

FREQUENTLY ASKED QUESTIONS

STRATEGIC COST MANAGEMENT

CLASSIFICATION OF COSTS

How is cost defined?

Cost is a measurement, in monetary terms, of the amount of resources used for the purpose of production of goods or rendering services.

What is meant by classification of cost?

Classification of cost is the arrangement of items of costs in logical groups having regard to their nature (subjective classification) and purpose (objective classification).

What is meant by conversion cost?

Conversion cost is the production cost excluding the cost of direct materials.

How do we define cost object?

Cost object is an activity, contract, cost centre, customer, process, product, project, service or any other object for which costs are ascertained.

What is meant by cost centre?

Cost centre is any unit of an entity selected with a view to accumulating all cost under that unit. The unit can be division, department, section, group of plant and machinery, group of employees or combination of several units.

What is a production cost centre?

Cost centre is any unit of an entity selected with a view to accumulating all cost under that unit which are directly attributable to production process or operations.

What is a service cost centre?

The cost centre which primarily provides auxiliary services across the entity. The cost centre which provides services to production, operation or other service cost centre but not directly engaged in manufacturing process or operation or in rendering a service is a support-service cost centre.

A support-service cost centre renders services to other cost centre's/other units and in some cases to outside parties.

Examples:

- Engineering
- Workshop
- Quality control
- Quality assurance
- Designing
- Laboratory
- Help desk
- Transport for call centre staff

What is meant by cost unit?

Cost Unit is a form of measurement of volume of production of a product or a service. Cost Unit is generally adopted on the basis of convenience and practice in the industry concerned.

Example:

- Power - MW
- Cement - MT
- Automobile - Number
- Transportation - Tonne- Kilometre

What is meant by Prime cost?

Prime cost is the aggregate of direct material cost, direct Employee cost and direct expenses.

How do we define direct material cost?

Direct materials represent materials, the costs of which can be attributed to a cost object in an economically feasible way.

How do we define direct employee cost?

Direct employee costs represent employee costs, which can be attributed to a cost object in an economically feasible way.

What is meant by direct expenses?

Direct expenses are expenses relating to manufacture of a product or rendering a service, which can be identified or linked with the cost object other than direct material cost and direct employee cost.

Examples are as follows:

- Royalties charged on production
- Job charges
- Hire charges for use of specific equipment for a specific job
- Software services specifically required for a job

How do we define Overhead?

Overheads comprise costs of indirect materials, indirect employees and indirect expenses.

What is meant by indirect materials?

Indirect Materials represent materials, the costs of which cannot be directly attributed to a particular cost object.

How do we define indirect employees' cost?

Indirect employees' cost is employee cost, which cannot be directly attributed to a particular cost object.

How do we define indirect expenses?

Indirect expenses are expenses, which cannot be directly attributed to a particular cost object.

How do we define Production overhead?

Indirect costs involved in the production of a product or in rendering service. The terms Production Overheads, Factory Overheads, Works Overheads and Manufacturing Overheads denote the same meaning.

Production overheads include administration costs relating to production, factory, works or manufacturing.

What are the components of Production overhead?

Production overheads are the indirect costs incurred in the production process. Works overheads include the following expenses:

- (i) Consumable stores and spares
- (ii) Depreciation of plant and machinery, factory building etc
- (iii) Lease rent of production assets
- (iv) Repair and maintenance of plant and machinery, factory building etc
- (v) Indirect employees cost connected with production activities
- (vi) Drawing and Designing department cost.
- (vii) Insurance of plant and machinery, factory building, stock of raw material & WIP etc
- (viii) Amortized cost of jigs, fixtures, tooling etc

- (ix) Service department cost such as Tool Room, Engineering & Maintenance, Pollution Control etc

How do we define absorption of production overhead? What is the basis of absorption of production overhead?

Absorption of production overhead represents assigning of Production or Operation Overheads to cost objects by means of appropriate absorption rate.

Overhead Absorption Rate = Production or Operation Overheads of the Activity divided by the volume of activity.

For example, the rate obtained by dividing the overheads of a Machine Shop by machine hours.

The basis of absorption of production overhead is as follows:

The variable Production or Operation Overheads shall be absorbed to products or services based on actual production.

The fixed Production or Operation Overheads shall be absorbed based on the normal capacity.

What are the principles of measurement of production overhead?

Principles of measurement of production overhead are as follows:

Production Overheads representing procurement of resources shall be determined at invoice or agreed price including duties and taxes, and other expenditure directly attributable thereto net of discounts (other than cash discounts), taxes and duties refundable or to be credited.

Production Overheads other than those referred to above shall be determined on the basis of cost incurred in connection therewith.

Any abnormal cost where it is material and quantifiable shall not form part of the Production Overheads.

Production Overheads shall not include imputed cost.

Any subsidy, Grant, Incentive or amount of similar nature received or receivable with respect to Production Overheads shall be reduced for ascertainment of the cost of the cost object to which such amounts are related.

Fines, penalties, damages and similar levies paid or payable to statutory authorities or other third parties shall not form part of the Production Overheads.

Credits or recoveries relating to the Production Overheads, material and quantifiable, shall be deducted from the total Production or Operation overheads to arrive at the net Production Overheads. Where the recovery exceeds the total Production Overheads, the balance recovery shall be treated as other income.

How do we define imputed costs?

Imputed costs are notional costs, not involving cash outlay, computed for any purpose.

What is cost of quality control?

The quality control cost is the expenses incurred relating to quality control activities for adhering to quality standard. These expenses shall include salaries & wages relating to employees engaged in quality control activity and other related expenses.

What is meant by Marketing Overhead?

Marketing Overheads comprise of selling overheads and distribution overheads.

How do we define Selling overhead?

Selling overheads are the expenses related to sale of products or services and include all indirect expenses incurred in selling the products or services. Selling overheads are also known as selling costs.

How do we define distribution overheads?

Distribution overheads, also known as distribution costs, are the costs incurred in handling a product or service from the time it is ready for despatch or delivery until it reaches the ultimate consumer including the units receiving the product or service in an inter-unit transfer.

The cost of any non-manufacturing operations such as packing, repacking and labelling at an intermediate storage location will be part of distribution cost.

Examples:

- Secondary packing
- Outward transportation cost
- Warehousing cost
- Cost of delivering the products to customers
- Clearing and forwarding charges
- Cost of mending or replacing packing materials at distribution point

How do we define research costs?

