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Financial Services in India

Question 1

What is Credit rating?

Answer

Credit rating: Credit rating is a symbolic indication of the current opinion regarding the relative capability of a corporate entity to service its debt obligations in time with reference to the instrument being rated. It enables the investor to differentiate between instruments on the basis of their underlying credit quality. To facilitate simple and easy understanding, credit rating is expressed in alphabetical or alphanumerical symbols.

Thus Credit Rating is:

(1) An expression of opinion of a rating agency.

(2) The opinion is in regard to a debt instrument.

(3) The opinion is as on a specific date.

(4) The opinion is dependent on risk evaluation.

(5) The opinion depends on the probability of interest and principal obligations being met timely.

Credit rating aims to

(i) provide superior information to the investors at a low cost;

(ii) provide a sound basis for proper risk-return structure;

(iii) subject borrowers to a healthy discipline and

(iv) assist in the framing of public policy guidelines on institutional investment.

In India the rating coverage is of fairly recent origin, beginning 1988 when the first rating agency CRISIL was established. At present there are few other rating agencies like:

(i) Credit Rating Information Services of India Ltd. (CRISIL).

(ii) Investment Information and Credit Rating Agency of India (ICRA).

(iii) Credit Analysis and Research Limited (CARE).

(iv) Duff & Phelps Credit Rating India Pvt. Ltd. (DCR I)

(v) ONICRA Credit Rating Agency of India Ltd.

(vi) Fitch Ratings India (P) Ltd.

Question 2

What are the limitations of Credit Rating?

Answer

Credit rating is a very important indicator for prudence but it suffers from certain limitations. Some of the limitations are:

(i) Conflict of Interest – The rating agency collects fees from the entity it rates leading to a conflict of interest. Since the rating market is very competitive, there is a distant possibility of such conflict entering into the rating system.

(ii) Industry Specific rather than Company Specific – Downgrades are linked to industry rather than company performance. Agencies give importance to macro aspects and not to micro ones; overreact to existing conditions which come from optimistic / pessimistic views arising out of up / down turns. At times, value judgments are not ruled out.

(iii) Rating Changes – Ratings given to instruments can change over a period of time. They have to be kept under constant watch. Downgrading of an instrument may not be timely enough to keep investors educated over such matters.

(iv) Corporate Governance Issues – Special attention is paid to:

(a) Rating agencies getting more of their revenues from a single service or group.

(b) Rating agencies enjoying a dominant market position. They may engage in aggressive competitive practices by refusing to rate a collateralized / securitized instrument or compel an issuer to pay for services rendered.

(c) Greater transparency in the rating process viz. in the disclosure of assumptions leading to a specific public rating.

(v) Basis of Rating – Ratings are based on 'point of time' concept rather than on 'period of time' concept and thus do not provide a dynamic assessment. Investors relying on the credit rating of a debt instrument may not be aware that the rating pertaining to that instrument might be outdated and obsolete.

(vi) Cost Benefit Analysis – Since rating is mandatory, it becomes essential for entities to get themselves rated without carrying out cost benefit analysis. . Rating should be left optional and the corporate should be free to decide that in the event of self rating, nothing has been left out.

Question 3

List and briefly explain the main functions of an investment bank.

Answer

The following are, briefly, a summary of investment banking functions:

- **Underwriting:** The underwriting function within corporate finance involves shepherding the process of raising capital for a company. In the investment banking world, capital can be raised by selling either stocks or bonds to the investors.
- **Managing an IPO (Initial Public Offering):** This includes hiring managers to the issue, due diligence and marketing the issue.
- **Issue of debt:** When a company requires capital, it sometimes chooses to issue public debt instead of equity.
- **Follow-on hiring of stock:** A company that is already publicly traded will sometimes sell stock to the public again. This type of offering is called a follow-on offering, or a secondary offering.
- **Mergers and Acquisitions:** Acting as intermediary between Acquirer and target company
- **Sales and Trading:** This includes calling high networth individuals and institutions to suggest trading ideas (on a caveat emptor basis), taking orders and facilitating the buying and selling of stock, bonds or other securities such as currencies.
- **Research Analysis:** Research analysts study stocks and bonds and make recommendations on whether to buy, sell, or hold those securities.
- **Private Placement:** A private placement differs little from a public offering aside from the fact that a private placement involves a firm selling stock or equity to private investors rather than to public investors.
- **Financial Restructuring:** When a company cannot pay its cash obligations - it goes bankrupt. In this situation, a company can, of course, choose to simply shut down operations and walk away or, it can also restructure and remain in business.

