



## CORPORATE GOVERNANCE IN LISTED COMPANIES - NEW CLAUSE 49 OF THE EQUITY LISTING AGREEMENT- PART -IV

### IV. NOMINATION AND REMUNERATION COMMITTEE

A. The company through its Board of Directors shall constitute the nomination and remuneration committee which shall comprise at least three directors, all of whom shall be non-executive directors and at least half shall be independent. Chairman of the committee shall be an independent director:

**Provided that** the chairperson of the company (whether executive or non-executive) may be appointed as a member of the Nomination and Remuneration Committee but shall not chair such Committee]

B. The role of the committee shall, inter alia, include the following:

1. Formulation of the criteria for determining qualifications, positive attributes and independence of a director and recommend to the Board a policy, relating to the remuneration of the directors, key managerial personnel and other employees;
  2. Formulation of criteria for evaluation of Independent Directors and the Board;
  3. Devising a policy on Board diversity;
  4. Identifying persons who are qualified to become directors and who may be appointed in senior management in accordance with the criteria laid down, and recommend to the Board their appointment and removal. The company shall disclose the remuneration policy and the evaluation criteria in its Annual Report.
- C. The Chairman of the nomination and remuneration committee could be present at the Annual General Meeting, to answer the shareholders' queries. However, it would be up to the Chairman to decide who should answer the queries.

### V. SUBSIDIARY COMPANIES

- A. At least one independent director on the Board of Directors of the holding company shall be a director on the Board of Directors of a material non-listed Indian subsidiary company.
- B. The Audit Committee of the listed holding company shall also review the financial statements, in particular, the investments made by the unlisted subsidiary company.
- C. The minutes of the Board meetings of the unlisted subsidiary company shall be placed at the Board meeting of the listed holding company. The management should periodically bring to the attention of the Board of Directors of the listed holding company, a statement of all significant transactions and arrangements entered into by the unlisted subsidiary company.



- D. The company shall formulate a policy for determining 'material' subsidiaries and such policy shall be disclosed on the company's website and a web link thereto shall be provided in the Annual Report.
- E. For the purpose of this clause, a subsidiary shall be considered as material if the investment of the company in the subsidiary exceeds twenty per cent of its consolidated net worth as per the audited balance sheet of the previous financial year or if the subsidiary has generated twenty per cent of the consolidated income of the company during the previous financial year.
- F. No company shall dispose of shares in its material subsidiary which would reduce its shareholding (either on its own or together with other subsidiaries) to less than 50 per cent or cease the exercise of control over the subsidiary without passing a special resolution in its General Meeting except in cases where such divestment is made under a scheme of arrangement duly approved by a Court/Tribunal
- G. Selling, disposing and leasing of assets amounting to more than twenty per cent of the assets of the material subsidiary on an aggregate basis during a financial year shall require prior approval of shareholders by way of special resolution, unless the sale/disposal/lease is made under a scheme of arrangement duly approved by a Court/Tribunal.

**Explanation (i):** For the purpose of sub-clause (V)(A), the term "material non-listed Indian subsidiary" shall mean an unlisted subsidiary, incorporated in India, whose income or net worth (i.e. paid-up capital and free reserves) exceeds 20 per cent of the consolidated income or net worth respectively, of the listed holding company and its subsidiaries in the immediately preceding accounting year.

**Explanation (ii):** For the purpose of sub-clause (V)(C), the term "significant transaction or arrangement shall mean any individual transaction or arrangement that exceeds or is likely to exceed 10 per cent of the total revenues or total expenses or total assets or total liabilities, as the case may be, of the material unlisted subsidiary for the immediately preceding accounting year.

**Explanation (iii):** For the purpose of sub-clause (V), where a listed holding company has a listed subsidiary which is itself a holding company, the above provisions shall apply to the listed subsidiary insofar as its subsidiaries are concerned]

## **VI. RISK MANAGEMENT**

- A. The company shall lay down procedures to inform Board members about the risk assessment and minimization procedures.
- B. The Board shall be responsible for framing, implementing and monitoring the risk management plan for the company.
- C. The company through its Board of Directors shall constitute a Risk Management Committee. The Board shall define the roles and responsibilities of the Risk Management Committee and may delegate monitoring and reviewing of the risk management plan to the committee and such other functions as it may deem fit
- D. The majority of Committee shall consist of members of the Board of Directors.
- E. Senior executives of the company may be members of the said Committee but the Chairman of the Committee shall be a member of the Board of Directors]



## VII. RELATED PARTY TRANSACTIONS

**A.** A related party transaction is a transfer of resources, services or obligations between a company and a related party, regardless of whether a price is charged.

**[Explanation:** A "transaction" with a related party shall be construed to include single transaction or a group of transactions in a contract]

**B.** For the purpose of Clause 49(VII), an entity shall be considered as related to the company if:

- (i) such entity is a related party under section 2(76) of the Companies Act, 2013; or
- (ii) such entity is a related party under the applicable accounting standards]

**C.** The company shall formulate a policy on materiality of Related Party Transactions and also on dealing with Related Party Transactions:

**Provided that** a transaction with a related party shall be considered material if the transaction/transactions to be entered into individually or taken together with previous transactions during a financial year, exceeds ten per cent of the annual consolidated turnover of the company as per the last audited financial statements of the company

**D.** All Related Party Transactions shall require prior approval of the Audit Committee. However, the Audit Committee may grant omnibus approval for Related Party Transactions proposed to be entered into by the company subject to the following conditions:

- (a)** The Audit Committee shall lay down the criteria for granting the omnibus approval in line with the policy on Related Party Transactions of the company and such approval shall be applicable in respect of transactions which are repetitive in nature.
- (b)** The Audit Committee shall satisfy itself the need for such omnibus approval and that such approval is in the interest of the company;
- (c)** Such omnibus approval shall specify (i) the name/s of the related party, nature of transaction, period of transaction, maximum amount of transaction that can be entered into, (ii) the indicative base price /current contracted price and the formula for variation in the price if any and (iii) such other conditions as the Audit Committee may deem fit:

**Provided that** where the need for Related Party Transaction cannot be foreseen and aforesaid details are not available, Audit Committee may grant omnibus approval for such transactions subject to their value not exceeding ₹ 1 crore per transaction.

**(d)** Audit Committee shall review, at least on a quarterly basis, the details of RPTs entered into by the company pursuant to each of the omnibus approval given.

**(e)** Such omnibus approvals shall be valid for a period not exceeding one year and shall require fresh approvals after the expiry of one year.]



- E. All material Related Party Transactions shall require approval of the shareholders through special resolution and the related parties shall abstain from voting on such resolutions :

**Provided that** sub-clause 49(VII)(D) and (E) shall not be applicable in the following cases:

- (i) transactions entered into between two government companies;
- (ii) transactions entered into between a holding company and its wholly owned subsidiary whose accounts are consolidated with such holding company and placed before the shareholders at the general meeting for approval.

**Explanation (i):** For the purpose of Clause 49(VII), "Government company" shall have the same meaning as defined in section 2(45) of the Companies Act, 2013.

**Explanation (ii):** For the purpose of Clause 49(VII), all entities falling under the definition of related parties shall abstain from voting irrespective of whether the entity is a party to the particular transaction or not

## VIII. DISCLOSURES

### A. Related Party Transactions

1. Details of all material transactions with related parties shall be disclosed quarterly along with the compliance report on corporate governance.
2. The company shall disclose the policy on dealing with Related Party Transactions on its website and a web link thereto shall be provided in the Annual Report

### B. Disclosure of Accounting Treatment

Where in the preparation of financial statements, a treatment different from that prescribed in an Accounting Standard has been followed, the fact shall be disclosed in the financial statements, together with the management's explanation as to why it believes such alternative treatment is more representative of the true and fair view of the underlying business transaction in the Corporate Governance Report.

### C. Remuneration of Directors

1. All pecuniary relationship or transactions of the non-executive directors vis-a-vis the company shall be disclosed in the Annual Report.
2. In addition to the disclosures required under the Companies Act, 2013, the following disclosures on the remuneration of directors shall be made in the section on the corporate governance of the Annual Report:
  - (a) All elements of remuneration package of individual directors summarized under major groups, such as salary, benefits, bonuses, stock options, pension etc.
  - (b) Details of fixed component and performance linked incentives, along with the performance criteria,
  - (c) Service contracts, notice period, severance fees.



