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Subject = Pp m

Q# 01

You have a team of project
managers -----
----- channels now?

QNO: 1 :

Given data:

Number of communication channels = 6

Additional stake holders = 2

Required data:

Identify the number of communication channels after increasing the scope of work = ?

Solution:

As we know that;

$$\text{Number of communication channel} = \frac{n(n-1)}{2}$$

The number of people involved in six communication channels \Rightarrow

$$6 = \frac{n(n-1)}{2}$$

$$12 = n(n-1) = n^2 - n$$

$$n^2 - n - 12 = 0$$

$$n^2 - 4n + 3n - 12 = 0$$

$$n(n-4) + 3(n-4) = 0$$

$$(n-4)(n+3) = 0$$

$$(n-4) = 0$$

$$n = 4$$

$$n+3 = 0$$

$$n = -3$$

So the number of people involved = 4:

As; There are additional stake holders

so total number of people are:

$$n = 4 + 2$$

$$n = 6$$

Now, the required communication

$$\text{channel} = \frac{6(6-1)}{2}$$

$$= \frac{3 \times 6(6-1)}{2} = 3(5)$$

New communication channel = 15

Ans

Q # 2

1 2

Q8-3

①

Given Data:

- Total no. of package = 10
- For each package planned value, Actual Cost & %age of completion is known

To Find:

- for Each Package
- 1) Earned value = (EV) = ?
- 2) Cost variance = (CV) = ?
- 3) Schedule variance = (SV) = ?
- 4) Cost performance index = CPI = ?
- 5) Schedule performance index = SPI = ?
- 6) comment on each package:

Solution:-

① work package 1:

(i) Earned value: (EV)

By formula

$EV = \text{Planned value} \times \text{Rate of performance.}$

$EV = PV \times RP$

$EV = \$100000 \times 100\%$

$EV = \$100000 \times 1$

$EV = \$100000$

②: cost variance: CV:

$CV = EV - AC$

$= \$100000 - 120,000$

Subject:

(2)

$$CV = -20000$$

③ Schedule Variance: (SV)

$$SV = EV - PV$$
$$= 100000 - 100000$$

$$SV = 0$$

④ Cost Performance Index (CPI):

$$CPI = \frac{EV}{AC} = \frac{100000}{120000} = 0.83$$

⑤ Schedule Performance Index:

$$SPI = \frac{EV}{PV} = \frac{100000}{100000} = 1$$

Comments on work package 1:

→ As we see the $SV=0$ & $SPI=1$ that means that project is exactly on the plan path 100%.

→ As we see that CV is (-ve) & cost performance index is less than 1 which means that the project is over budgeted.

Q.2:-

Work page 2:

① Earned value: EV:

$$EV = PV \times RP$$

$$EV = 100000 \times 100\%$$

$$EV = 100000 \times 1$$

$$\boxed{EV = 100,000 \$}$$

② Cost Variance: CV:

$$CV = EV - AC$$

$$CV = 100,000 - 110,000$$

$$\boxed{CV = -10,000 \$}$$

③ Schedule Variance: SV:

$$SV = EV - PV$$

$$= 100,000 - 100,000$$

$$\boxed{SV = 0 \$}$$

④ Cost Performance Index: CPI

$$CPI = \frac{EV}{AC} = \frac{100000}{110000}$$

$$\boxed{CPI = 0.90 \$}$$

⑤ Schedule Performance Index: SPI

$$SPI = \frac{EV}{PV} = \frac{100000}{100000} = 1$$

$$\boxed{SPI = 1 \$}$$

Comments:

Project is exactly on the base line as $SV=0$ & $SPI=1$ but in terms of cost the project is over budgeted as CV is (-ve) & CPI is less than 1.

④

work package 3:

① Earned value = $EV = PV \times RP$
 $= EV = 100,000 \times 90\%$
 $= \boxed{EV = 90,000 \$}$

② Cost variance - CV
 $CV = EV - AC$
 $= 90,000 - 80,000$
 $= \boxed{CV = 10,000 \$}$

③ Schedule variance - SV
 $SV = EV - PV$
 $= 90,000 - 100,000$
 $= \boxed{SV = -10,000 \$}$

