

Project Management

1. INTRODUCTION

Project management is one of the most challenging and creative tasks. Today, project management is used for projects big and small collection of several activities or jobs with:

- specific objectives to be completed within certain specifications,
- defined start and end dates,
- funding limits.

A successful project management can therefore be defined as having achieved the project objectives like; within the time limits, within estimated cost, desired performance/technology level, and utilized the assigned resources effectively and efficiently.

Project management is a tool of management for planning and control. The objective of which has been defined as an attempt to make the most efficient and effective use of resources. viz: manpower, equipment, facilities, materials, money, technology and information, so that the organisation objectives and goals can be achieved within budget, on schedule and at the desired performance/technology level, while adhering to the ever changing environmental input factors, like legal, social, political, economic and technological.

Project management can be defined as the planning, organising, directing, and controlling of company resources for a relatively short-term objective that has been established to complete specific goals and objectives. The project management utilizes the systems approach to management by having functional personnel assigned to specific tasks.

In order to understand project management clearly, we must also know the definition of a project.

Project can be defined as under:

1. A group of multiple interdependent activities that require people and resources. It has a definite start and end data and specific set of criteria that define successful completion.
2. A project is a unique task, is designed to attain a specific result, requires a variety of resources, and is limited in time.
3. A project is a one-time job that has defined starting and ending dates, a clearly specified objective or scope of work to be intensified budget, and usually has temporary organisation that is dismantled once the project is complete.

Some examples of projects are: Construction of Highway, bridge, canal, dam, hydropower thermal power project, cement factory, automobile manufacturing plant, sugar factory etc.

Results Expected from Project Management:

Following results are expected from Project Management:

- Attainment of project objectives in a timely manner within budget,
- Progress reports with deviations from plan highlighted.
- Significant decisions from top management for approval.

2. ROLE AND RESPONSIBILITIES OF PROJECT MANAGER

The basic role and responsibility of a project manager are as under:

1. Organise and implement diverse and scattered activities to achieve time, cost and performance goals.
2. Develop project execution plan.
3. Organise for execution of the plan. He should show his commitment to this plan.
4. He should inculcate enthusiasm, team spirit, confidence, and reputations for excellence.
5. Develop systems and procedure for accomplishment of project objectives.
6. Direct, coordinate and control the project activities
7. Guiding and problem solving
8. Satisfaction of customers, government and public.
9. He should be an entrepreneur.

3. TOOLS AND TECHNIQUES FOR PROJECT MANAGEMENT

Following are the important tools and techniques for effective project management.

1. Project selection techniques
 - (a) Cost-benefit analysis
 - (b) Risk and sensitivity analysis.
2. Project implementation (execution) planning techniques.
 - (a) Work breakdown structure (WBS)
 - (b) Project implementation plan.
 - (c) Project responsibility matrix
 - (d) Project management manuals
3. Project scheduling techniques.
 - (a) Line of balance (LOB)
 - (b) Bar Charts
 - (b) Network techniques (CPM/PERT)
4. Project Monitoring Techniques.
 - (a) Progress measurement technique.
 - (b) Performance monitoring technique
 - (c) Updating, reviewing and reporting technique.
5. Project cost and productivity techniques.
 - (a) Value engineering
 - (b) Budgetary control
 - (c) Cost/WBS
- 6 Project communication techniques.
 - (a) Computerised information system
 - (b) Control room
 - (C) MIS

4. PROJECT LIFE-CYCLE PHASES

Projects are of different type, taken up by private owner's, by government for service of society or for commercial purposes, or for economical growth of country or for the defence. These may be in the field of industry, service, construction, multipurpose, business, trade, agriculture etc. Installing a project passes through different phases depending upon type of project. For the purpose of study, let us consider that a project (development project) passes through following phases:

- 1 Project identification phase.
- 2 Project preparation or formulation phase
 - (a) Preliminary project study
 - (b) Feasibility study
3. Detailed project planning phase (detailed project report preparation)
4. Project implementation phase
- 5 Project hand over phase

5. BENEFITS FROM PROJECT MANAGEMENT

The potential benefits from project management are:

1. Identification of responsibilities to ensure that all activities are accounted for
2. Minimizing the need for continuous reporting
3. Identification of time limits for scheduling
4. Measurement of accomplishment against plans.
5. Early identification of problems so that corrective actions can be taken.
6. Improved estimating capability for future planning
7. Knowing the circumstances when objectives cannot be achieved.

6. ESSENTIAL QUALITIES OF PROJECT MANAGER

1. Figure head role
2. Leadership role
3. Liaisoning role
4. Disseminator's role
5. Monitoring role.
6. Entrepreneur's role. He should explore and then utilise opportunities to promote the interests of the project.
7. Conflict handling role.
8. Resource allocator's role
9. Negotiator's role
10. Creativity
11. Excellent communication skills.
12. Time management skills.
13. Problem solving skills.
14. Highly committed to his responsibilities.
15. Ability to delegate tasks.

7. PROJECT MANAGEMENT SOFTWARES

Planning and monitoring of moderate size and large size projects are difficult to be managed with hand calculations. Hence it is necessary in such projects to use computer software's. Some of the common project management software's are as under

1. Instaplan III
2. Yojana
3. Prism
4. Primavera
5. HTPM
6. MS Project