- (d) Stock option details, if any - and whether issued at a discount as well as the period over which accrued and over which exercisable.
3. The company shall publish its criteria of making payments to non-executive directors in its annual report. Alternatively, this may be put up on the company's website and reference drawn thereto in the annual report.
  4. The company shall disclose the number of shares and convertible instruments held by non-executive directors in the annual report.
  5. Non-executive directors shall be required to disclose their shareholding (both own or held by/for other persons on a beneficial basis) in the listed company in which they are proposed to be appointed as directors, prior to their appointment. These details should be disclosed in the notice to the general meeting called for appointment of such director.

#### **D. Management**

1. As part of the directors' report or as an addition thereto, a Management Discussion and Analysis report should form part of the Annual Report to the shareholders. This Management Discussion & Analysis should include discussion on the following matters within the limits set by the company's competitive position:
  - (a) Industry structure and developments.
  - (b) Opportunities and Threats.
  - (c) Segment-wise or product-wise performance.
  - (d) Outlook
  - (e) Risks and concerns.
  - (f) Internal control systems and their adequacy.
  - (g) Discussion on financial performance with respect to operational performance.
  - (h) Material developments in Human Resources/Industrial Relations front, including number of people employed
2. Senior management shall make disclosures to the board relating to -all material financial and commercial transactions, where they have personal interest, that may have a potential conflict with the interest of the company at large (for e.g. dealing in company shares, commercial dealings with bodies, which have shareholding of management and their relatives etc.)

**Explanation:** For this purpose, the term "senior management" shall mean personnel of the company who are members of its core, management team excluding the Board of Directors. This would also include all members of management one level below the executive directors including all functional heads.

3. The Code of Conduct for the Board of Directors and the senior management shall be disclosed on the website of the company.



### **E. Shareholders**

1. In case of the appointment of a new director or re-appointment of a director the shareholders must be provided with the following information:
  - (a) A brief resume of the director;
  - (b) Nature of his expertise in specific functional areas;
  - (c) Names of companies in which the person also holds the directorship and the membership of Committees of the Board; and
  - (d) Shareholding of non-executive directors as stated in Clause 49(IV)(E)(v) above.
2. Disclosure of relationships between directors inter se shall be made in the Annual Report, notice of appointment of a director, prospectus and letter of offer for issuances and any related filings made to the stock exchanges where the company is listed.
3. Quarterly results and presentations made by the company to analysts shall be put on company's website, or shall be sent in such a form so as to enable the stock exchange on which the company is listed to put it on its own website.
4. A committee under the Chairmanship of a non-executive director and such other members as may be decided by the Board of the company shall be formed to specifically look into the redressal of grievances of shareholders, debenture holders and other security holders. This Committee shall be designated as 'Stakeholders Relationship Committee' and shall consider and resolve the grievances of the security holders of the company including complaints related to transfer of shares, non-receipt of balance sheet, non-receipt of declared dividends.
5. To expedite the process of share transfers, the Board of the company shall delegate the power of share transfer to an officer or a committee or to the registrar and share transfer agents. The delegated authority shall attend to share transfer formalities at least once in a fortnight.

**CLAUSE 49(VIII) (F), (G) and (H) ARE OMITTED AS PER THE LATEST AMMENDMENTS.**

### **I. Proceeds from public issues, rights issue, preferential issues, etc.**

When money is raised through an issue (public issues, rights issues, preferential issues etc.), the company shall disclose the uses/applications of funds by major category (capital expenditure, sales and marketing, working capital, etc.), on a quarterly basis as a part of their quarterly declaration of financial results to the Audit Committee. Further, on an annual basis, the company shall prepare a statement of funds utilized for purposes other than those stated in the offer document/prospectus/notice and place it before the audit committee. Such disclosure shall be made only till such time that the full money raised through the issue has been fully spent. This statement shall be certified by the statutory auditors of the company. Furthermore, where the company has appointed a monitoring agency to monitor the utilisation of proceeds of a public or rights issue, it shall place before the Audit Committee the monitoring report of such agency, upon receipt, without any delay. The audit committee shall make appropriate recommendations to the Board to take up steps in this matter.



## **IX. CEO/CFO CERTIFICATION**

The CEO or the Managing Director or manager or in their absence, a Whole Time Director appointed in terms of Companies Act, 2013 and the CFO shall certify to the Board that:

- A.** They have reviewed financial statements and the cash flow statement for the year and that to the best of their knowledge and belief:
  - 1. these statements do not contain any materially untrue statement or omit any material fact or contain statements that might be misleading;
  - 2. these statements together present a true and fair view of the company's affairs and are in compliance with existing accounting standards, applicable laws and regulations.
- B.** There are, to the best of their knowledge and belief, no transactions entered into by the company during the year which are fraudulent, illegal or violative of the company's code of conduct.
- C.** They accept responsibility for establishing and maintaining internal controls for financial reporting and that they have evaluated the effectiveness of internal control systems of the company pertaining to financial reporting and they have disclosed to the auditors and the Audit Committee, deficiencies in the design or operation of such internal controls, if any, of which they are aware and the steps they have taken or propose to take to rectify these deficiencies.
- D.** They have indicated to the auditors and the Audit Committee:
  - 1. significant changes in internal control over financial reporting during the year;
  - 2. significant changes in accounting policies during the year and that the same have been disclosed in the notes to the financial statements; and
  - 3. instances of significant fraud of which they have become aware and the involvement therein, if any, of the management or an employee having a significant role in the company's internal control system over financial reporting.

## **X. REPORT ON CORPORATE GOVERNANCE**

- A.** There shall be a separate section on Corporate Governance in the Annual Reports of company, with a detailed compliance report on Corporate Governance. Noncompliance of any mandatory requirement of this clause with reasons thereof and the extent to which the non-mandatory requirements have been adopted should be specifically highlighted. The suggested list of items to be included in this report is given in Annexure XII to the Listing Agreement and list of non-mandatory requirements is given in Annexure XIII to the Listing Agreement.
- B.** The companies shall submit a quarterly compliance report to the stock exchanges within 15 days from the close of quarter as per the format given in Annexure XI to the Listing Agreement. The report shall be signed either by the Compliance Officer or the Chief Executive Officer of the company.



## **XI. COMPLIANCE**

- A.** The company shall obtain a certificate from either the auditors or practicing company secretaries regarding compliance of conditions of corporate governance as stipulated in this clause and annex the certificate with the directors' report, which is sent annually to all the shareholders of the company. The same certificate shall also be sent to the Stock Exchanges along with the annual report filed by the company.
- B.** The non-mandatory requirements given in Annexure XIII to the Listing Agreement may be implemented as per the discretion of the company. However, the disclosures of the compliance with mandatory requirements and adoption (and compliance)/non-adoption of the non-mandatory requirements shall be made in the section on corporate governance of the Annual Report.

### **ANNEXURE X TO THE LISTING AGREEMENT INFORMATION TO BE PLACED BEFORE BOARD OF DIRECTORS**

1. Annual operating plans and budgets and any updates.
2. Capital budgets and any updates.
3. Quarterly results for the company and its operating divisions or business segments.
4. Minutes of meetings of audit committee and other committees of the board.
5. The information on recruitment and remuneration of senior officers just below the board level, including appointment or removal of Chief Financial Officer and the Company Secretary.
6. Show cause, demand, prosecution notices and penalty notices which are materially important.
7. Fatal or serious accidents, dangerous occurrences, any material effluent or pollution problems.
8. Any material default in financial obligations to and by the company, or substantial non-payment for goods sold by the company.
9. Any issue, which involves possible public or product liability claims of substantial nature, including any judgment or order which, may have passed strictures on the conduct of the company or taken an adverse view regarding another enterprise that can have negative implications on the company.
10. Details of any joint venture or collaboration agreement.
11. Transactions that involve substantial payment towards goodwill, brand equity, or intellectual property.
12. Significant labour problems and their proposed solutions. Any significant development in Human Resources/Industrial Relations front like signing of wage agreement, implementation of Voluntary Retirement Scheme etc.
13. Sale of material nature, of investments, subsidiaries, assets, which is not in normal course of business.
14. Quarterly details of foreign exchange exposures and the steps taken by management to limit the risks of adverse exchange rate movement, if material
15. Non-compliance of any regulatory, statutory or listing requirements and shareholders service such as non-payment of dividend, delay in share transfer etc.





