



Module 1 : Project Management Foundation

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ILOC: Project Management (Autonomy)

Agenda : Project Management Foundations

- Different Forms of Project Management
- Project Environment
- Project Management for Industry
- Service Sector and Public Sector
- Negotiations and resolving conflicts
- PM knowledge areas as per Project Management Institute (PMI)

Project Management System

Provides means for

- Identification of tasks
- Identification of resources requirements and costs
- Establishing priorities
- Planning and updating schedules
- Monitoring and controlling end item quality and performance
- Measuring project Performance

Reference: John M Nicholas, Herman Steyn , Project Management for Engineering, Business and Technology, Routledge, Taylor Francis Group

Project Management System

Functional Units and Departments involved in project

Breakdown
of **Project**
Tasks

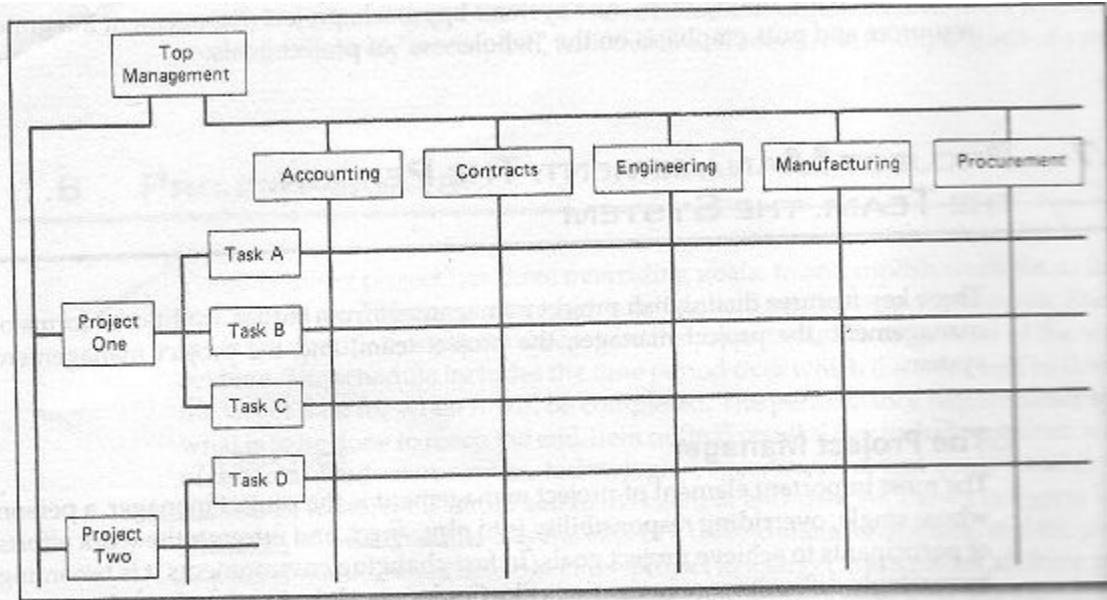


Figure 1-5
Vertical and horizontal elements of project organization.

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When PM should be applied?

- Unfamiliarity – e.g. modernizing plant
- Magnitude of effort – when job requires substantially more resources (people, capital, equipment) e.g. facility relocation, merging two corporation, developing and placing new product on market
- Changing environment – e.g. computer, electronics, pharma industry. High innovation, rapid product changes, shifting market and consumer behavior. To survive /succeed org must be creative , innovative , flexible and capable. PM deals with changing goals and new opportunities
- Interrelatedness - PM coordinates efforts of areas within parent organization + outside subcontractors vendors & customers
- Reputation of the Organization –The failure to satisfactory completion of project à financial, market share loss, damaged reputation etc. so use PM which provides better planning & control to improve odds.

Where PM is not appropriate?

- For less unique, more standardized & repetitive operations with greater certainty in process and outcome
- E.g. production of standardized industrial/ agricultural outputs
 - For more familiar undertaking
 - More Stable Environment
 - Less unique and more standard end item
 - Marketing campaigns to launch a new product

Types of Project Managers - Davis

- **Project Expeditors** – purpose is to achieve **unity of communication**. Individuals who speed up work & are communication links to GM. Translates technical concepts into business concepts of cost, schedules & markets
- **Project Coordinator**- Purpose is to achieve unity and control over project activities.
- **Matrix Manager** – Perform full range of management functions – plan, motivate, direct, control work etc
- **Pure Project Manager**- achieves **unity of command**. They direct pure project organization of people.