Research cost is the cost of original and planned investigation undertaken with the prospect of gaining new scientific or technical knowledge and understanding.

What is meant by development cost?

Development cost is the cost for application of research findings or other knowledge to a plan or design for the production of new or substantially improved materials, devices, products, processes, systems or services before the start of commercial production or use.

How do we define packing material cost?

The cost of material of any nature used for the purpose of packing of a product.

Packing material can be classified into primary packing material and secondary packing material.

Primary packing material is essential to hold and preserve the product for its use by the customer and secondary packing material enables to store, transport, inform the customer, promote and otherwise make the product marketable.

How do we define administrative overhead?

Administrative overhead represents cost of all activities relating to general management and administration of an entity.

Administrative overheads shall exclude production overheads, marketing overheads and finance cost. Production overheads include administration cost relating to production, factory, works or manufacturing.

How do we define cost of production?

Cost of production of a product or a service consists of cost of materials consumed, direct employee costs, direct expenses, production overheads, quality control costs, packing costs, research and development costs and administrative overheads related to production.

To arrive at cost of production of goods dispatched for captive consumption, adjustment for Stock of work-in-Process, finished goods, recoveries for sales of scrap, wastage etc shall be made.

What is meant by captive consumption?

Captive Consumption means the consumption of goods manufactured by one division or unit and consumed by another division or unit of the same organization or related undertaking for manufacturing another product(s).

How do we define cost of material consumed?

Material Consumed shall include materials directly identified for production of goods such as:

- (a) indigenous materials
 - (b) imported materials
 - (c) bought out items
 - (d) self-manufactured items
 - (e) process materials and other items
- Cost of material consumed shall consist of cost of material, duties and taxes, freight inwards, insurance and other expenditure directly attributable to procurement.

Trade discount, rebates and other similar items will be deducted for determining the cost of materials.

All indirect taxes like credit for countervailing customs duty, VAT or Sales Tax set off, duty draw back and other similar duties subsequently recovered/ recoverable by the enterprise shall also be deducted wherever applicable.

What are the components of direct wages and salaries?

Direct wages and salaries shall include house rent allowance, overtime and incentive payments made to employees

directly engaged in the manufacturing activities.

Direct wages and salaries include fringe benefits such as:

- (i) Contribution to provident fund and ESIS
- (ii) Bonus/ ex-gratia payment to employees
- (iii) Provision for retirement benefits such as gratuity and superannuation
- (iv) Medical benefits
- (v) Subsidised food
- (vi) Leave with pay and holiday payment
- (vii) Leave encashment
- (viii) Other allowances such as children's education allowance, conveyance allowance which are payable to employees in the normal course of business etc.

What are the components of direct expenses?

Direct expenses are the expenses other than direct material cost and direct employees' costs which can be identified with the product.

Direct expenses include:

- (i) Cost of utilities such as fuel, power, water, steam etc
- (ii) Royalty based on production
- (iii) Technical Assistance / know-how fees
- (iv) Amortized cost of moulds, patterns, patents etc
- (v) Job charges
- (vi) Hire charges for tools and equipment
- (vii) Charges for a particular product designing etc

What is the treatment of joint products and by-products cost?

A production process may result in more than one product being produced simultaneously. In case joint products are produced, joint costs are allocated between the products on a rational and consistent basis. In case by-products are produced, the net realisable value of by-products is credited to the cost of production of the main product. For allocation of joint cost to joint products, the sales values of products at the split off point i.e. when the products become separately identifiable may become the basis. Some other basis may be adopted. For example, in case of petroleum products, each product is assigned certain value based on its certain properties, may be calorific value and these values become the basis of apportionment of joint cost among petroleum products.

What are the principles of measurement of joint and by products costs?

Principles of measurement of joint and by-product costs are as follows:

- The principles and methods for measuring Joint costs up to the split off point will be the same as stipulated in other cost accounting standards.
- Cost incurred after split-off point on product separately identifiable shall be measured for the resources consumed for each Joint/By-Product.
- Cost incurred after split-off point for further processing of joint product/By-Product shall be the aggregate of direct and indirect costs.
- Cost of further processing of joint product/By-Product carried out by outside parties shall be determined at invoice or agreed price including duties and taxes, net of discounts (other than cash discount) taxes and duties refundable or to be credited and other expenditure directly attributable to such processing. This cost shall also include the cost of resources provided to outside parties.
- In case the production process generates scrap or waste, realized or realizable value, net of disposal cost, of scrap and waste shall be deducted from the cost of Joint Product.
- Any Subsidy / Grant / Incentive or any such payment received / receivable with respect to any joint product /By-Product shall be reduced for ascertainment of the cost to which such amounts are related.
- Penalties, damages paid to statutory authorities or other third parties shall not form part of the cost of the joint product /By-Product.

What is the treatment of scrap and waste?

The production process may generate scrap or waste. Realized or realizable value of scrap or waste shall be credited to the cost of production. In case, scrap or waste does not have ready market and it is used for reprocessing, the scrap or waste value is taken at a rate of input cost depending upon the stage at which such scrap or waste is recycled.

The expenses incurred for making the scrap suitable for reprocessing shall be deducted from value of scrap or waste.

How do we define abnormal and non-recurring cost?

Abnormal and non-recurring cost arising due to unusual or unexpected occurrence of events, such as heavy break down of plants, accident, market condition restricting sales below normal level, abnormal idle capacity, abnormal process loss, abnormal scrap and wastage, payments like VRS, retrenchment compensation, lay-off wages etc. The abnormal cost shall not form the part of cost of production.

How do we define interest and finance charges?

Interest and finance charges represent interest, including any payment in the nature of interest for use of non-equity funds and incidental cost that an entity incurs in arranging those funds.

Examples are as follows:

- interest and commitment charges on bank borrowings, other short term and long-term borrowings;
- amortisation of discounts or premium related to borrowings;
- amortisation of ancillary cost incurred in connection with the arrangements of borrowings;
- Financing Charges in respect of finance leases and other similar arrangements; and
- exchange differences arising from foreign currency borrowings to the extent they are regarded as an adjustment to the interest costs (Adapted from CIMA Terminology).
- Cash discount allowed to customers.

The terms Interest and financing charges, finance costs, and borrowing costs are used interchangeably.

What are the principles of measurement in interest and finance charges?

Principles of measurement of interest and finance charges are as follows:

Interest and Financing Charges incurred shall be identified for:

- (a) acquisition / construction/ production of qualifying assets including fixed assets; and
- (b) Other finance costs for production of goods/ operations or services rendered which cannot be classified as qualifying assets.

