Project Management Framework
Learning Objectives

At the end of the session, you will be able to:

- Define a project.
- Discuss the relationship between project, program and portfolio management.
- List the phases of the project life cycle & their relationship with each other.
- Describe how an organizational structure can influence project management.
- List the project management processes.
Why Project Management?
Project Management Framework

Project
A temporary endeavor undertaken to create a unique product, service, or result

Management
Activities undertaken by one or more persons for the purpose of Planning and Controlling the activities of others in order to achieve objectives that could not be achieved by others acting alone.
- Temporary
  - Definite start date and definite end date
  - Duration of the Project is finite
- Has a clear Objective
- Defined start and finish Criteria
- Has defined deliverables
- Is Unique
- Is the responsibility of a single individual or a Task force
- Can be measured
- Every Project creates specific product, service, or result
  - Product: must be quantifiable
  - Capability: to perform a service
  - Result: can inform as a report
Examples of Projects

- Constructing a building or infrastructure
- Running a campaign for political office
- Responding to a contract solicitation
- Designing a new transportation vehicle
- Developing an online application for a bank
- Converting from one computer application to another
Examples of eGovernance Projects

- National-level Projects
  - MCA -21
  - Passport Seva Project
  - Income Tax Computerization

- State-level Projects
  - Health Management Information System – AP, Gujarat
  - Citizen Services – Bangalore1, eSeva, KDMC, MP Online etc.,
  - Rojgar Wahini, Gov. of Maharashtra
  - Computer-Aided Administration of Registration Department – CARD Project of AP
The Need for Project Management

<table>
<thead>
<tr>
<th>Unique</th>
<th>Unique</th>
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<tbody>
<tr>
<td>Simple</td>
<td>Complex</td>
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Commonsense

<table>
<thead>
<tr>
<th>Repetitive</th>
<th>Repetitive</th>
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</thead>
<tbody>
<tr>
<td>Simple</td>
<td>Complex</td>
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Systems

Experience
Project vs Operations

**Operations**
- Ongoing and repetitive
- Sustain business
- Example – Using the eGovernance passport application system

**Project**
- Temporary and unique
- Attain objectives and terminate
- Example - Designing and building a new eGovernance application for passports
The Current P.M. Track Record

Did you know...

“Less than 10% of all eGovernance Project development efforts are completed on time, under budget, and meeting all user requirements.”
Are these figures True

- Companies that successfully complete 100% of their projects: 2.5%
- Average cost overrun of all projects: 27%
- Projects that fail due to "breakdown in communications": 57%
- Projects that fail due to lack of planning, resources, and activities: 39%
- % of failed projects have a duration of less than one year: 60%

Could these be changed through good project management?
The top three reasons for Project delays

- Change(s) in scope mid-project: 41%
- Poor estimates in the planning phase: 39%
- Insufficient resources: 30%
- Weak project planning: 21%
- Lack of change-control management: 15%
- Lack of executive sponsorship: 15%
- Change in strategy: 8%
- Change in environment: 6%
- Ineffective procurement/supplier: 6%
Project Management Framework

Project Management

- Application of knowledge, skills, tools and techniques to Project activities to meet Project requirements
- Accomplished through application and integration of Project Management process groups:
  - Initiating, Planning, Executing, Monitoring and Controlling, and Closing
Project Management Framework

• Project Management typically includes:
  – Identifying requirements
  – Addressing the various needs, concerns and expectations of the Stakeholders in planning and executing the Project
  – Setting up, maintaining and carrying out communications among Stakeholders that are active, effective, and collaborative in nature
  – Managing Stakeholders towards meeting Project requirement and creating Project deliverables
  – Balancing competing Project constraints which include, Scope, time, cost, risk, resources....
Project Management – More than just a plan

“We will either find a way, or make one”
“Don’t find fault, find a remedy”

- Learning from failure
- Organising Chaos
- Retain and use knowledge
- Managing Risk & Clearing Issues
- Communication
- Managing Quality
- Managing Change
- Managing Integration
Why is Project Management Important?

