

Department of Commerce
University of Calcutta

Study Material
Cum
Lecture Notes

**Paper: CC.301: Strategic Financial
Management and Business Valuation (SFMBV)**

Only for the Students of M.Com. (Semester III)-2020

University of Calcutta
(Internal Circulation)

Paper CC. 301 Strategic Financial Management and Business Valuation

Module I: Strategic Financial Management

1. **Introduction:** Concepts and Importance of Strategic Financial Management, Strategic Financial Decision Making, Financial Policy and Strategic Management.
2. **Investment Decisions:** Complex Capital Budgeting Decisions, Capital Rationing, Risk Analysis in Capital Budgeting, Inflation Impact on Capital Budgeting Decisions, Lease Financing, Leveraged Lease, Hire Purchase Financing.
3. **Cost of Capital & Dividend Decisions:** Significance, Weighted Average Cost of Capital, Marginal Cost of Capital, Divisional and Project Cost of Capital, Dividend Decisions – Modigliani and Miller Dividend Irrelevance Theory.
4. **Financing Decisions:** Theories of Capital Structure - Modigliani and Miller Approach, Effect of Bankruptcy Costs, Agency Costs and other Imperfections, Donaldson's Pecking Order Theory, Signaling or Asymmetric Information Theory, Leverage- Operating, Financial and Combined.
5. **Working Capital Management Decisions:** Operating Cycle and its Relevance, Receivables Management, Inventory Management, Cash Management- Baumol's Model, Beranek Model and Miller-Orr Model.
6. **Project Financing Decisions:** Infrastructure Project Financing, Financing of PPP projects, Startup Financing.

Distribution of Classes

1. **Introduction:** Lecture 1
2. **Investment Decisions:** Complex Capital Budgeting Decisions, Capital Rationing, Risk Analysis in Capital Budgeting, Inflation Impact on Capital Budgeting Decisions, Lease Financing, Leveraged Lease, Hire Purchase Financing.

Lectures 1 & 2

Recapitulation of Methods: Traditional and DCF Techniques, advantages and disadvantages

Conflict in ranking between NPV and IRR in mutually exclusive investment projects: Reasons for conflict (Time, Size and Life Disparity: Problems & Discussions)

Lectures 3&4

Capital Rationing: Internal and external factors, divisible and indivisible projects

Inflation and Capital Budgeting: Problems and discussions

Lectures 5 & 6

Risk Analysis in Capital Budgeting: Traditional (Risk adjusted discount rate and certainty equivalent) and Probabilistic measures (Standard Deviation and Coefficient of Variation) : Problems and discussions

Lecture 7

Lease Financing, Leveraged Lease, Hire Purchase Financing: Discussion only

5. **Working Capital Management Decisions:** Operating Cycle and its Relevance, Receivables Management, Inventory Management, Cash Management- Baumol's Model and Miller-Orr Model.

Lecture 1&2

Introduction: Importance of Working Capital Management, Components, Operating Cycle and its Relevance

Receivables Management: Problems on change of credit terms -- period and discount

Lecture 3&4

Inventory Management – Discussion only

Cash Management – Discussion and Problems on Baumol's Model and Miller-Orr Model.

Distribution of classes is based on normal class room teaching-learning under physical mode. For online / electronic mode of classes under Pandemic, teachers concerned may adjust the same.

Suggested Readings

- Van Horne, J.C., *Financial Management & Policy*, Pearson.
- Banerjee, B., *Financial Policy and Management Accounting*, PHI.
- Chandra, P., *Financial Management: Theory and Practice*, Tata McGraw Hill.
- Khan, M.Y. and Jain, P.K., *Financial Management: Text, Problems and Cases*, Tata McGraw Hill.
- Ravi M. Kishore, *Financial Management- Theory, Problems & Cases*, Taxmann
- CA Study Materials

Paper CC 301: Strategic Financial Management and Business Valuation

Module I: Strategic Financial Management

- 1. Brief Introduction (Unit 1)**
- 2. Capital Budgeting or Long-term Investment Decisions (Unit 2)**
- 3. Working Capital Management Decisions (Unit 5)**

D.R.Dandapat, Dept of Commerce, CU

Brief Introduction

Finance is considered as life blood of any business firm.

