value interest factor for annuity

→ LOAN AMORTISATION SCHEDULE

Year	Beginning amount (1)	Installment (2)	Interest on (2) (3)	Repayment (2)-(3)-(4)	Principal balance (1)-(4)
1	PVA _n	FV			
2		←			
3	:	:			
4	:	:			
5	:	:			

SOLVED PROBLEMS

$$(1) FV = 5000 (1 + 0.09)^{15} = 3205954$$

$$(2) t = 72 = 12 \text{ years} \quad t = 0.35 + \frac{69}{12} = 11.85 \text{ years}$$

$$t = 72 = 6 \text{ years} \quad t = 0.35 + \frac{69}{12} = 6.9 \text{ years}$$

$$(3) FV = 5000 \left(\frac{(1.14)^{15} - 1}{0.14} \right) = 219212$$

$$(5) 44650 = 6000 \left(\frac{(1+r)^5 - 1}{r} \right)$$

$$7.4416r = (1+r)^5 - 1$$

$$r = 0.2$$

CHAPTER -3

→ CAPITAL BUDGETING

- (i) Capital budgeting is a task of identifying the business projects and business ideas a firm wants to invest in.
- (ii) Capital budgeting is performed for big capital involving investments like purchasing plants, machinery, equipments inventory, godowns etc, or investing in new projects.

→ PHASES OF CAPITAL BUDGETING

(I) IDENTIFY THE INVESTMENT IDEAS

- (a) The first phase is to identify various investment proposals to invest in. Here, we gather information of production sales and future targets
- (b) To identify the investment plans,
 - (i) monitor the external environment
 - (ii) prepare a corporate strategy
 - (iii) discuss the corporate strategy with people to get their point of view.
 - (iv) motivate people to suggest investment ideas

(II) ASSEMBLE THE INVESTMENT PROPOSALS

- (a) Investment proposals go through series of different people before reaching the capital budgeting team. This helps us in understanding investment proposal from various angles.

(b) Categorise business proposals in one of 4 categories

- (i) expansion investment
- (ii) replacement investment
- (iii) welfare investment
- (iv) new product investment

(III) DECISION MAKING

(a) A series of executives decide whether to approve the investment or not

(b) Different executives can approve different levels of investments. For eg, a plant superintendent can approve investment of ₹ 2,00,000, works manager can approve ₹ 5,00,000, managing director can approve ₹ 20,00,000 and for higher capital, we require approval of board of directors.

(IV) CAPITAL BUDGETING

(a) Capital budgeting is required for larger capital investments.

(b) This keeps a check on whether firm has enough capital to implement the investment or not.

(V) IMPLEMENT

(a) Implementation involves problems like increasing complexities, delayed delivery, shortage of cash, funds etc.

(b) For avoiding all this, we should:

- (i) Perform people formulation, doing all homework and paper-work before starting
- (ii) Use network techniques like PERT (Programme Evaluation Review Technique) and CPM (Critical Path Method) for monitoring
- (iii) Take help from project manager to ensure timely delivery

(VI) PERFORMANCE REVIEW

This is a post-investment review. In this phase, we check whether actual project is in accordance to projected investment or not.

→ CAPITAL BUDGETING TECHNIQUES

INVESTMENT CRITERIA decides various techniques to find whether we should invest in an investment or not

INVESTMENT CRITERIA

↓
DISCOUNTING
concerned with time value of money

↓
NON-DISCOUNTING
not concerned with time value of money

↓ Net Value (NPV)	↓ Benefit Cost Ratio	↓ Internal Rate of Return	↓ Payback Period	↓ Accounting Rate of Return
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NET PRESENT VALUE (NPV)

(a) NPV is defined as net present value including both positive and negative cash-flows.

