ENTREPRENEURSHIP

CHAPTER 5: BUSINESS ARITHMETIC

Business Arithmetic

Business Arithmetic -

❖ **ABC** (Always Better Control) analysis can help you control your inventory better.

❖ **VILFREDO PARETO (1848-1923)**

- 20% of population owns 80% of nations wealth.
- 20% of employees cause 80% of problems.
- 20% of items accounts for 80% of firms expenditure.

❖ **EBITDA:** It stands for Earnings Before interest, Tax, Depreciation and Amortization. This is arrived at by adding interest, depreciation and amortization to PBT.

❖ **Formulae**

- Reorder Point = Usage Rate × Lead Time
- **The formulae for their calculation are:**

Contribution per unit = Selling price per unit – Variable cost per unit

Contribution per unit × Number of units sold = Total Contribution

Total Contribution = Total fixed costs + Profit

Profit = Total Contribution - Total fixed costs

Loss = Total fixed costs - Total Contribution

Break Even Point = TR = TC

Break Even Point = $P_1 \times Q_1 + P_2 \times Q_2 + Pn \times Qn_2$

$= Fc + (Vc_1 \times Q_1 + Vc_2 \times Q_2 + Vc_n \times Qn)$

$$\text{Break even point} = \frac{\text{Total fixed expenses}}{\text{Weighted average selling price} - \text{Weighted average variable expenses}}$$

❖ $Unit\ Price\ per\ customer = \dfrac{Total\ billed\ amount}{Number\ of\ customer}$

❖ $Unit\ Price\ per\ Product = \dfrac{Total\ Sale}{Number\ of\ unit\ sold}$

❖ Verification Statement/ Contribution Margin Income Statement

Particulars	
Sales (break-even point in Rupees) (TR)	xxxxx
Less: variable expenses	xxxxx
Contribution margin	xxxxx
Less: fixed expenses	xxxxxx
Net operating income	Zero

- Gross Profit = Selling price per unit – Cost price per unit
- $EOQ = \frac{\sqrt{2DP}}{C}$
  - D = Material consumption during the year
  - P = Cost of placing one order (including cost or receiving the delivery)
  - C = Interest payment including variable cost of storing per unit per year.
- Total Current Assets = Debtors + Stock + Cash + Prepaid Expenses
- Total Current Liabilities = (Sundry Creditors + Bills Payable + Bank Overdraft + Outstanding Expenses).
- Gross Working Capital = Total Current Assets
- Net Working Capital = Total Current Assets - Total Current Liabilities
- $Return\ on\ investment\ (ROI) = \frac{Net\ Profit}{\frac{Capital\ Employed}{Total\ Capital\ Invested}} \times 100$
- $Return\ on\ equity\ (ROE) = \frac{Net\ Profit}{Owners\ Capital\ Invested} \times 100$

Words That Matter -

- **Cash flow** refers to the movement of money in and out of business.
- **Cash flow projections** show how cash is expected to flow in and out of business.
- **Financial management** means planning, organizing, directing and controlling the financial activities such as procurement and utilization of fields of the enterprise.
- **Budget** refers statement of estimated expenditure and estimated income.
- **Budgeting** means allocation of resources.
  - Traditional budgeting is based on reviews of historic performance and the projection of such finding to the future with modification.

- Zero based budgeting is the creation of a completion of new budget from the ground up as there is no existence of its history.

❖ **Funds** needed for day to day operation of business is known as working capital.

❖ **Cash Conversion Cycle:** (CCC or Operating Cycle) is the length of time between a firm's purchase of inventory and the receipt of cash from accounts receivable.

❖ **Operating cycle** is also reference to the cash consumer cycle.

❖ **Gross working capital** - Current Assets

❖ **Net working capital:** Current Assets - Current Liabilities

❖ **Inventory control system** is designed to bring about expected control over the inventory and its utilization.

❖ **Finance:** The provision of money at the time it is wanted (F.W. Paish)

❖ **Capital structure:** The composition of shareholder fund and the borrowed funds.

❖ **Pareto principle:** The pareto principle (also known as the 80-20 rule, the law of the vital few, and the principle of factor sparsity) states that, for many events, roughly 80% of the effects come from 20% of the causes.

❖ **Pareto principle** is a prediction that 80% of effects come from 20% of causes.

❖ **SKU:** Stock Keeping Unit (SKU) code Each and every item in the inventory is to be identified with a unique code which signifies certain aspects of the item. It can be color, size, weight or any other characteristic that is of importance in its use.

❖ **ABC analysis:** The ABC approach states that, when reviewing inventory, a company should rate items from A to C, basing its ratings on the following rules:

- A-Items are goods which annual consumption value is the highest. The top 70-80% of the annual consumption value of the company typically accounts for only 10-20% of total inventory items.
- B-Items are the interclass items, with a medium consumption value. Those 15-25% of annual consumption value typically accounts for 30% of total inventory items.
- C-Items are, on the contrary, items with the lowest consumption value. The lower 5% of the annual consumption value typically accounts for 50% of total inventory items.
- Always better control can help your control you inventory better.

- **Economic order quantity:** Economic Order Quantity (EOQ) is the order quantity of inventory that minimizes the total cost of inventory management.

- **Reorder point:** The Reorder Point ("ROP") is the level of inventory when an order should be made with suppliers to bring the inventory up by the Economic Order Quantity ("EOQ").

- **Carrying cost:** In marketing, carrying cost refers to the total cost of holding inventory. This includes warehousing costs such as rent, utilities and salaries, financial costs such as opportunity cost, and inventory costs related to perishability, pilferage, shrinkage and insurance.

- **Contribution:** When the selling price per unit is more than its variable cost, the excess is called contribution.

- **Carrying Costs:** It is defined as the cost of holding and handling materials inside or outside the stores. It is important to examine the inventory level and to maintain optimum balance of inventory.

- **Order lead time:** It is an average time that elapses between placing an order and receiving the goods.

- **Usage Rate:** It is an average rate at which the inventory is drawn down over a period.

- **Unit of sales** can be defined as the measure of what products are sold.

- **Return on investment:** Return on investment equals the net income from a business or a project divided by the total money invested in the venture multiplied by 100.

- **Return on Equity:** Return on equity is obtained by dividing the net income by the. equity of the investor and multiplying the result by 100.

Concept of Working Capital:

- **Gross Concept of Working Capital:** Working capital refers to all the Current Assets.
- **Net Concept of Working Capital:** Working capital refers to all the Current Assets - Current Liabilities.