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Subject/Paper :-

Construction Management

Date #

22/06/2020,

Q No : 1

Given data:

Number of Communication Channel = 6  
additional State holder = 2

Required Data:

Identify of number of Communication Channel offer Increasing The Scope of work.

Solution:-

As we know that Number of

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

= The number of People Involved in

Six Communication channel

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

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

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

$$\Rightarrow n^2 - 4n + 3n - 12 = 0.$$

$$\Rightarrow n(n-4) + 3(n-4) = 0.$$

$$\Rightarrow (n-4)(n-3) = 0.$$

$$\Rightarrow (n-4) = 0$$

$$n+3 = 0$$

$$n = 4$$

$$n = -3$$

So The number of People Involved = 4

As there are additional State holders

So that number are

Now The required Communication

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

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

New Communication Channel = 15 Ans

Q# 2

Answer:

Work Package	BCWS Planned Value (PV)	ACWP Actual Cost (AC)	Progress %	BCWP Earned Value (EV)	Cost Value (CV) EV-AC	Cost Performance Index (CPI) EV/AC	S. Performance Index (SPI) EV/PV	(Schedule Variance) (SV) EV-PV
1	\$100,000	\$120,000	100%	\$100,000	\$20,000	0.83	1.00	\$-
2	\$100,000	\$110,000	100%	\$100,000	\$10,000	0.91	1.00	\$-
3	\$100,000	\$80,000	90%	\$90,000	\$10,000	1.13	0.90	\$100,000
4	\$100,000	\$125,000	80%	\$80,000	\$45,000	0.67	0.80	\$20,000
5	\$100,000	\$75,000	50%	\$50,000	\$25,000	0.00	0.50	\$50,000
6	\$100,000	\$-	0%	\$-	\$-	0.00	0.00	\$100,000
7	\$100,000	\$-	0%	\$-	\$-	0.00	0.00	\$100,000
8	\$100,000	\$-	0%	\$-	\$-	0.00	0.00	\$100,000
9	\$100,000	\$-	0%	\$-	\$-	0.00	0.00	\$100,000
10	\$100,000	\$-	0%	\$-	\$-	0.00	0.00	\$100,000

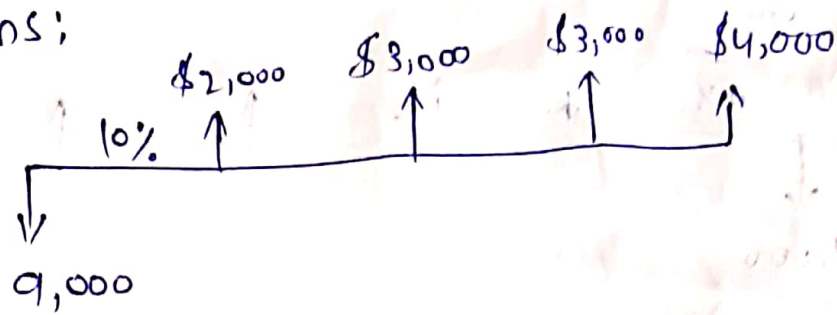
BAC

Comment

Project is over budget and lag behind

Q#3

Solutions;



Discount 10%

$$P_v = F_v / (1+r)^n$$

For 1<sup>st</sup> Year

$$P_v = \frac{2000}{(1+0.10)^1} = 1818.18$$

For 2<sup>nd</sup> Year

$$P_v = \frac{3000}{(1+0.10)^2} = 2479.34 \$$$

For 3<sup>rd</sup> Year

$$P_v = \frac{3000}{(1+0.10)^3} = 2253.94 \$$$

For 4<sup>th</sup> year.

$$P_v = \frac{4000}{(1+0.10)^4} = 2732.058$$

Thus

$$PV_0 = -9000 \$$$

$$PV_1 = 1818.18 \$$$

$$PV_2 = 2479.39 \$$$

$$PV_3 = 2253.94 \$$$

$$PV_4 = 2732.05 \$$$

$$NPV = 283.515 \text{ Ans.}$$

Comments.

- A Positive NPV means the Combined PV of all Cash inflows Exceeds the PV of each outflows.
- The NPV of 283.51 Suggest That The Combined PV of all Cash Inflows Exceeds The PV of Cash Outflows by 283.51
- This Project is acceptable as Its add Profit of 283.51\$ to The Company.

Q# 4.

## 1 Identify Your Stakeholders.

Start by Brainstorming who your Stakeholder are. As part of this, think of all the people who are affected by your work, who have influence or power over it, or have an interest in its successful or unsuccessful conclusion.

The table below identifies some of the people who might be stakeholders in your job or in your projects.

Your boss	Shareholders	Government
Senior executives	Alliance Partner	Trade Associations
Your -co-workers	Supplies	The Press
Your team	Leaders	Interest group
Customers	Analysis	Public
Propective	future recit.	Community
Your family	Key Contributors	advisors.

