

SES'S L.S.RAHEJA COLLEGE OF ARTS AND COMMERCE

Course: Financial Management - II

Unit: II

Prepared by: Raju D. Gole

Cash Budget**Definition:**

A cash budget is a budget or plan of expected cash receipts and disbursements during the period. These cash inflows and outflows include revenues collected, expenses paid, and loans receipts and payments. In other words, a cash budget is an estimated projection of the company's cash position in the future.

Format:

	Q1	Q2	Q3	Q4	Year
Beginning cash balance	XXXXX	XXXX	XXXX	XXX	XXXX
Budgeted cash receipts	XXX	XXX	XXX	XXX	XXX
Total cash available	XXXX	XXXX	XXX	XXX	XXX
Cash disbursements					
Direct materials	(XX)	(XX)	(XX)	(XX)	(XXX)
Direct labor	(XX)	(XX)	(XX)	(XX)	(XXX)
Manufacturing overheads	(XX)	(XX)	(XX)	(XX)	(XXX)
Selling and administrative expenses	(XX)	(XX)	(XX)	(XX)	(XXX)
Cash surplus/ (deficit)	XXX	XXX	XX	XXX	(XXX)
Financing					
Borrowings	(XXX)	(XXX)	(XXX)	(XXX)	(XXX)
Repayments	(XXX)	(XXX)	(XXX)	(XXX)	(XXX)
Net cash flow from financing	XXX	XXX	(XX)	XXX	XXX
Ending cash balance	XXX	XXX	XX	XXX	XXX

Stock Levels

Meaning:

Stock level means the **level** of **stock** required for an efficient and effective control of goods, to avoid over-and under-stocking of goods. The need of inventory control is to maintain the **stock** of goods as low as possible but at the same time make them available as and when required.

Formulae:

1. Re-order level:

Between the minimum level & the maximum level, this level is fixed. This level is fixed in such a manner that the requirement during the lead time is met by the excess of ordering level over the minimum level. Thus, while fixing the re-ordering level, the main factors to be considered are the minimum level, the rate of consumption & the lead time.

For working out the above levels, the following formula may be used:

Maximum level = Re-order level plus Re-order quantity minus (Minimum usage * Minimum order period)

2. Minimum Level:

This represents the quantity which must be maintained in hand at all times. If stocks are less than the minimum level, then the work will stop due to shortage of materials.

Minimum stock Level = Re-ordering Level – (Normal Consumption x Normal Reorder Period)

3. Maximum Level:

It is the quantity of materials beyond which a firm should not exceed its stocks. If the quantity exceeds maximum level limit then it will be termed as overstocking. A firm avoids overstocking because it will result in high material costs. Overstocking will lead to the requirement of more capital, more space for storing the materials, and more charges of losses from obsolescence.

Maximum Stock Level = Reordering Level + Reordering Quantity – (Minimum Consumption x Minimum Reordering period)

4. Danger Level:

It is the level below which stocks should not fall in any case. If danger level approaches then immediate steps should be taken to replenish the stocks even if more cost is incurred in arranging the materials. Danger level can be determined with the following formula:

Danger Level = Average Consumption x Maximum reorder period for emergency purchases.

5. Average Stock Level:

The Average stock level is calculated such as:

Average Stock Level = Minimum stock Level + 1/2 of Reorder Quantity.

Economic Order Quantity (EOQ)

Definition:

Economic Order Quantity (EOQ) is a production formula used to determine the most efficient amount of goods that should be purchased based on ordering and carrying costs. In other words, it represents the optimal quantity of inventory a company should order each time in order to minimize the costs associated with ordering and holding inventory.

Formula:

$$EOQ = \frac{\sqrt{2AB}}{C}$$

A – annual requirement of raw materials in units

B – buying cost or ordering cost per order

C – carrying cost of one unit per annum

What is management of receivables? What are its objectives?

Receivables are amounts owed to the company by the customers to who company sell goods or services in the normal course of business. The main purpose of managing receivables is to meet competition and to increase sales and profits.

Following are the objectives of receivables management which will help us to understand the purpose of receivables:

1. To optimize the amount of sales
2. To minimize cost of credit
3. To optimize investment in receivables.
4. To increase credit sales.

Therefore, the main objective of receivable management is to create a balance between profitability and cost.

Type A- If Fixed Costs is given

Credit Policy	Present Policy	Option 1	Option 2	Option 3
Credit Period (days/ weeks/months)	xx	xx	xx	xx
Particulars	Rs.	Rs.	Rs.	Rs.
Sales	xxxx	xxxx	xxxx	xxxx
Less: Variable Cost	xx	xx	xx	xx
Contribution	xxx	xxx	xxx	xxx
Less: Fixed Cost	xx	xx	xx	xx
Profit [Benefits (A)]	xxx	xxx	xxx	xxx
Total Cost= Variable Cost +Fixed Cost Average Investment in Receivables (Based on Total Costs)	xxx	xxx	xxx	xxx
Costs of Extending Credit:				
1) ___ % Opportunity Cost of Capital (Calculated on Avg. Invst. in Receivables)	xx	xx	xx	xx
2) Bad debts as % of Sales	xx	xx	xx	xx
3) Credit Collection and Admin costs	xx	xx	xx	xx
Total Costs [B]	xxxx	xxxx	xxxx	xxxx
Net Benefits [A-B]	xxx	xxx	xxx	xxx 16
Incremental Net Benefits	---	xx	xx	xx

Type B: If Fixed costs is NOT given.

