CHAPTER FOUR
PROJECT IMPLEMENTATION, MONITORING AND EVALUATION

4.1 Project Implementation

The project implementation phase is the part of the project lifecycle where the tasks that build the deliverables are executed. The project implementation phase begins when the project plan is approved and the resources necessary for executing the starting task are assembled. Project execution should be in accordance with the approved project plan.

Project implementation consists of processes like execution, measuring project progress, reporting project status, and exercising management controls and user acceptance.

The project team executes the tasks as mapped out in the **project plan**. Controlling project execution requires the measurement of project performance, monitoring project risk, and controlling change to the project baseline. The manager is focused on observing and analyzing the work underway. Controls outlined in the project plan keep the project on schedule, in scope, and within budget. During this phase, the processes of executing, controlling, and planning are continuous interactive activities.

The execution of a modern project, most of the times, is a race against time. The efficient utilization of resources and meeting the target dates had become highly complicated and involved and has necessitated the application of scientific techniques of planning, scheduling and control.

Once a project is selected, the focus shifts to its implementation. This involves the completion of numerous activities (project components) by employing various resources-men, materials, machine, money, and time-so that a project on paper is translated into concrete reality.

Process of project Implementation

I. **Executing the Project: -** is the act of carrying out planned activities. The execution of the project plan is simply the act of performing task and activities that result in the production of the project deliverables. Task and activities performed must be completed effectively and efficiently. The project plan serves as a road map and a common frame of reference for all members of the project team. The project plan is therefore, the foundation for successful delivery of projects. In a perfect world, plans are executed precisely as written.

In reality, no plan is ever performed with such precision. Plans are forward looking documents that cannot anticipate all eventualities.

II. **Measuring the Project progress: -** can provide assurance that the project is progressing as planned or reveal the need to intervene and take action to ensure the achievement of the desired business objectives. Performance measuring involves the collecting, analyzing, and reporting project performance information to provide the project team and stakeholders with information on the status of project execution. Common areas to monitor typically include:

- Project schedule :- include all tasks and estimated work hours for the entire project
- Work effort:- is essential for evaluating whether the project is executing within budget or not
- Costs: - use budget plan developed during planning represents the basis for measurement of deviation during execution. Measuring cost requires the support of the financial and procurement support business units
- Issues resolution: - deals with number of open issues and their impact on the project.
- Changes to the project: - There will always be changes to a project. The challenge is to identify and manage them

III. **Reporting project status: -** A standard requirement of all projects is to provide information to both executive management and the project team members on the status of the project. Although the frequency of the reports may sometimes vary, the frequency should correspond with information requirements identified in the project Communications Plan. Often status reports are prepared for executive or team meetings. The project status report is a means of communicating regularly the ongoing progress and status of a project. The overall project status is communicated to all team members using the project status report.

IV. **Modify Project (Apply Management Control):-** No matter how well defined projects are, situations will arise that require changes to be made to the project plans. They may be imposed by senior management, by changes in the business environment, or the changing preferences of a client.

V. **User Acceptance: -** Acceptance criteria for project deliverables establishes in advance an agreed upon standard of performance or capability that the user will accept in a specific

deliverable. The Performance Plan developed in the Project Planning Phase articulates the project deliverables and acceptance criteria. Acceptance criteria then become the fundamental guideline for the design team to build a solution that the user will find acceptable. The execution phase ends when the user has agreed to accept the deliverable (s) in the state that they exist. The acceptance criterion is the standard that the user uses to judge if each deliverable is satisfactory. In some cases, the deliverable may not meet all acceptance criteria but, from an overall view, the deliverable will meet the requirements of the user.

4.2 Project Planning and Control Technique

Project plan is a road map that shows how to get from one point to other point. Typically the plan is the launching point of a project (beginning) which is a guide for future development. It is therefore the process of defining the project activities and end products that will be performed and describing how the activities will be accomplished.

The purpose of project planning is to define each major task, estimate the time and resource required and provide a frame work for management review and control.

Project planning includes project goals, Project deliverables , Project schedule , Supporting plans like human resource plan, communication plan and risk management plan and project control.

A major portion of the planning effort entails determining the relationship of different tasks to each other and then scheduling, monitoring and controlling these tasks in such a way that the project is carried out efficiently and logically. In doing so, SWOT analysis, problem tree analysis, stakeholder analysis, Logical framework analysis, work breakdown structure, the Gantt chart and critical path methods (CPM) are used tools. Let look at two of them as follows

Gantt Chart

It is a way to graphically show progress of a project. Here tasks are often grouped into categories and each category can be treated as summary Tasks whose duration spans all the tasks within that category.

This is a pictorial device in which activities are represents by a horizontal bar on the time axis.