Financial Management is concerned with the procurement of funds and its utilization in such a manner so that the value of the firm / wealth of the owners (shareholders) is maximized. The primary responsibility of a finance manager is to acquire required funds and investing those funds in profitable ventures for generating adequate return to the firm that will maximize shareholders' wealth / value of the firm.

Major financial management decisions are: (i) Investment Decisions (Short-term or Working Capital Decision or Working Capital Management and Long-term or Capital Budgeting Decisions / Capital Investment/ Capital Expenditure Decisions), (ii) Financing Decisions and (iii) Dividend Decisions.

Financial Management with strategic emphasis / focus may be considered as Strategic Financial Management. Strategic Financial Management refers to the study of finance with a long term perspective which takes into account the strategic goals of the enterprise. Strategic financial management aims at ensuring that the organization remains on track to attain its short-term and long-term goals, identifies the possible strategies, allocate scarce resources among competing opportunities. It also involves the implementation and monitoring of the chosen strategy so as to achieve stated objectives. Strategic financial management involves various steps that encompasses the full range of a company's finances, from setting out objectives and identifying resources, analyzing data and making financial decisions, to tracking the variance between actual and budgeted results and identifying the reasons for this variance. The term "strategic" means that this approach to financial management has a long-term horizon. The Chartered Institute of Management Accountants of UK [CIMA] defines Strategic Financial Management as "the identification of the possible strategies capable of maximising an organisation's Net Present Value (NPV), the allocation of scarce capital resources between competing opportunities and the implementation and monitoring of the chosen strategy so as to achieve stated objectives.

2. Capital Budgeting or Long-term Investment Decisions (Unit 2)

Capital Investment involves cash outflow for acquiring long-term assets or undertaking projects or setting up of plants, etc., in anticipation of cash inflow or return in future. It usually involves large amount of investment, long period of time and huge amount of losses if any wrong decision is taken for which decision may have to be reversed/ changed and further investment has to be made. Therefore, one has to be very careful while making investment decisions as long-term profitability, survival and growth of any organisation largely depends on such decisions.

Capital Budgeting is a process of planning capital expenditure which is to be made for maximising long-term profitability of the organisation with a view to maximising wealth of the owners of the organisation..

Capital Investment may be required for purchasing a new asset, replacement of old ones, modernisation, expansion, diversification, etc.

Decision concerning capital investment involves the following processes:

Planning (Identifying the investment opportunities), searching for alternatives, analysis and evaluation of alternatives, selection of the best alternatives, implementation and monitoring.

Apart from Financial Analysis, it involves other analyses like Technical Analysis, Market Analysis, Economic or Social Cost Benefit Analysis, Environmental Analysis, etc.

For Financial Analysis, various techniques are used :

Traditional: Accounting or Average Rate of Return (ARR), Pay Back Period, Pay Back Profitability, etc.

Discounted Cash Flow: Net Present Value (NPV), Internal Rate of Return (IRR), Modified NPV, Modified IRR, Profitability Index, Discounted Pay Back Period, Adjusted Present Value Method, etc.

[Students are advised to go through different methods of financial appraisal as mentioned above and solve some problems for recapitulating the preliminaries covered at the B.Com. level.]

Conflict in ranking under NPV and IRR (NPV vs. IRR)

In case of Mutually Exclusive Independent Projects, ranking under NPV and IRR may not always be same. Primary reason of the difference or conflict in ranking is the difference in re-investment rate assumptions. In case of NPV, it is cost of capital while in case of IRR, it is the IRR itself. Apart from that, there may have size disparity, time disparity and life disparity of the project

- **Size Disparity** (Difference in amount of investment): Incremental IRR approach may be followed to resolve the conflict.
- **Time Disparity** (Difference in timing / pattern of cash flows): Conflict may be resolved using Modified NPV / Modified IRR
- **Life Disparity** (Difference in lives of the projects): Equivalent Annual Benefit approach may be followed for resolving the conflict.

