LABOUR COST VARIANCES SEM-IV

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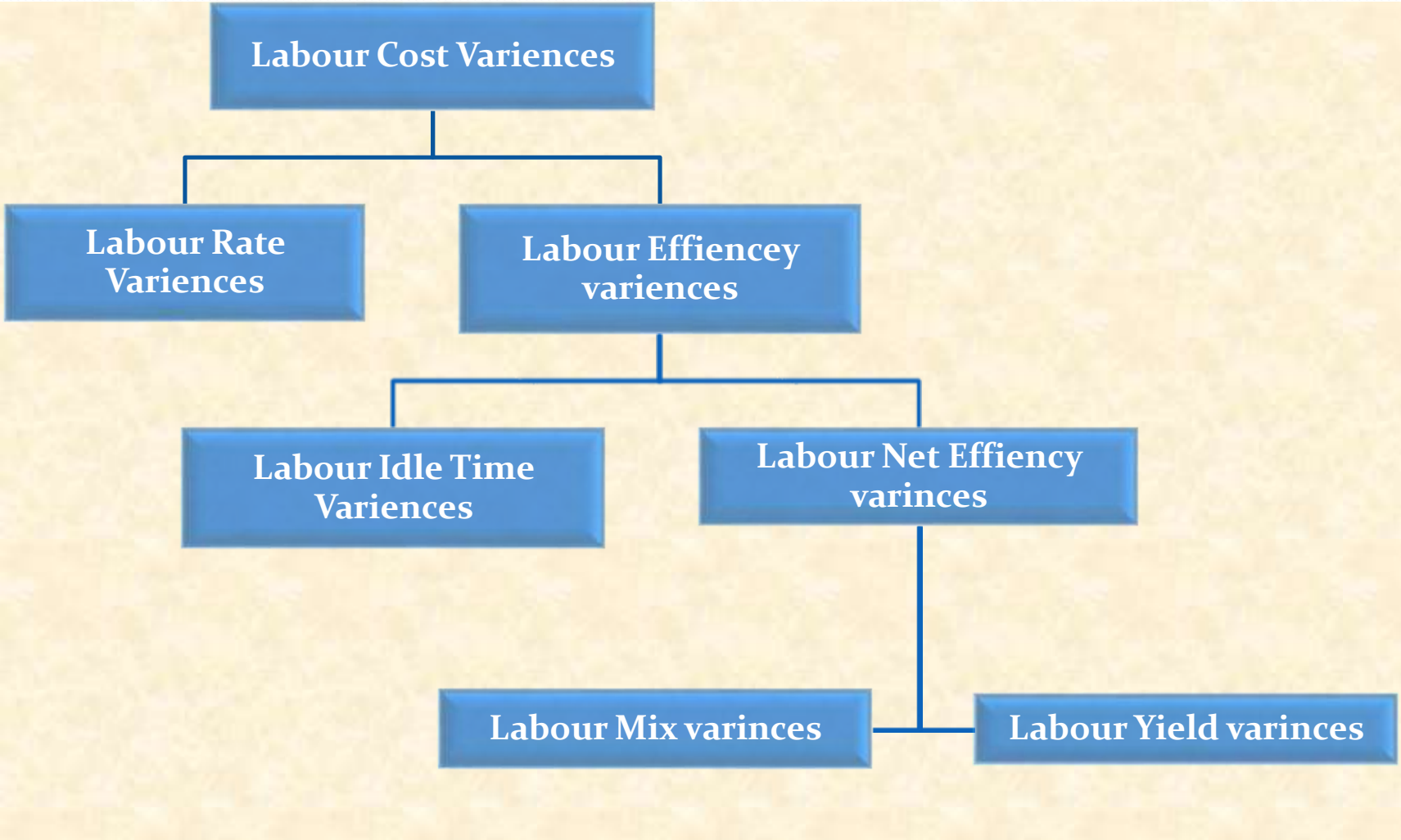
Labour Variances: Types and Formula



(a) Labour Cost Variance:

It is the difference between the standard cost of labour allowed (as per standard laid down) for the actual output achieved and the actual cost of labour employed. It is also known as wages variance.