Different Forms of Project Management

- Basic Project Management
- Program Management
- New Venture Management
- Product Management
- Adhoc Committees & Task Force

1. BASIC PROJECT MANAGEMENT

Different Forms of Project Management

Places PM and Functional Manager at same level

- Project Manager **plan, direct, organize and control project** from start to finish
- Implemented in two forms – **1. Pure Project** **2. Matrix**
 - **Pure Project** – Complete , self contained organization created, resources are inherent don't have to be borrowed
 - **Matrix** – Organization created by using elements allocated from permanent functional units. Project must timeshare resources with other current projects & with functional areas from which they borrow.
 - Eg.: **Advertising Campaign, Collaboration Projects**

2. PROGRAM MANAGEMENT

Different Forms of Project Management

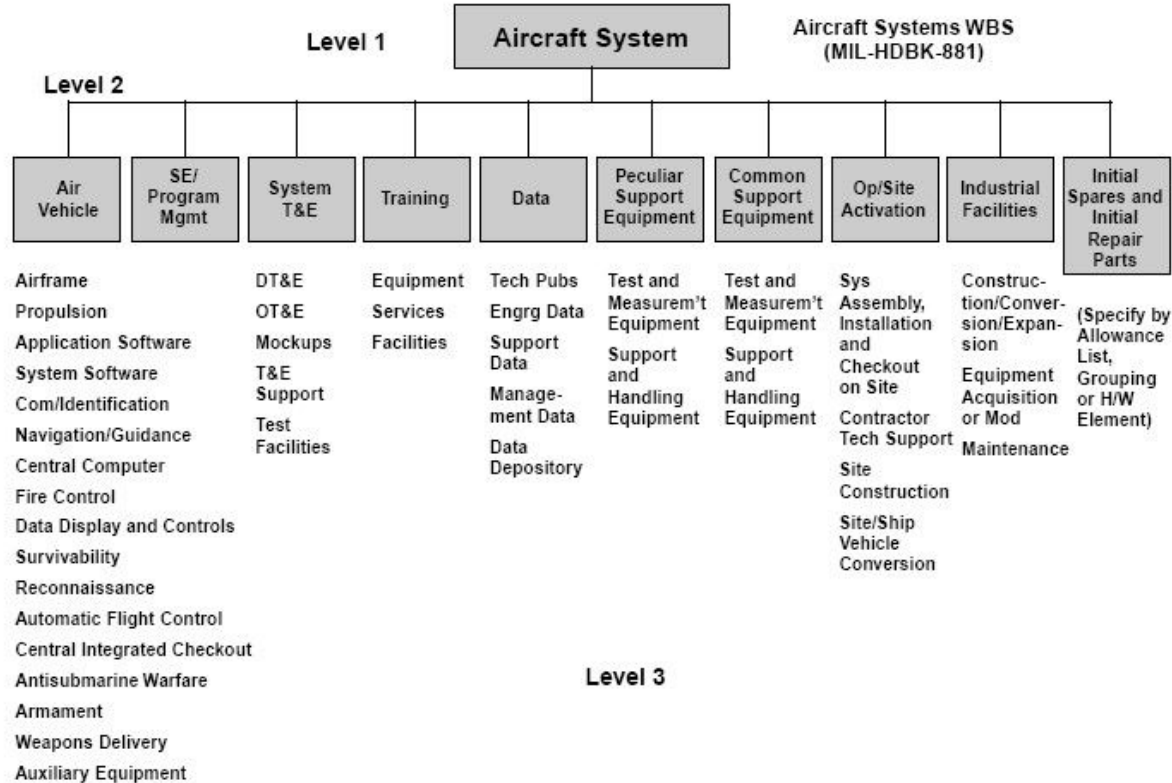
- **Similarities between Program & Project**
 - Both defined in terms of goals/ objectives
 - Emphasis on time period
 - Requires Plans & Budgets
- **Technical Differences**
 - Program extends over longer time horizon – 5 yrs
 - Consist of several parallel and sequential work efforts coordinated towards program goals e.g. **Urban development program** – housing, job and skill training, small business consulting assistance prog etc.
 - **Project** – time frame is shorter, oriented to provide product/service

3. NEW VENTURE MANAGEMENT

Different Forms of Project Management

- Used in consumer oriented firms for generating new products/ markets when product is not well defined.
- **New venture management team** – specially created to find new products/ markets that fits organizations specialized skills, capabilities & resources.
- Team may design, develop, and determines means for producing, marketing and distributing products.
- **Project Management Group = Venture Management Group**
 - Both focuses on single unifying goal
 - Multidisciplinary
 - Action Oriented & dedicated to change
 - Are Temporary - action oriented and dedicated to change