Interest and Financing Charges directly attributable to the acquisition / construction/ production of a qualifying asset shall be included in the cost of the asset.

Interest and Financing Charges shall not include imputed costs.

Subsidy / Grant / Incentive or amount of similar nature received / receivable with respect to Interest and Financing Charges if any, shall be reduced to ascertain the net interest and financing charges.

Penal Interest for delayed payment, Fines, penalties, damages and similar levies paid to statutory authorities or other third parties shall not form part of the Interest and Financing Charges. In case the company delays the payment of Statutory dues beyond the stipulated date, interest paid for delayed payment shall not be treated as penal interest.

Interest paid for or received on investment shall not form part of the other financing charges for production of goods / operations or services rendered;

What are the principles of measurement of research and development costs?

Principles of measurement of research and development costs are as follows:

Research, and Development Costs shall include all the costs that are directly traceable to research and/or development activities or that can be assigned to research and development activities strictly on the basis of (a) cause and effect or (b) benefits received. Such costs shall include the following elements:

- The cost of materials and services consumed in Research, and Development activities
- Cost of bought out materials and hired services as per invoice or agreed price including duties and taxes directly attributable thereto net of trade discounts, rebates, taxes and duties refundable or to be credited.
- The salaries, wages and other related costs of personnel engaged in Research, and Development activities;
- The depreciation of equipment and facilities, and other tangible assets, and amortisation of intangible assets to the extent that they are used for Research, and Development activities;
- Overhead costs, other than general administrative costs, related to Research, and Development activities.

- Costs incurred for carrying out Research, and Development activities by other entities and charged to the entity; and
- Expenditure incurred in securing copyrights or licences
- Expenditure incurred for developing computer software
- Costs incurred for the design of tools, jigs, moulds and dies
- Other costs that can be directly attributed to Research, and Development activities and can be identified with specific projects

Subsidy / Grant / Incentive or amount of similar nature received / receivable with respect to Research, and Development Activity, if any, shall be reduced from the cost of such Research, and Development Activity

Any abnormal cost where it is material and quantifiable shall not form part of the Research, and Development Cost. Fines, penalties, damages and similar levies paid to statutory authorities or other third parties shall not form part of the Research, and Development Cost.

The amortisation of an intangible asset arising from the development activity shall be treated in accordance with principles related to Depreciation and Amortisation.

Research, and Development costs shall not include imputed costs.

Credits/recoveries relating to Research, and Development cost, if material and quantifiable, including from the sale of output produced from the Research and Development activity shall be deducted from the Research and Development cost.

What are the principles of measurement of royalties and technical know-how fees?

Principles of measurement of royalties and technical knowhow fees are as follows:

- Royalty and Technical Know-how Fee paid or incurred in lump-sum or which are in the nature of 'one – time' payment, shall be amortised on the basis of the estimated output or benefit to be derived from the related asset. Examples: Amortisation of the amount of Royalty or Technical Know-how fee paid for which the benefit is ensued in the current or future periods shall be determined based on the production / service volumes estimated for the period over which the asset is expected to benefit the entity.
- Amount of the Royalty and Technical Know-how Fee shall not include finance costs and imputed costs.
- Any Subsidy/Grant/Incentive or any such payment received/receivable with respect to amount of Royalty and Technical Know-how fee shall be reduced to measure the amount of royalty and technical know- how fee.
- Penalties, damages paid to statutory authorities or other third parties shall not form part of the amount of Royalty and Technical Know-how fee.
- Credits/ recoveries relating to the amount Royalty and Technical Know-how fee, material and quantifiable, shall be deducted to arrive at the net amount of Royalty and Technical Know-how fee.
- Any change in the cost accounting principles applied for the measurement of the amount of Royalty and Technical Know-how Fee should be made only if, it is required by law or for compliance with the requirements of a cost accounting standard, or a change would result in a more appropriate preparation or presentation of cost statements of an organisation.

STANDARD COSTING

What is meant by standard cost?

Standard cost is a predetermined cost of a product or service based on technical specifications and efficient operating conditions.

Standard costs are used as scale of reference to compare the actual cost with the standard cost with a view to determine the variances, if any, and analyse the causes of variances and take proper measure to control them.

MARGINAL COSTING

What is meant by Marginal costing?

Marginal cost is the amount, at any given volume of output, by which aggregate costs are changed, if the volume of output is increased or decreased by one unit.

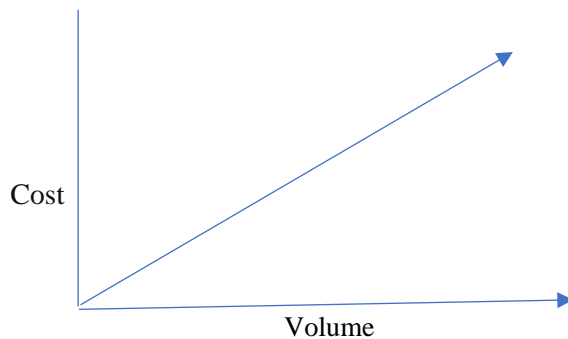
What is meant by Variable cost?

These are the costs which increase or decrease in proportion to the output and sales. Variable costs are called “Product costs” (or) “Marginal costs”.

Usually, they vary in direct proportion to the output.

They include all the direct costs (i.e.) direct material, direct wages, direct expenses and variable overheads.

The variable costs vary in total but they remain constant per unit. This is explained in the chart below.

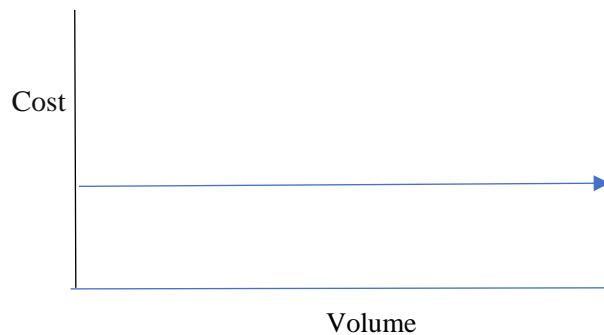


What is meant by Fixed Cost?

These are the costs which do not increase or decrease in proportion to the output and sales. Fixed costs are called “Period costs”

Fixed costs remain constant when considered in totality but they vary per unit based on total volume of output.

This is explained in the chart below.