Question 4

Distinguish between Investment Bank and Commercial Bank.

Answer

The fundamental differences between an investment bank and a commercial bank can be outlined as follows:

Investment Banks	Commercial Banks
1. Investment Banks help their clients in raising capital by acting as an intermediary between the buyers and the sellers of securities (stocks or bonds)	1. Commercial Banks are engaged in the business of accepting deposits from customers and lending money to individuals and corporate

2. Investment Banks do not take deposits from customers	2. Commercial banks can legally take deposits from customers.
3. The Investment Banks do not own the securities and only act as an intermediary for smooth transaction of buying and selling securities.	3. Commercial Banks own the loans granted to their customers.
4. Investment Banks earn underwriting commission	4. Commercial banks earn interest on loans granted to their customers.

Question 5

(i) What is the meaning of NBFC?

(ii) What are the different categories of NBFCs?

(iii) Explain briefly the regulation of NBFCs under RBI Act.

(iv) What are the differences between a bank and an NBFC?

Answer

(i) Meaning of NBFC (Non Banking Financial Companies): NBFC stands for Non-Banking financial institutions, and these are regulated by the Reserve Bank of India under RBI Act, 1934. A Non-Banking Financial Company (NBFC) is a company registered under the Companies Act, 1956 and is engaged in the business of loans and advances, acquisition of shares/stock/bonds/debentures/securities issued by Government or local authority or other securities of like marketable nature, leasing, hire-purchase, insurance business, chit business but does not include any institution whose principal business is that of agriculture activity, industrial activity, sale/purchase/construction of immovable property/. NBFC's principal business is receiving of deposits under any scheme or arrangement or in any other manner or lending on any other manner. They normally provide supplementary finance to the corporate sector.

(ii) Different categories of NBFC are

1. Loan Companies.
2. Investment Companies.
3. Asset Finance Companies.

(iii) Regulation of NBFCs-RBI Act

RBI regulates the NBFC through the following measures:

(a) Mandatory Registration.

(b) Minimum owned funds.

(c) Only RBI authorized NBFCs can accept public deposits.

(d) RBI prescribes the ceiling of interest rate and public deposits.

(e) RBI prescribes the period of deposit.

(f) RBI prescribes the prudential norms regarding utilization of funds.

(g) RBI directs their investment policies.

(h) RBI inspectors conduct inspections of such companies.

(i) RBI prescribes the points which should be examined and reported by the auditors of such companies.

(j) RBI prescribes the norms for preparation of Accounts particularly provisioning of possible losses.

(k) If any of interest or principal or both is/ are due from any customer for more than 6 months, the amount is receivable (interest or principal or both) is termed as non-performing asset.

(iv) NBFCs function similarly as banks; however there are a few differences:

(i) an NBFC cannot accept demand deposits;

(ii) an NBFC is not a part of the payment and settlement system and as such an NBFC cannot issue cheques drawn on itself; and

(iii) deposit insurance facility of Deposit Insurance and Credit Guarantee Corporation is not available for NBFC depositors unlike in case of banks.

Question 6

Explain CAMEL model in credit rating.

Answer

CAMEL Model in Credit Rating: Camel stands for Capital, Assets, Management, Earnings and Liquidity. The CAMEL model adopted by the rating agencies deserves special attention; it focuses on the following aspects-

(i) *Capital*- Composition of external funds raised and retained earnings, fixed dividends component for preference shares and fluctuating dividends component for equity shares and adequacy of long term funds adjusted to gearing levels, ability of issuer to raise further borrowings.

(ii) *Assets*- Revenue generating capacity of existing/proposed assets, fair values, technological/physical obsolescence, linkage of asset values to turnover, consistency, appropriation of methods of depreciation and adequacy of charge to revenues, size, ageing and recoverability of monetary assets like receivables and its linkage with turnover.

(iii) *Management*- Extent of involvement of management personnel, team-work, authority, timeliness, effectiveness and appropriateness of decision making along with directing management to achieve corporate goals.

(iv) *Earnings*- Absolute levels, trends, stability, adaptability to cyclical fluctuations, ability of the entity to service existing and additional debts proposed.

(v) *Liquidity*- Effectiveness of working capital management, corporate policies for stock and creditors, management and the ability of the corporate to meet their commitment in the short run.

These five aspects form the five core bases for estimating credit worthiness of an issuer which leads to the rating of an instrument. Rating agencies determine the pre-dominance of positive/negative aspects under each of these five categories and these are factored in for making the overall rating decision.

Question 7

Distinguish between Credit Card and Debit Card.

