1. Introduction

- Definition of Project and Project Management
- Project Objectives
- Classifications of Project
- Project Life Cycle

Project

• A project is defined as a —temporary endeavor with a beginning and an end and it must be used to create a unique product, service or result

– Converting a vision ,a dream, or a need to reality

– A sequence of tasks that must be completed to attain a certain outcome

– A job that has a beginning and an end (Time)

– A specified outcome (Scope)

– At a stated level of performance (Quality)

– At a budget (Costs)

Characteristics of a Project:

• The project is temporary in nature. It typically has a defined start and a defined end time.

• The project will have a unique set of requirements that need to be delivered within the boundaries of the project.

• Has some resources and budget.

• Projects are progressively elaborated

• A project is typically for a customer.

• A project can very often be cross-functional, or indeed cross-organization.

Examples of project

- Developing a new information system, software
- Building a Robot
- Construction project(building, road)
- Research and development project
- Introducing new products in market
- Conducting training and capacity development packages
- Awareness and advocacy campaign
- Writing a book, thesis etc.

Project Management

• Management:

– Management is the technique of the understanding the problems, needs and controlling the use of resources, cost, time ,scope and quality.

• Project management:

– Application of knowledge, skills, tools and techniques to project activities in order to meet stakeholders needs & expectations from a project.

“Completion of project on time within a budget without comprising quality”

Triple Constraints of a Project

• The project is carried out under certain constraints - they are cost, time and scope.

• These three factors are called triple constraints.

• They can be explained as:

– Projects must be delivered within cost.

– Projects must be delivered on time.

– Projects must meet the agreed scope or objectives.

• The goal of the constraints is to meet customer quality requirements.

Inter relationships between the constraints

• If you reduce cost of project, you will either reduce its scope or increase its time.

• If you reduce time of project, you will either increase its cost or reduce its scope.

• If you increase scope of project, you will either increase its cost or time.

Setting Project Objective

• Project has clearly defined objectives , which should be achieved at the end of the project.

• Project exists when the objectives have been achieved.

• First step in any project is to define the objective.

• We define the project objective in order to:

– Make sure that we have identified the right target.

– Create team commitment and involve all interested parties in achieving the successful project outcome.

An easy way to ensure that we include enough detail in project objective is to remember SMART

SMART

• Specific: This involves describing the objective by answering the questions —what, why, when, who, where‖ to leave stakeholders in no doubt as to what the goal is.

• Measurable: An objective should have metrics and specific values that can be used to monitor and assess success.

• Achievable: Your goals should be something that it is possible for the team to achieve, otherwise they are easily dismissed or can become a point of demotivation.

• Relevant: Objectives should fit the focus and long-term plan of your organization or team, so that each objective achieved is a step towards overall goals.

• Time limited: The aim should be to achieve your project objectives within a certain time-frame.

Classifications of Project

Project can be classified in terms of :

• Objectives: Social development, economic growth

• Sectors: Agriculture, Public health, Information technology,

private, government

• Number of key purposes: Single purpose, Multi purpose

• Types of relationship: Independent, Mutually Exclusive

• Nature: Emergency, Fixed budget, Fixed time

Classification of IT projects:

• Facilities Management: the integrated management of multiple and interdisciplinary technologies, personnel, systems and processes. e.g Project management software may be used to track projects on an organization.

• Software development: Development of different types of software

• Service consulting: This types of project delivers a specific consulting services to customer, e.g. training on different ICT issues

• System integration: This type of project concerned with joining different subsystems or components as one large system. It ensures that each integrated subsystem functions as required, e.g. building a nationwide WAN

Project Life Cycle

• Initiation :

– We figure out an objective for our project

– Determine whether the project is feasible

– Identify the major deliverables for the project

• Planning:

– We break down the larger project into smaller tasks

– Build our team

– Prepare a schedule for the completion of assignments

– Anticipating risks and potential quality roadblocks

Project Life Cycle

• Execution:

– Keep work on track

– Organize team members

– Manage timelines, and make sure the work is done

– According to the original plan

• Monitoring and controlling

– Activity tracking

– Goal tracking

– Budget tracking

• Closure:

– Analyzing team performance

– Documenting project closure

– Conducting post-implementation reviews

– Accounting for used and unused budget

Project Life Cycle

• The project management life cycle is usually broken down into four phases:

• initiation, planning, execution, and closure—these make up the path that takes our project from the beginning to the end.

• Some methodologies also include a fifth phase, controlling or monitoring. This phase is covered under the execution and closure phases.

Project Life Cycle

1. Initiation

• In the initiation phase, we identify a business need, problem, or opportunity and brainstorm ways that our team can meet this need, solve this problem, or seize this opportunity. During this step, we figure out an objective for our project, determine whether the project is feasible, and identify the major deliverables for the project . Steps for the project initiation phase may include the following:

• Undertaking a feasibility study – Identifying the primary problem our project will solve and whether our project will deliver a solution to that problem

• Identifying scope – Defining the depth and breadth of the project

• Identifying deliverables – Defining the product or service to provide

• Identifying project stakeholders – Figuring out whom the project affects and what their needs may be

• Developing a business case – Using the above criteria to compare the potential costs and benefits for the project to determine if it moves forward.

