6

PROJECT CONTROL AND MONITORING

While pursuing the construction project, its control and monitoring as per the set budget and schedule are significant for which there are various management strategies. Those techniques and strategies are discussed in this chapter.

6.1 MONITORING PROJECT STATUS

When following a project plan, it is important to monitor current project activities that indicate whether the project is on the right track. With timely monitoring, the project manager can make the right decisions if necessary changes are needed. The monitoring level varies from project to project; however, still, the focus is on the project schedule, budget, working hours of workers and time estimates of each activity. Monitoring time, budget and regular check-in are some techniques that help to monitor the project status [57],

1. Time Monitoring
   In this method, planned timelines are compared with the current project status. It helps to answer the query about how efficiently the activities are performed as per the project plan. Various time monitoring approaches are effective such as PERT and Gantt chart.

2. Budget Monitoring
   The profitability of a project depends on budget monitoring. If the budget has been utilised properly, it results in more profit for the company. Budget monitoring is crucial in the execution phase, where the project cost of each activity should be known. It can be performed by keeping track of the billable amounts and costs ratio. Moreover, it is important to monitor the difference between the actual and planned costs. In this regard, earned value analysis is the most

appropriate mechanism which shows the value of project cost and identifies if a budget adjustments required.

3. Regular Check-ins
   In this method, manual processing of the ongoing project activities is performed. However, it requires extra effort and attention. A project manager can adopt this method by developing regular check-in procedures, which can be made by calling a regular meeting, collecting regular reports from the team members and taking their feedback.

6.2 PROGRESS CONTROL

Project control is a major function in project management, and it is mainly concerned with the measures of the project performance in terms of time, cost, and quality—management actions, either preplanned to achieve the desired result or taken corrective actions prompted by the monitoring. Developing a suitable project control system is an important part of the project management effort. Monitor and control are opposite sides of selection and planning: bases for selection dictate what to monitor and plans identify elements to control. Monitoring collects, records, and reports information concerning project performance that needs to be known. Whereas controlling uses data from the monitoring process to bring actual performance to planned performance, corrective actions if needed. Progress control aims to offer a follow-up of activities implementation and timely identification of budget, resources and schedule deviation in a construction project. All the project data is gathered to keep the schedule and budget on track. The objective of progress control is the early detection of failure. The components of project progress control are,

1. Project Risk Control
   Management of risk is essential before pursuing construction. Although unforeseen risks can only be managed once they appear, however, seen risks need proper consideration in the pre-project stage, where the project team figures out how to eliminate or reduce them.

2. Project Schedule Control
   The follow-up of the project schedule helps to achieve the project milestones. Milestones are already identified in the schedule based on which the completion of certain tasks can be evaluated.This pushes contractors to strictly adhere to the project's timeline as stated in the contract.

3. Project Resource Control
   Not only human resources but other project resources should also be focused. The distribution of resources as per the set schedule is mandatory; otherwise, the project