Answer

Credit Card	Debit Card
(1) Operates on credit basis.	(1) Operates like cash or personal cheques.
(2) Purchase now pay later scheme.	(2) Purchase now pay now.
(3) Risk is limited to the credit limit sanctioned by the bank or may lower as per the terms and conditions.	(3) Risk is upto entire balance available in the bank account.
(4) 40-50 days interest free grace period is available in case there is no previous outstanding on the card.	(4) No such grace period. Amount is deducted instantly.

(5) Minimum 5% of the total outstanding is payable on the due date.	(5) Generally outstanding is not there.
(6) EMI's are available.	(6) Some banks have come out with EMI concept even when balance is not sufficient to finance the purchase.

Question 8

A Ltd. has a total sales of ₹ 3.2 crores and its average collection period is 90 days. The past experience indicates that bad-debt losses are 1.5% on Sales. The expenditure incurred by the firm in administering its receivable collection efforts are ₹ 5,00,000. A factor is prepared to buy the firm's receivables on non-recourse basis by charging 2% Commission. The factor will pay advance on receivables to the firm at an interest rate of 18% p.a. after withholding 10% as reserve. Calculate the effective cost of factoring to the Firm assuming 360 days in a year.

Answer

Particulars	***₹***
Average level of Receivables = 3,20,00,000 × 90/360	80,00,000
Factoring commission = 80,00,000 × 2/100	1,60,000
Factoring reserve = 80,00,000 × 10/100	8,00,000
Amount available for advance = ₹ 80,00,000 – (1,60,000 + 8,00,000)	70,40,000
Factor will deduct his interest @ 18%:- $= \frac{₹\ 70,40,000 \times 18 \times 90}{100 \times 360}$	₹ 3,16,800
Advance to be paid = (₹ 70,40,000 – ₹ 3,16,800)	67,23,200

Annual Cost of Factoring to the Firm:	***₹***
Factoring commission (₹ 1,60,000 × 360/90)	6,40,000
Interest charges (₹ 3,16,800 × 360/90)	12,67,200
Total	19,07,200
Firm's Savings on taking Factoring Service:	₹
Cost of credit administration saved	5,00,000
Cost of Bad Debts (₹ 3,20,00,000 × 1.5/100) avoided	4,80,000
Total	9,80,000
Net cost to the Firm (₹ 19,07,200 – ₹ 9,80,000)	9,27,200

Effective rate of interest to the firm = $\frac{₹\ 9,27,200 \times 100}{67,23,200}$	13.79%

Note: The number of days in a year has been assumed to be 360 days.

Question 9

A company is considering engaging a factor, the following information is available:

(i) The current average collection period for the Company's debtors is 80 days and ½% of debtors default. The factor has agreed to pay money due after 60 days and will take the responsibility of any loss on account of bad debts.

(ii) The annual charge for the factoring is 2% of turnover payable annually in arrears. Administration cost saving is likely to be ₹ 1,00,000 per annum.

(iii) Annual sales, all on credit, are ₹ 1,00,00,000. Variable cost is 80% of sales price. The Company's cost of borrowing is 15% per annum. Assume the year is consisting of 365 days.

Should the Company enter into a factoring agreement?

Answer

The annual change in cash flows through entering into a factoring agreement is:

Savings	***(Amount in ₹)***	***(Amount in ₹)***
Administration cost saved		1,00,000
Existing average debtors [₹ 1,00,00,000/365) x 80 days]	21,91,781	
Average New Debtors [(₹ 1,00,00,000/365) x 60 days]	16,43,836	
Reduction in debtors	5,47,945	
Cost there of @80%	4,38,356	
Add: Interest saving @15% p.a. on. ₹ 4,38,356		65,753
Add: Bad Debts saved @.005 of ₹ 1,00,00,000		50,000
	Total	2,15,753
Less: Annual charges @2% of ₹ 1,00,00,000		2,00,000
Net annual benefits of factoring		15,753

Therefore, the factoring agreement is worthwhile and should be undertaken.

Question 10

MSN Ltd. has total sales of ₹ 4.50 crores and its average collection period is 120 days. The past experience indicates that bad debt losses are 2 percent on sales. The expenditure incurred by the company in administering its receivable collection efforts are ₹ 6,00,000. A Factor is prepared to buy the company's receivables by charging 2 percent commission. The factor will pay advance on receivables to the company at an interest rate of 18 percent per annum after withholding 10 percent as reserve.

You are required to calculate effective cost of factoring to the company.

Answer

MSN Ltd.

