CA Armor by CA Rahul Panchal

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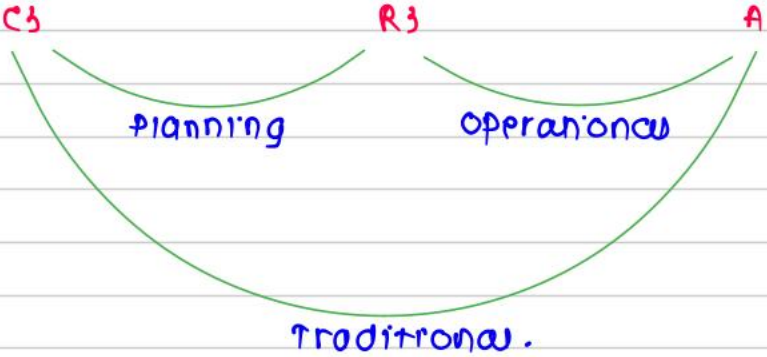
Channel

Discussion Group

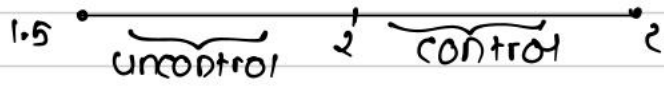
TYK 1

1		C3			R3			A		
	1	1000			1000			1000		
T	Q	Q	P	C	Q	P	C	Q	P	C
PG	2.5	2500	1.5	3750	2500	2.25	5625	2700	2.4	6480



	traditional	Operational	Planning
Usage	(2500-2700)×1.5 300A	(2500-2700)×2.25 450A	NIL
Price	(1.5-2.4)×2700 2430A	(2.25-2.4)×2700 405A	(1.5-2.25)×2500 1875A *
Total	3750-6480 2730A	5625-6480 855A	3750-5625 1875A

Planning var



uncontrollable	controllable
(1.5-2)×2500 1250A	(2-2.25)×2500 625A

TYK 2

T	Q	C1 Q	C1 P	C1 C	R3 Q	R3 P	R3 C	A Q	A P	A C
		5500			5500			5500		
x	x	27500	10	275000	26125	9.7	253412.5	27225	9.5	258637.5
		(5500×5)		Planning	(5500×4.75)		Operational.			

	Traditional	Operational	Planning
Usage	2750 F	10670 A	13750 F
Price	13612.5 F	5345 F	7837.50 F
Total	16362.50 F	5225 A	21587.5 F

Planning x

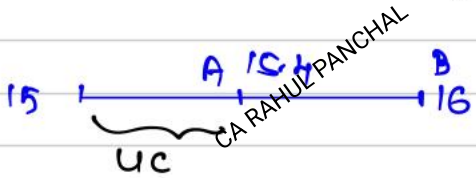
TYK 4

T	Q	Traditional Q	Traditional P	Traditional C	Operational Q	Operational P	Operational C	Planning Q	Planning P	Planning C
B	12	12000	15	180000	12000	16	192000	12800	16.4	209920

Plan — Operational

	Traditional	Operational	Planning
Usage	12000 A	12800 A	-
Price	17920 A	5120 A	12000 A
Total	29920 A	17920 A	12000 A .

Planning



Uncontrollable : 4800 A

Controllable : 7200 A

TYK 11

	S		CS			A		
	100		4605			4605		
T	Q		Q	P	C	Q	P	C
B1	42		1934	3		2202	2.8	
B2	62		2855	6		2502	7	
B3	21		967	2		921	2	
	125		5756		24866	5625		25521.60 .

5625 ↓

RSQ
1890
2790
945

Cost: 656 A.

Price: 2062 A

Usage: 1406 F

Mix : 840 F

Yield : 566 F

* Fixed Factory OH variances.

(example: Rent, Supervisor salary etc.)

concept question: 

Question:

Based on Budget.