Example:

A. Size Disparity

	Project A	Project B
Investment	Rs. 5,00,000	7,50,000
Cash Inflow	Rs. 6,25,000	9,15,000
at the end of Year 1		
k = 10%		

Calculate NPV and IRR and suggest which of A and B should be selected.

NPV A: Rs.68,125, B: Rs. 87,135

IRR A: 25% B: 22%

There is a conflict in ranking and such conflict arises due to difference in the size of investments. Therefore, Incremental IRR may be used to resolve the conflict.

Incremental Outflow: Rs.2,50,000; Incremental Inflow: Rs. 2,90,000

Incremental IRR: 16% which is more than the k.

So, project with higher investment will be selected, i.e., Project B.

B. Time Disparity

		Project A	Project B
Investment	Rs.	1,10,000	1,00,000
Cash Inflow	Rs.		
Year 1		31,000	71,000
Year 2		40,000	40,000
Year 3		50,000	41,000
Year 4		70,000	20,000

K = 10%

Soln. NPV A: Rs.36,600 B: Rs.31,300 (appx.)

IRR A: 22% B: Rs. 25% (appx.)

Conflict in ranking due to time disparity. It may be resolved using modified NPV /IRR

Assuming 14% re-investment rate, TV of A : Rs.2,24,911, TV of B: Rs.2,23,911

Modified NPV: $TV/(1+k)^n - I$

A: $Rs.2,24,911 / (1.10)^4 - 1,10,000 = Rs.43,614$

B: $Rs. 2,23,911 / (1.10)^4 - 1,10,000 = Rs.42,931$

Modified IRR: $TV/(1+r^*)^n - I = 0$, or $TV/I = (1+r^*)^n$

Or, $1+r^* = (TV/I)^{1/n}$ or, $r^* = (TV/I)^{1/n} - 1$

A: $(2,24,911 / 1,10,000)^{1/4} = 19.57\%$

B: $(2,23,911 / 1,10,000)^{1/4} = 19.32\%$

Project A with higher Modified NPV / IRR should be selected.

C. Life Disparity

		Project A	Project B
Investment	Rs.	2,00,000	2,00,000
Cash Inflow	Rs.		
Year 1		3,00,000	80,000
Year 2			80,000
Year 3			2,80,000

K = 12%

Soln.	NPV	67,857	1,34,512
	IRR	50%	40%
	Life	1 year	3 years

Equivalent Annual Benefit: NPV x Capital Recovery Factor (Inverse of PVIFA_n)

For A: $NPV \times 1/(1/1.12) = NPV \times 1.12$

For B: $NPV \times 1/[(1/1.12) + (1/1.12)^2 + (1/1.12)^3]$

EAB of A; Rs.75,999

EAB of B: Rs.55,957

Based on EAB, Project A should be selected.

Modified NPV with three-year time horizon and 20% reinvestment rate:

TV of A: Rs.4,32,000

TV of B: Rs. 4,91,200

Modified NPV

A: $\text{Rs.}4,32,000/1.12^3 - 2,00,000 = \text{Rs.}3,07,489 - 2,00,000 = \text{Rs.}1,07,489$

B: $\text{Rs.}4,91,200/1.12^3 - 2,00,000 = \text{Rs.}3,49,626 - 2,00,000 = \text{Rs.}1,49,626$

Based on Modified NPV with equal time horizon (three years), Project B is better.

So, depending on the method used, selection may differ.

CAPITAL RATIONING

Capital rationing situation refers to the situation when all the projects cannot be accepted even if they are acceptable otherwise because of financial constraints. The selection is based on maximisation of NPV.

Capital rationing may be due to internal reasons or it may be due to external factors.