## STANDARD COSTING-VARIANCE ANALYSIS

### Is Standard costing a method of Costing?



Standard costing is one of the cost control techniques and not a method of costing like job costing, or process costing.

**Standard:** Standard means a criterion or a yardstick against which actual activity can be compared to determine the difference between the two.

**Standard Cost:** Standard costs are the expected costs of manufacturing the product.

Standard costs are used as target costs (or basis for comparison with the actual costs), and are developed from historical data analysis or from time and motion studies. They almost always vary from actual costs, because every situation has its share of unpredictable

### Features of Standard Cost

- Standard cost is a pre-determined or pre planned cost. The meaning of this is, standard cost is decided even before the commencement of production. For instance, if a firm is planning to launch a product in 2015, the standard cost of similar will be determined in 2014.
- Standard cost is not an estimated cost. There is a variation among saying what would be the cost and what should be the cost. Standard cost is a planned cost and it is a cost that should be the actual cost of production.
- It is computed after taking into consideration the management's standard of efficient operation. So standard cost fixed on the supposition of 80% efficiency will be not similar from what it will be if the assumption is of 90% efficiency.
- Standard cost can be employed as a basis for price fixation and for exercising control over the cost. Standard Costing is a method of costing rather than a technique and has the following features:

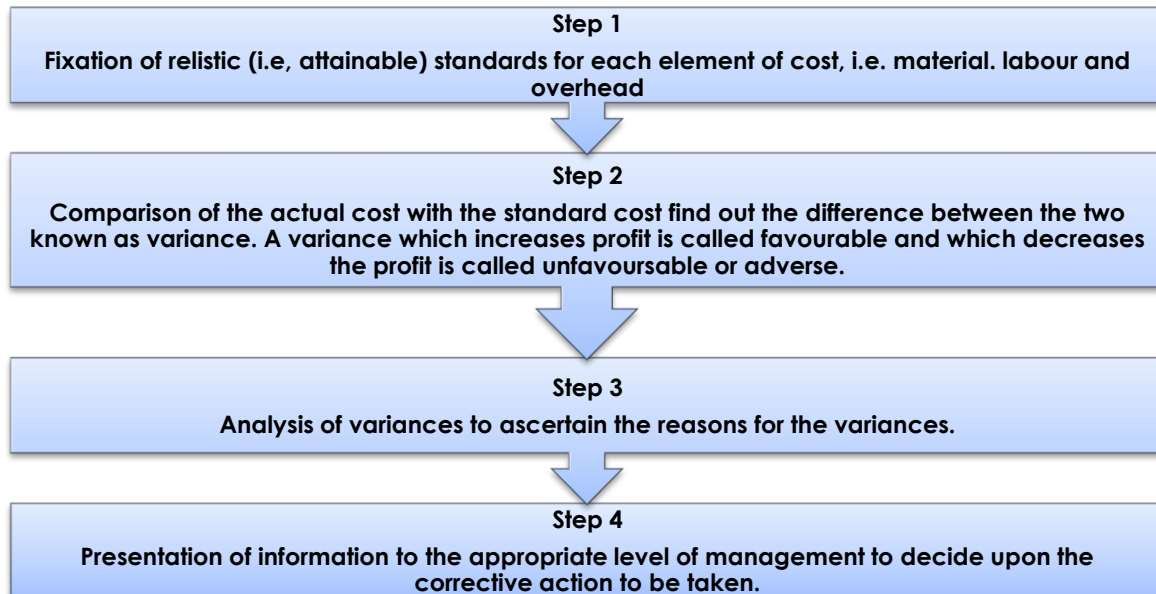
**Standard Costing:** Standard costing is the establishment of cost standards for activities and their periodic analysis to determine the reasons for any variances. Standard costing is a tool that helps management account in controlling costs.

For example, at the beginning of a year a company estimates that labour costs should be ₹2 per unit. Such standards are established either by historical trend analysis of the cost or by an estimation by any engineer or



management scientist. After a period, say one month, the company compares the actual cost incurred per unit, say ₹2.05 to the standard cost and determines whether it has succeeded in controlling cost or not.

**On the basis of the above definition, the steps involved in the techniques of standard costing are as follows:**



#### Applicability of Standard Costing

- ❖ A sufficient volume of standard products or components is produced.
- ❖ Methods, operations and processes are capable of being standardized.
- ❖ A sufficient number of costs are capable of being controlled.



- ❖ A standard costing is a rule of measurement established by authority, which provides a yardstick for performance evaluation.



- ❖ Standard costing system minimizes the wastage by detecting variance and suggesting for corrective actions.
- ❖ Under the standard costing system, cost centers are established and responsibility is assigned to the concerned departments and persons and thus it helps to increase the effective delegation of authority.
- ❖ A properly developed standard costing system with full participation and involvement creates a positive, cost effective attitude through all levels of management.
- ❖ The standard system encourages reappraisals of methods, materials and techniques that help to reduce the unfavorable variances.
- ❖ The standard costing system helps to draw management's attention towards those items which are not proceeding according to plan.

## Disadvantages

- ❖ Standard costing system may be tedious, expensive and time consuming to install and keep up to date.
- ❖ The standard costing system controls the operating part of an organization only as it ignores the other items like quality, lead-time, service, customer satisfaction and so on.
- ❖ The standard costing system will become less useful in modern factories where the just in time principles are adopted.
- ❖ The standard costing system may not be applicable in case of small firms as it requires high degree of skill.
- ❖ The standard costing may not be very effective in those organizations where non-standardized products are manufactured and services are rendered.

### Reasons for using a Standard Costing System

- ❖ **Cost Control:** The most frequent reason cited by companies for using standard costing systems is cost control. One might initially think that standard costing provides less information than actual costing, because a standard costing system tracks inventory using budgeted amounts that were known before the first day of the period, and fails to incorporate valuable information about how actual costs have differed from budget during the period. However, this reasoning is not correct, because actual costs are tracked by the accounting system in journal entries to accrue liabilities for the purchase of materials and the payment of labour, entries to record accumulated depreciation, and entries to record other costs related to production. Hence, a standard costing system records both budgeted amounts (via debits to work-in-process, finished goods, and cost-of-goods-sold) and actual costs incurred. The difference between these



budgeted amounts and actual amounts provides important information about cost control. This information could be available to a company that uses an actual costing system or a normal costing system, but the analysis would not be an integral part of the general ledger system. Rather, it might be done, for example, on a spreadsheet program on a personal computer. The advantage of a standard costing system is that the general ledger system itself tracks the information necessary to provide detailed performance reports showing cost variances.

- ❖ **Smooth out short-term fluctuations in direct costs:** Similar to the reasons given in the previous chapter for using normal costing to average the overhead rate over time, there are reasons to average direct costs. For example, if an apparel manufacturer purchases denim fabric from different textile mills at slightly different prices, should these differences be tracked through finished goods inventory and into cost-of-goods-sold? In other words, should the accounting system track the fact that jeans production on Tuesday cost a few cents more per unit than production on Wednesday, because the fabric used on Tuesday came from a different mill, and the negotiated fabric price with that mill was slightly higher? Many companies prefer to average out these small differences in direct costs.
- ❖ **When actual overhead rates are used, production volume of each product affects the reported costs of all other products:** This reason, which was discussed in the previous chapter on normal costing, represents an advantage of standard costing over actual costing, but does not represent an advantage of standard costing over normal costing.
- ❖ **Costing systems that use budgeted data are economical:** Accounting systems should satisfy a cost-benefit test: more sophisticated accounting systems are more costly to design, implement and operate. If the alternative to a standard costing system is an actual costing system that tracks actual costs in a more timely (and more expensive) manner, then management should assess whether the improvement in the quality of the decisions that will be made using that information is worth the additional cost. In many cases, standard costing systems provide highly reliable information, and the additional cost of operating an actual costing system is not warranted.