Particulars	Budget	Actual	Recovery Rate (RR)
Overheads	100	110	
Output (units)	50	53.	1 unit = Rs. 2

Solution:

1. FOH cost variance

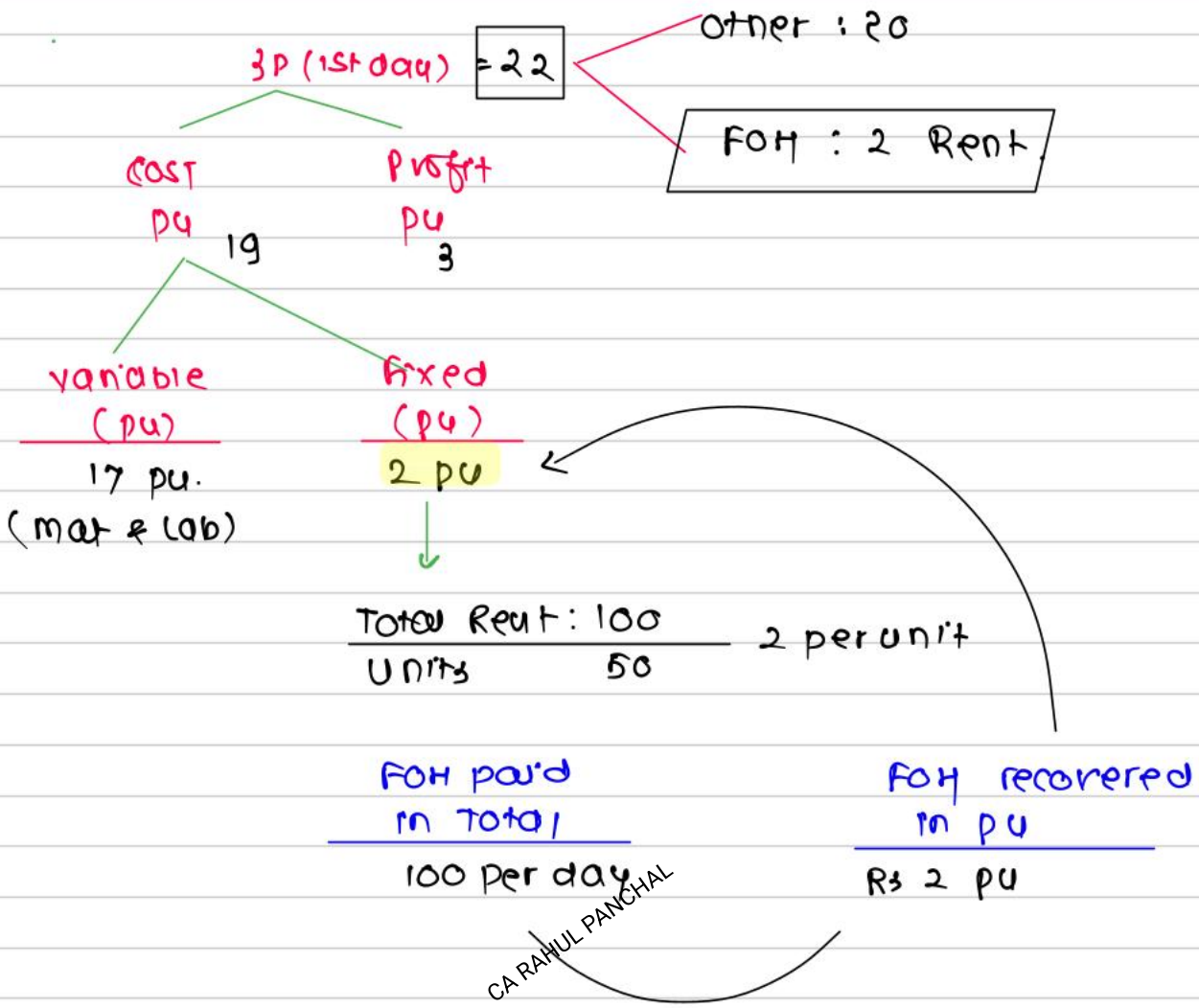
RR pu	2
× Actual output.	× 53
Recovered OH	106
Actual OH	(110)
	4 Adv.