④ Cost performance index: CPI:

$$CPI = \frac{EV}{AC} = \frac{90,000}{80,000} = 1.125$$

⑤ Schedule performance index:

$$SPI = \frac{EV}{PV} = \frac{90,000}{100,000}$$

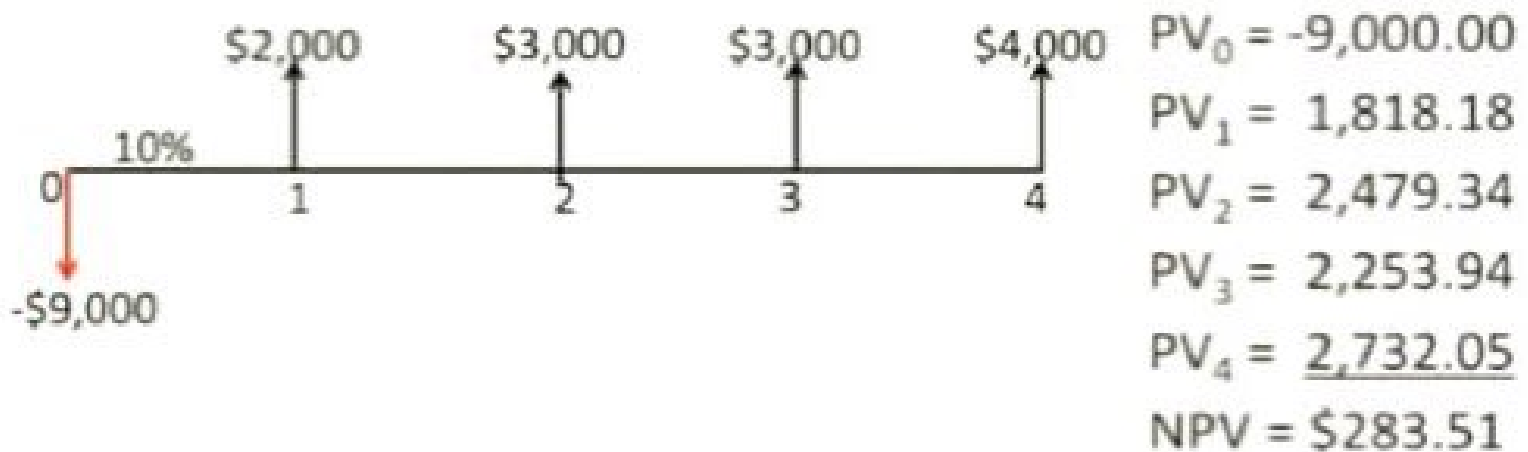
$$SPI = 0.9$$

Comments:

As we see that in terms of cost the project is under budget because the CV or CPI is +ve & above than 1 but in terms of schedule the project is potentially behind the base line as SV = -ve & SPI is less than

1.

Q# 3



Conclusion

A positive NPV means the combined PV of all cash inflows exceeds the PV of cash outflows

In our example the NPV of \$283.51 suggests that the combined PV of all cash inflows exceeds the PV of cash outflows by \$283.51

Q# 4

Power / Interest Matrix (Gardner et al. (1986))

		Level of Interest	
		Low	High
Power	Low	A Minimal effort	B Keep informed
	High	C Keep satisfied	D Key players

Power / Interest Matrix:

Stakeholders in group A: Need only minimum effort and monitoring.

Stakeholders in group B: Should be kept informed as they may be able to influence more powerful stakeholders.

Stakeholders in group C: Are powerful, but level of interest is low. Generally expected to be passive, but may move into group D on an issue of particular interest.

Stakeholders in group D: Are both powerful and interested. Their co-operation is of key importance for project success.

CHECKLIST FOR RISK MANAGEMENT

✓ Stage 1 Initiation

- Assemble Risk Management resources
- Appoint the team leader and ensure a breadth of skills/experience within the team
- Assign Risk Management responsibilities appropriate to task

✓ Stage 2 Proposal Familiarization

- Specify objectives and criteria
- Familiarise the team with the proposal, assemble documentation and define the key objectives
- Assess the proposal in relation to the Agency's objectives and strategies
- Determine assessment criteria for proposal
- Define key elements (target 20-50 elements, items or activities) to structure risk analysis

CHECKLIST FOR RISK MANAGEMENT

✓ Stage 3 Risk Analysis

- Identify risks
 - Prepare a comprehensive schedule of risks for each element
 - Describe each risk and list the main assumptions
- Assess risk likelihoods and consequences
 - Assemble data on risk and their consequences
 - Assess risk likelihoods
 - Assess risk impacts
- Identify significant risks
 - Rank risks to reflect impacts and likelihoods
 - Where applicable, estimate risk factors
 - Discard/accept minor risks
 - Identify moderate risks for management measures
- Identify major risks for detailed risk action planning