Different Forms of Project Management



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4. PRODUCT MANAGEMENT

Different Forms of Project Management

- When single person is given authority to oversee all aspects of products production, scheduling , inventory, distribution, sales term **product management** is used
- Requires managing conflicts & resolving problems that degrade manufacturing capability.
- **Product Manager** – coordinates and expedites efforts of product development , launch, manufacturing, distribution and sales to ensure flow of product from production to customer.

5. ADHOC COMMITTEES AND TASK FORCE

Different Forms of Project Management

- **Projects with short duration – temporary team** – task force / interdepartmental committees with one project leader
- Leaders and members responsible for project
- **E.g.**
 - Reorganizations, Mergers, acquisitions/ diversification
 - Special studies, surveys/ evaluation
 - Management and organization development programs
 - New equipment/ procedures installation
 - Relocation of facilities/ change in facility layout
 - Efficiency, modernization, cost reduction efforts, Marketing expansions, Major Audits etc.



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Project Environment

- Commercial / for Profit – product + venture management
- Government / Non profit – program management
- Military – Program Management

Project Environment

- **Commercial / For Profit Project Management :**
 - End item is product/ service
 - Success – profit
 - Project manager coordinates efforts of project team with functional areas, subcontractors and vendors

Eg.: Home renovation project, Develop a website, etc.

Project Environment

Government & Non Profit Project Management :

- Continuity of project depends upon political considerations – funding etc
- All budgeted funds are spent on procurement of products and services developed by commercial vendors
- Project managers are Program manager
 - Most project focuses on evaluation / testing of products/ services.
 - Eg.: Habitat for humanity, Redcross, School, hospital Projects, Sports club, etc.



Project Environment

Military

- Project Managers are military officers
- Military must train, transfer promote people with administrative and technical competence to carry out job.

Project Management for Industry

- Project management in **three industrial settings**:
 - Product development
 - Manufacturing
 - Construction
- **Five important cases** shows typical applications of PM in the above 3 industrial settings:
 - **Product Management** : The development of Product 'X'
 - **R&D Project Management** : LogiCircuit Corporation
 - **Installation Program** : GTE Airfone
 - **Adhoc Project** : R. L. Zept Company
 - **PM in Small Projects** : Delamir Roofing Company

Project Management in Service Sector

- The service industry plays a vital role in our modern economy, encompassing a wide range of sectors such as **hospitality, healthcare, finance, consulting, banking** and more.
- Major **difference between PM in Industry and Services** is that the **output of the services is not necessarily a tangible product.**

Project Management in Service Sector

- **The Art of Managing Client Expectations / satisfaction**
- **Balancing Flexibility and Structure** - managing a marketing campaign and target audience for a major retail brand
- **People Management: The Key to Success**
- **Leveraging Technology for Efficiency** - **Eg.:** automating the customer onboarding process in a software-as-a-service (SaaS) company reduced errors, enhanced efficiency, and accelerated time-to-value
- **Continuous Improvement and Lessons Learned**

Project Management for Public Sectors

Public Sector Projects

- How are they different or unique?
 - Politics
 - Limited resources (Funding)
 - Legal restrictions
 - Open to public scrutiny
- How many students have managed a project for their organization?
- What types of projects do you manage?

Project Management for Public Sectors

Public Sector Projects : Example

- Building a Treatment Plant
- Replacing a roof on a building
- Repaving a street
- Building a metrolink in urban cities
- Implementing a traffic or accident monitoring system
-in the public sector, it could be any finite piece of work

Negotiations and Resolving Conflicts

What is Negotiation in PM?

- Negotiation in project management is a **process of communication in which the parties aim to convey a message** to the other party and influence each other in particular or multiple projects.
- The **five phases of negotiation** include,
 - Investigate
 - Determine Your BATNA (Best Alternative To a Negotiated Agreement)
 - Presentation
 - Bargaining
 - Closure

Negotiations and Resolving Conflicts

What is Conflict in PM?

- Is a process that begins when one party perceives that another party has negatively affected, or is about to negatively affect, something that the first party cares about.
- Encompasses a wide range of conflicts that people experience in organizations
 - Incompatibility of goals
 - Differences over interpretations of facts
 - Disagreements based on behavioral expectations

Negotiations and Resolving Conflicts

Traditional View

⊕ The belief that all conflict is harmful and must be avoided.