2. FOH Expenditure (Budget) variance

Budgeted OH	Actual OH
100	110
10 A	

3. FOH Volume variance

(Budgeted units	Actual units)	× RR pu.
(50	53)	× 2
6 F		


SP (1st day) = 22
Other : 20
FOH : 2 Rent
Cost pu
19
Profit pu
3
variable (pu)
17 pu.
(mat & lab)
fixed (pu)
2 pu
Total Rent : 100
Units 50
2 per unit
FOH paid in Total
100 per day
FOH recovered in pu
Rs 2 pu
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50 min

** Fixed factory OH (example: Rent, supervisor salary)

Table:

		Particulars	Budget (1st)	Actual (last)	Recovery Rate (RR) (Based on Budget)
+F -A	1		1 month		
	2	Overheads (Fixed)	100,000	120,000	
	3	Output (units)	25000	26000	1 unit = Rs. 4 (1L ÷ 25K)
+A	4	Days	25	27	1 day = Rs 4000 (1L ÷ 25)
-F	5	Hours paid	250	? 265	1 Hour = Rs. 400 (1L ÷ 250)
	6	Idle Hours	-	(7)	
	7	Hours worked	250	258	
		Output	25000	? 26000	1 unit = Rs. 4

Solution:

1. FOH cost variance

Recovery Rate p.u	4
x Actual output	x 26000
Recovered OH	104000
Actual OH	(120,000)
	16000 A

2. FOH Expenditure (Budget) variance

Budgeted OH - Actual OH

100,000 - 120,000

20,000 A

3. FOH volume variance

(Budgeted output - Actual output) x Recovery Rate per unit

(25000 - 26000) x 4

4000 F

4. FOH calender variance

(Budgeted Days - Actual Days) x Recovery Rate per Day

(25 - 27) x 4000

8000 F

5. FOH Capacity variance

(Budgeted capacity (in actual days) − Actual capacity) × Recovery Rate per hour

↓

Days	:	25	27
Hours paid	:	250	?

↓

(270 Hours − 265 Hours) × 400

2000 A ——— (Below capacity)

6. FOH Idle Time Variance.

Idle Hours × Recovery Rate per hour

7 × 400

2800 A ——— (Always adverse)

7. FOH Efficiency variance.

(Expected output (in Actual Hrs worked) − Actual output) × Recovery Rate per unit

↓

Hrs worked	250	258
Units	25000	?

↓

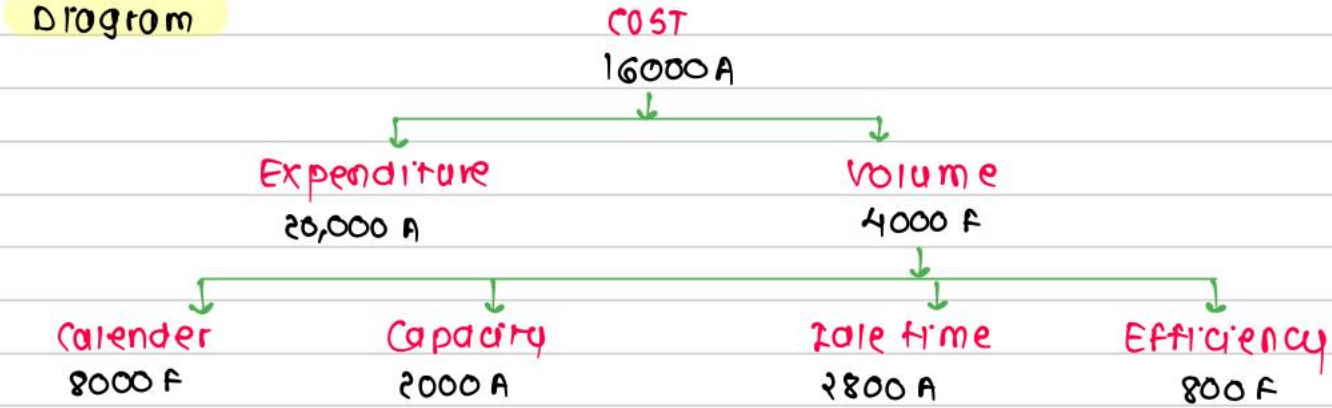
[Actual prodⁿ is more than expected]

