

UNIT 1

What is a project :-

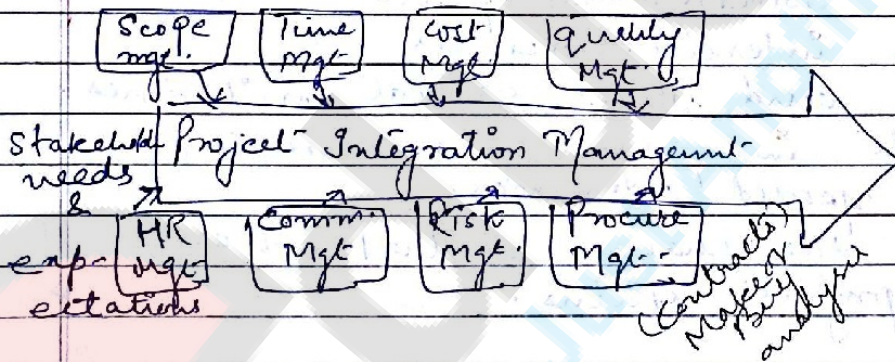
A project is a temporary endeavor undertaken to create a unique product, service or result. Project can also be viewed in terms of their attributes. These attributes include the project's time frame, purpose, ownership, resources, roles, risks and assumptions, tasks, and the impact the project will have on the organization.

Project Management :- It is the "application of knowledge, skills, tools and techniques to project activities to meet project requirements."

P. N12-13
Kalyani

9 Knowledge Areas core function

contracts



Project Management Framework

Role of project Manager

Project managers must work closely with the other stakeholders on a project especially the sponsor and project team. They have to be familiar with nine

project management - knowledge areas and the various tools and techniques related to project management.

fifteen project Management - job functions

- 1) Define scope of project.
- 2) Identify stakeholders, decision-makers, and escalation procedures.
- 3) Develop detailed task list (WBS)
- 4) Estimate time requirements.
- 5) Develop initial project management flowchart.
- 6) Identify required resources and budget.
- 7) Evaluate project requirements.
- 8) Identify and evaluate risks.
- 9) prepare contingency plan.
- 10) Identify interdependencies
- 11) Identify and mark critical milestones.
- 12) participate in project phase review
- 13) secure needed resources.
- 14) Manage the change control process.
- 15) Report project status.

Understanding Organizations Organizational issues are often the most difficult part of working on and managing project. For eg many people believe that most projects fail because of company politics. To improve the success rate of information technology projects, it is important for project managers to develop a better understanding of people as well as organizations.

The four frames of organizations

- 1) Structural frame
- 2) HR frame
- 3) Political frame
- 4) Symbolic frame

Structural frame :- It deals with how the organization is structured and focuses on different groups roles and responsibilities in order to meet the goals and policies set by top management. This frame is very rational and focuses on coordination and control. eg centralized or decentralized department.

Human Resources frame :- focuses on producing harmony between the needs of the organization and the needs of the people. It recognizes that there are often mismatches between the needs of the organization and needs of individuals and groups and works to resolve any potential problems. (eg more working hours for employees because of shortage of skilled person).

Political frame :- The political frame addresses organizational and personal politics. politics in the organizations take the form of competition among groups or individuals for power and leadership. The political frame assumes that organizations are coalitions composed of varied individuals and interest groups.

A project manager must know who opposes your projects as well as who supports them.

Symbolic Frame:- Focuses on symbols and meanings. What is most important about any event in an organization is not what actually happened, but what it means. (e.g. meeting of CEO for threat).

How STAKEHOLDER MANAGEMENT :-
are the people involved in Stakeholders are the people involved in or affected by project activities and include the project sponsor, project team, support staff, customers, users, suppliers and even opponent of the project. Managing the stakeholders is called as Stakeholder management.

