CA BUSINESS SCHOOL
POSTGRADUATE DIPLOMA IN BUSINESS AND FINANCE

SEMESTER 1 : FINANCIAL PLANNING AND CONTROL

# Standard Costing & Variance Analysis

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# Introduction

Standard Cost refers predetermined estimated unit cost of a particular product/service. Hence, it is usually a standard cost per unit of production/per unit of service rendered or per routine task completed or even standard cost per LKR 1 of sales/revenue.

Standard cost per unit of production mainly comprised with the production cost. Sometimes, it might also include administration, selling and distribution costs too. But many organizations, the assessment of standard cost is confined to production/manufacturing cost only.

Hence, most of the organizations tend to set standard cost and conduct variance analysis based on the overall production/manufacturing costs and as such some argue that this technique will only be applicable to the entity which undertakes manufacturing of goods/services.

# Setting Standard Cost

Establishing a standard cost of a particular product/service essentially involves following steps.

- Establishment of link with Corporate Goals of an entity
- Analysis over industry and market
- Determining the objectives of setting standards
- Setting standards
- Continuous monitoring over processes
- Ascertaining the actual results
- Compare and contrast standards and actual results to determine the variances
- Investigating the variances and taking appropriate actions where necessary

# Setting Standard Cost (Contd.)

Key responsibility for setting standard cost mainly lies with line managers who are able to provide necessary information about levels of expected efficiency, prices and overhead costs.

Most of the entities tend to revised their standard costs in order to make necessary adjustment with respect to the changes occurred due to inflation/price hikes/level of efficiency at least once a year. But longer the period considers for revision will not be more effective due to lack of control coupled with the uncertainty.

The number of people involved in setting standards will depend on the size and the nature of the business, but it is ideal to get involve not the maximum number of people but the people who can make maximum contribution.

# Setting Standard Cost (Contd.)

In a large organization, following people usually involved in setting standards;

**The Production Controller:** He/she provides details of production requirements in terms of material, labor, and overhead.

**The Purchasing Manager:** He/she will prepare the schedules for prices and provides details about trends in market prices(s).

**The Personnel Manager:** He/she provides details on labor rates and possible forecast of any changes in such rates.

**The Time Study Engineer:** He/she calculates standard time(s) for many operational activities involved.

**The Cost Accountant:** He/she provides all necessary costs figures such as labor requirements, overhead recovery rates etc. However his/her main function will be co-ordinate the activities of the committee, so that the setting standards will be as accurate as possible, and present the standards and standard cost statements in more meaningful manner.

# Importance of Standard Cost

Based on the previous discussion, we can basically summarize the importance of standard costs to a particular organization as follows.

- Determining an appropriate standard/benchmark for each element of cost
- Encourage employees to be more restrained with respect to the costs
- Search for all possible information to set a standard
- Compare actual costs with standard costs and observe the variances with the aim of control them
- Analyze the variances in depth and search for causes to mitigate them in future
- Take remedial actions/reporting to the responsible officers/learn the lessons

# Diversities of standards

Following are the different varieties of standards.

- **Ideal standard**: the standard which basically develops under the most favorable/possible conditions. Full of efficiency. No wastages/power failures/labor idle times and etc.
- **Basic standard**: the standard is fixed in relation to the base year and no adjustments made based on the changes taken place thereafter. No much use in practice.
- **Current standard**: the standard mainly develops for short period of time and depicts current situation at any given time. Very much used in practice and mostly for control purposes.
- **Expected standard**: the standard which develops for future periods and depicts what need to be attained. Hence, more relevant for business purposes.
- **Normal standard**: average standard for the past and do same for the current period. No much relevancy.

# Determining Standard Costs

Conventionally, the standard costs shall basically be determined by using standard cost card specifically designed for respective product/service.