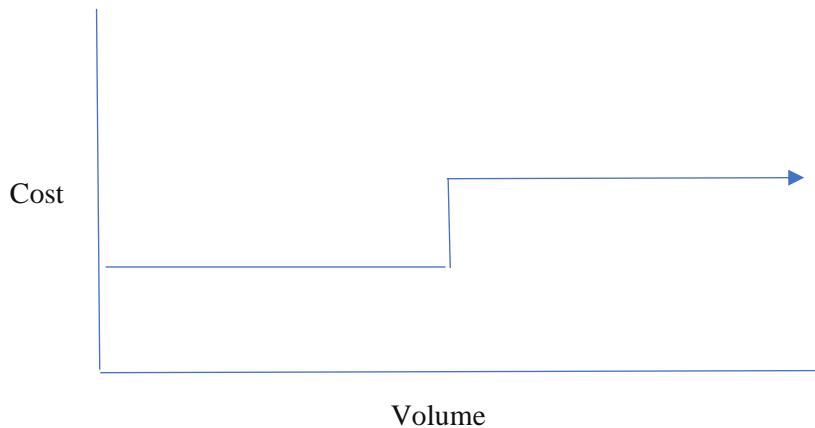
What is meant by normal capacity?

Normal Capacity is the production achieved or achievable on an average over a number of periods or seasons under normal circumstances taking into account the loss of capacity resulting from planned maintenance. The above definition is also applicable for normal capacity in relation to a service being rendered.

What is meant by semi-variable cost?

Semi Variable Costs are the costs that contain both fixed and variable elements. They partly change with the change in the level of activity.

The fixed cost graph changes as shown below.



What is meant by cost volume profit (CVP) analysis?

Cost volume profit analysis is the analysis of three variables viz. cost, volume and profit. This analysis measures variations of costs and volume and their impact on profit. Profit is affected by several internal and external factors which influence sales revenue and costs.

What is meant by Profit volume ratio?

Cost-volume-profit (CVP) analysis deals with how profit and costs change with change in volume. To be more specific, it looks at the effects on profits of changes in such factors as variable costs, fixed costs, selling prices, sales volume and mix of products sold.

Profit volume is determined as follows:

$$\begin{aligned} \text{PV Ratio} &= (\text{Contribution} / \text{Sales}) \times 100 \\ &= ((\text{Sales} - \text{Variable cost}) / \text{Sales}) \times 100 \\ &= ((\text{Fixed cost} + \text{Profit}) / \text{Sales}) \times 100 \end{aligned}$$

CVP analysis attempts to answer the some of the questions articulated below:

- What sales volume is required to achieve break-even point?
- What sales volume needs to be achieved to earn a desired profit – and is called Margin of safety.
- What profit can be expected on a given sales volume?
- How would changes in selling price, variable costs, fixed costs and projected sales volume affect profitability of the organization?
- How would a change in mix of products sold affect the break-even and target income volume and profit potential?

What is meant by Contribution?

Contribution is difference between Sales and Variable costs.

To work out accurate CVP analysis, a distinction must be made between costs as being either variable cost or fixed cost. Mixed costs need to be segregated between their variable and fixed components. In order to ascertain break-even point and perform CVP analysis, the following components need to be understood:

- Contribution Margin (CM) – The contribution margin is the excess of sales (S) over Variable costs (VC) of the product or service. It is the amount of money available to cover fixed costs (FC) and generate profit. The formula is as follows:

$$CM = S - VC$$

- Unit CM: The unit CM is the excess of the unit selling price (p) over unit variable cost (v) and the equation is as follows:

$$\text{Unit CM} = p - v$$

- Contribution Margin (CM) Ratio:

The CM ratio is the contribution margin as a percentage of sales and the equation is as follows:

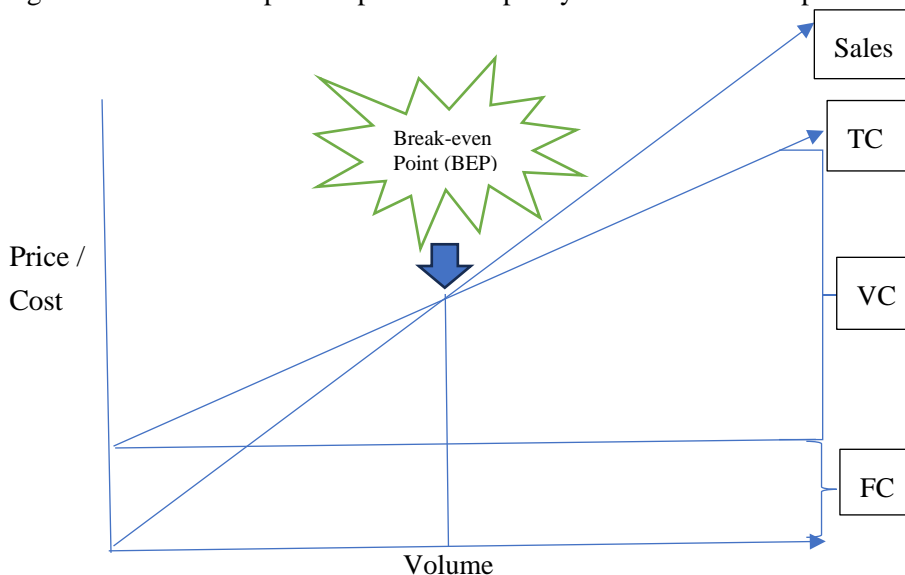
$$\begin{aligned} \text{CM Ratio} &= \text{CM} / \text{Sales} \\ &= (S - VC) / \text{Sales} \\ &= 1 - (VC / S) \end{aligned}$$

The CM ratio can also be computed using per-unit data as follows:

$$\begin{aligned} \text{CM Ratio} &= \text{Unit CM} / p \\ &= (p - v) / p \\ &= 1 - v / p \end{aligned}$$

What is meant by Break-even Point?

The break-even point represents the level of sales revenue that equals the total of the variable and fixed costs for a given volume of output at a particular capacity use rate. This is explained in a graph below.



Where, BEP = Break-even point

FC = Fixed Cost

VC = Variable Cost

TC = Total Cost

Generally, the lower the break-even point, the higher the profit and less the operating risk, other things being equal. The break-even point is calculated as follows:

Break-even point in units = Fixed Cost / Unit CM

Break-even point in value = Fixed Cost / CM Ratio

Hence, Break - even point signifies the point where total cost is equal to total revenue. It is a point of no profit, no loss. This is also a minimum point of production where total costs are recovered.