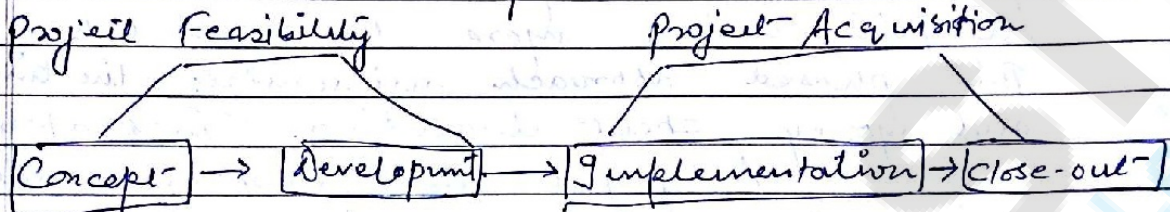
PROJECT PHASES AND THE PROJECT LIFE CYCLE

A project life cycle is a collection of phases. Some organizations specify a set of life cycles for use on all their projects, while others follow common industry practices based on the types of projects involved.

In general project life cycles define what work will be defined performed in each phase, what deliverables will be produced and when, who

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is involved in each phase, and top management will control and approve work produced in each phase.



Phases of the Traditional Project Lifecycle

Project phases vary by project or industry, but some general phases in traditional project management are often called the concept, development, implementation and close-out phases.

The first two phases focus on planning and are often referred to as project feasibility. The last two phases focus on delivering the actual work and are often referred to as project acquisition.

Concept phase - In concept phase of a project, managers usually briefly describe the project - they develop very high-level or summary plan for the project, which describes the need for the project and basic underlying concepts. A preliminary or rough cost estimate is developed in this first phase and an overview of the work involved is created.

Development phase :- In this phase, the project team creates more detailed project plans, a more accurate cost estimate, and a more thorough WBS. This phased approach minimizes the time and money spent developing inappropriate projects. A project idea must pass the concept phase before evolving into the development phase.

Implementation phase :- In this phase, the project team creates a definitive or very accurate cost estimate, delivers the required work, and provides performance reports to stakeholders.

Close-out :- In the close out phase, all of the work is completed, and there should be some sort of customer acceptance of the entire project. The project team should document their experiences on the project in a lessons learned report.

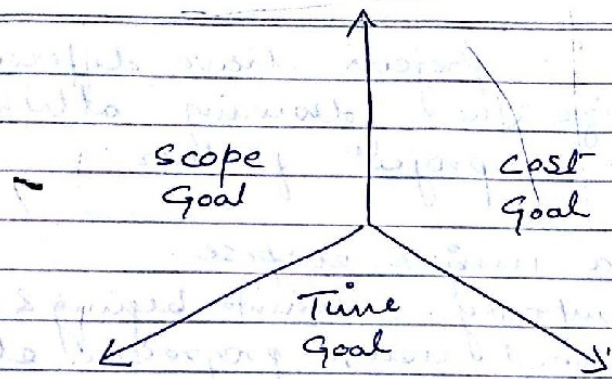
Project Attributes :- projects have different shapes and size. The following attributes help to define a project further :-

- 1) A project has a unique purpose.
- 2) A project is temporary. (definite begining & def. end)
- 3) A project is developed using progressive elaboration.
- 4) A project requires resources, often from various areas.
- 5) A project should have primary customer or sponsor.
- 6) A project involves uncertainty.

THE TRIPLE CONSTRAINT :-

Every project is constrained in different ways by its scope, time and cost goals. These limitations are sometimes referred to in project management as the triple constraint. To create a successful project a project manager must consider scope, time and cost and balance these three often-completing goals. He must consider -

- 1) Scope :- what work will be done as part of the project? what unique product, service, or result does the customer or sponsor expect from the project?
- 2) Time :- How long should it take to complete the project? what's the project schedule?
- 3) Cost :- what should it cost to complete the project? what's the project budget?



