Standard Costing & Variance Analysis

Variance Analysis

- When the actual costs are compared with the standard costs some deviations normally occur.

- These deviation of actual from the standard is known as variance

- Variance analysis involves the measurement of the deviation of actual performance form the intended performances.

Variances

Favourable

Also known as positive or credit variance

When the actual cost incurred is less than the standard cost

Unfavourable

Also known as negative or debit variance.

When the actual cost incurred is more than the standard cost

Variances

Controllable

Deviation caused by such factors which could be influenced by the executive action

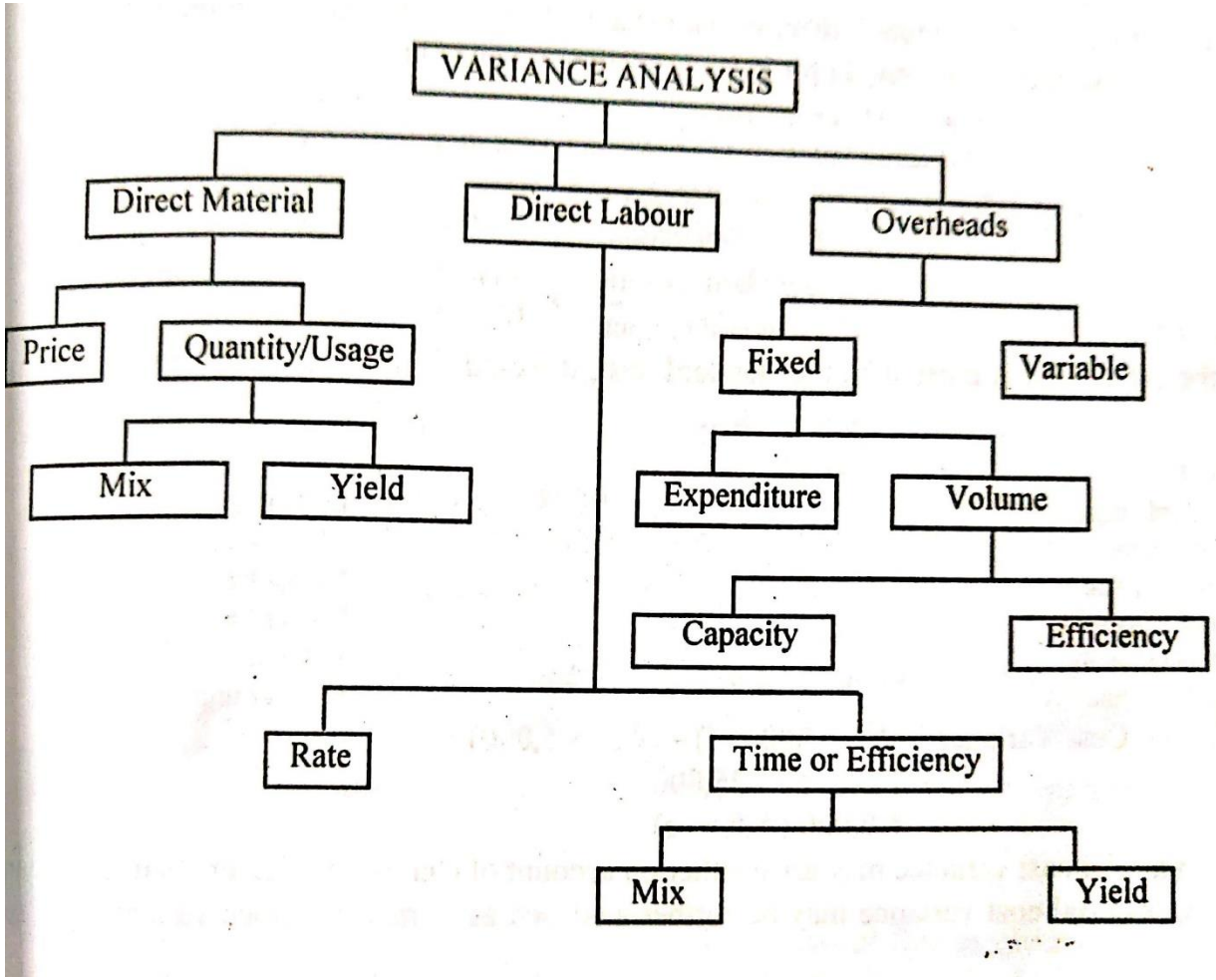
E.g. excess usage of materials, excess time taken by a worker