Internal restriction is due to lack of adequate fund for capital investments or it may be due to imposition of restriction or limit specified by the management following conservative approach. External reason is mainly due to inability to raise required fund from the external sources.

The projects may be DIVISIBLE or INDIVISIBLE.

DIVISIBLE projects are selected based on PI

INDIVISIBLE projects are selected based on cumulative NPV of the feasible combination of projects.

Example:

Total fund available – Rs. 7,00,000

Project	Investment	NPV	PI
A	Rs.3,00,000	60,000	1.20
B	2,00,000	50,000	1.25
C	2,50,000	1,50,000	1.60
D	6,00,000	1,80,000	1.30

(i) Assuming the projects are divisible, projects are arranged in descending order of PI

Project Rank	Investment	NPV	PI	Cum. Inv.	Cum. NPV
C	1 2,50,000	1,50,000	1.60	2,50,000	1,50,000
D	2 6,00,000	1,80,000	1.30	8,50,000	3,30,000
B	3 2,00,000	50,000	1.25		
A	4 3,00,000	60,000	1.20		

Project C in full + Part of Project D (with the balance fund)

Rs. 2,50,000 for C + Rs.4,50,000 for part of D

NPV = Rs. 1,50,000 + (4,50,000/6,00,000) x 1,80,000

= 1,50,000 + 1,35,000 = Rs.2,85,000

(ii) Assuming the projects are indivisible, choice will be based on the combinations with highest NPV

Keeping in view the investible fund of Rs.700,000,

Feasible combinations are:

	Investment	NPV	Unutilised fund
Only D	Rs. 6,00,000	1,80,000	1,00,000
C+B	4,50,000	2,00,000	2,50,000
C+ A	5,50,000	2,10,000	1,50,000
A +B	5,00,000	1,10,000	1,00,000

Best combination is C & A with maximum NPV.

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INFLATION AND CAPITAL BUDGETING

Capital budgeting decisions will be unrealistic if the impact of inflation is not incorporated in the analysis. Cash flow estimates will not reflect the real purchasing power.

The real cash flows are substantially lower than the nominal cash flows.

Therefore, the nominal cash flows are to be converted to real cash flows using inflation rate for discounting the nominal cash flows.

NPV using Cost of Capital or IRR will be calculated taking the Real Cash Flows.

$(\text{Nominal Cash Flows}_t) \div (1 + \text{Inflation Rate})^t = \text{Real Cash Flows}_t$

$\text{PV of Real Cash Flows}_t = \text{Real Cash Flows}_t / (1 + k)^t$

$= \text{Nominal Cash Flows}_t / (1 + \text{Inflation Rate})^t / (1 + k)^t$

Nominal rate of discount $= (1 + \text{Inflation Rate})^t \times (1 + k)^t - 1$

If Inflation Rate (IR) is 5% and Cost of Capital (k) is 10%,

Nominal Rate is: $(1 + 0.05)(1 + 0.10) - 1 = 1.05 \times 1.10 - 1 = 1.155 - 1 = 0.155$ or 15.5%

If the nominal cash flow is Rs. 15500 at the end of year 1,

The PV of real cash flows $= 15500 / 1.155 = \text{Rs.}13,420$

If a two step process is followed,

Real cash flow $= 15500 / 1.05 = 14762$ (Nominal Cash Flows are discounted at Inflation Rate)

PV of Real Cash Flow $= 14762 / 1.10 = 13420$ (Real Cash Flows are discounted at k)

Example:

Investment Rs.50,000, K = 10%, Inflation Rate = 5%

Nominal Cash Flow	PV using k	Real Cash Flow	PV of Real Cash Flows
Rs.10000	9090	9524	8658
Rs.20000	16540	18140	14992
Rs.30000	22560	25915	19470
Rs.10000	<u>6830</u>	8227	<u>5619</u>
PV	55020		48739
Investment	<u>50000</u>		<u>50000</u>
NPV	5020		(1261) Negative

RISK ANALYSIS IN CAPITAL BUDGETING

Risk arises in investment evaluation because we cannot anticipate the occurrences of the possible future events with certainty, and consequently, cannot make any correct prediction about the cash flow sequence.