The Triple Constraint of project Management

Project Management Tools and Techniques by Knowledge Area

- 1) Integration Management
- 2) Scope "
- 3) Time "
- 4) Cost "
- 5) Quality "
- 6) HR "
- 7) Communication "
- 8) Procurement "
- 9) Risk "

Project Success Factors

- 1) Executive Support
- 2) User Involvement
- 3) Experienced project manager
- 4) Clear business objectives
- 5) Minimized scope
- 6) Standard software Infrastructure
- 7) Firm basic requirements
- 8) Formal methodology

- 9) Reliable estimates.
- 10) Other criteria, such as small milestones, proper planning, competent staff, and ownership.

STAKEHOLDER MANAGEMENT

The importance of Top Management Commitment-

The top management is crucial to project managers for the following reasons:

- 1) project managers need adequate resources.
- 2) project managers often require approval for unique project needs in a timely manner.
- 3) PM must have cooperation from people in other parts of the organization.
- 4) PM often need someone to mentor and coach them on leadership issues.

The need for organizational standards

Another problem in most organizations is not having standards or guidelines to follow that could help in performing project management. These standards or guidelines might be as simple as providing standard forms or templates for common project documents, examples of good project plans, or guidelines on how the project documents examples of good project plans, manager should provide status information to top management.