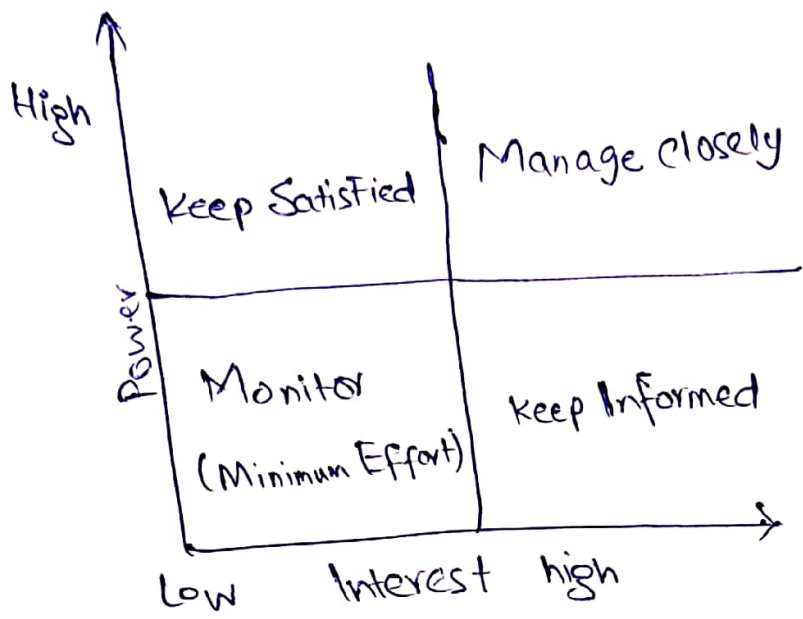


## (2) Prioritize Your Stakeholders.

You may have a list of people and organizations that are affected by your work. Some of these may have the power either to block that work or to advance it. So you need to work out who you need to prioritize.

You can map out your stakeholders and classify them according to their power on your work and their interest in it on a Power/Interest grid. Our interactive screen app makes this step easy to accomplish or you can download of the grid by clicking on the download template button at the end of this ~~article~~ article.

Figure 1 Power/Interest Grid for Stakeholder Prioritization



The Position that you allocate to a Stakeholder on the grid shows you the

The position that you allocate to a stakeholder on the grid shows you the actions you need to take with them.

- High power highly interested people (Manage closely) you must fully engage these people and make the greatest efforts to satisfy them.
- High power less interested people (keep satisfied) put enough work in with these people to keep them satisfied but not so much that they become bored with your message.
- Low power highly interested people (keep informed) adequately inform these people and talk to them to ensure that no major issues are arising. People in this category can often be very helpful with the details of your project.

→ Low power less interested people (Monitor)  
again monitor these people but don't  
bore them with excessive communication

Your boss for example likely has high  
power and influence over your projects  
and high interest in them. Your family  
however may have high interest in  
them but won't have power over them.

(3) Understand your key Stakeholders.

You need know discover you key Stakeholder about your Project.

You also need to work how best to engage them and how to Communicate with them.

Question That Can help your Stakeholder Include

→ what Financial or emotional Interest do they have in Outcome your work It is positive or negative

→ what motivations those most of all?

→ what Information do they want from you and what is the best way of Communicating with them.

→ what is Current Opinion of your work is it based on good Information

→ what is Current of your work? It is good Information -

5 For a Project a residential house what are the different Stages to be Considered in the Risk Management checklist?

### ⇒ Checklist For Risk Management

#### • Stage 1 Initiation

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

#### • Stage 2 Proposal Familiarization

- Specify objectives and Criteria
- Familiarize the team with the Proposal Assemble documentation and define the key objective
- Assess the Proposal in relation to the agency's objective and Strategies.
- Determine Assessment Criteria for Proposal
- Define key elements (target 20-50 element, item or activities) to structure risk analysis.

## Stage 3 Risk Analysis

- Identify risk.
  - Prepare a Comprehensive Schedule of risk 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 risk
  - Rank risk to reflect Impact and likelihood
  - Where applicable estimate risk factor
  - Discard / accept minor risk
  - Identify moderate risks for management measure.
- Identify major risks for detailed risk action Planning.

## Stage 4. Risk Response Planning

- Identify feasible responses.
  - For each moderate and major risk identify the feasible responses.
  - Responses may include
    - (a) Risk Prevention
    - (b) Impact mitigation
    - (c) Risk transfer and Insurance
    - (d) Risk acceptance

- Describe each feasible response and list main assumptions

- Select the best response.

- Evaluate the benefits and costs for each response

- Select the preferred response

- Develop management measure and action Schedules.

- Specify Risk Management measure for moderate risk.

- Develop risk action Schedules for major risks

(a) Action required (what is to be done)

(b) Resources (what and who)

(c) Responsibilities (who)

(d) Timing (when)



## Stage 5. Reporting.

- For designated Proposals Produce the Risk Management Plan
- For other Project Collate and Summarize risk action Schedule and measure.

## • Stage 6.

### Risk Management Implementation

- Implement measure and action Strategies
- Monitor the Implementation
  - (a) Assign responsibilities
  - (b) Timing
- Undertake Periodic review and Performance evaluation.