Break-even point in value = Fixed cost / (PV ratio)
= Fixed cost / (Contribution / Sales)

Break-even point in unit = Fixed cost / Contribution per unit

What is meant by Margin of Safety?

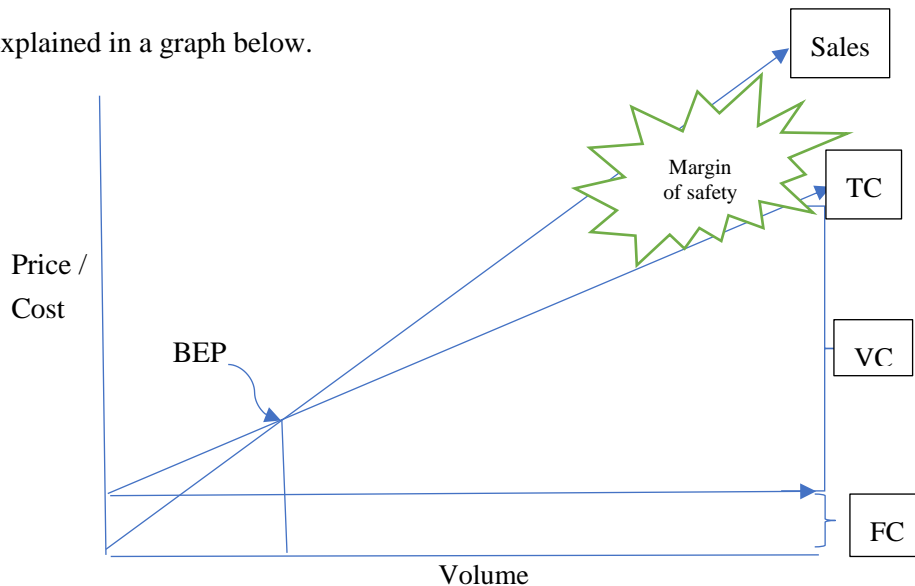
Margin of safety is the excess of sales over the break-even sales. It can be expressed in absolute sales amount or in percentage. A large margin of safety indicates the soundness of the business. The formula for the margin of safety is:

Margin of Safety = Actual sales – Break-even sales

Margin of Safety (by units) = Profit / Contribution per unit

Margin of Safety (In Rupees) = Profit / (P/V Ratio)
= (Profit / Contribution) x Sales

This is explained in a graph below.



BUDGETING

What is meant by the term budget?

A budget is a plan of action expressed in financial terms or non-financial terms. It is prepared for a definite period of time. A budget is a tool which helps the management in planning and control of business activities.

How do we define Revenue budget?

Revenue budget is an estimate of expected sales during the budget period. It may be stated in terms of money or quantity or both. It contains information relating to sales, month-wise, product wise and area wise.

What is meant by cash budget?

Cash budget provides an estimate of receipts and payments of cash during the budget period. It is prepared by the financial controller. It shows the cash available and needed from time to time to meet the capital requirements of the organization.

What is meant by flexible budget?

Flexible budget is also called variable budget. It may be defined as a budget designed to change in accordance with the level of activity actually attained. It shows estimated costs and profit at different levels of output.

What is meant by budgetary control?

Budgetary control is a system which uses budgets as a means of planning and controlling all aspects of producing and /or selling commodities and services.

What is meant by capital budgeting?

According to Charles Horngren, capital budgeting is, "A long-term planning for making and financing proposed capital outlays".

Capital budgeting is the process of making investment decisions regarding capital expenditures. Capital budgeting is also known as long-term planning for investment decisions.

Why is it capital budgeting considered critical?

Capital budgeting decisions are among the most crucial and critical business decisions. Special care should be taken in making these decisions on account of the following reasons:

- Heavy capital investment
- Long term commitment to funding
- Long term effect on profitability.

What is meant by Average rate of return?

It is known as accounting rate of return because it takes into account, the accounting concept of profit (i.e. profit after depreciation and tax) and not the cash inflows. The project which yields the highest rate of return is selected.

The formula is as follows:

$$\text{ARR} = (\text{Average annual profit} / \text{Original investment}) \times 100$$

What is Internal Rate of Return?

Internal rate of return is "that rate of return at which the present values of cash inflows and cash outflows are equal". Thus, at IRR the total of discounted cash inflows equals the total of discounted cash outflows. IRR discounts the total cash flows to the level of zero.

What is meant by payback period?

“Pay-back period” is the period of time for the cost of a project to be recovered from the additional earnings of the project itself.

$$\text{Pay pack period} = \frac{\text{Initial investment}}{\text{Annual cash inflow}}$$

What is Net Present Value?

Under net present value method, present value of cash inflows is calculated at the required rate of return and compared with the original investment. If the present value is higher than the original investment, the project can be selected, otherwise rejected.

What is meant by zero base budgeting?

“Zero base budgeting” was originally developed by peter A. Pyhrr at Texas instruments. A. Pyhrr has defined ZBB as “An operating, planning and budgeting process which requires each manager to justify his entire budget request in detail from zero bases and shifts the burden of proof to each manager to justify why we should spend any money at all.”

CAPACITY

What is meant by installed capacity? How do we determine installed capacity?

Installed capacity is the maximum capacity of producing goods or providing services, determined either based on technical specification of the facility or through a technical evaluation.

Installed capacity is usually determined based on:

- i) Technical specifications of facility.
- ii) technical evaluation.
- iii) Capacities of individual or interrelated production or operation Centres.
- iv) Operational constraints or capacity of critical machines or equipment.
- v) Number of shifts or machine hours or man hours.

In case technical specifications of facility are not available, the estimates by technical experts on capacity under ideal conditions shall be considered for determination of installed capacity. In case the installed capacity is assessed as per direction of the Government or regulator it shall be in accordance with the said directives.

What is meant by normal capacity? How do we define normal capacity?

Normal capacity is the volume of production or services achieved or achievable on an average over a period under normal circumstances taking into account the reduction in capacity resulting from planned maintenance.

Normal capacity is determined after suitable adjustments to the Installed Capacity. The adjustments may be of the following nature:

- (i) Time lost due to scheduled preventive or planned maintenance
- (ii) Number of shifts or machine hours or man hours.
- (iii) Holidays, normal shut down days, normal idle time,
- (iv) Normal time lost in batch change over

What is meant by normal idle capacity?