### Setting of Standards

Standards	Who sets Standard?	Considerable Factors
I. Direct Material Standards (a) Material Price Standards	<b>Purchase Department</b>	<ol style="list-style-type: none"> <li>1. <b>Current Market price.</b></li> <li>2. <b>Market Conditions</b></li> <li>3. <b>Forecasts of Price Trends.</b></li> <li>4. <b>Discount, Packing and delivery charges etc.</b></li> </ol>



## CMA Students Newsletter (For Final Students)

Vol.15C: September 15, 2015

(b) Material Usage Standard	<b>Engineering Department &amp; Production Deptt.</b>	<ol style="list-style-type: none"> <li>1. <b>Quality of Material.</b></li> <li>2. <b>Quantity of Material.</b></li> <li>3. <b>Normal Material Losses like evaporation shrinkage, breakage etc.</b></li> </ol>
II. Direct Labour Standards (a) Labour Rate Standard	<b>Personnel Department</b>	<ol style="list-style-type: none"> <li>1. <b>Current Rates of Pay</b></li> <li>2. <b>Current Method of Wage Payment.</b></li> <li>3. <b>Forecast of wage trends.</b></li> </ol>
(b) Labour Efficiency Standard	<b>Engineering Department</b>	<ol style="list-style-type: none"> <li>1. <b>Grade of Labour. (Skilled /semi-skilled/un-skilled)</b></li> <li>2. <b>Standard time for each operation</b></li> <li>3. <b>Most efficient method of working.</b></li> <li>4. <b>Normal Idle time like fatigue, tool setting etc.</b></li> </ol>
III. Standard for Overheads	<b>Engineering Department, Personnel Department, Purchase Department, Administrative Deptt. Selling &amp; Distribution Department</b>	<ol style="list-style-type: none"> <li>1. <b>Standard Indirect Material costs.</b></li> <li>2. <b>Standard Indirect Labour costs.</b></li> <li>3. <b>Standard Indirect Expenses</b></li> <li>4. <b>Standard level of activity such as Standard Hours, Standard Production (in units)</b></li> <li>5. <b>Fixed overheads.</b></li> <li>6. <b>Variable overheads.</b></li> </ol>



## Variance Analysis

**Variance:** Difference between standard and actual is known as Variance.

**Cost Variance:** Cost Variance is the "difference between a standard cost and the comparable actual actual cost incurred during a period."

**Variance Analysis:** Variance Analysis is the process of analyzing variances by sub-dividing the total variance in such a way that management can assign responsibility for any deviation from standard performance.

Variance analysis involves breaking down the total variance to explain:

- ❖ How much of it is caused by the usage of resources differing from the standard
- ❖ How much is caused by cost of resources differing from the standard

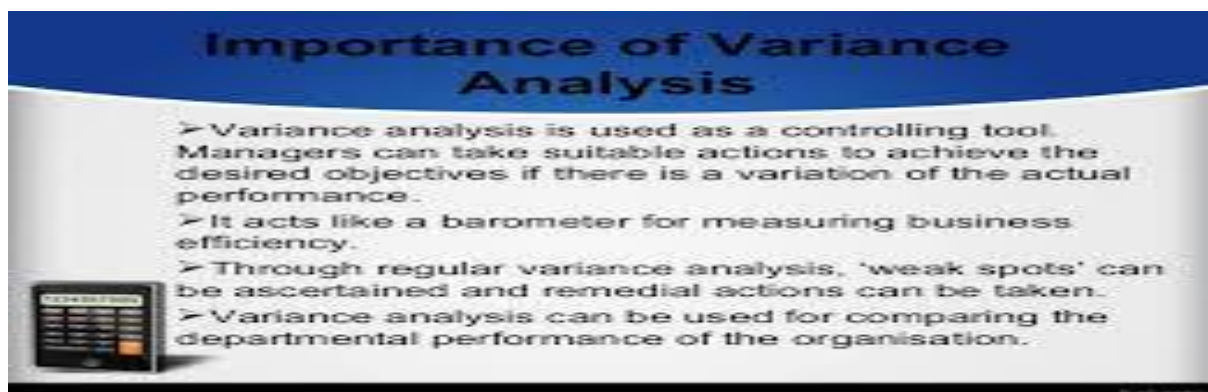
Together, variances can help to reconcile the total cost difference by comparing actual and standard cost. The main purpose of variances is to provide reasons for off-standard performance. In this way, management can improve operations, correct errors and deploy resources more effectively to reduce costs.

This comparison of actual costs with standard costs is called variance analysis and it is vital for controlling costs and identifying ways for improving efficiency and profitability. If actual cost exceeds the standard costs, it is an unfavorable variance. On the other hand, if actual cost is less than the standard cost, it is a favorable variance.

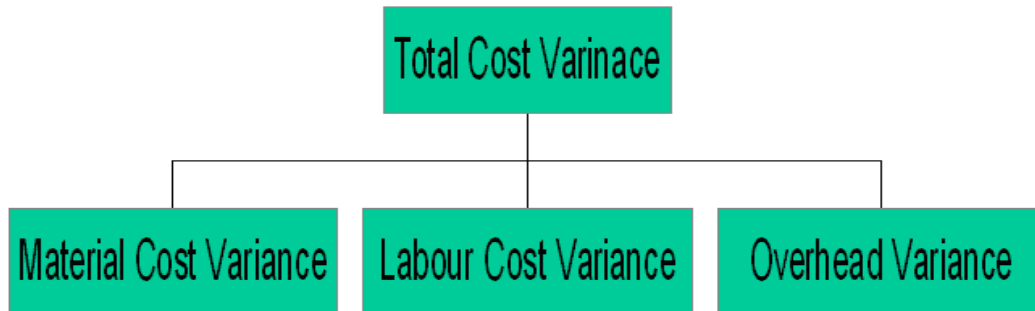
Variance analysis is usually conducted for

- ❖ Direct material costs (price and quantity variances);
- ❖ Direct labor costs (wage rate and efficiency variances); and
- ❖ Overhead costs.

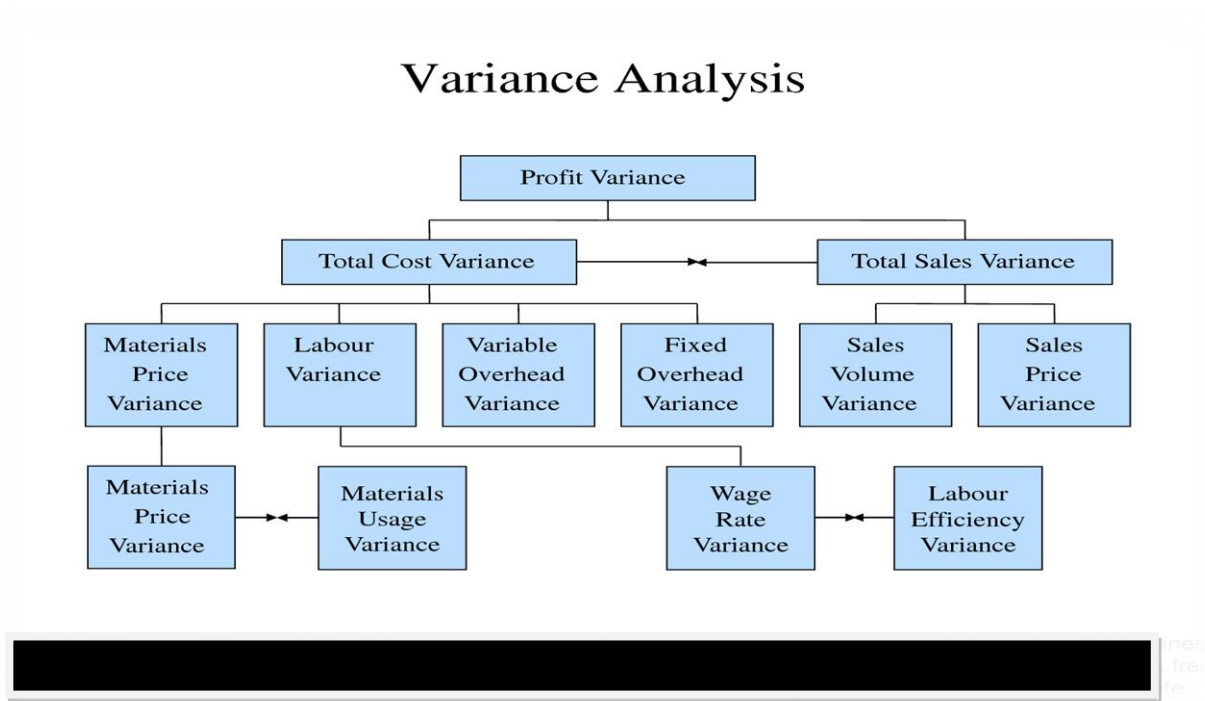
Analysis of variance in planned and actual sales and sales margin is also vital to ensure profitability.