**Standard Cost Card**

**Product: Prizma, No.3304**

| | Rs. | Rs. |
|---|---|---|
| Direct materials | | |
| A 6 kg at Rs. 20/= per kg | 120 | |
| B 2 kg at Rs. 30/= per kg | 60 | |
| C 1 liter at Rs. 40/= per liter | 40 | |
| Others | 20 | 240 |
| | | |
| Direct Labor | | |
| Grade I: 3 Hours at Rs. 40/= per hour | 120 | |
| Grade II: 5 Hours at Rs. 54/= per hour | 270 | 390 |
| Variable production overhead: 8 hours at Rs. 10/= | | 80 |
| Fixed Production Overhead: 8 hours at Rs. 30/= per hour | | 240 |
| Standard full Cost | | 950 |

# Standard Cost Vs. Estimated Cost

Even though the concepts of standard costing and estimated costing used interchangeably, two concepts are having following differences.

| Standard Cost | Estimated Cost |
|---|---|
| More scientific by nature. | More hypothetical. Subjective. |
| Leads to what should be the cost. | Leads to what shall be the cost. |
| Mostly used in management accounting. | Mostly used in financial accounting. |
| Used for the performance evaluation. | Used in determining profit/loss. |
| Mostly based on information. | Mostly based on figures/best estimation. |
| Analyze variances and take actions. | No variance will be analyzed. |

# Budget Vs. Standard

Following are the key differences between budgeted costing/expenditure and standard costing.

| Standard Cost | Budgeted Cost |
|---|---|
| Mostly projection of costs information. | Mostly projection of financial data. |
| Determining costs on per unit basis. | Costs/revenue in total considered. |
| Variance analysis will be conducted. | No variations analyze. |
| Purpose is to establish unit cost. | Purpose is to establish future position. |
| Not used estimation much. | Used estimation/assumptions. |
| Not mainly used as control mechanism. | Used mostly as control mechanism. |

# Advantages of Standard Costing

Amidst many advantages, an effective standard costing system essentially provides following;

- Standard costs provides a yardstick against the actual cost.
- Setting standards involves determining the best materials and methods which leads to efficiency and effectiveness.
- Target levels of efficiency will be set through standard cost. Hence, overall cost consciousness is stimulated.
- Effective standard costing mechanism enables practicing principle of "Management by Exception".
- Costing procedures are often simplified and easy to persuade people.
- Standard costs provides valuable contribution to the key management in determining products' prices and formulating policies.

# Limitations of Standard Costing

Even though many organizations successfully practice standard costs, the system itself carries following limitations.

- Setting effective system quite expensive.
- Lack of expertise/knowledge/experience might lead establishment of wrong standard which leads to many problems in future.
- Fixing responsibility causes problems when uncontrollable are exist.
- When searching reasons for variances, sometimes could badly affect to the employees (psychologically). Reverse motivation.
- Cannot practically be applied when more non standardized products available.
- Frequent analysis over variances and revisions for the standards cause negative impact to the business and its efficiency.