Normal idle capacity is the difference between installed and normal capacity.

What is meant by abnormal idle capacity?

Abnormal idle capacity is the difference between normal capacity and actual capacity utilization where the actual capacity is lower than the normal capacity.

PROFITABILITY ANALYSIS

What are areas related to Sales and Product / service profitability analysis?

Product/Service Profitability (for key products/services only)

- Product volume trend
- Sales price trend of products and services
- Sales value trend
- Turnover, % to Total,
- Capital Employed, % to Total CE,
- Gross Margin, % to Total,
- Gross Margin as % of Turnover,
- Gross Margin as % of Capital Employed,
- Net Margin, % to Total Net Margin,
- Net Margin as % to Turnover,
- Net Margin as % to Capital Employed,

How do we calculate market / customer profitability analysis?

Market/Customer Profitability – similar analysis as above

- Market Distribution – Indigenous vs. Overseas broken into smaller geographical divisions/segments
- Segment wise profitability analysis
- Customer Distribution – in order of percentage share in each product/activity and in each product/activity group
- Distribution channel wise profitability analysis
- Indicate cost of servicing each market/customer and its efficiency in terms of business, contributions, gross/net margins, scope of sustainability, etc.
- Indicate cost of each supply chain vs. benefits
- Indicate impact of FTAs and Dumping on each product, product-group or each market/customer.

How do we calculate cost and contribution analysis?

These are as follows:

- Key-Expense Ratios vs. Cost of Production/Cost of Sales
- Abnormal & Non-Recurring Costs – impact on profitability
- Key Costs Trend Analysis indicating estimated impact on future profitability
- Cost-effectiveness Analysis: Cost of Operation/Process vs. Benefits
- Cost of Management vs. Net Turnover or Gross Margin or Net Margin
- Cost Variance Analysis vs. Standards or Budgets – impact on profitability
- Product cost trend
- Cost by facilities
- Cost by job/activity
- Cost by hospital bed in Health care
- Cost by shelf space in retail
- Volume Variance Analysis vs. Standards or Budgets – impact on profitability
- Marginal Cost and Contribution Analysis for each product/activity, each product/activity group, each market segment, each customer segment, etc.
- Service Department-wise cost trends (elementwise)

LIQUIDITY ANALYSIS

How do we calculate working capital analysis?

Working capital analysis covers the following areas:

- Movement of Debtors vs. Credit Sales
- Days Debtors Analysis – impact on cash flow and profitability
- Overseas Debtors – impact of likely FE Variations
- Movement of Creditors vs. Credit Purchases
- Days Creditors Analysis – impact on supplies and product-line
- Inventory Turnover
- Cash Flow Turnover – impact on profitability

How do we calculate inventory analysis?

Inventory analysis covers the following areas:

- Inventory Analysis - Basis of valuation & Consistency
- Turnover efficiency: Cost of Goods Sold/Average Inventory
- Return on Inventory: GM/Average Inventory, NM/Average Inventory
- Slow-moving or dead inventory
- ABC analysis; Period holding analysis
- Policy for Insurance Spares; Inventory Holding due to changes in technology, changes in production process, obsolescence, etc.

STRATEGIC COST MANAGEMENT

What is meant by strategic cost management?

According to Cooper and Slagmulder (1998), strategic cost management is “the application of cost management techniques so that they simultaneously improve the strategic position of a firm and reduce costs”. They suggest three sorts of cost management initiatives, based on whether the impact on the organization’s competitive position is positive, negative, or neutral.

What is Activity Cost Management?

The use of ABC as a costing tool to manage costs at the activity level is known as “Activity Based Cost Management (ABM)”. It is a discipline that focuses on the efficient and effective management of activities as the route to continuously improving the value received by customers. ABM utilizes cost information gathered through ABC. It determines what drives the activities of the organization and how these activities can be improved to increase profitability.

Key Attributes in activity-based cost management are:

- a) Cost object: It is an item for which cost measurement is required. e.g. a product or a customer
- b) Cost driver: It is a factor that causes a change in the cost of the activity. There are two categories of cost drivers:
 - I) Resource cost driver – it is a measure of the number of resources consumed by an activity. It is used to assign the cost of a resource to an activity or cost pool
 - II) Activity cost driver – It is a measure of the frequency and intensity of demand, placed on activities by cost objects. It is used to assign activity costs to cost objects.

What are the business applications of Activity Based Management?

Business Applications of activities-based cost management (ABM) are:

- (a) Cost reduction;
- (b) Activity-based budgeting;
- (c) Business Process re-engineering;
- (d) Benchmarking;
- (e) Performance management.

What are the stages of Activity Based Costing?

The stages of activity-based costing are:

- (a) Identification of the activities that have taken place in the organization;
- (b) Assigning costs to cost pool for each activity;
- (c) Spreading of support activities across primary activities;
- (d) Determining cost driver for each activity;
- (e) Assigning the costs of activities to products according to product demand for activities.

What is meant by Target costing?

Target costing is defined as “a structured approach to determining the cost at which a proposed product with specified functionality and quality must be produced to generate a desired level of profitability at its anticipated selling price”. It is an important part of a comprehensive management process aimed at helping an organization to survive in an increasingly competitive environment

What are the features of target costing?

The features of target costing are as under:

- (1) Target costing is viewed as an integral part of the design and introduction of new products;
- (2) For any given product, a target selling price is determined using various sales forecasting techniques;
- (3) Integral to setting the target selling price is the establishment of target production volumes, given the relationship between price and volume;
- (4) The next stage of the target costing process is to determine cost reduction targets;
- (5) It should be noted that a fair degree of judgment is needed where the allowable cost and the target cost differ;
- (6) The total target is split into various components, each component is studied and opportunities for cost reductions are identified. These initiatives are often alluded to as *Value Engineering* and *Value Analysis*. Target costing is a marketing approach to costing.

How does target costing improve profitability?

Target costing improves profitability in two ways:

- (a) It places such a detailed continuing emphasis on product costs throughout the life cycle of every product, that it is unlikely that a company will experience runaway costs;
- (b) It improves profitability through precise targeting of the correct prices at which the company feels it can field a profitable product in the marketplace that will sell robustly.

Instead of starting with the cost and working to the selling price by adding on the expected margin, target costing will start with the selling price of a particular product and work back to the cost by removing the profit element. This means that the company has to find ways of not exceeding that cost.

How do we explain Life cycle costing?