The word 'uncertainty' is traditionally applied to the situation where no probability can be assigned to the possible outcomes and the word 'risk' is used where a probability can be assigned to each of the possible outcomes.

CONVENTIONAL TECHNIQUES TO HANDLE RISK

1. Payback Period

2. **Risk Adjusted Discount Factor** – the more uncertain the returns in the future, the greater the risk and the greater the premium is required. ($K = i + \hat{O}$, where i = risk free rate and \hat{O} = risk premium)

NPV =

3. Conservative Forecasts or Certainty Equivalent

Probability Distribution Approach

Cash flows may be dependent or independent over time.

Independent Cash Flows: NPV =

S.D. of each period:

Risk of the project = S.D. of the probability distribution of the NPV under the assumption of

(i) Independence of cash flows over time

$\sqrt{\text{Summation of P.V. of Variances of different periods}}$

(ii) Perfectly correlated cash flows over time

Summation of P.V. of S.D. of different periods

(iii) Moderately correlated cash flows over time

$\sqrt{\sum (\text{NPV}_j - \text{ENPV})^2 \cdot P_j}$

Example:

Cash outflow Rs.80,000 at $t=0$; Cost of Capital = 15%, Risk Free Rate: 10%

Projected Cash Inflows:

Year 1		Year 2		Year 3	
Cash Inflow	P	Cash Inflow	P	Cash Inflow	P
Rs. 60,000	0.10	Rs.30,000	0.15	Rs.60,000	0.25
Rs. 50,000	0.40	Rs.40,000	0.50	Rs.50,000	0.20
Rs. 40,000	0.30	Rs.50,000	0.25	Rs.40,000	0.35
Rs. 30,000	0.20	Rs.60,000	0.10	Rs.30,000	0.20

S.D.₁ = 917

S.D.₂ = 843

S.D.₃ = 1072

(i) Independence of cash flows over time:

(ii) Perfectly correlated cash flows over time:

WORKING CAPITAL MANAGEMENT

The goal of Working Capital Management is to manage the firm's current assets and current liabilities in such a way that a satisfactory level of working capital is maintained. Because too high or too low working capital is not at all good for the firm. The current asset should be large enough to cover its current liabilities in order to ensure a margin of safety. Each of the short term sources of financing should be continuously managed to ensure that they are obtained and used in the best possible way. The interaction between current assets and current liabilities is, therefore, the main theme of the theory of working capital management.

BALANCE SHEET CONCEPT

The total current assets is known as gross working capital and difference between the current assets and current liabilities is known as net working capital.

Alternatively, NWC may be defined as that part of current assets which are financed with long-term funds.

PERMANENT AND TEMPORARY WC

Permanent Working Capital: A certain minimum level of working capital on a continuous and uninterrupted basis. It is usually financed from long term sources.

Temporary Working Capital: The working capital needed to meet seasonal as well as unforeseen requirements. It is also known as variable working capital. It is usually financed from short term sources.

POSITIVE AND NEGATIVE WORKING CAPITAL

OPERATING CYCLE CONCEPT

Operating cycle represents the period during which investment of one unit of money will remain blocked in the normal course of operation till its recovery out of revenue. If raw materials remain in store for 30 days, processing period is 60 days, finished goods remain in store for 45 days, debt collection and repayment periods are 30 and 40 days respectively, one operating cycle represents 125 days (30+60+45+30 – 40).

Need for Working Capital

Sales do not convert into cash instantly. There is some time lag between sale of goods and receipt of cash. Therefore, there is a need to maintain some amount of working capital to continue the operation of the firm during this intervening period, apart from the requirement due to expansion in the activities and contingencies.

The continuing flow from cash to suppliers, to inventories, to accounts receivables and back into cash is known as **operating cycle / cash cycle**.

In other words, the term **cash cycle** refers to the length of time necessary to complete the following cycle of events.