- Projects have to be Scoped (for effort, elapse time, costs)
- Necessary for relevant parties to agree what is to be done, by when and at what cost
- Effort has to be coordinated and communications to take place
- Liaise with customer, Management and potential users
- Control the process of getting from Plan to reality
- Correct the course of Project in planned way
Key areas of Project Management

- Project Integration Management
- Project Scope Management
- Project Time Management
- Project Cost Management
- Project Quality Management
- Project Human Resource Management
- Project Communication Management
- Project Risk Management
- Project Procurement Management
- Project Stakeholder Management
Project Management Framework

Project Management Office (PMO)

- PMO is a centralized department or function within the organization with a responsibility to coordinate and manage Projects under its domain.
- PMO can vary from providing support to the Project Management team to actually being responsible for the direct and Management of Projects.
- PMO can be Supporting, Controlling or Directing Projects.
- The PMO may be given the authority to act as an integral Stakeholder in an organization and take key decision at the beginning of the Project.
Project Management Framework

Project Management Office

- Identifying and developing Project Management methodology, best practices and standards
- Coaching, mentoring, training and oversight
- Managing shared resources across all Projects administered by Project Management Office
- Developing and managing Project policies, procedures, templates, etc. across Projects
- Coordinating the communication across Projects
- Monitoring compliance by conducting Project audits
### Project Management Framework

<table>
<thead>
<tr>
<th>Project Manager</th>
<th>PMO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focuses on specific Project objective</td>
<td>Focuses on business objective</td>
</tr>
<tr>
<td>Controls the resources assigned to his Project</td>
<td>Control and optimize the utilization of shared resources across Projects</td>
</tr>
<tr>
<td>Manages the constraints such as Scope, schedule, cost, quality etc… with respect to his Projects</td>
<td>Manages the methodologies, standards, overall risk/ opportunity and interdependencies among Projects</td>
</tr>
</tbody>
</table>
Project Manager

- Project Manager is assigned to direct and manage Project to achieve the Project objectives
- Project Manager reports to a functional manager or a program or portfolio manager
- Project Manager may possess the following characteristics:
  - Knowledge
  - Performance
  - Personal
Interpersonal Skills of a Project Manager

- Leadership
- Team Building
- Motivation
- Communication
- Influencing
- Decision Making
- Political and Cultural awareness
- Negotiation
- Trust Building
- Conflict Management and
- Coaching
Key areas of performance of Project Manager

- Meeting Project Deadlines
- Adherence to procedures
- Project overruns on Cost and Effort
- Level of planning for smooth operations
- Feedback from users
- Project Escalation
- Motivation level of staff
- Metrics/Productivity
Program Management

- Consists of a group of Projects supporting broad, general goals and managed in a coordinated way
- Centralized Management of a program to achieve program’s strategic objectives and benefits
- Projects within a program are related through common outcome or collective capability
- Resolves issues, resource constraints and other critical issues including Change Management
Programs and Program Management

- **Program**
  - A group of related projects managed in a coordinated way to obtain benefits and control not available from managing them individually.
  - Will always have projects and may have elements of related work outside the scope of discrete projects in the program.

- **Program Management**
  - The centralized coordinated management of a program to achieve the program’s strategic objectives and benefits.
Examples of Programs

- Publishing a newspaper or magazine is a program with each individual issue managed as a project.
- Polio eradication program.
- Poverty eradication program.
- Satellite launch program.
Portfolio and Portfolio Management

- **Portfolio**
  - A collection of projects or programs and other work that are grouped together to facilitate effective management of that work to meet strategic business objectives.
  - May comprise of variety of projects or programs that may or may not be directly related.

- **Portfolio Management**
  - Centralized management of one or more portfolios.
  - Includes identifying, prioritizing, authorizing, managing, and controlling projects, programs, and other related work, to achieve specific strategic business objectives.
Examples of Portfolio

- An infrastructure firm that has the strategic objective of maximizing the return on its investments may put together a portfolio that includes a mix of projects in oil and gas, water, roads, rail and airports. For this mix, the firm may choose to manage related projects as one program. All of the power projects may be grouped together as a power program.