Credit Policy	Present Policy	Option 1	Option 2	Option 3
Credit Period (days/ weeks/months)	xx	xx	xx	xx
Particulars	Rs.	Rs.	Rs.	Rs.
Sales	xxxx	xxxx	xxxx	xxxx
Less: Variable Cost	xx	xx	xx	xx
Contribution [Benefits (A)]	xxx	xxx	xxx	xxx
Average Investment in Receivables (Based on Sales)	xxx	xxx	xxx	xxx
Costs of Extending Credit:				
1) ____ % Opportunity Cost of Capital (Calculated on Avg. Invst. in Receivables)	xx	xx	xx	xx
2) Bad debts as % of Sales	xx	xx	xx	xx
3) Credit Collection and Admin costs	xx	xx	xx	xx
Total Costs [B]	xxxx	xxxx	xxxx	xxxx
Net Benefits [A-B]	xxx	xxx	xxx	xxx
Incremental Net Benefits	---	xx	xx	xx

NOTE: ABOVE MENTIONED POINTS ARE INDICATIVE AND NOT EXHAUSTIVE. PLEASE EXPLAIN THE ANSWERS IN DEATAIL WITH PROPER EXAMPLES WHEREVER NECESSARY. ALSO REFER NOTES & BOOK(S) FOR THE SAME.

Important Questions

- a. Prepare Cash Budget for the period from April to June for M/S ZED Ltd

The estimated sales and expenses are as follows

Month	Sales Rs.	Wages Rs.	Factory Overheads	Purchases Rs.
February	2,00,000	15,000	5,000	1,20,000
March	2,40,000	15,000	3,000	1,40,000
April	2,80,000	20,000	4,000	1,60,000
May	3,00,000	20,000	4,000	1,68,000
June	2,40,000	12,000	4,000	1,56,000

- (1) Collection from Debtors is half in the same month and balance in the next month. 10% of sales are in cash
- (2) Cash in bank on April 1 is estimated at Rs.16,000
- (3) Creditors are paid 50% after 1 month and balance after 2 months from the month of purchase
- (4) Wages and factory overheads are outstanding $\frac{1}{4}$ th in a month
- (5) Advance Tax paid in the month of May Rs.20,000 and depreciation charged in the month of June Rs.50,000
- (6) Dividend to be received in June Rs.4,000
- (7) Preliminary expenses written off each month Rs.1,000

- b. The following is available in respect of Zilo Ltd:

Particulars	Component M	Component N
Normal Usage (per week)	540 units	540 units
Maximum Usage (per week)	720 units	720 units
Minimum Usage (per week)	270 units	270 units
Re-order Quantity	3,600 units	5,400 units
Re-order Period	10 to 14 weeks	6 to 10 weeks

Calculate for each Component:

- Re-order Level
 - Minimum level
 - Maximum Level
 - Average Stock Level
- c. Calculate EOQ per order in kilos

Annual Consumption	1,250 units
Carrying cost	Rs.1 per unit
Procurement cost	Rs.40 per order

- d. In order to increase sales from the normal level of Rs.2,40,000 per annum, the marketing manager submits a proposal for liberalizing credit policy as under:

Normal sales Rs.2,40,000
 Normal credit period 30 days

Proposed increase in credit beyond normal	Relevant increase over normal sales
30 days	
15 days	12,000
30 days	18,000
45 days	21,000
60 days	24,0000

The P.V. ratio of the company is 33.33 per cent. The company expects a pre-tax return of 20% on investment. Evaluate the above four alternatives and advice the management (assume 360 days a year).

- e. Prepare Cash Budget for the period from March to August for M/S XYZ Ltd

Month	Sales	Selling Expenses	Purchases	Wages	Factory Expenses	Administrative Expenses
January	3,40,000	14,000	1,60,000	30,000	20,000	10,000
February	3,20,000	15,000	1,68,000	32,000	22,000	11,000
March	5,64,000	13,000	1,66,000	3,36,000	16,000	9,000
April	3,10,000	13,600	1,66,000	24,000	21,000	9,400
May	3,30,000	14,800	1,52,000	36,000	24,000	10,800
June	4,00,000	14,000	1,36,000	32,000	19,200	11,400
July	3,60,000	12,000	34,000	34,000	16,000	10,000
August	4,40,000	11,000	1,16,000	33,000	19,200	10,000

Additional Information

(8) Period of credit allowed by supplier and to customers 1 month

(9) Lag in Payment of :

- Wages : 1 month
- Factory Expenses : 1 month

- iii. Administration Expenses : 1 month
- iv. Selling Expenses : 1 month
- (10) Machinery purchased for Rs.1,00,000 in March payable on delivery in April
- (11) Building purchased in April Rs.3,00,000 payable in two equal instalments in May and July.
- (12) Commission of 3% on sales payable two months after sales.
- (13) Cash in bank on March 1 is estimated at Rs.40,000

f. Calculate EOQ per order in units

Quarterly Demand	2,500 units
Ordering cost	Rs.200 per order
Inventory Carrying cost	Rs.0.50 per unit