When seeking to make a profit on a product it is essential that the total revenue arising from the product exceeds total costs, whether these costs are incurred before, during or after the product is produced. This is the concept of life cycle costing and it is important to realize that target costs can be driven down by attacking any of the costs that relate to any part of a product's life. The cost phases of a product can be identified as:

Phase

Examples of Types of Cost

Design

Research, development, design and tooling

Manufacture

Material, labor, overheads, machine set up, inventory,
training, production machine maintenance and depreciation

Operation

Distribution, advertising and warranty claims

End of life

Environmental clean-up, disposal and decommissioning

There are four principal lessons to be learned from lifecycle costing:

- All costs should be taken into account when working out the cost of a unit and its profitability.
- Attention to all costs will help to reduce the cost per unit and will help an organization achieve its target cost.
- Many costs will be linked. For example, more attention to design can reduce manufacturing and warranty costs. More attention to training can machine maintenance costs. More attention to waste disposal during manufacturing can reduce end-of life costs.
- Costs are committed and incurred at very different times. A committed cost is a cost that will be incurred in the future because of decisions that have already been made. Costs are incurred only when a resource is used.

What is meant by Kaizen costing?

Kaizen costing is a process, wherein a product undergoes cost reduction even when it is already in the production stage. Cost minimization can include strategies ineffective waste management, continuous product improvement or better deals in the acquisition of raw materials.

Yashihuro Moden defines kaizen costing as “the maintenance of present cost levels for products currently being manufactured via systematic efforts to achieve the desired cost level.” The word *kaizen* is a Japanese word meaning *continuous improvement*.

Moden has described two types of kaizen costing:

- Asset and organization-specific kaizen costing activities planned, according to the exigencies of each deal;
- Product model-specific costing activities carried out in special projects with added emphasis on value analysis.

Kaizen costing is applied to products that are already in the production phase. Before kaizen costing, when the products are under development phase, target costing is applied.

‘Kaizen costing is based on the belief that nothing is ever perfect, so improvements and reductions in the variable costs are always possible’

What is meant by Cost of Quality and Total Quality Management?

Total Quality Management is a systematic process for identifying and implementing the solution and prioritize opportunities for improvement.

The TQM approach highlights the need for a customer-oriented approach to management reporting, eliminating some of our more traditional reporting practices. Performance measurement and quality management are not the sole domain of the manufacturing industry, but detailed applications of the new management accounting practices to the professional service environment.

The features of TQM are:

- (a) Commitment;
- (b) Culture;
- (c) Continuous improvement;
- (d) Co-operation;
- (e) Customer focus;
- (f) Control.

What are the principles of measurement of quality control cost?

The principles of measurement of quality control cost are as follows:

- Quality Control cost incurred in-house shall be the aggregate of the cost of resources consumed in the Quality Control activities of the entity. The cost of resources procured from outside shall be determined at invoice or agreed price including duties and taxes, and other expenditure directly attributable thereto net of discounts (other than cash discounts), taxes and duties refundable or to be credited by the Tax Authorities. Such cost shall include:
 - Cost of conformance to quality:
 - (a) prevention cost; and
 - (b) appraisal cost
- Identification of Quality Control costs shall be based on traceability in an economically feasible manner.
- Quality Control costs other than those referred to above shall be determined on the basis of amount incurred in connection therewith.
- Finance costs incurred in connection with the self-generated or procured resources shall not form part of Quality Control cost.
- Quality Control costs shall not include imputed costs.
- Any Subsidy/Grant/Incentive or any such payment received/receivable with respect to any Quality Control cost shall be reduced for ascertainment of the cost of the cost object to which such amounts are related.
- Any abnormal portion of the Quality Control cost where it is material and quantifiable shall not form part of the Cost of Quality Control.
- Penalties, damages paid to statutory authorities or other third parties shall not form part of the Quality Control cost.
- Any change in the cost accounting principles applied for the measurement of the Quality Control cost shall be made only if, it is required by law or for compliance with the requirements of a cost accounting standard, or a change would result in a more appropriate preparation or presentation of cost statements of an organisation.

What are the areas where decision making and pricing strategy is used?

Some of the areas where decision making on costing and pricing strategies are involved are:

- (1) Stock management and inventory control decisions;
- (2) Plant location decisions;
- (3) Machinery replacement/capital budgeting decisions;
- (4) Sale at split-off or further processing decisions;
- (5) Product decisions – dropping or adding a product line;
- (6) Marketing decisions;
- (7) Submitting tenders and quotations for new jobs based on relevant cost analysis;
- (8) Acceptance of incremental orders in different situations like spare capacity, full capacity, etc;
- (9) Make or buy decisions;
- (10) Operate or shut down decisions;
- (11) Product pricing decisions – reduction or maintenance of price;
- (12) Opening of new sales territory or branch;
- (13) Intra-company transfer pricing decisions;
- (14) Purchasing vs. lease financing decisions.

The above areas involve the use of marginal costs, relevant costs and differential cost approaches.

What is meant by Balanced Score card?

Developed in the early 1990s by Robert Kaplan from the Harvard Business School and David Norton, the founder of an IT consulting firm, this management system has been applied to many organizations and across many industries with great success.

The original article in the Harvard Business Review (“The Balanced Scorecard – Measures That Drive Performance”, Harvard Business Review, Jan/Feb 1992) starts with the adage we quoted at the start of this article, “What you measure is what you get”. The whole system is based on this premise.