Particulars		₹
Average level of Receivables	₹ 4,50,00,000 × 120 / 360	1,50,00,000
Factoring commission	₹ 1,50,00,000 × 2%	3,00,000
Factoring Reserve	₹ 1,50,00,000 × 10%	15,00,000
Amount available for advance	₹ 1,50,00,000 – (3,00,000 + 15,00,000)	1,32,00,000
Factor will deduct interest @ 18%		
Interest (₹ 1,32,00,000 × 18 × 120) / 100 × 360		7,92,000
Advance to be paid = ₹ 1,32,00,000 – 7,92,000		1,24,08,000
Annual cost of factoring to the firm:		
Factoring commission (₹ 300000 × 360 / 120)		9,00,000
Interest Charges (₹ 792,000 × 360 / 120)		23,76,000
		32,76,000
Firms savings on taking factoring service:		
Cost of credit administration saved		6,00,000
Cost of bad debts	(₹ 4,50,00,000 × 2%)	9,00,000
Total savings		15,00,000

Net cost to the firm = ₹ 32,76,000 – ₹ 15,00,000 = ₹ 17,76,000

Effective cost of factoring to the firm = ₹ 17,76,000 × 100 / ₹ 1,24,08,000 = 14.31%

Note: The number of days in a year is assumed to be 360 days.

Question 11

The credit sales and receivables of M/s M Ltd. at the end of the year are estimated at ₹ 3,74,00,000 and ₹ 46,00,000 respectively.

The average variable overdraft interest rate is 5%. M Ltd. is considering a proposal for factoring its debts on a non-recourse basis at an annual fee of 3% on credit sales. As a result, M Ltd. will save ₹ 1,00,000 per year in administrative cost and ₹ 3,50,000 as bad debts. The factor will maintain a receivables collection period of 30 days and advance 80% of the face value thereof at an annual interest rate of 7%. Evaluate the viability of the proposal.

Note: 365 days are to be taken in a year for the purpose of calculation of receivables.

Answer

Particulars	₹
Estimated Receivables	46,00,000
Estimated Receivables under Factor $\left(3,74,00,000 \times \frac{30}{365}\right)$	30,73,973
Reduction in Receivables (₹ 46,00,000 – ₹ 30,73,973)	15,26,027

Total Savings (A)

Reduction in finance costs	₹ 15,26,027 @ 5%	76,301
Saving of Administration costs		1,00,000
Saving of Bad debts		3,50,000
Total		5,26,301

Total Cost of Factoring (B)

Interest on advances by Factor			
Advances 30,73,973 @ 80%	₹ 24,59,178		
Interest on ₹ 24,59,178 @ 7%		₹ 1,72,142	
Overdraft Interest rate 5%		(₹ 1,22,959)	49,183
Charges payable to Factor (₹ 3,74,00,000 @ 3%)			11,22,000
Total			11,71,183

Net Saving (A) – (B) (6,44,882)

Since Net Saving is negative the proposal is not viable and cannot be accepted

Question 12

M/s Atlantic Company Limited with a turnover of ₹ 4.80 crores is expecting growth of 25% for forthcoming year. Average credit period is 90 days. The past experience shows that bad debt losses are 1.75% on sales. The Company's administering cost for collecting receivable is ₹ 6,00,000/-.

It has decided to take factoring services of Pacific Factors on terms that factor will by receivable by charging 2% commission and 20% risk with recourse. The Factor will pay advance on receivables to the firm at 16% interest rate per annum after withholding 10% as reserve.

Calculate the effective cost of factoring to the firm. (Assume 360 days in a year).

Answer

Expected Turnover = ₹ 4.80 crore + 25% i.e. ₹ 1.20 crore = ₹ 6.00 crore

	₹ in Lacs	₹ in Lacs
Advance to be given:		
Debtors ₹6.00 crore x 90/360	150.00	
Less: 10% withholding	15.00	135.00
Less: Commission 2%		3.00
Net payment		132.00
Less: Interest @16% for 90 days on ₹132 lacs		5.28
		126.72
Calculation of Average Cost:		
Total Commission ₹6.00 crore x 2%		12.00
Total Interest ₹ 5.28 lacs x 360/90		21.12
		33.12
Less: Admin. Cost	6.00	
Saving in Bad Debts (₹600 lacs x 1.75% x 80%)	8.40	14.40
		18.72
Effective Cost of Factoring $\frac{₹18.72 \text{ lacs}}{₹126.72 \text{ lacs}} \times 100$		14.77%

Question 13

AC Co. Ltd. has a turnover of ₹ 1600 Lakhs and is expecting growth of 17.90% for the next year. Average credit period is 100 days. The Bad Debt losses are about 1.50% on sales. The administrative cost for collecting receivables is ₹ 8,00,000. The AC Co. Ltd. decides to make use of Factoring Services by FS Ltd. on terms as under:

(i) that the factor will charge commission of 1.75%.