(25800 − 26000) × 4

800 F ——— (worker is efficient)

↑

Diagram



CW 2

2000			2100			2100		
Q	P	C	Q	P	C	Q	P	C
20	200	4000	21	200	4200	19	205.26	3900

Efficiency : $(21-19) \times 200 = 400\,F$

Expenditure : $(200-205.26) \times 19 =$

$200 \times 19 - 3900 = 100\,A$

$300\,F$

TYK 6

1 unit			80,000			80,000.		
Q	P	C	Q	P	C	Q	P	C
0.5	20		40K	20	8L	48K		940K
10	3		8L	3	24L	740K		2250K
4	0.2		320K	0.2	64K.	360K		70K

	IM:	PT	E
Efficiency:	160,000 A	180,000 F	8000 A
Expenditure:	20,000 F	30,000 A	2000 F
	20%	7.5%	12.5%
	2.5%	1.25%	3.125%

8000 kg more spent

- **Adverse:**
  - ✓ Inferior quality
  - ✓ carelessness handling of material by workers.
  - ✓ Δ in method of production
  - ✓ Product specification.

60,000 min saved

∴ **Favourable**

- New highly skilled labour employed
- Improvement of skills of existing labour through training.

TYK 9

S		SJ			A		
1unit		52000			52000		
T	H	H	R	C	H	R	C
Lab.	6	312000	8	2496000	3L	8.14	2442000

RATE: 42000 A
Efficency: 96000 F

RATE

Adv.
paid more

- Std (wrong) pending negotiation not considered
- Bonus as time is saved

EFF

Fav
less time taken

- Std (wrong) non-observance of Time & Motion study
- New workers efficency could not be predicted
- foreman adopted conservative approach.
- ↑ in Rate encouraged to work efficiently.

In this case, since Lab pay ↑
Lab Eff ↑.

Because of Lab Rate : A
Lab Eff : F

TYK 7

S		C3			R3			A		
1L		110K			110K			110K		
T	Q	Q	P	C	Q	P	C	Q	P	C
M	2L	220K	30	66L	247500	31	7672500	250K	31.2	78L
L	25K	27500	300	8250K	22K	300	66L	23K	300	69L

$\left(\frac{110K \times 12}{60}\right)$

	T	P	O
usage	900,000 A	825000 A	77500 A
Pnie	300,000 A	247500 A	50,000 A
Total	1200,000 A	1072500 A	127500 A

	T	P	O
Efficiency	1350,000 F	1650,000 F	300,000 A
Rate	-	-	-
Total	1350,000 F	1650,000 F	300,000 A

S			C3			A		
1L			110K			110K		
Q	P	C	Q	P	C	Q	P	C
MH 8K	12	96K	8800	12	105600	850		124K
Set. 2K	112	224K	2200	112	246400	2100		236K

	MH	Set
EFF	3600 F	1200 F
Exp	22000 A	800 A

Q5 Reco - Marginal

Table 1.

Year

Budget			Actual		
Qty	Cont^n pu	Amt	Qty	Cont^n pu	Amt
200,000	4.17	834000	165000	3.75	618750
	FC	(315000)		FC	(330,000)
	Profit	519000 .		Profit	288750

3P - VC		3P - VC	
10.5	- 6.33	10.26	- 6.51
(2100000 / 200,000)	(1266000 / 200,000)	(1692900 / 165000)	(1074150 / 165000)

Table 2:

Particulars	Budget	Actual
market size	400,000	375000
x %	x 50%	x 44%
market share	200,000	165000
	200,000 / 400000 x 100	165000 / 375000 x 100

Particulars	Budget		Actual
market size	400,000	2L	600,000
x %	x 50%		
market share	200,000		
	200,000 / 400000 x 100		

Variances:

1. Total Net Profit variance

519000 - 288750

230250 A

1. Fixed Cost variance

315000 - 330,000

15000 A

2. Variable Cost variance

(6.33 - 6.51) × 165000

29700 A

3. selling Price variance

(10.5 - 10.26) × 165000

39600 A

4. Sales margin

Volume variance

(400,000 - 165000) × 4.17

145950 A

[35000 units ↓]

won't come as only 1 fg.

mix | Quantity (Sub-volume)

Volume

145950 A

(35000 units ↓)

12500 ↓

22500 ↓

Market size variance

[uncontrollable variance]

[Planning variances]

Reduction in mkt size	25000
(400,000 - 375000)	
× Budgeted share %	× 50%
Decrease in units	12500
× Budgeted Cont^n pu	× 4.17
	52125 A

Market share variance

[controllable variance]

[operational variance]

Decrease in units	22500
(375000 × 50%)	
(187500 - 165000)	
× Budgeted Cont^n pu	× 4.17
	93825 A

Q4

Table I.

Year

	Budget			Actual		
	Qty	Cont^n pu	Amt	Qty	Cont^n pu	Amt
	2250	122.50	275625	2500	123.6	309000
Staff Basic wages: (650 x 125)		FC	(81250)		FC	(78125)
		Profit	194375		Profit	230875
		SP - VC			SP - VC	
		500 - 377.50			480 - 356.4	
		Cost of shoe	Additional Payment (comm)		Cost of shoe	Additional Payment (comm)
		350	27.5 (500 x 5.5%)		330	26.4

Variances:

1. Total NP Variance

194375 - 230875

36500 A

(Basic wages)

1. Fixed Cost Variance

81250 - 78125

3125 F

2. Staff cost variance (commission / Additional)

(27.5 - 26.4) x 2500

2750 F

3. Shoe cost variance

(350 - 330) x 2500

50,000 F

4. Selling Price Variance

(500 - 480) x 2500

50,000 A

only 1 FC

5. Sales Volume Contribution variance

(2250 - 2500) x 122.50

30625 F

- Mix
- Quantity
  - Mkt size
  - Mkt share

No band of size

				Rs.	%	
SV						
50,000 F	Cost	350	330	20 ↓	5.71 %	(20/350 x 100)
50,000 A	SP	500	480	20 ↓	Benefit is transferred to customer	

Increase in volume.

↓ in comm°

Basic wages ↓ 25 hours.

T8

B			A		
Q	C	A	Q	C	A
2L	2.085	417000	165K	1.875	309375
	FC	157500		FC	165000
	P	259500		P	144375
	BP	5.25		BP	5.13
	VC	3.165		VC	3.255

	B	A
Size	4L	375000.
%	~ 50%	
Share	2L	165K

Planning: $(4L - x) * 50\% \times 2.085 = 26062.50A$.

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$4L - x = 25000$

$4L - 25000 = x$.

$x = 375000$.

BP 259500

Δ scales.

BP var.		19800A
Control —	Planning	26062.5 A
72975A —	Operational	46912.5A
		.
VC var		14850 A
FC var.		2500A . 115125
.	AP .	144375

T12

	Budget			Standard.		
	Qty	Contn	Amt	Qty	Contn	Amt
I :	200,000	50	100L	270,000	47.50	12825000
D :	600,000	40	240L	570,000	27	15390,000
	800,000	42.5	340L	840,000		28215000

↓ 2:6 .

I : 210,000

D : 630,000

Total Contn Var.

5785000 A

Contn Price var

(50 - 47.50) × 270K = 675000 A

(40 - 27) × 570K = 74,10,000 A

8085000 A

Contn Vol var

(2L - 270K) × 50 = 3500,000 F

(6L - 570K) × 40 = 12,00,000 A

2300,000 F .