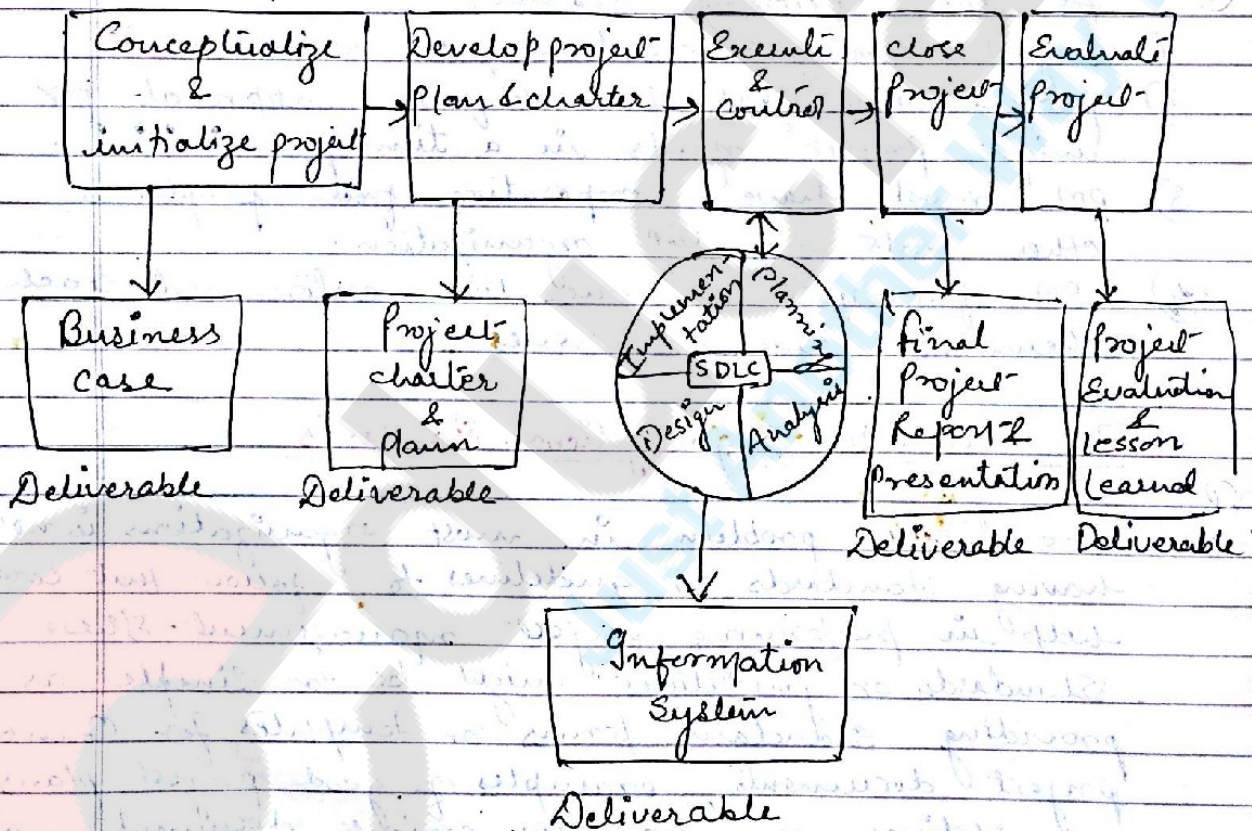
UNIT 2-

Conceptualizing & Initializing the IT Project

Information Technology Project Methodology (ITPM)

A methodology provides a strategic-level plan for managing and controlling IT projects. Think of a methodology as a template for initiating, planning, and developing an information system.

Generic PLC Phases



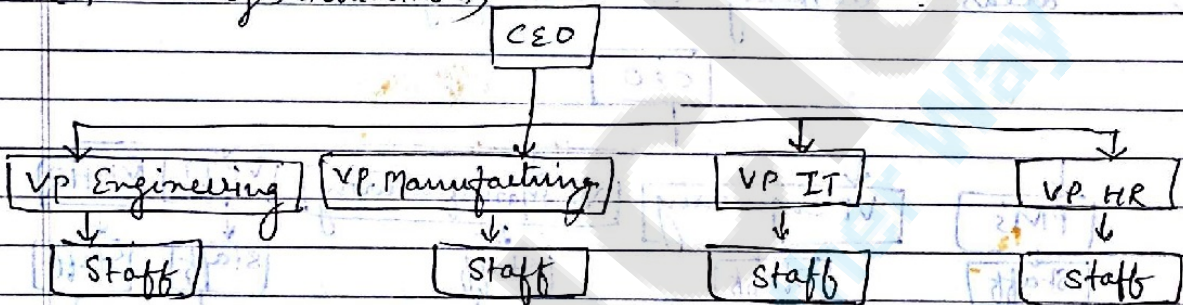
An Information Technology Project Methodology

Organizational Structures

Three general classifications of organizational structures are functional, project and matrix.

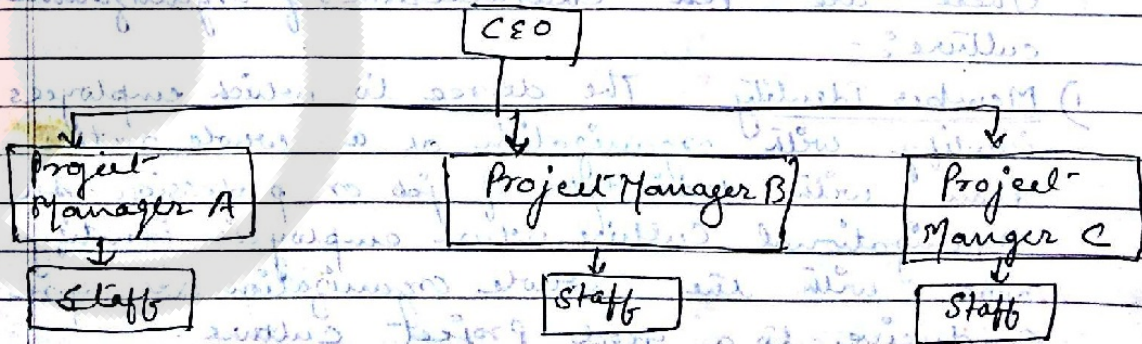
Functional Organizational Structure

Functional managers or vice presidents in specialities such as engineering, manufacturing, IT, and HR report to the chief executive officer (CEO). Their staffs have specialized skills in their respective disciplines.
(eg in colleges & universities)