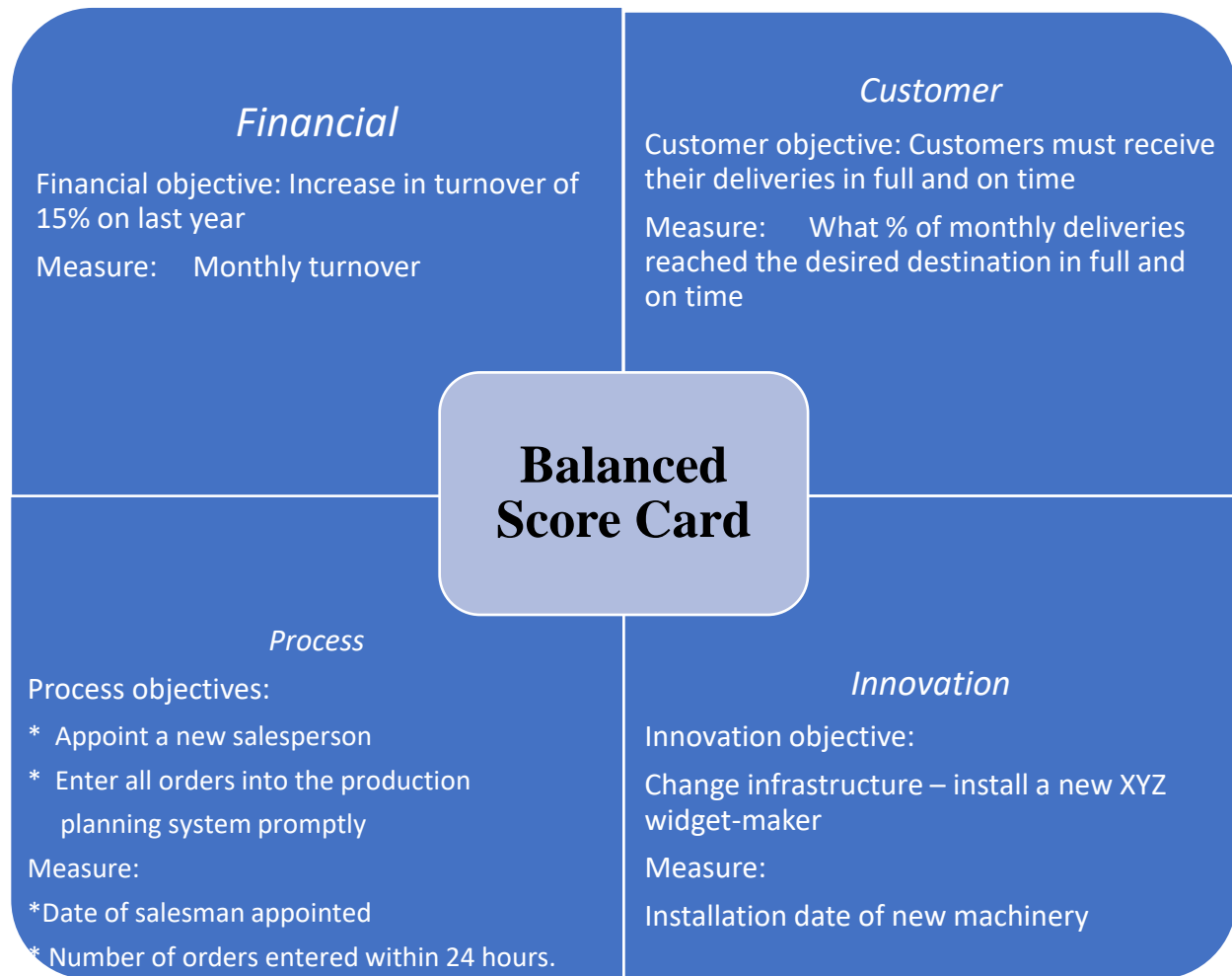
Balanced Scorecard Performance Metrics

With the balanced scorecard, *objectives* address the issue of what is needed for strategies to be successful. **Performance metrics** or *balanced scorecard metrics* address the measuring and controlling of progress to ensure that everything stays on course to deliver the desired outcome in the future.

The balanced scorecard is a team effort both in decision making and responsibility. Participants within the different sectors, departments etc bear responsibility for some portion of the pie and know how their portion contributes to overall success. Generating willing participation is likely to produce better outcomes, hence, the appeal of the balanced scorecard approach for implementing change. The key to balanced scorecard implementation is the ability to manage performance and control progress by measuring and recording results regularly which means that every scorecard objective needs to be measurable.

This table below shows examples of *Objectives* in each *perspective* and the *performance metric* to measure progress towards success with the above strategy.

Balanced Scorecard Metrics



With performance metrics, you take a measurement and rate it against a *Target* for comparison. The *Target* is usually graded into levels like outstanding, above target, on Target and below target. In the presentation of results, the target levels are usually colour coded, so you can see at a glance if you are on target, below target, above target etc.

DISTRESS ANALYSIS

What is distress analysis?

Corporate distress stands for a situation in a firm when it is unable to meet its debt. In other words, when the value of the total assets of a company is insufficient to discharge its total external liabilities, the said company can be said to be a “distress company”.

This is a tool and a technique that is used by the buyer side as a part of the financial due diligence exercise to evaluate the degree of distress of the target entity.

Owing to the onset of pandemic created out of COVID-19, every due diligence exercise for a potential takeover needs to do a distressing analysis of the target entity. Hence, this exercise is essential, especially, during current uncertain times.

What are the indicators of corporate distress?

It needs to be understood that the bankruptcy of an enterprise does not happen in a day. An enterprise goes bankrupt gradually, and in regular day-to-day operation, certain manifestations and signs will come up which would lead to financial distress and possible bankruptcy.

Following is a list of indicators that manifest the financial distress of an enterprise:

Operating Activities

- Low production capacity utilization;
- High rate of rejection of output;
- Low input output ratio;
- High operating cost compared to the competition;
- High level of obsolescence of machines and manufactured products;
- Delay in payment of wages;
- High labour turnover;
- Declining sales volume;
- Accumulation of finished goods in the warehouses;
- Failure of distribution network;
- Defective marketing strategy.

Financing Activities

- Rapidly increasing debts;
- Major shortfall of revenues vis-à-vis expenses;
- Non-payment of statutory liabilities;
- High-interest charges to be paid month on month;
- Continuous default on interest and repayment of debt;
- Non-payment of salaries for multiple months;
- Deteriorating liquidity position of the enterprise;
- Paying a debt by taking another debt;
- Increase in foreign currency debt owing to fluctuation in the exchange rate.

Financial Statements

- Delay in year-end closure;
- Non-submission of financial information to bankers;
- Window dressing in the balance sheet;
- Utilisation of loans received for long term for short term purposes;
- Frequent changes in accounting policies to cook up profit;
- Delay in conducting an audit.

Other Factors

- Frequent change in leadership;

- Non-committal approach of promoters;
- Fall in the market value of shares.

How do we predict corporate distress?

Distress prediction is a very essential tool in the field of finance to assess the future probable financial condition of a corporate entity, so that any impending financial crisis that may crop up shortly may be detected in advance and actions are taken to avert the same.

Models used for corporate distress prediction

There are various models used for distress prediction used by the corporates, to assess the sustenance and survival of an enterprise in the long run. The types of models are as under:

- (a) Univariate model: In this model, a single variable is used for corporate distress prediction.
- (b) Multivariate model: In this model, some variables are used for corporate distress prediction.