CHAPTER 15

Solved Problems

P.15.11 In order to increase sales from the normal level of Rs 2.4 lakh per annum, the marketing manager submits a proposal for liberalising credit policy as under: Normal sales, Rs 2.4 lakh, Normal credit period, 30 days

Proposed increase in credit period beyond normal 30 days	*Increase in normal sales*
15	Rs 12,000
30	18,000
45	21,000
60	24,000

The contribution to volume/profit-volume ratio is 33.33 per cent. The company expects a pre-tax return of 20 per cent on investment. Evaluate the above 4 alternatives and advise the management (assume 360 days a year).

Solution

Effect of extending credit period to customers *(Amount in lakh of rupees)*

Particulars	*Credit period (days)*				
	30	*45*	*60*	*75*	*90*
Sales	2.4	2.52	2.58	2.61	2.64
Variable costs (2/3)	1.6	1.68	1.72	1.74	1.76
Contribution (1/3)	0.8	0.84	0.86	0.87	0.88
Less: Cost of investment in debtors at variable costs					
(as data related to fixed cost is not given)	0.027	0.042	0.057	0.0725	0.088
(Total VC/Debtors turnover) × 0.20					
Profit	0.773	0.798	0.803	0.7975	0.792

Recommendation The company is advised to extend credit for 60 days.

P.15.12 Pollock Co. Pvt. Ltd, which is operating for the last 5 years, has approached Sudershan industries for grant of credit limit on account of goods bought from the latter, annexing balance sheet and income statement for the last 2 years are as below:

Pollock Co. Pvt. Ltd—balance sheet *(Rs '000)*

Liabilities	*Current year*	*Last year*	*Assets*	*Current year*	*Last year*
Share capital equity (Rs 10 each)	600	600	Plant & equipment	1,500	1,400
Share premium	400	400	(less depreciation)		
Retained earnings	900	700	Land	750	750
Total equity	1,900	1,700	Total fixed assets	2,250	2,150
First mortgage	200	300	Inventories	580	300
Second mortgage	—	200	Accounts receivable	350	200
Bonds	300	300	Marketable securities	120	120
Long-term liabilities	500	800	Cash	100	80
Accounts payable	300	60	Total current assets	1,150	700
Notes payable	600	220			
Secured liabilities	100	70			
Total current liabilities	1,000	350			
	3,400	2,850		3,400	2,850

Pollock Co. Pvt. Ltd—income statement (Rs '000)

Particulars	*Current year*		*Last year*	
Sales	5,980		5,780	
Income from investment	20	6,000	20	5,800
Opening inventory	300		400	
Total manufacturing Costs	4,200		3,200	
Ending inventory	(580)	3,920	(300)	3,300
		2,080		2,500

General and administrative expenses	950	750
Operating income	1,130	1,750
Interest expenses	60	62
Earnings before taxes	1,070	1,688
Income-tax	480	674
Net income after taxes	590	1,014
Dividend declared and paid		250

Sudershan industries has established the following broad guidelines for granting credit limits to its customers:

(i) Limit credit limit to 10 per cent of net worth and 20 per cent of the net working capital.
(ii) Not to give credit in excess of Rs 1,00,000 to any single customer.

You are required to detail the steps required for establishing credit limits to Pollock Co. Pvt. Ltd. In this case what you consider to be reasonable credit limit.

Solution

Steps required for establishing the credit limit to be extended by Sudershan Industries to Pollock Co. Pvt. Ltd

(i) Maximum credit limit: In this context, the broad guidelines for granting credit limit are as follows:
(a) Maximum credit limit restricted to 10 per cent of net worth and 20 per cent of net working capital.
(b) Maximum of Rs 1,00,000 to any single customer.

Net worth of Pollock Co. Pvt. Ltd	Rs 19,00,000
Net working capital of Pollock Co. Pvt. Ltd. (Rs 11,50,000 – Rs 10,00,000)	1,50,000
Therefore, credit limits possible to be granted are:	
Based on net worth (Rs 19,00,000 × 10 per cent)	Rs 1,90,000
Based on net working capital (Rs 1,50,000 × 20 per cent)	30,000

Based on the above guidelines, maximum credit limit recommended for Pollock Co. is Rs 30,000.
Besides, it will be useful for Sudarshan Industries to carry out liquidity analysis.