Gantt chart

Activity	**Time in week (months) or even days**			
	Jan	Feb	Mar	April
Activity 1				
Activity 2				
Activity 3				
Activity 4				

Merits of Gantt chart:

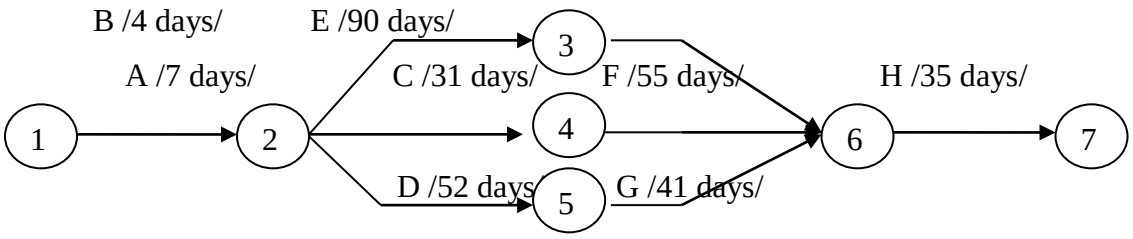
- ✓ It is simple to understand
- ✓ can be used for man power planning

Limitations of Gantt chart

- ✓ It cannot show interrelationship among activities on large and complex projects.
- ✓ There may be a physical limit to the size of the chart.

Critical Path Method (Net Work Technique)

Complex project requires a series of activities, some of which must be performed sequentially and others that can be performed in parallel with other activities. This collection of a series and parallel tasks can be modeled as network. It models the activities and events of a project as a network. Here the activities, events and their relationships are represented by a ***network diagram***.



The network diagram is constructed in terms of activities and events. An **activity** is a specific task, job, or function to be performed in a project. It is represented by an arrow. The head of the arrow marks the completion of the activity and the tail of the arrow marks its beginning.

An **event** is a specific point in time indicating the beginning or end of one or more activities. It represents a milestone and does not consume time or resources.

The critical path is the longest duration path through the network. Because of its impact on the entire project, critical path analysis is important aspect of project planning. The significance of critical path is that the activities that lie on it cannot be delayed without delaying the project.

Here is the example of the basic activity for selecting a vendor government project. Draw the network diagram and find the minimum time for project completion

Activity No	Activity	Activity Predecessor	Duration In weeks
1	Identify Vendors	4	5
2	Identify contract requirement	-	2
3	Interview Vendors	4	3
4	Advertise proposal	2	3
5	Select Vendors	1,3	4
6	Sign contract	5	1

4.2 Monitoring and Evaluation (M&E)

Monitoring and Evaluation is the systematic collection and analysis of information to enable managers and key stakeholders to make informed decisions, maintain existing practices, policies and principles and improve the performance of their projects.

Evaluation is a learning and management tool: an assessment of what has taken place in order to improve future work. Measuring, analyzing and interpreting change helps people to determine how far objectives have been achieved and whether the initial assumptions about what would happened were right; and to make judgments about the effectiveness, efficiency, impact and sustainability of the work.

Evaluation is the process of judging, appraising, or determining the worth, value, or quality of a project, whether it is proposed, ongoing, or completed. This is done in terms of its relevance, effectiveness, efficiency, and impact.

Relationship of Monitoring to Evaluation

Monitoring is different from evaluation. Monitoring measures whether the project is on track; evaluation questions whether it is on the right track. Monitoring is concerned mostly with project activities, and concentrates on the short-term performance compared with the project plans. Evaluation looks more at the overall project purpose/objectives, and examines longer-term effects of the project. Monitoring is a continuous process, while evaluation is a periodic event.

A distinction is usually made between monitoring and evaluation.

- **Monitoring** is a continuous, methodical process of data collection and information gathering throughout the life of a project. The information collected can be used for regular evaluation of progress, so that adjustments can be made while the work is going on. Monitoring is also used to mean the systematic 'tracking' of a particular condition, or set of conditions to identify trends.

- **Evaluation** is a learning and management tool: an assessment of what has taken place in order to improve future work. Measuring, analyzing and interpreting change helps people to determine how far objectives have been achieved and whether the initial assumptions about what would happen were right; and to make judgments about the effectiveness, efficiency, impact and sustainability of the work.

- **In monitoring**, information for 'tracking' progress against previously agreed plans and 'milestones' is routinely gathered. The changes that are resulting from project activities can be identified: both the effects and the impact. If there are discrepancies between actual and planned progress, corrective action can be taken. This can include changing the overall purpose and plan of the activity. Monitoring can also mean keeping a check on the use of resources. Questions for later evaluation can be identified during monitoring.

- **Evaluation** uses information gathered during regular monitoring, but may need other information as well. It often uses 'baseline information': information collected at the very beginning of a project, against which progress can be measured. Evaluation happens at set times in the life of a project. Evaluation looks at the relevance, effectiveness and impact of a project, with the aim of improving an existing project or influencing future projects.