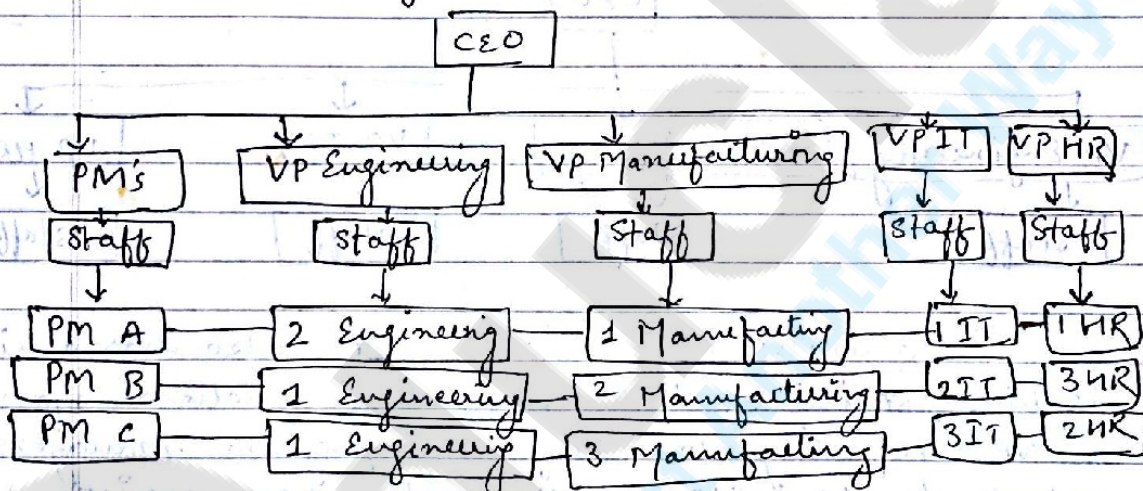


Project Organizational Structure

It also has a hierarchical structure, but instead of functional managers or VP reporting to the CEO, program managers report to the CEO. Their staff have variety of skills needed to complete the projects within their programs. Eg. Many defense, architectural, engineering and consulting companies use project-orgn. structure.



Matrix Organizational structure :- Represents the middle ground between functional and project structures. Personnel often report to both a functional manager and one or more project managers. For. eg IT personnel at many companies often split their time between two or more projects, but they report to their manager in the IT department. PM in matrix organizations have staff from various functional areas working on their projects.



Organizational Culture It is a set of shared assumptions, values, and behaviors that characterize the functioning of an organization. There are ten characteristics of organizational culture :-

- 1) Member Identity :- The degree to which employees identify with organization as a whole rather than with their type of job or profession. An organizational culture where employees identify more with the whole organization are more conducive to a good project culture.

- 2) Group emphasis :- The degree to which work activities are organized around groups or teams, rather than individuals.
- 3) people focus :- The degree to which management's decisions take into account the effect of outcomes on people within the organization. Good project managers often balance the needs of individuals and the organization.
- 4) Unit Integration :- The degree to which units or departments within one organization are encouraged to coordinate with each other.
- 5) Control :- The degree to which rules, policies, and direct supervision are used to oversee and control employee behavior.
- 6) Risk tolerance :- The degree to which employees are encouraged to be aggressive, innovative, and risk seeking. An organizational culture with a higher risk tolerance is often best for project management since projects often involve new technologies, ideas and processes.
- 7) Reward criteria :- The degree to which rewards, such as promotions and salary increases, are allocated according to employee performance rather than seniority, favoritism, or other non performance factors.
- 8) Conflict tolerance :- The degree to which employees are encouraged to air conflicts and criticism openly. It is best to work in an organization where people feel comfortable discussing conflicts openly.
- 9) Means-ends Orientation :- The degree to which management focuses on outcomes rather than on techniques and processes used to achieve results.
- 10) Open Systems focus :- The degree to which an organization monitors and responds to changes in the external environment.

Scope related information

Scope - project boundaries, product acceptance criteria, project constraints and assumptions, project organization, defined risks, schedule milestones, order of magnitude cost estimate, configuration management requirements, and approval requirements.