Uncontrollable

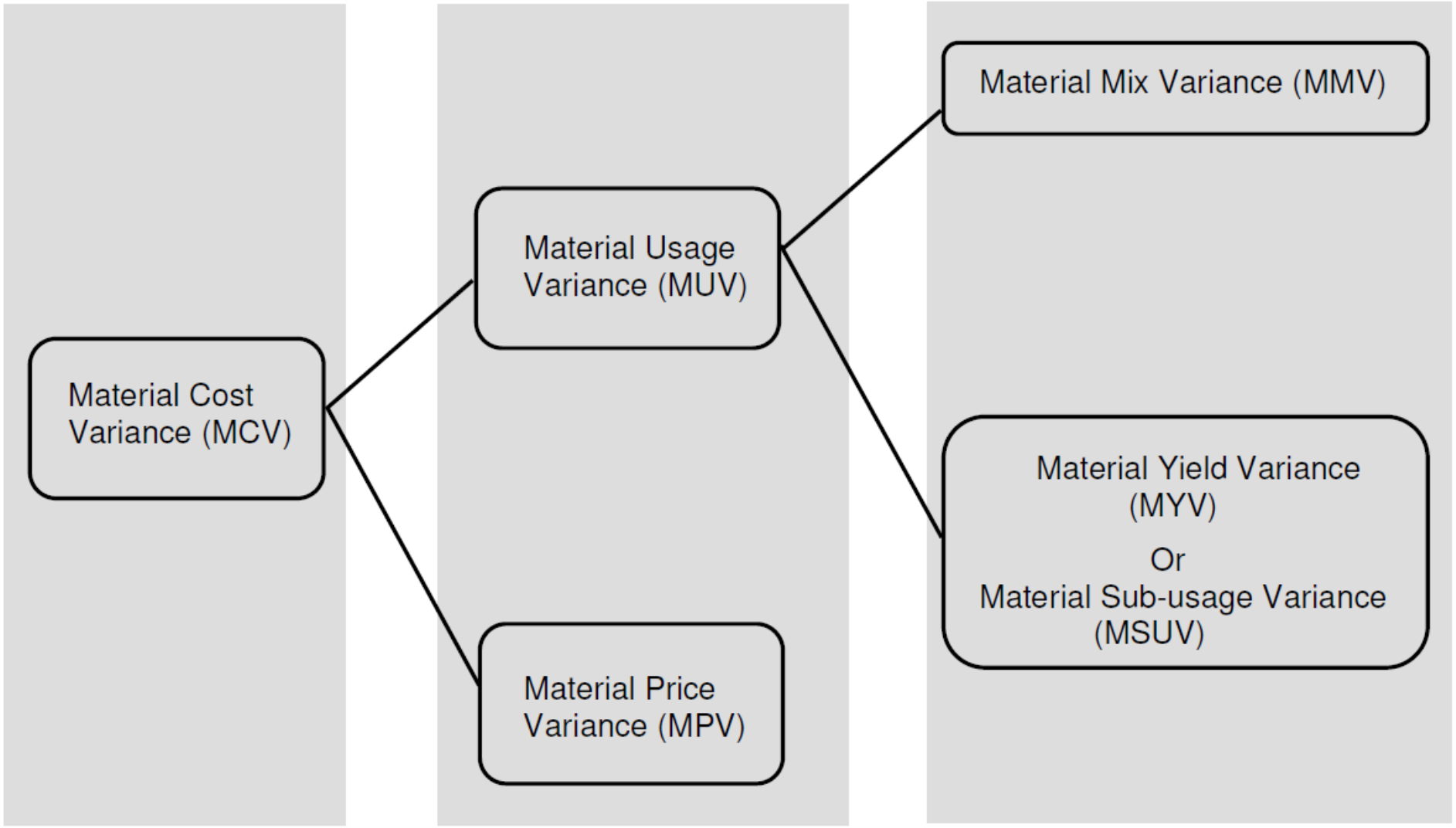
When variance is due to the factors beyond the control of the concerned person or department

E.g. wage rate increased on account of strike, government restrictions, change in market price

Variances can be found out with respect to all the elements of cost, i.e., direct material, direct labour and overheads



Material Variances



Material Cost Variance (MCV)

- It is the difference between the standard cost of direct materials specified for the output achieved and the actual cost of direct materials used.

- This difference in material cost maybe partly due to difference in usage of raw material and partly due to difference in prices.

= Standard cost for actual output- Actual Cost

= (Standard Quantity for actual output * Standard Price) - (Actual Quantity * Actual Price)

= (SQ * SP) - (AQ * AP)

Material Price Variance (MPV)

- It is that portion of the Materials cost variance which is due to the difference between the standard price specified and the actual price paid for the direct materials used

- The reasons for price variance can be fluctuations in market prices, increase or decrease in prices on account of agreement between various suppliers or on account of government interference, buying efficiency or inefficiency, high or low cost of transportation and carriage of goods etc.

=Actual Quantity* (Standard Price-Actual Price)

= AQ* (SP-AP)

Material Usage (Quantity) Variance (MUV)

- It is that portion of the materials cost variance which is the difference between the standard quantity specified for the production achieved, whether completed or not, and the actual quantity used, both valued at standard prices

- The reasons for price variance can be inefficiency, lack of skills or training and faulty workmanship, incorrect processing of materials whereby wastages may occur, pilferage, use of defective or substandard material, use of substitute material etc.

= Standard Price* (Standard quantity for actual output-Actual quantity)

= SP (SQ-AQ)

The algebraic sum of material price variance and material usage variance should be equal to material cost variance

MCV= MPV+MUV

Material Mix Variance (MMV)

- It arises when two or more materials are used in the manufacture of a product

- The difference between the standard composition and the actual composition of material mix is the material mix variance. It represents the variation in cost arising as a result of change in in the ratio in which the different materials are used compared to the standard fixed for the purpose.

= Standard Price * (Revised Standard Quantity – Actual quantity)

= SP * (RSQ- AQ)

RSQ = Total weight of actual mix

---------- *Standard Quantity

Total weight of standard mix

Material Sub-usage Variance (MRUV)

- This is a sub-variance of the material usage variance and represents that portion of the material usage variance which is attributed to reasons other than those which give rise to material mix variance

= Standard price*(Standard Quantity- Revised standard quantity)

= SP*(SQ-RSQ)

Material Yield variance (MYV)

- It is that portion of the material usage variance which is due to the difference between the standard yield specified and the actual yield obtained.

- The variance arises due to abnormal contingencies like spoilage, chemical reaction etc.

= Standard output price *(Actual Yield-Standard Yield)

= SOP* (AY-SY)