## Variance Components



## Variance Analysis





**DEDUCTION TO BE MADE IN COMPUTING TOTAL INCOME (CHAPTER VIA)**

**[Sections 80A to 80U]**

Sections	Particulars	Assessee to whom allowed	Quantum of Deduction
1	2	3	4
<b>80A/AB/AC</b>	Basic rules of deductions	NA	NA
<b>80C</b>	Deduction in respect of Life Insurance Premia, Contribution to Provident Fund, etc.	Individual and HUF	Max. ₹1,50,000
<b>80CCC</b>	Deduction in respect of contribution to certain pension funds	Only individuals	Max. ₹ 1,00,000
<b>80CCD</b>	Deduction in respect of contribution to notified pension scheme of Central Government	Salaried employee or self employed individual	Employer and employee contribution not exceeding 10% of salary in each case. Maximum deduction to an employee or self employed person for his contribution limited to ₹ 1,00,000.
<b>80CCE</b>	Limit on deductions under sections 80C, 80CCC and 80CCD(1)	N.A.	₹ 1,50,000
<b>80CCG</b>	Deduction in respect of investment made in an equity saving scheme	Individual who is resident in India	50% of the amount invested or ₹25,000 whichever is less
<b>80D</b>	Deduction in respect of medical insurance premia	Individual or HUF whether resident or non-resident  For senior citizen	In case of individual — maximum ₹15,000 + ₹15,000. In case of HUF — maximum of ₹15,000 Addl. ₹5,000
<b>80DD</b>	Deduction in respect of maintenance including medical treatment of a dependant who is a person with disability	Individual or HUF resident in India	₹50,000 or ₹ 1,00,000 in case of a person with severe disability
<b>80DDB</b>	Deduction in respect of medical treatment, etc.	Individual or HUF resident in India  For senior citizen	Max. ₹40,000  Addl. ₹20,000
<b>80E</b>	Deduction for interest paid on loan taken for pursuing higher education	Individual whether resident or not	Actual amount paid
<b>80EE</b>	Deduction in respect of interest on loan sanctioned during financial year 2013-14 for acquiring residential house property	Individual only	Maximum ₹1,00,000





## CMA Students Newsletter (For Final Students)

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<b>80G</b>	Deduction in respect of donations to certain funds, charitable institutions, etc.	All assessees	(a) 100% or 50% of eligible donations, without applying qualifying limit in certain cases  (b) 100% or 50% of eligible donations, after applying Qualifying limit of 10% of adjusted GTI.
<b>80GG</b>	Deductions in respect of rent paid	Individual only	Maximum ₹2,000 p.m.
<b>80GGA</b>	Deduction in respect of certain donations for scientific research or rural development, etc.	All assessees not having business income	100% of sum donated
<b>80GGB</b>	Deduction in respect of contributions given by companies to political parties	Company assessee	Amount so contributed
<b>80GGC</b>	Deduction in respect of contributions given by any person to political parties	Any assessee other than local authority and every artificial juridical person wholly or partly funded by the Government	Amount so contributed
<b>80-IA</b>	Deduction in respect of profits and gains from industrial undertakings or enterprises engaged in infrastructure development, etc.	Industrial undertaking or enterprises engaged in infrastructure development, etc.	30% to 100% of profits
<b>80-IAB</b>	Deduction in respect of profits and gains by an undertaking or enterprise engaged in development of Special Economic Zone	Undertaking/ enterprises engaged in development of Special Economic Zone	100% of profits for 10 consecutive assessment years
<b>80-IB</b>	Deduction in respect of profits and gains from certain industrial undertakings other than infrastructure development, etc.	All assessee engaged in the business of industrial undertakings/hotels/ships/ infrastructure development/scientific and industrial research and development.	25% to 100% for prescribed no. of years
<b>80-IC</b>	Deduction in respect of certain undertakings or enterprises in certain special category States	All assessee deriving income from an undertaking or enterprises situated in special category States which begin manufacturing/production between specified dates	25% to 100% of profits



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<b>80-ID</b>	Deduction in respect of profits and gains from business of hotels in specified area or world heritage site and convention centres in specified area	All assesseees deriving income from the business of hotels and convention centres in specified area	100% of the profit for 5 consecutive years
<b>80-IE</b>	Special provisions in respect of certain undertakings in North Eastern States	All assesseees deriving income from eligible undertaking in any North Eastern States	100% of the profit for 10 consecutive years
<b>80JJA</b>	Deduction in respect of profits and gains from business of collecting and processing of bio degradable waste	All assesseees	100% of profit for 5 years
<b>80JJAA</b>	Deduction in respect of employment of new workmen	Only Indian companies	30% of additional wages for 3 years
<b>80LA</b>	Deduction in respect of certain incomes of Offshore Banking Units	Only Scheduled Banks owning offshore banking units in a special economic zone	100% of income for first 5 years and 50% for next five years
<b>80P</b>	Deduction in respect of income of co-operative societies.	Co-operative societies	100% of profit but in some cases amount is fixed at ₹40,000/ ₹20,000
<b>80QQB</b>	Deduction in respect of royalty income, etc., of authors of certain books other than text books	Individuals who are residents in India and are authors	100% of such income or ₹3,00,000 whichever is less
<b>80RRB</b>	Deduction in respect of royalty on patents	Individual who is resident in India and is a patentee	100% of such income or ₹3,00,000 whichever is less
<b>80TTA</b>	Deduction in respect of interest on deposits in saving accounts	Individual or HUF	Maximum ₹10,000
<b>80U</b>	Deduction in the case of a person with disability	Resident individuals	₹50,000 in case of a person with disability and ₹1,00,000 in case of a person with severe disability



## PROCEDURAL COMPLIANCE: REGISTRATION UNDER SERVICE TAX LAW

**As per sub-section (1) of section 69 of the Finance Act, 1994,** every person liable to pay the service tax under this chapter or the rules made there under shall, within such time and in such manner and in such form as may be prescribed, make an application for registration to the Superintendent of Central Excise.

**As per sub-section (2) of section 69 of the Finance Act, 1994,** the person or class of persons notified under sub-section (2) of section 69, shall furnish to the Superintendent of Central Excise, a return in such form and in such manner and at such frequency as may be prescribed.

Normally service providers are liable for registration. However, in respect of certain services, the service receiver will be liable for service tax. In those cases, the service receiver must register himself under the service tax. Every person liable to pay service tax must mandatorily make an application in the form ST-1 for registration to the designated Superintendent of Central Excise.

**Special category of persons for registration:** (i) Service Tax Registration is required if the taxable turnover of the service provider from all his premises during the previous year exceeds ₹ 9 lakhs.  
(ii) The service provider is acting as an input service distributor irrespective of his turnover.

### Small Service Provider Exemption:

Service tax law provides for an exemption to small service providers who provide taxable services of a value not exceeding the specified limit. The specified limit is now ₹ 10 lakhs. In other words where the value of taxable services provided do not exceed ₹ 10 lakhs in the previous financial year, the concerned service provider would not be required to pay service tax upto receipts of ₹ 10 lakhs in the current financial year. The exemption is through notification 6/2005 ST dated 01.03.05 as amended from time to time.

### Time limit for making an application:

Cases	Time Limit to Obtain Registration
In case of new levy: where service tax has been levied for the first time on the service provided by the service provider —	Within 30 days from the date on which the levy of service tax is brought into force in respect of the relevant services.
In case of new business: where the tax on service has already been levied and the person commences his business subsequently —	Within 30 days of the commencement of business of providing such service.
In case of input service distributor —	Within 30 days of the commencement of business.
In case of small service provider —	Within 30 days from the date when his aggregate



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	value of taxable services exceeds ₹ 9 lakhs in the financial year.
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**Submission of application:** The application should be submitted to the Superintendent of Central Excise or such other person notified by the Central Government, having jurisdiction over the place of business of the service provider.

**Documents to be submitted along with registration application:** The Central Board of Excise and Customs may, by an order, specify the documents which are to be submitted by the assessee along with the application within such period, as may be specified in the said order. The CBEC has, vide M.F. (D.R.) Order No. 2/2011-ST, dated 13.12.2011, specified the following documents:

- (i) Copy of Permanent Account Number;
- (ii) Proof of residence;
- (iii) Constitution of the applicant;
- (iv) Power of Attorney in respect of authorised person(s).

**Application to be rejected if documents not submitted within 15 days:** The above documents must be submitted to the concerned authority within a period of 15 days from the date of filing of the application for registration. Failure to do so would lead to rejection of the registration application.