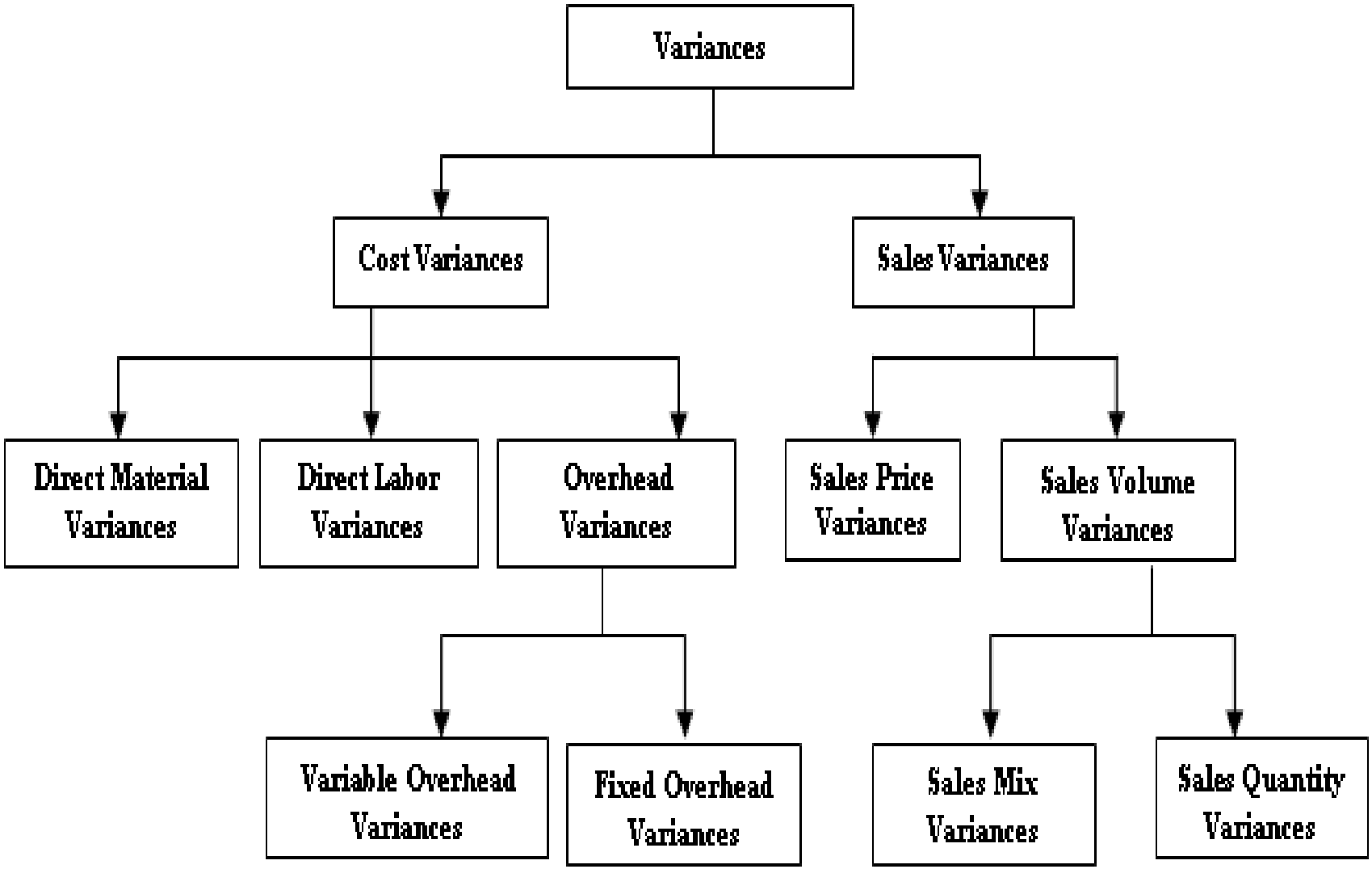
# Analysis of Variance(s)

Variance(s) highlights the situation of management by exception where actual results are not as forecasted, regardless whether favorable or unfavorable. It also can described as risk. Variance(s) represent the difference between standard and actual costs of each element along with sales/revenue.