- e-Governance Project Example - APTS / IT Department of any State acts as the Portfolio Manager for the e-Governance projects of that state.
Project Management Framework

- Portfolio
- Program
- Projects
Organization Structure

 Organizational Influence:
  - Projects are generally influenced by the organizations or organizations that set them up

 Organizational Cultures and Style:
  - Cultures like - aggressive, entrepreneurial, hierarchical or participative organization
  - Functional Structure, Projectized Structure, Matrix, Composite Organization
Organization Structure

- Organizational Cultures and Style:
  - Shared visions, values, norms, beliefs and expectations
  - Policies, methods and procedures
  - View of authority relationship and
  - Work ethic and work hours
  - Motivation and Reward system
  - Risk Tolerance
  - Operating environments
The functional organization is the classical hierarchy, or stovepipe structure. Staff members are grouped by skills, functional specialty, or other common attribute and report to a single individual above them in the hierarchy.
Projectized Organization Structure

- Has a full time project manager who has almost total authority over project decisions, resources, and budget.
- Project team members report directly to the project manager.
Matrix Organization

- Are structured such that the project manager’s authority and control are governed by the type of matrix used.

- Resources are “borrowed” from functional areas to accomplish project objectives.
Summary of Organization Structure

- Projectized Organization (Project Manager)
- Matrix Organization
  - Strong Matrix (Project Manager)
  - Balanced Matrix (50/50 : PM/FM)
  - Weak Matrix (Functional Manager)
- Functional Organization (Functional Manager)
## Summary of Organization Structure

<table>
<thead>
<tr>
<th></th>
<th>Functional</th>
<th>Projectized</th>
<th>Matrix</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Chain of Command</strong></td>
<td>Team members report to one supervisor</td>
<td>Team members report to one PM</td>
<td>More than 1 boss for project teams</td>
</tr>
<tr>
<td><strong>Loyalty</strong></td>
<td>More loyal to specialty than project</td>
<td>Loyalty to the project</td>
<td>FMs have different priorities than PMs</td>
</tr>
<tr>
<td><strong>SMEs</strong></td>
<td>Easier management of specialists</td>
<td>Lack of specialization in disciplines</td>
<td></td>
</tr>
<tr>
<td><strong>PM authority</strong></td>
<td>PM has little or no authority</td>
<td>PM has great deal of authority</td>
<td>Project objectives visible to organization</td>
</tr>
<tr>
<td><strong>Resources</strong></td>
<td>Similar resources are centralized</td>
<td>Less efficient use of resources</td>
<td>Better firm-wide balanced of resources</td>
</tr>
<tr>
<td><strong>Stability</strong></td>
<td>Team members maintain a “home”</td>
<td>No “home” when project done</td>
<td></td>
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</table>
Group Exercise

Discuss the organizational structure in which your projects are executed.
Enterprise Environmental Factors

Enterprise Environmental Factor (EEF), refer to both internal and external environment that surround or influences the Project’s success

<table>
<thead>
<tr>
<th>Enterprise Environmental Factors</th>
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</thead>
<tbody>
<tr>
<td>Organizational Culture, Structure and Processes</td>
</tr>
<tr>
<td>Organizations Established Communications Channels</td>
</tr>
<tr>
<td>Infrastructure</td>
</tr>
<tr>
<td>Existing Human Resources</td>
</tr>
<tr>
<td>Personnel Administration</td>
</tr>
<tr>
<td>Company Work Authorization Systems</td>
</tr>
<tr>
<td>Marketplace Conditions</td>
</tr>
<tr>
<td>Stakeholder’s Risk Tolerance</td>
</tr>
<tr>
<td>Political Climate</td>
</tr>
<tr>
<td>Government or Industry Standards</td>
</tr>
<tr>
<td>Commercial Databases</td>
</tr>
<tr>
<td>Project Management Information Systems</td>
</tr>
</tbody>
</table>
Organizational Process Assets

- OPA influences Project Management methods and the Project successes
- Includes
  - formal plans, policies, procedures, and tailoring guidelines
  - Standard Guidelines, Work Instructions and templates
  - Criteria for performance measurement, procedures for change control, financial control, issues and defect management, risk management
  - Knowledge-base such as Process measurement, Lessons Learned and Historical Information
- Generally updated by the Project Management Team
## Organizational Process Assets