**Centralised registration, if centralised billing or accounting system exists:** As per Rule 4(2) of the Service Tax Rules, 1994 **where** a person, liable for paying service tax on a taxable service —

- (i) provides such service from more than one premises or offices; or
- (ii) receives such service in more than one premises or offices; or,
- (iii) is having more than one premises or offices, which are engaged in relation to such service in any other manner, making such person liable for paying service tax, and has centralised billing system or centralised accounting system in respect of such service, and such centralised billing or centralised accounting systems are located in one or more premises, he may, at his option, register such premises or offices from where centralised billing or centralised accounting systems are located.

**Registration in case of Multiple Services:** One application for registration is enough even though the service provider is providing or provides multiple services. Registration is not granted service wise but assessee wise. All services can be mentioned in one ST-1 form and the same can be submitted in the office of the Superintendent of Central Excise.

If the applicant has already registered for one service, but subsequently becomes liable for another category of service, he should get his certificate endorsed for the other category of service.



**Penalty for Non- registration:** As per section 77 of the Finance Act, 1994, if Any person who is liable to pay service tax or required to take registration, fails to take registration in accordance with the provisions of section 69 or rules under service tax provision shall be liable to a penalty which may extend to ten thousand rupees.

**Case Law regarding penalty:** There was a delay in getting registration on account of confusion about levy and collection of taxes. However, the entire tax and interest was paid immediately on becoming aware of the provisions. Penalty was imposed without specifying the reasons. Such penalty is not sustainable. **[Creative Hotels P Ltd. (2007) 006 STR 0238 Tri.- Bom]**

## TARGET COSTING

### ➤ History

Target costing was invented by Toyota in 1965

### ➤ Definition

Target Costing is defined as a cost management tool for reducing the overall cost of a product over its entire life-cycle with the help of production, engineering, research and design.

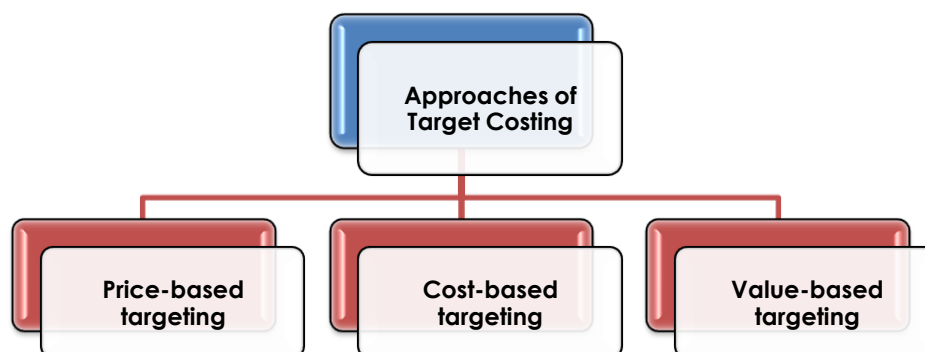
### ➤ Target-Costing Principles

- Price-led costing.
- Focus on customers.
- Focus on design.
- Cross-functional involvement.
- Value-chain involvement.
- A life-cycle orientation.

### ➤ Target costing objectives

- To identify the cost at which the product must be manufactured if it's to earn its target profit margin at its expected or target selling price.
- To decompose the production process and then to set cost targets for each product element.

### ➤ Approaches to target costing





### ➤ Price-based targeting

- Sets target cost for the product through comparison with that of competitors
- This means setting the price of the product by observing what the market will bear, then deducting the desired profit margin from the price, and thereby obtaining the target cost.

### ➤ Cost-based targeting

- It sets the cost 1st, then the desired profit margin is derived at the price of the product.
- This method requires the suppliers to reveal the very details of their cost structure and will sour the buyer-supplier relationships so itsn't good for the long run.

### ➤ Value-based targeting

- It sets the price by what it thinks the market will 'value' the product
- After that, the producer sets the desired profit margin and then tries all ways to keep the cost below that of the target cost.

### ➤ Benefits

- Delivering the optimal value proposition to end customers.
- Minimizing product-line complexity.
- Selecting appropriate product and process technologies.
- Lowering product design late in the innovation process.
- Eliminating cost overruns.

### ➤ Implementation

- Create a project Charter
- Obtain Management Sponsor
- Obtain a Budget
- Assign a Strong team Manager
- Enroll full time Participants
- Use Project Management Tool

### Cost Accountant's role in a Target Costing Environment:

The role of a Cost Accountant in a Target Costing Team consists of the following activities -

- Cost Estimation:** To provide other members of the design team a running series of cost estimates based on initial designs sketch, activity-based costing reviews of production processes, and "best guess" costing information from suppliers based on estimated production volumes.
- Permissible Cost Ranges:** To provide estimates within a high-low range cost, since preliminary data may be vague. But, the estimated cost range should be modified as more information becomes available.
- Capital Budgeting Analysis:** To cater to capital budgeting requests generated by the Design Team, based on types of equipment needed for the anticipated product design, product revenues and costs, rates of return, etc. and to answer questions regarding uncertainties and risk analysis.
- Cost Principles Explanation:** To work with the Design Team to help it understand the nature of various costs (such as cost allocations based on an Activity-Based Costing system), as well as the cost-benefit trade-offs of using different design or cost operations in the new product.
- Review of Cost Reduction Targets:** To track the gap between the Current Cost and the Target Cost (i.e. the Design Team's goal), providing an itemization of where cost savings have already been achieved, and where there has not been a sufficient degree of progress.
- Final Review and Feedback:** To compare a product's Actual Cost to the Target Cost after the design is completed, and for as long as the Company sells the product. This is necessary since Management must know immediately if costs are increasing beyond budgeted levels and why these increases are occurring.



### List the sources - Cost Accountant can extract Data for Target costing:

- Market and competitor information
- Competitor cost information
- Data from past analysis
- Engineering Data
- Supplier Data

### Is Target costing applicable in the Service Sector?

Target costing is applicable for service sector also, particularly at the stage of actual implementation of service. In the manufacturing sector, Target costing is useful if applied in the product design stage onwards. However, in the Service sector, Target costing can be applied even at the "implementation" or "Service providing" phase. In the service sector, the Target team can observe and analyze the actual provision of services to customers, and provide suggestions for cost reduction, by re- configuring/ streamlining the activities performed by employees in the course of rendering the services. Application of Target costing at the "production" phase in service sector will – (a) lead to cost and wastage reduction, (b) improve productivity of employees and (c) enhance the quality of services provide to customers.

### Example:

A manufacturing company "Bee" sells its product at ₹1,000 per unit. Due to competition, its competitors are likely to reduce price by 15%. Bee wants to respond aggressively by cutting price by 20% and expects that the present volume of 1,50,000 units p.a. will increase to 2,00,000. Bee wants to earn a 10% target profit on sales. Based on detailed value engineering the comparative position is given below:

Particulars	Existing (₹)	Target (₹)
Direct material cost per unit	400	385
Direct manufacturing labour per unit	55	50
Direct machinery costs per unit	70	60
Direct manufacturing costs per unit	525	495
Manufacturing overheads :		
No. of orders (₹80 per order)	22,500	21,250
Testing hours (₹2 per hour)	45,00,000	30,00,000
Units reworked (₹100 per unit)	12,000	13,000

Manufacturing overheads are allocated using relevant cost drivers. Other operating costs per unit for the expected volume are estimated as follows:

Research and Design	₹50
Marketing and customer service	₹130
	₹180

### Required:

- Calculate target costs per unit and target costs for the proposed volume showing break up of different elements.
- Prepare target product profitability statement.