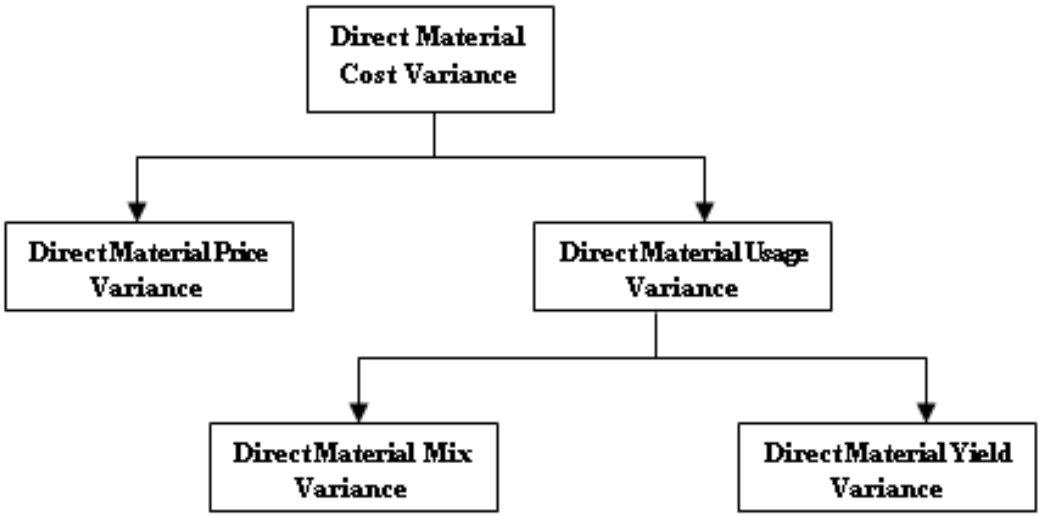
- When actual results are better than expected; it will be a favorable variance.
- When actual results are not up to the standard; an adverse variance occurs.

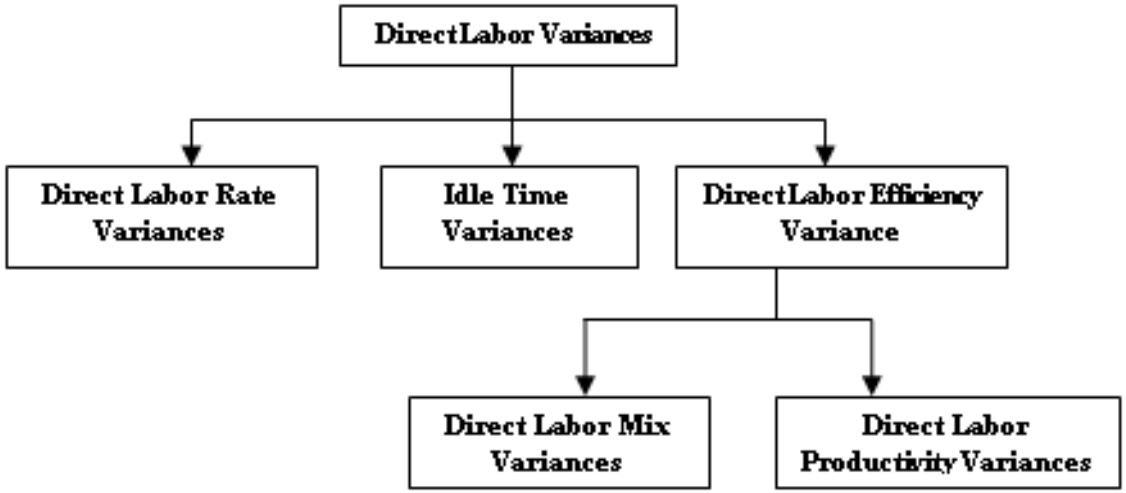
Variance(s) will essentially be provide alarming signals to the key management. Once the variance(s) are identified, quick action is required. There are many diversities in variance(s) and we will be discussing most common of them in this session.

