Final Assignment

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Section 32

Construction Managment

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Q #01 :

Given Data:

Number of communication channels = 6
Additional stake holders = 2

Required Data:-

Identify the no of comm channels after increasing the scope of work?

Solution:-

As we know that

No of comm channel $= \frac{n(n-1)}{2}$

No of people involved in six comm channels $\Rightarrow$

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

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

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

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

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

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

$n=4$ $\qquad$ $n=-3$

So, the no of people involved = 4

As; there are additional state holders, so total no of people are:

$n=4+2$

$n=6$

Now, the required communication channel $= \frac{6(6-1)}{2}$

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

New Communication channel = 15

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Q2:-

Work Package	BCWS	ACWP	Progress	BCWP	CV	CPI	SPI
	Planned value (PV)	Actual cost (AC)	%	Earned value (EV)	EV - AC	EV - AC	EV - PV
1	$ 100,000.00	$ 120,000.00	100	$ 100,000.00	$ 20,000.00	0.83	$ -
2	$ 100,000.00	$ 110,000.00	100	$ 100,000.00	$ 10,000.00	0.91	$ -
3	$ 100,000.00	$ 80,000.00	90	$ 90,000.00	$ 10,000.00	1.13	$ 10,000.00
4	$ 100,000.00	$ 125,000.00	80	$ 80,000.00	$ 45,000.00	0.64	$ 20,000.00
5	$ 100,000.00	$ 75,000.00	50	$ 50,000.00	$ 25,000.00	0.67	$ 50,000.00
6	$ 100,000.00	$ -	0	$ -	$ -	0.00	$ 100,000.00
7	$ 100,000.00	$ -	0	$ -	$ -	0.00	$ 100,000.00
8	$ 100,000.00	$ -	0	$ -	$ -	0.00	$ 100,000.00
9	$ 100,000.00	$ -	0	$ -	$ -	0.00	$ 100,000.00
10	$ 100,000.00	$ -	0	$ -	$ -	0.00	$ 100,000.00
BAC							

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Sol to Q#03:

$$NPV = -C_0 + \frac{C_1}{1+r} + \frac{C_2}{(1+r)^2} + \cdots + \frac{C_T}{(1+r)^T}$$

C_0 = initial investment
C = cash flow
r = Discount rate
T = Time
$C_1 = 2000$
$C_2 = 3000$
$C_3 = 3000$
$C_4 = 4000$

$PV_0 = -C_0$

$PV_0 = -9000$

$PV_1 = \frac{C_1}{1+r} = \left(\frac{2000}{1+\frac{10}{100}}\right)$

$PV_1 = 1818.18$

$PV_2 = \frac{C_2}{(1+r)^2} = \frac{3000}{\left(1+\frac{10}{100}\right)^2}$

$PV_2 = 2479.34$

$PV_3 = \frac{C_3}{(1+r)^3} = \frac{3000}{\left(1+\frac{10}{100}\right)^3}$

$PV_3 = 2253.94$

$PV_4 = \frac{C_4}{(1+r)^4}$

$= \frac{4000}{\left(1+\frac{10}{100}\right)^4}$

$PV_4 = 2732.05$

$$NPV = -C_0 + \frac{C_1}{1+r} + \frac{C_2}{(1+r)^2} + \frac{C_3}{(1+r)^3} + \frac{C_4}{(1+r)^4}$$

$NPV = -9000 + 1818.18 + 2479.34 + 2253.94 + 2732.05$

$NPV = \$\ 283.51$

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Q4

Being a project Manager, how would you identify the stake holders by power matrix?

Answer

Power Interest Matrix

The power interest matrix is a simple tool that helps to categories project. This matrix helps to focus on the key breaks on project. On Turn, this power interest matrix help us in stakeholder.

Layout Of Matrix

The power interest matrix contain four quadrants. Each quandrants gives an indication of level of stakeholder managment. we will have to pay and may also influence. The four quadrants of power interest matrix are show below:

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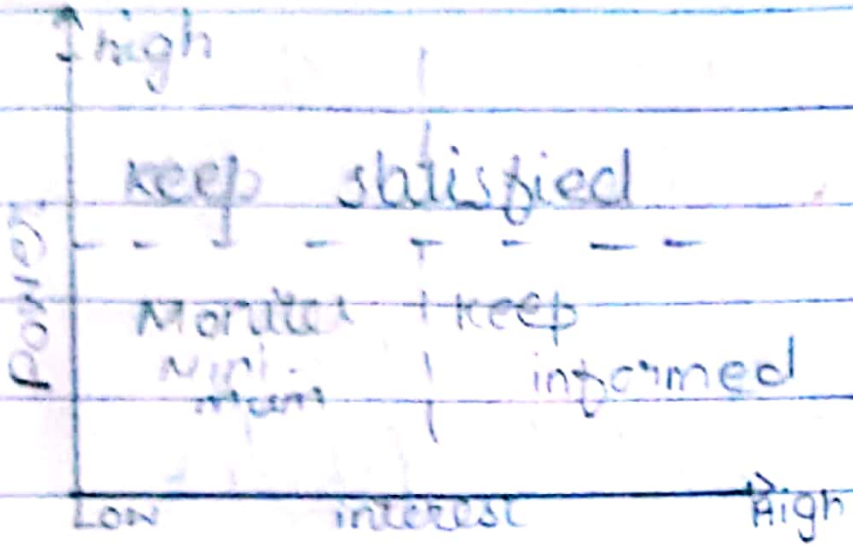

High Power

These stakeholders are describe makers and have biggest impact on project success.

Low Interest

These skatholders needed to be kept in loop, these need to kept satisfied even tough. This type

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of stakeholders should be dealt cautisouly.

Low Power-high

These people should be kept adequately, but we should not bore the with excessive communicatio

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Q5

Stage 1

Initiation

⇒ Assemble Risk Managment Resources.
⇒ Appoint the Team leader and ensure a breadth of skills/experiences within Team.
⇒ Assign Risk Managment responsibilities appropriate To Task.

Stage 2

Proposal Familization

⇒ Specify objectives and criteria.
⇒ Asses the proposal in relation to the agency's objectives and strategies.
⇒ Determine assesment critia for proposal.
⇒ Define key elements to structure risk analysis.

Stage 3

Risk Analysis

Identify Risk

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⇒ Prepare a comprehensive schedule of risks for each other.
⇒ Describe each list The main assumption.

Asses Risks likelihood and conseque:-

⇒ Assemble data on risk and their consequences.
⇒ Asses risk likelihoods.
⇒ Asses risk impact.

Identify significant risk:-

⇒ Rank risk To reflect impacts.
⇒ where applicable, estimate risk factors.
⇒ Discard/accept minor risk.
⇒ Identify moderate risks for managment measure.

Stage 4

⇒ Identify Feasible Responces
⇒ Responces May included

a Risk preventition
b Impact Mitigation
c Risk transfer and insurance
d Risk Acceptance.

Describe each flesible responce

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and list main assumptions.
* Select the best responce.

⇒ Evalute the benefits and costs for each responce.
⇒ Select the prefered responce.

Stage 5

Reporting

⇒ For designated proposal, produce the risk Managment plan.
⇒ For other projects, collate and summarize risk action
⇒ schedules measure.

Stage 6

Risk Managment

Implement measures and action strategies.
Monitier the implementation.
Assign responsibilities.
Timing
Undertake periodic review and performance evalution.

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