BT 413

QN. Imagine you are a project manager in charge of a large IT project. The project is halfway through, and you have just realized that the costs significantly exceed the budget. Your initial estimates were based on the Definitive Estimate method. However, unexpected technical difficulties and changes in project scope have led to increased expenses.

1. How would you apply project cost management principles to keep this project on track?
2. Discuss specific strategies and tools you would use to re-evaluate the project budget and manage the cost variance effectively.

ANSWER

A. Project management principles that could help to keep the project on track

* Cash flow analysis

-The cash flow statement is the financial statement that reports the company’s resources and use of cash over time, in our case the cash flow analysis helps project managers to respond to unexpected technical difficulties and changes as it provides immediate visibility into the financial impact of unexpected technical difficulties and changes in project scope

* Reserves allocation

-Reserves are resources allocated to mitigate the risks that a project will be associated with in the project timeline, for our case the management reserves could be helpful for unpredictable future situations like the unexpected technical difficulties

* Life cycle costing

-Life cycle costing helps project managers to consider the total cost of the project and consideration of the support cost that could be helpful when uncertainties occurs during the project timeline, in our case the support cost allocated could help to deal with unexpected technical difficulties and changes in project scope

* Stakeholders engagement and communication

Effective communication and engagement with stakeholders are fundamental to project success. Regular communication helps manage expectations, gather feedback, and address concerns promptly. In the case of unexpected technical challenges or changes in project scope, transparent and open communication ensures that stakeholders are informed, and their support is enlisted. Engaging stakeholders throughout the project lifecycle fosters a collaborative environment, making it easier to navigate unforeseen obstacles with their input and support.

B. Specific strategies and tools that can be employed to re-evaluate the project budget and manage the cost variance

**Specific strategies**

* Bottom-up Re-estimation:

Use a bottom-up approach to revise cost estimates for remaining tasks, considering actual costs incurred so far and updated technical understanding. This allows for a more detailed analysis, taking into account actual costs incurred so far and incorporating any new technical insights.

* Scenario Planning: Develop different cost scenarios based on varying levels of scope reduction, cost optimization, and risk mitigation success. This helps in preparing for potential changes in project conditions and understanding the impact on the budget.
* Value Engineering: Analyze project deliverables and identify opportunities to reduce costs while maintaining value. This involves assessing whether features can be simplified or replaced with more cost-effective alternatives.

**Tools and techniques**

* Earned Value Management (EVM): Implement earned value management to measure project performance based on earned value, budget at completion (BAC), and cost variance. This provides a quantitative way to understand cost performance and forecast future trends
* Project management software: The project management software will help to track costs, update budgets, analyze variances and visualize cost trends. These tools often provide real-time data, collaboration features, and reporting capabilities, helping project managers make informed decisions.
* Risk management tools: The risk management tools will help to track, analyze and prioritize risks and help to come up with strategies for the risk mitigation and cost control. This proactive approach helps in avoiding or minimizing the impact of risks on the project budget.

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