# Variance Analysis - Summary

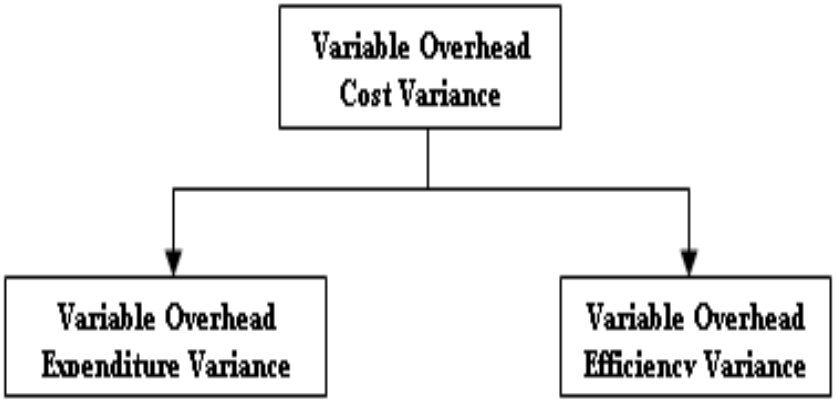


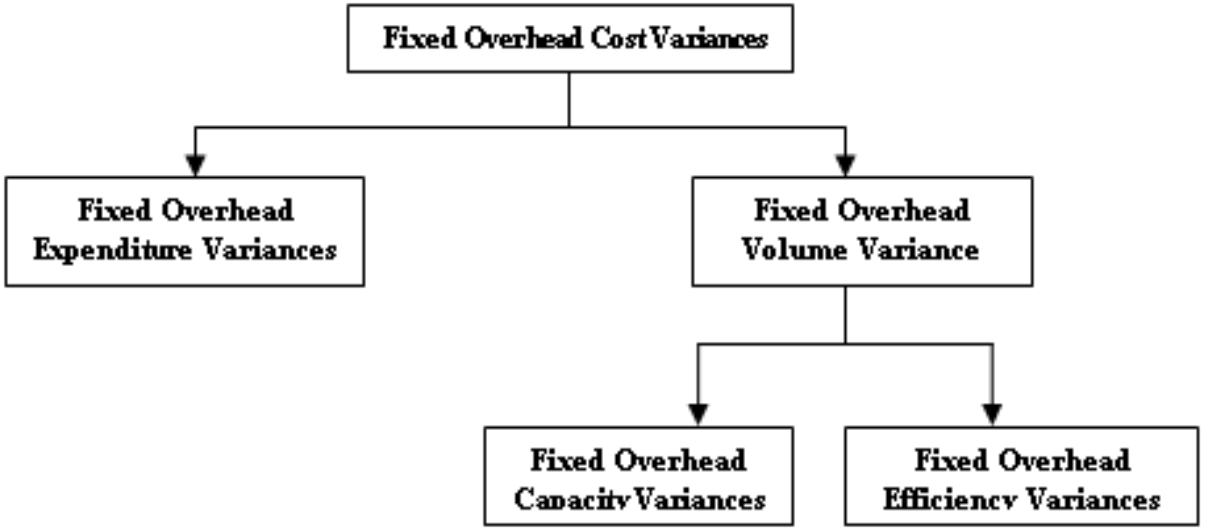
# Variance Analysis (Contd.)