(b) $NPV = \sum \text{Present Value} - \text{Initial Investment}$

NPV	OUTCOME	NPV RULE
> 0	Invest	
= 0	Indifference	
< 0	Do not INVEST	

Eg.	Year	Cash flow	DISCOUNTING RATE
	0	1,000,000	
	1	30000	-10%
	2	40000	
	3	45000	

$$NPV = \frac{30000}{1.1} + \frac{40000}{(1.1)^2} + \frac{45000}{(1.1)^3} - 1000,000$$

$$= 27272 + 33057 + 33809 - 1000,000 \\ = -905862 < 0$$

BENEFIT-COST RATIO (BCR)

(a) BCR is defined as ratio of present value of benefit to initial cost of investment

$$BCR = \frac{\sum \text{Present Value}}{\text{initial cost}}$$

(b) $\text{Net BCR} = \sum \text{Present Value} - I = BCR - 1$

I = Initial cost

BCR	NBCR	Outcome
> 1	> 0	Invest
= 1	= 0	Indifferent
< 1	< 0	Do not INVEST

INTERNAL RATE OF RETURN (IRR)

- (a) It is defined as the rate of discount that makes $NPV = 0$
- (b) In other words

$$\text{Initial Investment} = \sum \frac{C_i}{(1+r)^i}$$

STEPS:

- (i) Find r by method of trial and error
Find r_1 and r_2 s.t.

$$\sum \frac{C_i}{(1+r_1)^i} = I_1 \quad \sum \frac{C_i}{(1+r_2)^i} = I_2$$

$$I_1 \geq I \quad I_2 \leq I \quad r_2 = r_1 + 1$$

$$(ii) S = \text{abs}(I_1 - I) + \text{abs}(I_2 - I)$$

(iii) $r = r_1 + \frac{S}{\text{abs}(I_1 - I)}$ This is a close approximation

- (d) If $IRR > \text{Cost of Capital}$ INVEST
Else DO NOT INVEST

PAYOUT PERIOD

(a) It is defined as the time required for cash flows to repay the original investment.

(b) For eg., if investment = 1,00,000 and cash flow is

Year	Cash-flow
1	50,000
2	30,000
3	20,000
4	40,000

then Payback period = 3 years
as $50000 + 30000 + 20000 = \text{initial investment}$.

For ~~to~~ constant cash flow, payback period = $\frac{\text{initial investment}}{\text{constant cash flow}}$

For eg., if constant cash flow = 30,000
Payback period = $\frac{1,00,000}{30,000} = 3.34 \text{ years}$

(c) Ideally, payback period should be as less as possible. Firms set a threshold of n years.

If $\text{payback period} < n \rightarrow \text{INVEST}$
Else $\rightarrow \text{DO NOT INVEST}$

(a) It is defined as ratio of avg profit after tax to average book value of investment.

(b) For eg.

Year	Book Value of Investment	Profit after tax
1	90000	20000
2	80000	40000
3	60000	30000

ACCOUNTING RATE OF RETURN

$$= \frac{\frac{1}{3}(20K + 40K + 30K)}{3} = \frac{9 \times 100\%}{23} \\ = \frac{1(90K + 80K + 60K)}{3} = 39\%$$

(c) Ideally, it should be as high as possible. Firms set a threshold of 20-30%. If accounting rate of return \geq threshold $\rightarrow \text{INVEST}$
Else $\rightarrow \text{DO NOT INVEST}$

PROJECT CLASSIFICATION

I) MANDATORY PROJECTS

(a) These are the projects that are necessary and do not generate any profit.

(b) For eg., fire fighting equipments, pollution control, medical facilities etc.

II) REPLACEMENT PROJECTS

ACCOUNTING RATE OF RETURN

- (a) Companies usually invest a lot in replacing old existing equipments and tools that are in serviceable condition with new ones
- (b) This ensures better yield, better quality, less cost (of labour, raw material, time)

(IV) EXPANSION PROJECTS :

- (a) The projects that forecast growth and expansion of capital of firm
- (b) They are highly risky and complex, thus require involvement of top mgmt.

(V) DIVERSIFICATION PROJECTS :

- (a) The projects that invest in new products or service or diversify existing products and service to new geographical location
- (b) Involves high capital investment and thus involves decisions of board of directors.

(VI) R&D PROJECTS :

- (a) Traditionally, less capital was invested for R&D projects, but now companies are heavily investing in these R&D projects.
- (b) Involve decisions of basis of managerial judgement.

(VII) MISCELLANEOUS PROJECTS :

- (a) The projects that do not fall in any category like educational facilities, interior, galdening, CSR etc. come under this category.