Introduction To Project Management

Content

- What is Project
- Project Management
- Triple constraints of projects
- Potential Benefits from Effective Project Management
- Barriers to achieving the Benefits
- The Role of the Project Manager
- Knowledge Areas
- Success factors in project management

What is a project?

- A temporary structure set up with the specific aim of delivering an identifiable end-product

- A project
  - Has a specific objective, with a focus on the creation of business value, to be completed within certain specifications
  - Has defined start and end dates
  - Has funding limits (if applicable)
  - Consumes human and nonhuman resources (i.e., money, people, equipment)
  - Are multifunctional (i.e., cut across several functional lines)

- Examples:
  - Construction projects (Building a new hospital)
  - IT projects (Mobile ticket reservation system, Hospital information system)
  - Movie projects

Types of projects (more examples)

Area	Examples
Administrative	installing a new accounting system
Construction	a building or road
Computer Software Development	a new computer program
Design of Plans	architectural or engineering plans
Equipment or System Installation	a telephone system or IT system
Event or Relocation	Olympiads or a move into a new building
Maintenance of Process Industries	petro-chemical plant or electric generating station
New Product Development	a new drug or aerospace/defense product
Research	a feasibility study or investigating a chemical

Project Management

- Definition:
  - application of knowledge, skills, tools, and techniques to project activities to meet the project requirements

- Is different from general management as project management brings a unique focus shaped by the goals, resources and schedule of each project

- Has several benefits and obstacles to achieve them

Triple Constraints of Projects

- Cost
- Time
- Scope

THE PROJECT MANAGEMENT TRIANGLE

Time

Cost

Scope

Potential Benefits from Effective Project Management

- Clear identification of functional responsibilities to ensure that all activities are accounted for, regardless of personnel turnover

- Minimizing the need for continuous reporting

- Identification of time limits for scheduling

- Identification of a methodology for trade-off analysis

- Measurement of accomplishment against plans

- Early identification of problems so that corrective action

  may follow

- Improved estimating capability for future planning

- Knowing when objectives cannot be met or will be exceeded

Barriers to achieve the Benefits

- Project complexity

- Customer's special requirements and scope changes

- Organizational restructuring

- Project risks

- Changes in technology

- Forward planning and pricing

The Role of Project Manager

- Must understand the mission and vision of the organization first, see how the project they are managing meshes with these

- Should *facilitate* planning rather than plan the project for the team

- The first skills a project manager needs are people skills

- Must exercise both leadership and management skills.

- Cannot neglect the management aspect when performing technical work in addition to the management role

- Instead of asking for authority, make decisions yourself, take action that is appropriate and does not violate policy, and then inform your boss what you have done.

- Their estimates of task durations can be wrong

- The role should be of an enabler

- Primary effort is to communicate and coordinate activities horizontally between the line organizations

The Project Management Body of Knowledge (PMBOK® Guide)

- The Project Management Institute (PMI) has determined a minimum body of knowledge needed by a project manager

- PMBOK® Guide defines five processes and

- Ten general areas of knowledge

Knowledge Areas

- There are 10 knowledge areas that project managers should be familiar with

1. Integration Management
   - every activity must be coordinated or integrated with every other one in order to achieve the desired project outcomes

2. Project Scope Management
   - authorizing the job, developing a scope statement that will define the boundaries of the project, subdividing the work into manageable components with deliverables, verifying that   the amount of work planned has been achieved, and specifying scope change control procedures

3. Project Time Management
   - developing a schedule that can be met, and controlling work to ensure that this happens

4. Project Cost Management
   - estimating the cost of resources, including people, equipment, materials, and such things as travel and other support details

Knowledge Areas

5. Project Quality Management

   – *includes both quality assurance (planning to meet quality requirements) and quality control (steps taken to monitor results to see if they conform to requirements)*

6. Project Human Resources Management

   – *identifying the people needed to do the job; defining their roles, responsibilities, and reporting relationships; acquiring those people; and then managing them as the project is executed*

7. Project Communications Management

   – *planning, executing, and controlling the acquisition and dissemination of all information relevant to the needs of all project stakeholders (e.g. project status, accomplishments, and events that may affect stakeholders or other projects)*

Knowledge Areas...

7. Project Risk Management

    – *managing risks associated with project resources, stakeholders, or products*

8. Project Procurement Management

    – *deciding what must be procured, issuing requests for bids or quotations, selecting vendors, administering contracts, and closing them when the job is finished*

9. Project Stakeholder Management

    - managing individuals, companies, or organizations that *has a vested interest in the outcome of a project.*

Success factors in project management

- User involvement

- Executive management support

- Clear statement of requirements

- Proper planning

- Realistic expectations

- Smaller project milestones

- Competent staff

- Ownership

- Clear vision and objectives

- Hardworking, focused staff

Summary

- Understanding a project and its characteristics

- Defining project management

- Benefits and barriers

- The role of project manager

- PMBOK® guide

- Nine knowledge areas

- Success factors in project management