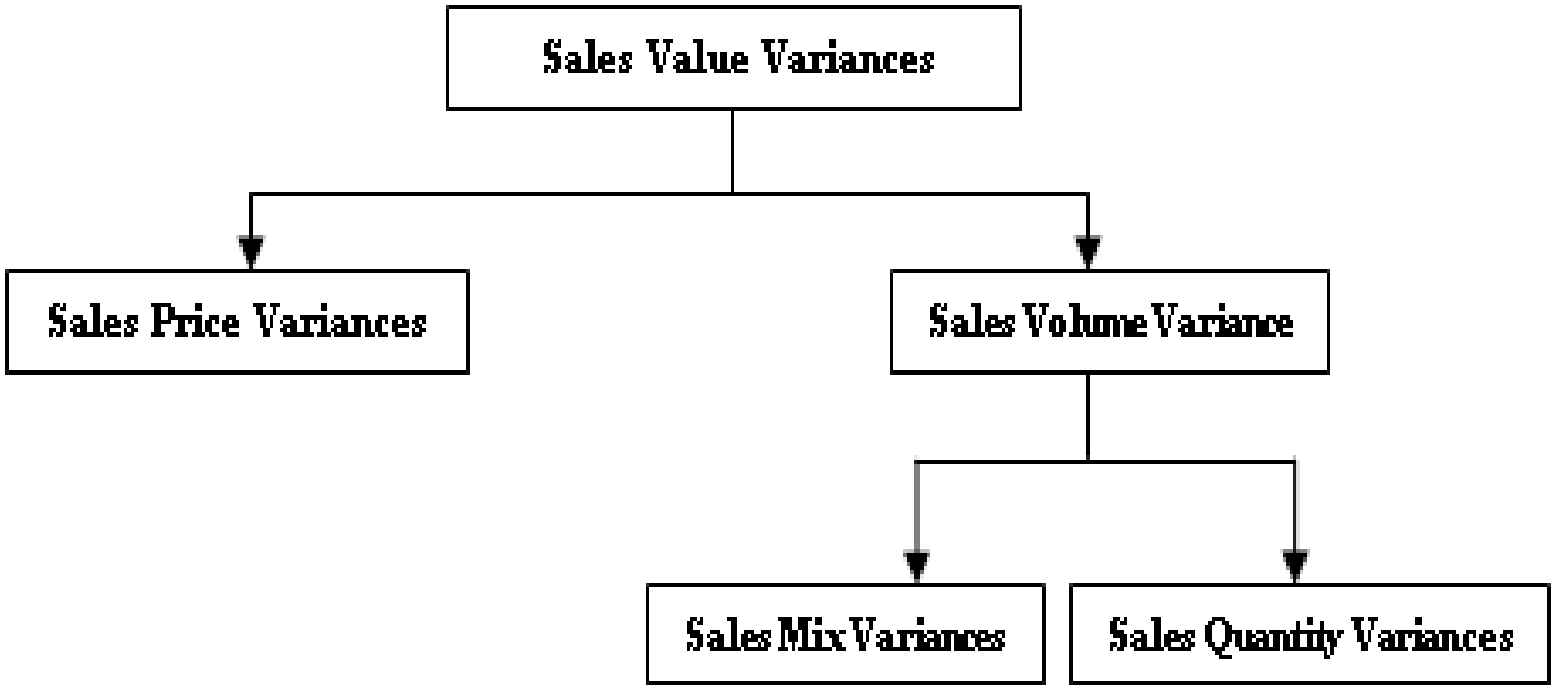



# Variance Analysis (Contd.)



# Variance Analysis (Contd.)



# Formula

DMCV = DMPV + DMQV or

DMCV = (Actual cost of material – Standard cost of material)

(AP*AQ) – (SP*SQ)

DMPV = AQ (SP-AP)

DMQV = SP (SQ-AQ)

DM Mix Var. = SP [AQ(standard mix) – AQ(actual mix)]

DM Yield Var. = SP(SY-AY)

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DLCV = DLRV + DLEV + Idle Time Variance or

DLCV = (Actual cost of labour – Standard cost of labour)

(AR*AH) – (SR*SH)

DLRV = AH(SR-AR)

DLEV = SR(AH-SH)

Idle Time Variance = Idle Time (hours)*SR

# Formula

VOHCV = VOH Ex. V + VOH Ef. V or
VOHCV = (Actual VOH– Standard VOH)

VOH Ex. V = (Actual VOH) – (AH*VOAR)
VOH Ef. V = VOAR (SH-AH)

VOAR = Budgeted VOH/Budgeted Hours(Units)

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FOHCV = FOH Ex. V + FOH Volume V or
FOHCV = (Actual FOH– Standard FOH)

FOH Ex. V = (Actual FOH) – (Budgeted FOH)
FOH Volume V = (Budgeted FOH) – (SH*FOAR)
FOH Ef. V = FOAR (SH-AH) part of volume variance
FOH Capacity V = (Budgeted FOH) – (AH*FOAR) part of volume