1. Conversion of cash to inventory
2. Conversion of inventory to receivables
3. Conversion of receivables into cash.

Determinants of Working Capital: Nature of Business, Production Cycle, Business Cycle, Production Policy, Credit Policy, Growth and Expansion, Availability of factors of production, like Raw Material, labour etc., Profit Level, Level of Taxes, Dividend Policy, Depreciation Policy, Price Level Changes, Operating Efficiency, etc.

Working Capital Financing

Hedging Approach/ Matching Approach

Conservative Approach

WORKING CAPITAL LEVERAGE

Working Capital Leverage may be defined as the variability in return on capital employed that to variability in working capital (current assets), i.e., degree of Working Capital Leverage (WCL) may be measured as follows.

$$\text{WCL} = \frac{\text{Percentage increase in return on capital employed}}{\text{Percentage decrease in working capital}}$$

The higher the degree of leverage, the higher is the risk and vice versa. However, it increases the possibility of a higher rate of return on capital employed.

Cash Management

In narrow sense, cash means currency, cash equivalents, cheques, drafts and demand deposits in banks. The broad view of cash also includes near-cash assets, like marketable securities and time deposits in banks, which can be readily sold and converted into cash. The cash management aims at (i) meeting the payment schedule (cash disbursement needs) and (ii) minimising funds committed to cash balances.

There are four primary motives for maintaining cash balances:

- (i) Transaction Motive: to meet routine cash requirements to finance transaction in the normal course of business
- (ii) Precautionary Motive: to meet unexpected demand for cash
- (iii) Speculation Motive: to quickly take advantage of opportunities typically outside the normal course of business
- (iv) Compensating Motive: to compensate banks for providing certain services or loans.

Cash Management/ Determining need for cash

William J Baumol Model:

$$\text{Optimum Cash Balance (D)} = \sqrt{2FQ/K}$$

F = fixed cost of conversion, similar to re-order cost in the inventory model

Q = volume of transactions (total cash requirement during a period)

K = opportunity cost (rate of interest foregone), similar to carrying cost in inventory model.

Example: A firm plans to hold Rs.10 lakh in cash, on an average, to meet the transaction needs during its planning period of next six months. The firm has this amount in marketable securities at 10% p.a. The fixed cost of conversion of marketable securities is Rs.1000 per transaction.

Determine the optimum cash balance and how many times the firm need to convert marketable securities to maintain the optimum cash balance.

Solution.

$$\text{Optimum Cash Balance (D)} = \sqrt{2FQ/K} = \sqrt{2 \times 10,00,000 \times 1000 / .05} = \text{Rs. } 2,00,000$$

$$\text{No. of times of conversion} = \text{Rs. } 10 \text{ lakh} / \text{Rs. } 2 \text{ lakh} = 5 \text{ times}$$

Stochastic Model:

If the future is not known with certainty, the EOQ model will not be much effective. In this situation, stochastic model is better to use.

Miller-Orr model is one of the applications of control theory and specifies two control limits – h, an amount as an upper band and zero as the lower band. When the firm's working capital balance reaches h, h – z amount of cash is transferred to marketable securities and when it reaches zero level, z – 0 or z amount of marketable securities is sold or loan taken to augment the working cash balance, i.e., z is the return – to – point.

Return Point (z) = Lower Limit + (1/3 × Spread)

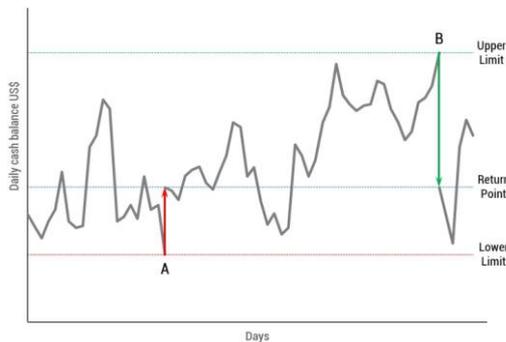
$$\text{Spread} = 3 \times \sqrt[3]{\frac{3 \times F \times \sigma^2}{4 \times K}}$$

where F is the transaction cost, K is the opportunity cost of holding cash, and σ^2 is a variance of daily cash balances.