### Solution: (a)



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Target selling price : ₹1,000 less 20%	₹ 800
Less: Target profit margin (10%)	₹ 80
Target costs per unit	₹ 720

The break-up of ₹ 720 per unit is as follows:

### Target Costs per unit

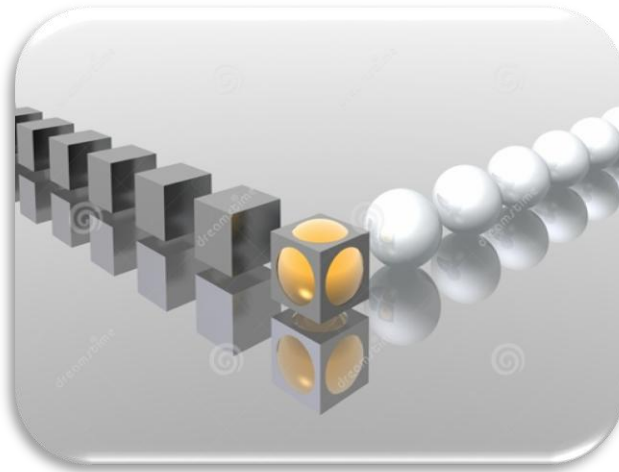
Particulars	Per unit (₹)	
Direct materials		385
Direct manufacturing labour		50
Direct machining costs		60
Direct manufacturing costs		495
<b>Add: Manufacturing overheads:</b>		
Ordering and receiving (21,250 x ₹80) ÷ 2,00,000	8.50	
Testing and inspection (30,00,000 x ₹2) ÷ 2,00,000	30.00	
Rework (13,000 x ₹100) ÷ 2,00,000	6.50	45
Total manufacturing costs		540
Other operating costs:		
Research and Design	50	
Marketing and Customer service	130	180
Full Product Costs		720

### (b) Target Product Profitability

Particulars	Per unit (₹)	2,00,000 units (₹)
1. Sales	800	16,00,00,000
2. Costs of goods sold:		
Direct materials	385	7,70,00,000
Direct labour	50	1,00,00,000
Direct machining costs	60	1,20,00,000
	495	9,90,00,000
Manufacturing overheads	45	90,00,000
	540	10,80,00,000
3. Gross margin (1-2)	260	5,20,00,000
4. Operating costs:		
Research and Design	50	1,00,00,000
Marketing and customer service	130	2,60,00,000
	180	3,60,00,000
5. Operating profit (3-4)	80	1,60,00,000



**WHETHER TO APPLY POOLING INTEREST METHOD OR PURCHASE METHOD WHILE SOLVING ANY PROBLEM ON AMALGAMATION, WHEN NO METHOD IS MENTIONED:**



AS – 14 (Accounting for Amalgamation) is applicable to determine the exact type of amalgamation.

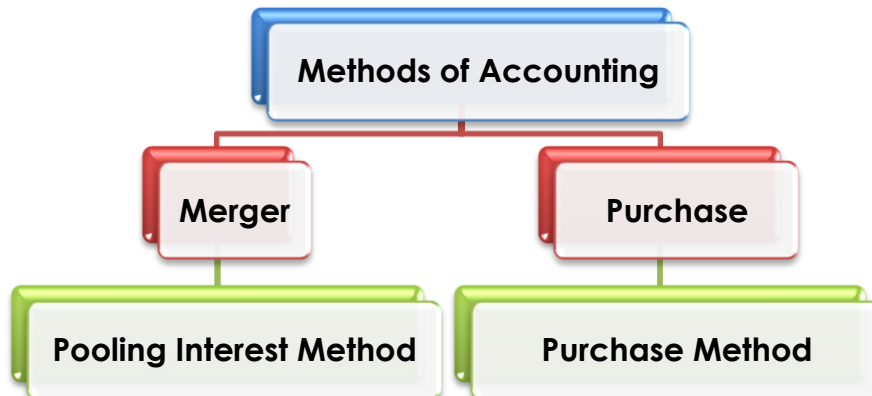
**Types of Amalgamation**

**Amalgamation in the nature of Merger-** the following conditions are required to be satisfied:

- All the assets and liabilities of the transferor company are taken over by the transferee company;
- The shareholders holding at least 90% or more of the equity shares of transferor company become the equity shareholder of the transferee company (shares already held by the transferee and its subsidiary are not considered);
- Consideration is paid in shares by the transferee to the shareholders of the transferor (fractional shares can be paid in cash)
- Business of the transferor is carried on by the transferee
- No adjustment is made in the book values of the assets and liabilities of the transferor company by way of revaluation or otherwise except the adjustments to ensure uniformity of accounting policies.

**Amalgamation in the nature of Purchase** – If any of the above conditions is not satisfied amalgamation will be treated to be in the nature of Purchase.

Method of Accounting is clearly based on the type of amalgamation.



In case of **Merger – Pooling Interest Method** is applied and in case of **Purchase – Purchase Method** is applicable.

**For example:**

P Ltd. and Q Ltd. amalgamated on and from 31st March, 2015. A new Company C Ltd. was formed to take over the businesses of the existing companies.

**Balance Sheet as on 31.03.2015**

(₹ in '000)

Liabilities	P Ltd. ₹	Q Ltd. ₹	Assets	P Ltd. ₹	Q Ltd. ₹
Shareholders' Funds:			Non-Current Assets:		
Share Capital			Fixed Assets	85,000	75,000
Equity shares of ₹100 each	60,000	70,000	Non-current Investments	10,500	5,500
Reserves and Surplus			Current Assets:		
General Reserve	15,000	20,000	Stock	12,500	27,500
Investment Allowance Reserve	5,000	1,000	Sundry Debtors	18,000	40,000
Profit & Loss Account	10,000	5,000	Cash and Bank	4,500	4,000
Export Profit Reserve	500	1,000			
Non-Current Liabilities:					
12% Debentures	30,000	40,000			
Current Liabilities:					
Sundry Creditors	10,000	15,000			
<b>Total</b>	<b>1,03,500</b>	<b>1,52,000</b>	<b>Total</b>	<b>1,03,500</b>	<b>1,52,000</b>

C Ltd. issued requisite number of equity shares to discharge the claims of the equity shareholders of the transferor companies; The total shares issued as consideration is to be aggregate of paid up capital of P Ltd. and Q Ltd.

Compute the Purchase Consideration and mode of discharge thereof and draft the Balance Sheet of C Ltd. after amalgamation.



**To be solved applying —**

This problem will be solved applying **Pooling Interest** Method as :

- (i) **Assets and Liabilities are taken over at their book value and**
- (ii) **Purchase consideration is paid in equity shares**

**Example:**

The following are the Balance Sheets of F Ltd. and T Ltd. for the year ending on 31st March, 2015.

(Figures in Crores)

Liabilities	F Ltd. ₹	T Ltd. ₹	Assets	F Ltd. ₹	T Ltd. ₹
Shareholders' Funds:			Non-Current Assets:		
Share Capital			Fixed Assets at Cost		
Equity shares of ₹10 each	50	40	Less: Depreciation	150	150
12% Preference Shares of ₹100 each	-	60			
Reserves and Surplus	200	150	Other Current Assets	400	400
Current Liabilities					
Current Investments	100	100			
Other Current Liabilities	200	200			
<b>Total</b>	<b>550</b>	<b>550</b>	<b>Total</b>	<b>550</b>	<b>550</b>

**Note :** Secured Loan is repayable within 12 months.

The present worth of Fixed assets of F Ltd. is ₹ 200 crores and that of T Ltd. is ₹ 450 crores. Goodwill of F Ltd. is ₹ 40 crores and of T Ltd. is ₹ 75 crores.

T Ltd. absorbs F Ltd. by issuing equity shares at par in such a way that intrinsic net worth is maintained.

Goodwill account is not to appear in the books. Fixed assets are to appear at old figures.

- (a) Show the Balance Sheet after absorption.
- (b) Draft a statement of valuation of shares on intrinsic value basis and prove the accuracy of your workings.

**To be solved applying —**

**In case of this problem consideration is discharged in equity shares but and only the fixed assets are to appear at their old value, hence the problem can be solved applying Purchase method.**



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**Example:**

The Balance Sheets of S Ltd. and H Ltd. as on 31.03.2015 were as follows.

(₹ in Lakhs)

Liabilities	S Ltd. ₹	H Ltd. ₹	Assets	S Ltd. ₹	H Ltd. ₹
Shareholders' Funds:			Non-Current Assets:		
Share Capital			Fixed Assets at Cost	200	75
Equity shares of ₹10 each	80	25	Less: Depreciation	<u>100</u>	<u>50</u>
				100	25
Reserves and Surplus	400	75	Non-current Investments:		
Non-Current Liabilities			Investments in H Ltd. 2 Lakhs	32	-
10% 25,000 Debentures of ₹100 each	-	25	Equity Shares of ₹ 10 each at cost		
			10% 25,000 Debentures of ₹100 each at cost	24	
Current Liabilities			Current Assets:	800	300
Other Current Liabilities	476	200			
<b>Total</b>	<b>956</b>	<b>325</b>	<b>Total</b>	<b>956</b>	<b>325</b>

In a scheme of absorption duly approved by the Court, the assets of 'H' Ltd. were taken over at an agreed value of ₹ 130 lakhs. The liabilities were taken over at par. Outside shareholders of 'H' Ltd. were allotted equity shares in S Ltd. at a premium of ₹ 90 per share in satisfaction of other claims in 'H' Ltd. for purposes of recording in the books of 'S' Ltd. Fixed assets taken over from 'H' Ltd. were revalued at ₹ 40 lakhs.