Labour Cost Variance = Standard Cost of Labour – Actual Cost of Labour.

(b) Labour Rate Variance:

It is that portion of the labour cost variance which arises due to the difference between the standard rate specified and the actual rate paid.

Labour Rate Variance = Actual Time Paid for (Standard Rate – Actual Rate).

Actual Time paid for = Actual time worked for + Idle time

(c) Total Labour Efficiency Variance

It is that part of labour cost variance which arises due to the difference between standard labour cost of standard time for actual output and standard cost of actual time paid for.

Labour Efficiency Variance = Standard Rate (Standard Time for Actual Output – Actual Hour paid for)

Total labour efficiency variance is calculated only when there is abnormal idle time.

(d) Labour Idle Time Variance

It is calculated only when there is abnormal idle time. It is that portion of labour cost variance which is due to the abnormal idle time of workers. This variance is shown separately to show the effect of abnormal causes affecting production like power failure, breakdown of machinery, shortage of materials etc. While calculating labour efficiency variance, abnormal idle time is deducted from actual time expended to ascertain the real efficiency of the workers.

Labour Idle Time Variance = Abnormal Idle Time x Standard Rate

Or ,

Labour Idle Time Variance = St. Rate (Actual Hours Paid for – Actual Hours Worked for)

(e) Labour Net Efficiency Variance

It is that portion of labour cost variance which arises due to the difference between the standard labour hours specified for the output achieved and the actual labour hours spent.

Labour Net Efficiency Variance = Standard Rate (Standard Time for Actual output – Actual Hour Worked for).

Here standard time for actual output means time which should be allowed for the actual output achieved.

Actual Time worked for = Actual labour hours Paid for - Abnormal idle hours.

(f) Labour Mix Variance

It is also known as team composition Variance. It is similar to Material Mix variance and is a part of labour efficiency variance. Labour mix variance arises only when two or more different types of workers employed and the composition of actual grade of workers differ from the standard composition of workers.

Labour Mix Variance = Standard Cost of Standard Mix – Standard Cost of Actual Mix

Or,

Labour Mix Variance = (Revised Standard Hours– Actual Hours Worked for) X Standard Rate

Revised Standard Hours = Actual Total Hours Worked for X Standard Ratio of Workers

(g)Labour Yield Variance

It is similar to Material Yield Variance. It studies the impact of actual yield on labour cost where output varies from the standard.

Labour Yield Variance= (Actual yield – Standard yield) X Standard labour cost per unit of output

Or,

Labour Yield Variance = (Standard Hour – Revised Standard Hour)

Example 1

Standard Time for the Job:- 1000hours
Standard Rate per hour : Rs. 0.50/per hour
Actual Time Taken : 900 hours
Acutal Wages Paid : Rs.360
Acutal rate Per Hour : Rs.360/900 = Rs. 0.40/per hour
Calculate LCV, LRV, LEV

Ans:-

Labour Cost Varience (LCV) = Standard Labour Hour Cost- Actual Labour Hour Cost

= 1000 hours X Rs. 0.50 – Rs. 360
= Rs. 500 – Rs. 360
= Rs. 140 (F)

Labour Rate Variance (LRV)= (SR-AR) X Actual Labour Hours Paid for

=Rs.(0.50-0.40) X 900
= Rs.90 (F)

Labour Efficiency Variance (LEV) = (Standard Labour Hours – Actual labour Hours Paid for) X SR

= (1000-900) X Rs.0.50
= Rs.50(F)

Example 2

Using the following information, calculate labour variances:

Gross direct wages = Rs 3,000

Standard hours produced = 1,600

Standard rate per hour = Rs 1.50

Actual hours paid 1,500 hours, out of which hours not worked (abnormal idle time) are 50.