When lower limit is zero, $z = 0 + 1/3 \text{ Spread} = 1/3 \text{ Spread}$

The upper limit of the cash balance, the following formula should be used:

$$\text{Upper Limit} = \text{Lower Limit} + \text{Spread}$$



Example : The management of X Ltd. has set a safety cash balance of Rs. 50,000. The standard deviation (σ) of the daily cash balance during the last year was Rs.37,500, and the transaction cost was Rs.75. The company also has the opportunity to invest idle cash in marketable securities at an annual interest rate of 8%.

Solution:

$$\text{Spread} = 3 \times \left[\frac{(3 \times 75 \times 37500^2)}{(4 \times 0.022\%)} \right]^{1/3} = \text{Rs. 213,325}$$

$$\text{(Daily interest rate} = \frac{8\%}{365} = 0.022\%)$$

$$\text{Return point (z)} = \text{Rs.50,000} + \frac{1}{3} \times \text{Rs.213,325} = \text{Rs.121,108}$$

$$\text{Upper limit (h)} = \text{Rs.50,000} + \text{Rs.213,325} = \text{Rs.263,325}$$

MANAGEMENT OF TRADE RECEIVABLES /DEBTORS MANAGEMENT

Debtors or trade receivables are asset accounts representing amounts owed to the firm by the customers due to the sales of goods or services on credit.

The objectives of allowing credit sales are:

- Achieving growth in sales and profits
- Meeting competitions

Credit sales / maintenance of debtors involve the following costs.

1. Cost of financing debtors, 2. Collection costs
3. Delinquency costs (cost of financing the debtors for the extended period and costs of additional steps to collect the overdue amount, e.g., legal expenses, hiring personnel, etc. 4. Default costs (Bad debts)

Often an expression like '2/10 net 30' is used which means 2% discount will be allowed if payment is received before 10th day after the date of invoice; payment is ordinarily due by the 30th day.

Example (Ref. B.Banerjee, Cost Accounting, PHI)

The credit term of a company are at present 1/10 net 30. Its sales are Rs.105 lakh, its average collection period is 24 days, its contribution margin is 20% and its cost of capital is 20%, The proportion of sales on which customers currently take discount is 0.4. The company is thinking of changing its discount terms to 2/10 net 30. This is expected to increase the sales by Rs.25 lakh, reduce the average collection period to 18 days and increase the proportion of discount sales to 0.7. The change in the cash discount policy is expected to generate two additional benefits,

- (a) The percentage of bad debt losses on total sales will come down from 5 % to 3%.
- (b) The collection expenditure would be reduced by Rs.30,000.

Advise the company as to the desirability of relaxing the discount terms. Assume 360 days a year.

Soln.

Evaluation of the alternative credit policies

	1/10 net 30	2/10 net 30
1. Annual Sales (Rs in lakh)	105	130
2. Collection period	24 days	18 days
3. Receivable Turnover(360 days/ collection period)	15 times	20 times
	Rs. Lakh	Rs.Lakh
4. Average receivables (Annual Sales / Turnover)	7.00	6.5
5. Investment in receivables @ 80%	5.6	5.2
6. Opportunity costs @ 20%	1.12	1.04
7. Reduction in opportunity costs	---	0.08
8. Bad debts	5.25	3.90
9. Reduction in Bad debts		1.35
10. Reduction in collection expenditure		0.30
11. Contribution from additional sales (25 lakh x 20%)		5.00
12. Total additional benefits (7+9+10+11)		6.73
13. Cash discount	$105 \times 0.4 \times 0.01 = 0.42$	1.82 (130x0.7x0.02)
14. Increase in cash discount		1.40
15. Net additional benefits (12 – 14)		5.33

Cash discount terms should therefore be relaxed.