(ii) 15% Risk with recourse and

(iii) Pay an advance on receivables to AC Co. Ltd. at 14% p.a. interest after withholding 10% as reserve.

You are required to calculate the effective cost of factoring to AC Co. Ltd. for the year.

Show amount in Lakhs of ₹ with two decimal points. Assume 360 days in a year.

Answer

Expected Turnover = ₹ 1600 lakhs + ₹ 286.40 = ₹ 1886.40 lakhs

	₹ in Lacs	₹ in Lacs
Advance to be given:		
Debtors ₹1886.40 lakhs x 100/360	524.00	
Less: 10% withholding	52.40	
		471.60
Less: Commission 1.75%		9.17
Net payment		462.43
Less: Interest @14% for 100 days on ₹ 462.43 lacs		17.98
		444.45

Calculation of Average Cost:		
Total Commission ₹1886.40 lakhs x 1.75%		33.01
Total Interest ₹ 17.98 lacs x 360/100		64.73
		97.74
Less: Admin. Cost	8.00	
Saving in Bad Debts (₹1886.40 lacs x 1.50% x 85%)	24.05	32.05
		65.69
Effective Cost of Factoring = 65.69/444.45 x 100		14.78%

Question 14

R Ltd., is considering a factoring proposal on the basis of the following data for the next year.

Particulars	*Inhouse Management*	*Factoring Proposal*
Estimated Sales (₹ In lakhs)	*540*	
Receivables (percent of sales)	*12*	
Administration Cost (₹ In Lakhs)	*1.25*	
Bad Debts (₹ In lakhs)	*5.25*	
Receivable collection period (days)		*30*
Factor Reserve (percent)		*20*
Bank Prime Lending Rate (BPLR) per cent	*8*	

R Ltd., is able to get variable overdraft interest rate at BPLR. Factor charges a premium of 4.6 percent over BPLR on the advances made to R Ltd.

Assume 365 days in a year.

You are required to calculate the viability of the factoring proposal.

Answer

Working Notes

(i) Reduction in Trade Receivable under Factoring Agreement

Current Trade Receivable 12% of 540	64.80
Revised Receivable (540 x 30/365)	44.38
	20.42

Calculation of Benefit with Recourse Factoring

Finance cost saving = 20.42 x 0.08	1.6336
Administration Cost Saving	1.2500
Total Saving	2.8836
Less: Additional Interest in Advance	
(44.38 x 0.80 x 4.6%)	1.6332
	1.2504

Yes. Factoring proposal should be accepted

Alternative Solution for Non-Recourse Factoring

Finance Cost Saving = 20.42 x 0.08	1.6336
Administration Cost Saving	1.2500
Bad Debt Saving	5.2500
Total Benefit	8.1336
Less: Additional Interest on Advance	
(44.38 x 0.80 x 4.6%)	1.6332
	6.5004

Decision: It is viable to accept the factoring proposal.

Question 15

Beans talk Ltd. manages its accounts receivable internally by its sales and credit department. The cost of sales ledger administration stands at ₹ 10 crores annually. The company has a credit policy of 2/10, net 30. Past experience of the company has been that on an average 40 percent of the customers avail of the discount by paying within10 days while the balance of the receivables are collected on average 90 days after the invoice date. Bad debts of the company are currently 1.5 percent of total sales. The projected sales for the next year are ₹ 1,000 crores.

Beans talk Ltd. finances its investment in debtors through a mix of bank credit and own long term funds in the ratio of 70:30. The current cost of bank credit and long term funds are 13 percent and 15 percent respectively.

With escalating cost associated with the in house management of debtors coupled with the need to unburden the management with the task so as to focus on sales promotion, the Company is examining the possibility of outsourcing its factoring service for managing its receivable and has two proposals on hand with a guaranteed payment within 30 days.