• We'll also develop a statement of work or project initiation document, which may include basic project life cycle flowcharts.

Project Life Cycle

2. Planning

• Once the project is approved to move forward based on our business case, statement of work, or project initiation document, we move into the planning phase. In this phase, we break down the larger project into smaller tasks, build our team, and prepare a schedule for the completion of assignments. During this phase, we create smaller goals within the larger project, making sure each is achievable within the time frame. Smaller goals should have a high potential for success.

Steps for the project planning phase may include the following:

• Creating a project plan – Identifying the project timeline, including the phases of the project, the tasks to be performed, and possible constraints

• Creating workflow documents or process maps – Visualizing the project timeline by diagramming key milestones

• Estimating budget and creating a financial plan – Using cost estimates to determine how much to spend on the project to get the maximum return on investment

• Gathering resources – Building our functional team from internal and external talent pools while making sure everyone has the necessary tools (software, hardware, etc.) to complete their tasks

• Anticipating risks and potential quality roadblocks – Identifying issues that may cause our project to stall while planning to mitigate those risks and maintain the project‘s quality and timeline The planning phase is also where we bring your team on board, usually with a project kickoff meeting. It is important to have everything outlined and explained so that team members can quickly get to work in the next phase.

Project Life Cycle

3. Execution

• We‘ve received business approval, developed a plan, and built our team. Now it‘s time to get to work. The execution phase turns our plan into action. The project manager‘s job in this phase of the project management life cycle is to keep work on track, organize team members, manage timelines, and make sure the work is done according to the original plan. Steps for the project execution phase may include the following:

• Creating tasks and organizing workflows – Assigning granular aspects of the projects to the appropriate team members, making sure team members are not overworked

• Briefing team members on tasks – Explaining tasks to team members, providing necessary guidance on how they should be completed, and organizing process-related training if necessary

• Communicating with team members, clients, and upper management – Providing updates to project stakeholders at all levels

• Monitoring quality of work – Ensuring that team members are meeting their time and quality goals for tasks

• Managing budget – Monitoring spending and keeping the project on track in terms of assets and resources If we have a properly documented process already in place, executing the project will be much easier.

Project Life Cycle

4. Closure

• Once our team has completed work on a project, we enter the closure phase. In the closure phase, we provide final deliverables, release project resources, and determine the success of the project. Just because the major project work is over, that doesn‘t mean the project manager‘s job is done—there are still important things to do, including evaluating what did and did not work with the project.

Steps for the project closure phase may include the following:

• Analyzing project performance – Determining whether the project's goals were met (tasks completed, on time and on budget) and the initial problem solved using a prepared checklist

• Analyzing team performance – Evaluating how team members performed, including whether they met their goals along with timeliness and quality of work

• Documenting project closure – Making sure that all aspects of the project are completed with no loose ends remaining and providing reports to key stakeholders

• Conducting post-implementation reviews – Conducting a final analysis of the project, taking into account lessons learned for similar projects in the future

• Accounting for used and unused budget – Allocating remaining resources for future projects

• By remaining on task even though the project‘s work is completed, we will be prepared to take everything we‘ve learned and implement it for our next project

Feasibility study

• Survey and studies conducted during project initiation phase of project development cycle

• A feasibility study looks at determining if the project idea is a realistic project.

Areas of project feasibility study:

• Market analysis: Potential market and market share

• Technical analysis: Technical viability and rational choice of technology

• Financial analysis: Financial risk and economic return

• Socio –Economic analysis: Benefit and cost in shadow price, economic impact and benefit, social impact and benefit

• Ecological analysis: Environment damage and restoration measures

Below are some key benefits of conducting a

feasibility study:

• Improves project teams‘ focus

• Identifies new opportunities

• Provides valuable information for a ―go/no-go‖ decision

• Narrows the business alternatives

• Identifies a valid reason to undertake the project

• Enhances the success rate by evaluating multiple parameters

• Aids decision-making on the project

• Identifies reasons not to proceed

Project vs Operation

• Projects are unique and temporary (definitive beginning and ending), while operations are ongoing and permanent with repetitive output.

• Projects have a fixed budget; on the other hand, operations have to earn a profit in order to run the business.

• Projects are executed to start a new business objective and terminated when it is achieved, while operational work does not produce anything new and it is ongoing.

• Projects create a unique product, service, or result; operations produce the same product, aim to earn a profit, and keep the system running



| Projects | Operations |
| --- | --- |
| Temporary | Permanent (ongoing) |
| Delivers unique output (Product or service) | Delivers the same output continuously |

Innovative in nature

Repetitive in nature

Exists before a product

Exists after a product

Transformational

Enhances the performance of normal practice

Challenges in IT projects

• Communication:

– Training on communication skill.

– Establish active project communication management.

• Staff turnover:

– Improve condition for job satisfaction

– Use no compete agreement.

• Information security and privacy

– Implement IT user policy and regulations

• Visibility

– PM should be productively involved with the project team

• Political and cultural risk

• Environment and infrastructural risk

• Connectivity problem

• Brain drain and loss of intuitional knowledge

• Regulatory requirements