<table>
<thead>
<tr>
<th>Processes and Procedures</th>
<th>Knowledge-base</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standards, Policies, Standard Project and Product Life Cycle, Quality Policies, and Procedures, Templates</td>
<td>Process Measurement Database used to collect and make available measurements on processes and products</td>
</tr>
<tr>
<td>Standardized guidelines, work instructions, proposal evaluation criteria and performance measurement criteria</td>
<td>Project Files from the past Projects and Historical Information and Lessons Learned Knowledge Database</td>
</tr>
<tr>
<td>Guidelines and criteria for tailoring the organization’s standard processes to satisfy specific needs</td>
<td>Issue and Defect Management database and Configuration Management database and Financial database</td>
</tr>
<tr>
<td>Requirements of Organization Communication and Project Closing</td>
<td></td>
</tr>
<tr>
<td>Financial Control, Issue and Defect Management Procedures</td>
<td></td>
</tr>
<tr>
<td>Change Control and Risk Control Procedures</td>
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</table>
Project Management Processes

Project Management Team shall:

- Select appropriate processes required to meet the Project objectives
- Use a defined approach that can be adopted to meet requirements
- Comply with requirements to meet Stakeholder needs and expectation
- Balance the competing demands of Scope, Time, Cost, Quality, Resources, and Risk to produce the specific product, service, or results
Project Management Framework

Stakeholders

Persons or Organizations who are actively involved in the Project or whose interest may be positively or negatively affected by the performance or completion of the Project

- Customers / Users / Sponsor
- Portfolio Managers / Program Managers
- Project Management Office
- Project Managers and Project Team
- Functional Managers and Operations Management
- Sellers / Business Partners
Project Team

- Team is comprised of individuals from different groups with specific subject matter knowledge or with a specific skill set to carry out the work of the Project.
  - Project Management staff
  - Project Staff
  - Supporting experts
  - User or Customer Representatives
  - Sellers
  - Business partners

- Project Teams can be Dedicated or Part Time
Project Life Cycle

- Collection of generally sequential and sometimes overlapping Project phases
- It can be determined by unique aspects of organization, industry, or technology employed
- Provides basic Management framework for managing Project work

General Project Life Cycle Structure:

- Initiating the Project
- Planning the Project
- Executing the Project
- Monitoring and Controlling the Project
- Closing the Project
Project Life Cycle—Characteristics

Cost and Staffing levels are low at start, peaks during execution, and drops rapidly during closure.
Project Life Cycle—Characteristics

- Stakeholders’ influence, Risk, Uncertainty are high at the start and decreases over Project life
- Ability to influence the Project’s product (without impacting cost) is highest in the start and decrease during life of the Project
- Cost of changes and correcting errors increases substantially as the Project approaches completion
Project Life Cycle—Characteristics

Planning | Execution | Closeout

Level of Influence (Risk, Stakeholders)

Cost of Change
Project Governance—Life Cycle

- Provides comprehensive, consistent method of controlling Project and ensuring success
- Project Management Team / Project Manager selects the method for governance
- Each phase can be formally initiated with the deliverable clearly specified
- A phase is generally closed when formal acceptance of the deliverable is achieved
- Phase Closure Review can be combined to review the acceptance of the deliverable of that phase and authorizing the start of the next phase
Phase to Phase Relationship

- **Sequential relationship**
  - Next phase starts only after the completion of previous phase

- **Overlapping relationship**
  - Next phase starts prior to the completion of earlier phase.

- **Iterative relationship**
  - Only one phase is planned at any given time and the planning for the next phase is carried out as work progresses on the current phase and deliverables.
Life Cycles

 Predictive Life Cycle:
  - In which Project Scope and the time and cost required to deliver that Scope are determined as early in the Project life cycle as practically possible.

 Iterative and Incremental Life Cycle
  - Iterative and incremental life cycles are ones in which Project phases intentionally repeat one or more Project activities as the Project team’s understanding of the Project increases.
  - Iterations develop the product through a series of repeated cycles, while increments successively add to the functionality of the product.
Life Cycles

- Adaptive Life Cycle:
  - Adaptive life cycles are intended to respond to high levels of change and ongoing Stakeholder involvement.
  - Adaptive methods are generally preferred when dealing with a rapidly changing environment, when requirements and Scope are difficult to define in advance and when it is possible to define small incremental improvements that will deliver value to Stakeholders.
Thank You