Con mix

(210K - 270K) × 50 = 30,00,000 F

(630K - 570K) × 40 = 2400,000 A

600,000 F

Con Qty

(2L - 210K) × 50 = 500,000 F

(6L - 630K) × 40 = 1200,000 F

1700,000 F

Par	Bud	Actual
size	80,00,000	70,00,000
x %	x 10%	x 12%
share	800,000	840,000

Size

100,000 ↓

× 42.5

4250,000 A

Share

↑ 140,000

× 42.5

5950,000 F

TYK 10

	Budget Q	Budget P	Budget A	Q	Actual Q	Actual P	Actual A
3000 W	1500	6250	9375000	1500	1500		
5000 W	500	23750	11875000	750	600		
	2000		21250,000				

Budget SP – VC:
18750 – 12500
50,000 – 26250

Actual SP – VC:
17250 –
53750 –

SP Var: (18750 – 17250) × 1500 = 2250,000 A
(50,000 – 53750) × 600 = 2250,000 F

Sales margin var: 5000 W: (500 – 600) × 23750 = 2375000 F

	Q	Q	Q
6250	1500	1500	1500
23750	500	750	600
	2000	2250	2100

2100
↓
Std mix (1500 : 750)
1400
700

SM mix var: 1400 – 1500 × 6250 = 625000 F
700 – 600 × 23750 = 2375000 A
1750,000 A

SM volume var: 1500 – 1500 × 6250 = –
750 – 600 × 23750 = 3562500 A
3562500 A

P	Q
UC	C
Size	Share
	SP

100 ↑
Vol: 2375000 F ← K is not responsible for overall favourable performance.

Size: 5937500 F (250 ↑)
Share: 3562500 A (150 ↓)

TYK 3

Std contn	Actual Contn
13 x 2000	↓
26000	26000

S		C			R			A		
I		2000			2000			2000		
T	Q	Q	P	C	Q	P	C	Q	P	C
Sales:	I	2000	50	1L	2000	82.5	165K	2000	79	158K
Mat	10	20K	2.5	50K	20K	4.25	85K	21600	4.5	97200
Lab	6	12K	2	24K	12K	3.125	37500	11600	3	34800
				26000						26000

	Traditional	Operational
Bud contn	26000	
SP Var:	58000 F	(50-79) x 2000
SM Vol	NIL	
Mat: P	43200 A	
U	4000 A	
Lab: R	11600 A	
E	800 F	
A contn	26000	

TYK 5

S			C3			A		
Q	P	C	Q	P	C	Q	P	C
			948000	6.39	6057720	948000	7.5	7110,000
			189600	29	5498400	212175	28	5940900
			(948000/5)			(948000/4.468)		
			1896	76	144096	1890	74	139860
			(948000/506)			(948000/501.587)		

Flexible Budget variances:

Flexible Budget cost - Actual cost

a) Receivable A. : (6057720 - 7110,000) = 1052280 A
b) Payable A : (5498400 - 5940900) = 442500 A
c) Travel exp A : (144096 - 139860) = 4236 F

Q 6

	B			A		
	Q	Cont^n pu	Total	Q	Cont^n pu	Total
C1	1000	6080		900		
C2	3250	752		3875		
C3	750	7520		975		
	5000			5750		

SP - VC
17600 - 11520
4560 - 1808
22400 - 14880

SP - VC

RSQ
1150
3737.5
862.5

SM mix var:

(1150 - 900) x 6080 = 1520000 A
(3737.5 - 3875 x 752 = 103400 F
(862.5 - 975) x 7520 = 846000 F
570600 A

SM Qty var:

(1000 - 1150) x 6080 = 912000 F
(3250 - 3737.5) x 752 = 366600 F
(750 - 862.5) x 7520 = 846000 F
2124600 F

Q 20 Sandy CSD

Budget		
Q	P	A
93750	3	281250
	FC	(58000)
		223250

Actual		
Q	P	A
112500	2.9	326250
	FC	70,000
		256250

SP - VC
4.5 - 1.5

SP - VC
4.5 - 1.6
(506250 / 112500) (180,000 / 112500)

Budget Profit		223250
SP Var		NIL
SM Vol Var	(93750 - 112500) × 3	56250 F
VC Var	(1.5 - 1.6) × 112500	11250 A
FC Var	(58000 - 70,000)	12000 A
Actual Profit		256250