The main elements of the Proposal from Fine bank Factors Ltd. are:

- *Advance ,88 percent and 84 percent for the re course and non re course arrangements.*
- *Discount charge on advance, 21 percent for with re course and 22 percent without recourse.*
- *Commission, 4.5 percent without recourse and 2.5 percent with recourse.*

The main elements of the Proposal from Rough bank Factors Ltd. are:

- *Advance, 84 percent with recourse and 80 percent without recourse respectively.*
- *Discount charge upfront without recourse 21 percent and with recourse 20 percent.*
- *Commission upfront, without recourse 3.6 percent and with recourse 1.8 percent.*

The opinion of the Chief Marketing Manager is that in the context of the fact or in arrangement, his staff would be able exclusively focus on sales promotion which would result in additional sales of 10% of projected sales. Kindly advice as a financial consultant on the alternative proposals. What advice would you give? Why?

Answer

Financial Analysis of Receivable Management Alternatives

(A) In-House Management (₹ Crores)

Cash Discount (₹ 1000 crore x 40% x 2%)	8.00
Bad Debt (₹ 1000 crore x 1.50%)	15.00
Avoidable Administrative and Selling Cost	10.00
Cost of Investment in Receivable*	21.61
	54.61

* Cost of Investment in Receivable

Average Collection Period (0.40 x 10 + 0.60 x 90)	58 days
Investment in Debtors (₹ 1000crores x 58/365)	₹ 158.90 crores
Cost of Investment (0.70 x 13 + 0.30 x 15)	13.60%
Cost of Investment in Receivable (₹ 158.90 crores x 13.60%)	₹ 21.61 crores

(B) Fine bank Proposal

	With Recourse	Without Recourse
Factoring Commission		
(₹ 1100 crores x 2.5%) and (₹ 1100 crores x 4.5%)	27.50	49.50
Discount Charges		
(₹ 1100 crores – ₹ 27.50 crores) 0.88 x 21% x 30/365	16.29	-
(₹ 1100 crores – ₹ 49.50 crores) 0.84 x 22% x 30/365	-	15.96
Cost of Long Term Funds Invested in Debtors		
(₹ 1100 crores – ₹ 943.80 crores) 0.15∞ x 30/365	1.93	-
(₹ 1100 crores – ₹ 882.42 crores) 0.15∞ x 30/365	-	2.68
	45.72	68.14

(C) Rough bank Proposal

	With Recourse	Without Recourse
Factoring Commission		
(₹ 1100 crores x 1.8%) and (₹ 1100 crores x 3.6%)	19.80	39.60
Discount Charges		
(₹ 1100 crores – ₹ 19.80 crores) 0.84 x 20% x 30/365	14.92	-
(₹ 1100 crores – ₹ 39.60 crores) 0.80 x 21% x 30/365	-	14.64
Cost of Long Term Funds Invested in Debtors		
(₹ 1100 crores – ₹ 907.37 crores) 0.15∞ x 30/365	2.37	-
(₹ 1100 crores – ₹ 848.32 crores) 0.15∞x 30/365	-	3.10
	37.09	57.34

Since a major part of finance shall be from Factor, the balance fund shall be form long term sources.

Decision Analysis: With Recourse

	Fine bank	Rough bank
Benefits (₹ 54.61 crore – ₹ 15 crore†)	39.61	39.61
Costs	45.72	37.09
	(6.11)	2.52

† Bad Debts

Decision Analysis: Without Recourse

	Fine bank	Rough bank
Benefits	54.61	54.61
Costs	68.14	57.34
	(13.53)	(2.73)

Advice: The proposal of Roughbank **with recourse** should be accepted.

(iii) Decision Analysis:

	With Recourse	**Without Recourse**
Benefits (₹63.54 - ₹15 crore@)	48.54	65.04*
Costs	38.74	60.93
	9.80	4.11

@ Bad Debt * ₹ 63.54 crore + ₹ 1.50 (Bad Debt on additional Sale)

Alternative Presentation of above analysis

(i) Fine Bank Proposal

	Analysis with Recourse	*Analysis without Recourse*
Benefits (In House Cost) ₹ crore	54.61	54.61
Costs	45.72	68.14
For Factoring ₹ crore		
Bad Debt ₹ crore	15.00	-
Benefit/ (Loss) ₹ crore	(6.11)	(13.53)

(ii) Rough Bank Proposal

	Analysis with Recourse	*Analysis without Recourse*
Benefits (In House Cost) ₹ crore	54.61	54.61
Costs	37.09	57.34
For Factoring ₹ crore		
Bad Debt ₹ crore	15.00	-
Benefit/ (Loss) ₹ crore	2.52	(2.73)

Question 16

Projected sales for the next year of Z Ltd. is ₹ 1000 Cr. The company manages its accounts receivables internally. Its present annual cost of sales ledger administration is ₹ 11 Cr. The company finances its investment on debtors through a mix of bank credit and own long term

funds in the ratio of 60 : 40. Current cost of bank credit and long term funds are 10% and 12% respectively. The past experience indicates that bad debt losses are 1.5% on total sales.