- **Monitoring** is the recording, analysis, and reporting which transforms data into information. This must then be communicated in a timely way to managers. The information must also be stored and retrievable for evaluation later on.
- **Evaluation** analyzes the information from monitoring and other sources and formulates conclusions and recommendations. These recommendations can be used at different levels of management to affirm or modify objectives (relevance), resources (performance), and processes (quality).
- **Monitoring** is done during implementation and is somewhat continuous. Evaluations occur periodically, before or after projects are completed. Evaluation of projects is done at the end of the project cycle, as terminal evaluation is done just before the end of the project or as ex-post evaluation when the project has been terminated some time ago.
- **Monitor** warns of deviation from the initial objective.

The need for Monitoring and Evaluation

There are many reasons for carrying out project M& E.

- ✓ Project managers and other stakeholders need to know to what extent their project is meeting its objectives.
- ✓ M& E build greater transparency and accountability in terms of use of project resources.
- ✓ Information generated through M&E provides project staff with a clearer basis for decision making.
- ✓ Lessons learned from project experience can be used to improve future project planning and development.

In a nutshell, project manager must compare the time, cost and performance of the project with time, budget and the tasks defined in the approved project plan. This must be done in an integrated manner at regular intervals, not in a haphazard arbitrary way.

Evaluation can be used:

i. **To improve performance**
ii. **To make choices and decisions**
iii. **To learn lessons**
iv. **To increase accountability**

Guide for successful project Control

- ✓ Use the project plan as the primary guide for co-ordinated your project.
- ✓ Consistently monitor and update the plan
- ✓ Remember that proper communication is a key to monitor/control.
- ✓ Monitor progress of the project against the plan on a regular basis.
- ✓ Adopt the project schedule, budget and/or work plan as necessary to keep the budget on track.
- ✓ Document project progress and changes and communicate them to team members.

Note that proper communication is a key to successful monitoring of the project activities. There are formal and informal ways to tell what is going on.

Different Kinds of Evaluation

There are five different types of project evaluation. These are:

i. **Appraisal or ex-ante evaluation**

Information collected before a project starts, or in the very early stages, helps to define what is to be done, and provides a baseline from which to measure change.

ii. **On-going evaluation**

Monitoring indicates whether activities are being carried out as planned and what changes are happening as a result. Monitoring should be accompanied by on-going evaluation, which analyses the information in order to improve performance during a project. If a project has been

conducting regular on-going evaluation, and this is well documented, more formal evaluations may be unnecessary.

iii. Mid-term evaluation

Midterm evaluation is carried out while the project is under way; in order to check weather the project is functioning properly. The mid-term review will verify the relevance, sustainability and efficiency of the project and will recommend relevant adjustments.

iv. Termination evaluation (Post Implementation Evaluation)

Is conducted at the formal end of the project with emphasis on documenting what the project has achieved in comparison with the stated objectives and targets.

This will happen at the end of a project, in order to learn lessons about how the project has been implemented and the results. A final report of a project written by a project manager can be evaluative, comparing objectives with what was achieved. The aim of the end-of-project evaluation is to assess what lasting impact the project is likely to have. The focus of the end-of-project evaluation is on the effectiveness of the project and the impact of the project. Furthermore, the end-of-project evaluation will assess the sustainability of the project.

v. Ex-post evaluations

These happen sometime after a project has finished. They look at impact and sustainability. They also consider broader 'policy' issues. This kind of evaluation is rare.

In general, there are two main categories of evaluations of development projects:

Formative Evaluations: This is also called **process** evaluations. It examines the development of the project and may lead to changes in the way the project is structured and carried out. These types of evaluations are often called midterm evaluations. In general formative evaluations are process oriented and involve a systematic collection of information to assist decision making during implementation of a project.

Summative Evaluations: This is also called outcome or impact evaluations (terminal evaluations). Summative evaluations are usually carried out when the project is ending or after completion of a project in order to "sum up" the achievements, impact and lessons learned. Such

evaluation look at what a project has actually accomplished in terms of its stated goals.

Evaluation Criteria

The criteria that are commonly used as a focus for shaping evaluation questions are:

- ✓ **Effectiveness: how far is the project achieving objectives?**
- ✓ **Efficiency: what is the cost of achieving the objectives?**
- ✓ **Relevance: is the project relevant?**
- ✓ **Impact: what are the effects of the project?** The impact of a project is the social, economic, technical, environmental and other effects on individual and communities directly or indirectly involved in the project.
- ✓ **Sustainability: will project activities and benefits continue after external support is withdrawn?**
- ✓ **Progress: is the project achieving the original objectives, or have these changed?**