Causes:

- Poor communication
- Lack of openness
- Failure to respond to employee needs



Negotiations and Resolving Conflicts

Interactionist View

- ⊕ The belief that conflict is not only a positive force in a group but that it is absolutely necessary for a group to perform effectively.



Negotiations and Resolving Conflicts

Resolution Focused & HR View

- ⊕ Focused more on productive conflict resolution
- ⊕ Encouraging limited levels of conflict
- ⊕ Finding a method for resolving conflicts productively in order to decrease the disruptive influence
- ⊕ The belief that conflict is a natural and inevitable outcome in any group

Negotiations and Resolving Conflicts

Levels of Conflicts



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Project Management Definition - PMI

According to Project Management Institute (PMI)

- PM is the application of knowledge , skills and techniques to execute projects effectively and efficiently.
- Four steps in PM:
 - Initiation
 - Planning
 - Performance
 - Review

Project Management - Knowledge areas (PMBOK)

According to Project Management Institute (PMI)

- Defined as the **key aspects of project management** that should be overseen by project managers so they can **plan, schedule, track and deliver projects successfully** with the help of the project team and project stakeholders..
- Each of these project management **knowledge areas needs to be managed** throughout the **five project life cycle phases**

Project Management - Knowledge areas (PMBOK)

1. Project Integration Management

- It allows project managers to coordinate tasks, resources, stakeholders, changes and project variables.
- Project management software, like **ProjectManager**, - for project integration management because it's an online platform that project managers can use to create a project plan, oversee project management knowledge areas and collaborate with their teams online.
- ProjectManager also has project reporting features that allow project managers to create project reports they can share with project stakeholders to keep them informed.

Project Management - Knowledge areas (PMBOK)

2. Project Scope Management

- It consists of **managing your project scope**, which refers to the work that needs to be executed in a project. It begins by writing a scope statement.
- Another part is a **work breakdown structure (WBS)**, which is a graphic breakdown of project work
- **Validate scope** during the project - means making sure that the deliverables are being approved regularly by the sponsor or stakeholder.
- The scope statement is likely **going to change over the course** of the project to control the scope, such as if a project falls behind schedule.

Project Management - Knowledge areas (PMBOK)

3. Project Time Management

- It involves estimating your project duration, creating a project schedule and tracking the project team's progress to ensure the project is completed on time..
- Project tasks are then put in an order and any dependencies between them are noted. These dependencies are then determined to be either finish-to-start (FS), finish-to-finish (FF), start-to-start (SS) or start-to-finish (SF). This is mostly for larger projects.
- The project resources required for each must be estimated and assigned.



Project Management - Knowledge areas (PMBOK)

- 4. **Project Cost Management** - involves estimating project costs to create a project budget.
- 5. **Project Quality Management** - specifies the quality control and quality assurance guidelines for your project
- 6. **Project HR Management** - identifies the roles and requirements of people resources and how they fit into the overall project structure.
- 7. **Project Communications Management** - Manage the communications when the project is executed to make sure it runs as planned. This also involves controlling communications by reviewing their effectiveness regularly and adjusting as needed.

Project Management - Knowledge areas (PMBOK)

8. Project Risk Management - identify how the risks will be itemized, categorized and prioritized. This involves identifying risks that might occur during the execution of the project by making a risk register.

9. Project Procurement Management - deals with outside procurement, such as hiring subcontractors. This will impact on the budget and schedule. It starts by identifying the outside needs of the project and how those contractors will be involved.

10. Project Stakeholder Management - means listing each stakeholder and prioritizing their concerns and how they might impact the project. This will lead to managing stakeholders' expectations to make sure their needs are met and that you're in communication with them.

Project Management for any Sectors

Group Exercise - Create a Project

- Take 5 minutes to develop a project
- Requirements :
 - something tangible
 - possible to be done in your current or a future role
 - must be finite
- Fill out PMP
 - Designate a project manager
 - Designate project deliverables
 - Determine a scope

Projects - Examples

- Introduction of a new model of commercial vehicle
- Enhancing the production capacity of the plant from 4 MT to 6 MT.
- Reducing the downtime of the machines from 3% to 1%.
- Improving the Quality of Product from existing 95% to 98%.
- Erection and Commissioning of a 300 MW Gas Power Plant
- Building a mobile application
- Implementing World Class Manufacturing in a Fiber Industry

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