The company has a credit policy of 2/10, net 30. On an average, 40% of receivables are collected within the discount period and rest are collected 70 days after the invoice date. Over the years, gross profit is maintained at 20% and the same is expected to be continued in future.

To enable the management focus on promotional activities and get rid of escalating cost associated with in house management of debtors, the company is considering the possibility of availing the services of Fairgrowth Factors Ltd. for managing receivables of the company.

According to the proposal of the factor, it would pay advance to the tune of 85% of receivables with 20% interest and 81% of receivables with 21% interest for the recourse and non-recourse agreements respectively. The proposal provides for guaranteed payment within 30 days from the date of invoice. The factoring commission would be 4% without recourse and 2% with recourse.

If the company goes for the factoring arrangement, the staff would be under burdened and concentrate more on promotional activities and consequently additional sales of ₹ 100 Cr. would be achieved. Assume that all sales of the company are credit sales and the year is of 360 days.

You are required to:

(i) calculate cost of in house management of receivables,

(ii) compute cost of Fairgrowth Factors Ltd. proposal (with recourse and without recourse),

(iii) calculate net benefits under recourse factoring and non-recourse factoring; and

(iv) decide the best option for the company.

Answer

Financial Analysis of Receivable Management Alternatives (₹ Crores)

(i) In-House Management

Cash Discount (₹ 1000 crore x 40% x 2%)	8.00
Bad Debt (₹ 1000 crore x 1.50%)	15.00
Avoidable Administrative and Selling Cost	11.00
Foregone contribution on sales ₹ 100 crore (0.20 – 0.015)	18.50
Cost of Investment in Receivable*	11.04
	63.54

*** Cost of Investment in Receivable**

Average Collection Period (0.40 x 10 + 0.60 x 70) 46 days

Investment in Debtors (₹ 1000 crores x 46/360) x 0.80 ₹ 102.22 crores

Cost of Investment (0.60 x 10 + 0.40 x 12) 10.80%

Cost of Investment in Receivable (₹ 102.22 crores x 10.80%) ₹ 11.04 crores

(ii) Fairgrowth Factors Ltd. Proposal

	With Recourse	Without Recourse
Factoring Commission		
(₹ 1100 crores x 2.0%) and (₹ 1100 crores x 4.0%)	22.00	44.00
Interest Charges		
(₹ 1100 crores – ₹ 22.00 crores) 0.85 x 20% x 30/360	15.27	-
(₹ 1100 crores – ₹ 44.00 crores) 0.81 x 21% x 30/360	-	14.97
Cost of Long Term Funds Invested in Debtors		
(₹ 1100 crores – ₹ 916.30 crores) 0.12 x 30/360 x 0.80	1.47	-
(₹ 1100 crores – ₹ 855.36 crores) 0.12 x 30/360 x 0.80	-	1.96
	38.74	60.93

(iii) Decision Analysis:

	With Recourse	Without Recourse
Benefits (₹ 63.54 crore – ₹ 15 crore†)	48.54	65.04Δ
Costs	38.74	60.93
	9.80	4.11

† Bad Debt Δ ₹ 63.54 crore + ₹ 1.50 (Bad Debt Saving on additional Sale)

(iv) Advice: Company should go for recourse factoring.

Question 17

Extracts from the forecasted financial statements of ABC Ltd. are given below.

	₹ '000	*₹ '000*
Turnover		*21,300*
Cost of sales		*16,400*
Gross Profit		***4,900***
Non-current assets		*3,000*

Current assets		
Inventory	*4,500*	
Trade receivables	*3,500*	*8,000*
Total Assets		***11,000***
Trade payables	*3,000*	
Overdraft	*3,000*	*6,000*
Equity Shares	*1,000*	
Reserves	*1,000*	*2,000*
Debentures		*3,000*
Total Liabilities		***11,000***

XYZ Fincorp, a factor has offered to manage the trade receivables of ABC Ltd. under a servicing and factor-financing agreement. XYZ expects to reduce the average trade receivables period of ABC from its current level to 35 days; to reduce bad debts from 0.9% of turnover to 0.6% of turnover; and to save of ABC ₹ 40,000 per year on account of administration costs.

The XYZ would also make an advance to ABC of 80% of the revised book value of trade receivables. The interest rate on the advance would be 2% higher than the ABC currently pays on its overdraft i.e. 7%. The XYZ would charge a fee of 0.75% of turnover on a with-recourse basis, or a fee of 1.25% of turnover on a non-recourse basis.