Statement showing major ratios related to liquidity of Pollock company *(Amount is Rs '000)*

Particulars	*Current year*		*Last year*	
	Computation	*Ratio*	*Computation*	*Ratio*
(I) Current ratio	(1,150/1,000)	1.15	(700/350)	2.00
(II) Acid-test ratio	(570/1,000)	0.57	(400/350)	1.14
(III) Debtors collection period	(365 × 350/5,980)	21 Days	(365 × 200/5,780)	13 Days
(IV) Inventory holding period	(365 × 580/3,920)	54 Days	(365 × 300/3,300)	33 Days

It is apparent that liquidity ratios have shown a market decline in the current year *vis-a´-vis* the previous year. This decrease is primarily attributed to sharp increase in current liabilities. The collection period from debtors seems to be satisfactory. Given the unsatisfactory level of liquidity ratios, the firm should ascertain the reasons for increase in current liabilities from Pollock & Co. and should safeguard against 'big' credit sales.

P.15.13 A bank is analysing the receivables of Jackson company in order to identify acceptable collateral for a short-term loan. The company's credit policy is 2/10 net 30. The bank lends 80 per cent on accounts where customers are not currently overdue and where the average payment period does not exceed 10 days past the net period. A schedule of Jackson's receivables has been prepared. How much will the bank lend on a pledge of receivables, if the bank uses a 10 per cent allowance for cash discount and returns?

Account	*Amount*	*Days outstanding*	*Average payment period historically (in days)*
74	Rs 25,000	15	20
91	9,000	45	60
107	11,500	22	24
108	2,300	9	10
114	18,000	50	45
116	29,000	16	10
123	14,000	27	48
	1,08,000		

Solution

Statement showing loan amount on pledge of receivables

Account No.	*Amount*	*Allowance for cash discount and returns (10% × Col. 2)*	*Net amount (Col. 2 – Col. 3)*	*Loan amount @ 80% amount (4)*
1	*2*	*3*	*4*	*5*
74	Rs 25,000	Rs 2,500	Rs 22,500	Rs 18,000
107	11,500	1,150	10,350	8,280
108	2,300	230	2,070	1,656
116	29,000	2,900	26,100	20,880
Total loan amount				48,816

Working Notes

1. Account numbers 91 and 114 are currently overdue by 15 and 20 days respectively, credit policy being 2/10 net 30 days. Also these accounts have average payment period of more than 40 days i.e., 10 days more than credit period allowed. Loan is not available on these accounts as per short-term loan policy of bank.
2. Account number 123, though not currently overdue but has average payment period of more than 40 days. Hence, this account is not eligible for bank loan.

Review Questions

15.9 A firm is considering an increase in its credit period from 30 to 60 days. It currently sells 3,00,000 units for Rs 3 each. The average age of receivables is 40 days; bad debts are 0.5 per cent; the variables cost per unit is Rs 2.30 and the average cost per unit is Rs 2.60. The change in the credit period is expected to increase sales to 3,40,000 units; bad debts will increase to 2 per cent and the average collection period to 72 days. Assume the required return on investments is 18 per cent. Should the firm carry out the proposal?

15.10 A firm is considering whether collection policies should be made more strict. At present, it is selling 1,44,000 units at Rs 32 per unit. Bad debts expenses are 3 per cent, collection expenditure is Rs 40,000; the average collection period is 58 days; the variable and average per unit costs are Rs 25 and Rs 29 respectively.

With additional collection charges of Rs 30,000, it is expected that the bad debt expenses will be only 1 per cent and the average collection period will decline to 40 days. Due to the rigorous collection procedure, the sales are expected to decline by 2,000 units. If the required rate of return is 20 per cent, what advise would you give to the firm?

Answers

15.9 The credit period should not be increased: additional costs, Rs 31,692; expected profits are Rs 15,900.

15.10 The firm should adopt more strict collection policies: expected savings, Rs 1,35,849; expected costs, Rs 94,000.