SOLUTION

(a) Labour Cost Variance

Standard Cost of Labour – Actual Cost of Labour

or Standard Hours × Standard Rate – Actual Hours × Actual Rate

1,600 × ₹ 1.50 – 1,500 × ₹ 2 = ₹ 600 (Adverse)

$$\left(\text{Actual Rate} = \frac{\text{Gross Direct Wages}}{\text{Actual Time}} = ₹\frac{3,000}{1,500 \text{ hours}} = ₹ 2 \text{ per hour}\right)$$

(b) Labour Rate of Pay Variance

Actual Time (Standard Rate – Actual Rate)

= 1,500 hours (₹ 1.50 – ₹ 2) = ₹ 750 (Adverse)

(c) Total Labour Efficiency Variance = SR (ST for AO – AT paid for)

= ₹ 1.50 (1,600 Hours – 1,500 Hours) = ₹ 150 (F)

(d) Labour Efficiency Variance

Standard Rate (Standard Time – Actual Time Worked)

₹ 1.50 (1,600 Hours – 1,450 Hours) = ₹ 225 Favourable

(Actual Time = Actual Hours Paid – Idle Hours *i.e.* 1,500 – 50 = 1,450 Hours)

(e) Idle Time Variance

Abnormal Idle Time × Standard Rate

50 Hours × ₹ 1.50 = ₹ 75 Adverse

Verification

Labour Cost Variance = Rate of Pay Variance + Efficiency Variance + Idle Time Variance

₹ 600 Adverse = – ₹ 750 + ₹ 225 – ₹ 75 = ₹ 600 Adverse.

Example : 3

A gang of workers normally consists of 30 men, 15 women and 10 boys. They are paid at standard hourly rates as under:

	Re.
Men	0.80
Women	0.60
Boys	0.40

In a normal working week of 40 hours, the gang is expected to produce 2,000 units of output. During the week ending 31st December, 2002, the gang consisted of 40 men, 10 women and 5 boys. The actual wages paid were @ Re 0.70, Re 0.65 and Re 0.30 respectively. 4 hours were lost due to abnormal idle time and 1,600 units were produced.

Calculate:

(i) Labour Cost Variance;

(ii) labourRate Variance;

(iii) Labour Efficiency Variance;

(iv) Labour Mix Variance; and

(v) Labour Idle Time Variance.

Ans.

Calculation of Standard Rate Per Unit:

Men : 30 X 40 Hours =1200 Hours X Rs.0.80 = Rs.960

Women : 15 X 40 Hours=600 Hours X Rs.0.60= Rs.360

Boys : 10 X 40 Hours=400 Hours X Rs.0.40= Rs.160

Rs. =1480

SR= Rs.1480/2000units = Rs.0.74/Per Unit

Calculation of Actual cost:

Men : 40 X 40 Hours =1600 Hours X Rs.0.70 = Rs.1120

Women : 10 X 40 Hours=400 Hours X Rs.0.65= Rs. 260

Boys : 05 X 40 Hours=200 Hours X Rs.0.30= Rs. 60

2200 Hours Rs. =1440

Less: Idle Time

Men: 4 X 40 =160 Hours

Women: 4 X 10 = 40 Hours

Boys: 4 X 05 = 20 Hours

220 Hours

1980 Hours

Labour Cost variance = Standard Cost- Actual cost
= Rs.0.74 X 1600 – Rs. 1440
= 256(A)

Labour Rate Variance = (SR-AR) X Actual Labour Hour Worked for

Men : (0.80-0.70) X 1600 = Rs.160(F)
Women: (0.60-0.65) X 400 = Rs. 20(A)
Boys : (0.40-0.30) X 200 = Rs.20(F)

Labour Effiency Varience = (Standard Hours – Actual Hours worked for) X SR

Men : [(1600 units X 1200 hours/2000 units) – 1600] X 0.80 = Rs.512(A)
Women: [(1600 units X 600 hours/2000 units) – 400] X 0.60 = Rs.48(F)
Boys : [(1600 unts X 400 hours/2000 units) – 200] X 0.40 = Rs.48(F)

Labour Mix Varience = (Standard Hours – Actual Hours worked for) X SR

Men : [(1200 X 1980/2200) – 1440] X 0.80 = Rs.288(A)
Women: [(600 X 1980/2200) – 360] X 0.60 = Rs.108F)
Boys : [(400 X 1980/2200) – 200] X 0.40 = Rs.64(F)

Thank You