Assuming 365 days in a year and all sales and purchases are on credit, you are required to evaluate the proposal of XYZ Fincorp.

Answer

Working Notes:

(i) Present Trade receivables period = 365 x 3,500/21,300 = 60 days

(ii) Reduction in trade receivables under factoring arrangement

	₹
Current trade receivables	3,500,000
Revised trade receivables (₹ 21,300,000 x 35/365)	2,042,466
Reduction in trade receivables	1,457,534

Calculation of benefit of with-recourse offer

As the XYZ's offer is with recourse, ABC will gain the benefit of bad debts reducing from 0·9% of turnover to 0·6% of turnover.

	₹
Finance cost saving = 1,457,534 x 0·07	102,027
Administration cost saving	40,000
Bad debt saving = 21,300,000 x (0·009 – 0·006)	63,900
Total saving	205,927
Additional interest on advance (2,042,466 x 0·8 x 0·02)	32,680
Net benefit before factor fee (A)	173,247
With-recourse factor fee = 21,300,000 x 0·0075 (B)	159,750
Net benefit of with-recourse offer (A) – (B)	13,497

Calculation of benefit of non-recourse offer

As the offer is without recourse, the bad debts of ABC will reduce to zero, as these will be carried by the XYZ, and so the company will gain a further benefit of 0·6% of turnover.

	₹
Net benefit before with-recourse factor fee (A) as above	173,247
Non-recourse factor fee ₹ 21,300,000 x 0·0125 (D)	266,250
Net cost before adjusting for bad debts (E) = (D) – (A)	93,003
Remaining bad debts eliminated = 21,300,000 x 0·006 (F)	127,800
Net benefit of non-recourse offer (F) – (E)	34,797

The XYZ's offer is financially acceptable on a with-recourse basis, giving a net benefit of ₹ 13,497. On a non-recourse basis, the XYZ's offer is not financially acceptable, giving a net loss of ₹ 93,003, if the elimination of bad debts is ignored.

The difference between the two factor fees (₹ 106,500 or 0·5% of sales), which represents insurance against the risk of bad debts, is less than the remaining bad debts (₹ 127,800 or 0·6% of sales), which will be eliminated under non-recourse factoring.

When this elimination of bad debts is considered, the non-recourse offer from the factor is financially more attractive than the with-recourse offer.

Question 18

GKL Ltd. is considering installment sale of LCD TV as a sales promotion strategy.

In a deal of LCD TV, with selling price of ₹ 50,000, a customer can purchase it for cash down payment of ₹ 10,000 and balance amount by adopting any of the following options:

Tenure of Monthly installments	Equated Monthly installment
12	₹ 3800
24	₹ 2140

Required:

Estimate the flat and effective rate of interest for each alternative.

$PVIFA_{2.05\%, 12} = 10.5429$ $PVIFA_{2.10\%, 12} = 10.5107$

$PVIFA_{2.10\%, 24} = 18.7014$ $PVIFA_{2.12\%, 24} = 18.6593$

Answer

	12 Months	24 Months
1. Total Annual Charges for Loan	₹ 3,800 X 12 – ₹40,000 = ₹ 5,600	(₹ 2,140X24 – ₹ 40,000)/2 = ₹ 5,680
2. Flat Rate of Interest (F)	$\frac{₹5,600}{₹40,000} \times 100 = 14\%$	$\frac{₹5,680}{₹40,000} \times 100 = 14.20\%$
3. Effective Interest Rate	$\frac{n}{n+1} \times 2F = \frac{12}{13} \times 28 =$ 25.85%	$\frac{n}{n+1} \times 2F = \frac{24}{25} \times 28.40 =$ 27.26%

Alternatively

	12 Months	24 Months
(a) Principal to be repaid	₹40,000	₹ 40,000
(b) EMI	₹3,800	₹2,140
(c) PVAF (a) ÷ (b)	10.5263	18.6916
(d) Per month Interest Rate using Interpolation	$2.05 + \frac{(10.5429-10.5263)}{10.5429-10.5107} \times (0.05)$ = 2.076%	$2.10 + \frac{(18.7014-18.6916)}{18.7014-18.6593} \times (0.02)$ = 2.105%
(e) Effective Interest Rate	$(1.02076)^{12} - 1$ = 1.2796 – 1 = 0.2796 i.e. 27.96%	$(1.02105)^{12} - 1$ = 1.2840 – 1 = 0.2840 i.e. 28.40%
Or	2.076 x 12 = 24.91%	2.105 x 12 = 25.26%