The scheme was put through on 1st April, 2015.

- (a) Journal Entries in the books of 'S' Ltd.
- (b) Show the balance of 'S' Ltd. after absorption of 'H' Ltd.

**To be solved applying —**

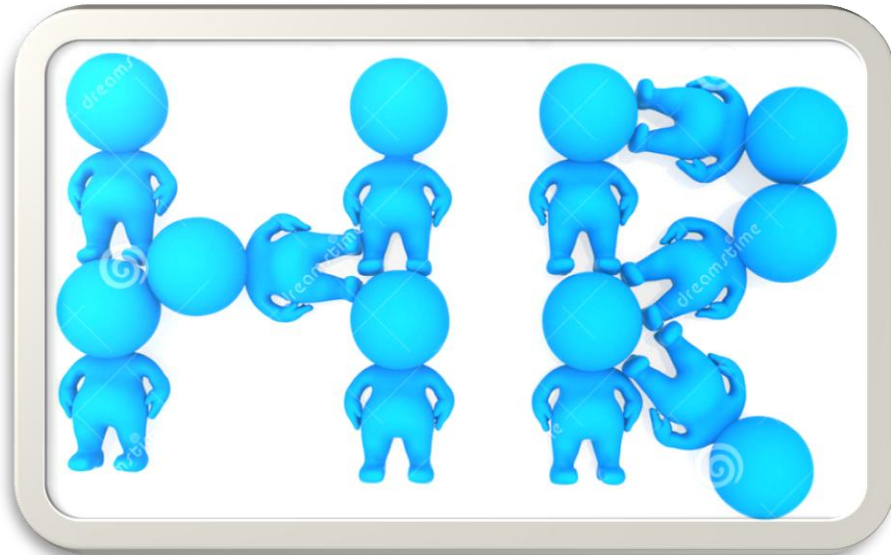
**In the above case the amalgamation is in the nature of Purchase and it will be treated accordingly, as the assets are revalued.**

**If there is anything mentioned as:**

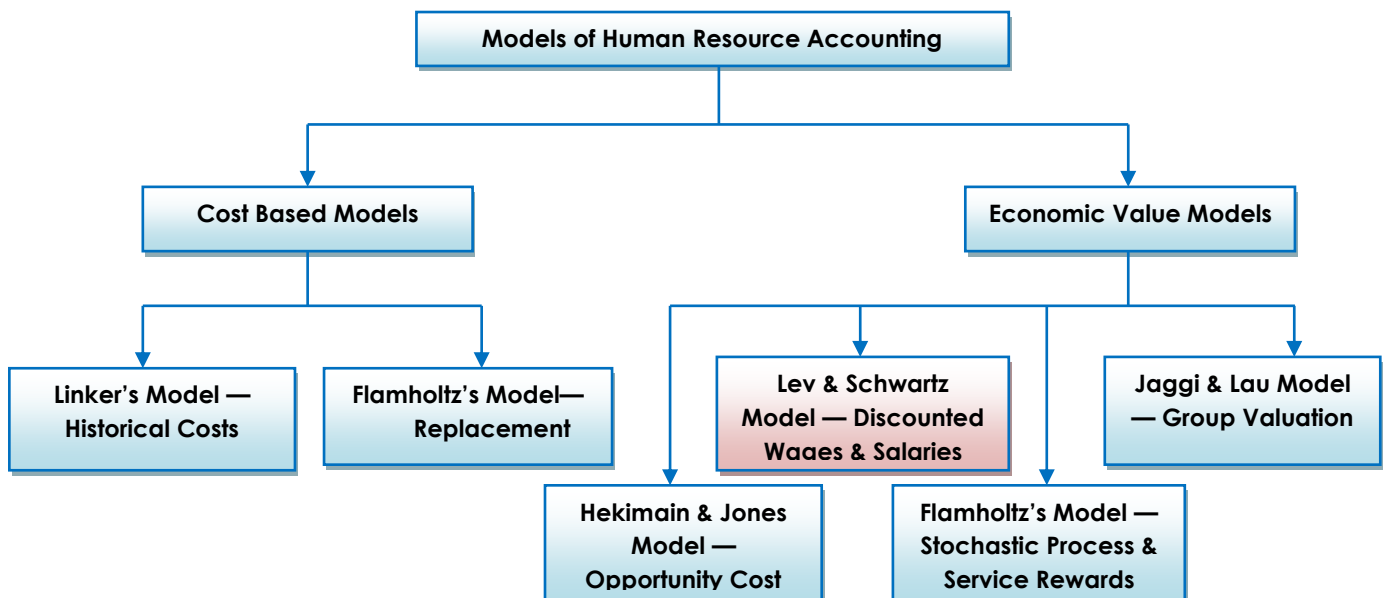
- block of assets were valued at 10% over their book value or, value of the assets are appreciated by any percentage
- The Fixed assets were to be taken at the value placed on them by an independent valuer
- The stocks of the transferor were to be reduced by any amount because of obsolete items
- Debtors and creditors are to be taken at above or below their book value
- Goodwill was to be valued at two years' purchase of the average profits of the last three years subject to some adjustments or, there is given any other value/way to value the goodwill etc.

**Purchase Method will be applicable but if it is mentioned that all the assets and liabilities are taken at their book value the problem will be solved applying Merger method.**

## HUMAN RESOURCE VALUATION AS PER LEV & SCHWARTZ MODEL [At The Time of Retirement]



Following are the models that are applied to compute the value of human resources:





**Now we will discuss the “Lev & Schwartz Model — Discounted Wages & Salaries” [only valuation at the point of retirement] —**

As per this model, value of Human Resources is determined by the **Present Value of Estimated Future Earning** i.e. wages, salaries which are discounted by the rate of return on investment i.e. Cost of Capital.

**Valuation of Human Resources:**

$$V = \sum_{t=r}^t \frac{I(t)}{(1+r)^{t-n}}$$

Where,

V = the human capital value of a person **n** year old

I(t) = the person's estimated **annual earnings up to retirement**

r = a discount rate specific to the person.

t = retirement age of the person.

**Example:**

From the following details, compute the total value of human resources of skilled and unskilled group of employees according to Lev and Schwartz Model:

	<b>Skilled</b>	<b>Unskilled</b>
(i) Annual average earning of an employee till the retirement age.	₹70,000	₹50,000
(ii) Age of retirement	65 years	62 years
(iii) Discount rate	15%	15%
(iv) No. of employees in the group	30	40
(v) Average age	62 years	60 years

**Answer:**

Valuation of Employees as per Lev and Schwartz Method:

$$V = \sum_{t=r}^t \frac{I(t)}{(1+r)^{t-n}}$$



Where,

V = the human capital value of a person n year old

I(t) = the person's estimated **annual earnings up to retirement**

r = a discount rate specific to the person.

t = retirement age of the person.

**Value of Skilled Employees:**

$$= \frac{70,000}{(1+0.15)^{65-62}} + \frac{70,000}{(1+0.15)^{65-63}} + \frac{70,000}{(1+0.15)^{65-64}}$$

$$= \frac{70,000}{(1+0.15)^3} + \frac{70,000}{(1+0.15)^2} + \frac{70,000}{(1+0.15)^1}$$

$$= ₹ (46,026.14 + 52,930.06 + 60,869.57) = ₹ 1,59,825.77.$$

Total value of skilled employees is ₹ 1,59,825.77 × 30 employees = ₹ 47,94,773.

**Value of Unskilled Employees:**

$$= \frac{50,000}{(1+0.15)^{62-60}} + \frac{50,000}{(1+0.15)^{62-61}}$$

$$= \frac{50,000}{(1+0.15)^2} + \frac{50,000}{(1+0.15)^1}$$

$$= ₹ (37,807.18 + 43,478.26) = ₹ 81,285.44$$

Total value of Unskilled employees is ₹ 81,285.44 × 40 employees = ₹ 32,51,417.6.

**Total value of human resources (Skilled and Unskilled)**

$$= ₹ (47,94,773 + 32,51,417.60) = ₹ 80,46,190.60.$$