



Project Management Structures



Project Management Structures

- **Challenges to Organizing Projects**
 - The **uniqueness** and **short duration of projects** relative to ongoing longer-term organizational activities
 - The **multidisciplinary and cross-functional nature of projects** creates authority and responsibility dilemmas.
- **Choosing an Appropriate Project Management Structure**
 - The best system balances the needs of the project with the needs of the organization.



Significance of Organizational structures in PM

- Organizational structures **have direct influence** over the project.
- Organizational structures **determine the procedures** that the project manager must follow **and the amount of authority** the project manager possesses.



Project Management Structures

1. Functional organization

- Organizing Projects: Functional organization
 - Different segments of the project are delegated to respective functional units.
 - Coordination is maintained through normal management channels.
 - Used **when the interest of one functional area dominates the project** or one functional area has a dominant interest in the project's success.

Functional Design for a Small Manufacturing Company



Functional Organization of Projects

■ Advantages

1. No Structural Change
2. Flexibility
3. In-Depth Expertise
4. Easy Post-Project Transition

■ Disadvantages

1. Lack of Focus
2. Poor Integration
3. Slow
4. Lack of Ownership

2. Project Organization

- In a **project organization** participants are grouped into **projects**, each of which has a problem to be solved within time and budget.
- **Key properties:**
 - Teams are assembled for a project as it is created. Each project has a project leader.
 - All participants are involved in the complete project.
 - Teams are disassembled when the project terminates

Project Management Structures

- Organizing Projects: Dedicated Teams
 - Teams operate as separate units under the leadership of a full-time project manager.
 - In a ***projectized*** organization where projects are the dominant form of business, functional departments are responsible for providing support for its teams.

Project Organization: Dedicated Team

■ Advantages

1. **Simple**
2. **Fast**
3. **Cohesive**
4. **Cross-Functional Integration**

■ Disadvantages

1. **Expensive**
2. **Internal Strife**
3. **Limited Technological Expertise**
4. **Difficult Post-Project Transition**

3. Matrix Structure

- Organizing Projects: Matrix Structure
 - **Hybrid organizational structure (matrix) is overlaid on the normal functional structure.**
 - Two chains of command (functional and project)
 - Project participants report simultaneously to both functional and project managers.
 - **Matrix structure optimizes the use of resources.**
 - Allows for participation on multiple projects while performing normal functional duties.
 - Achieves a greater integration of expertise and project requirements.

3. Matrix Structure

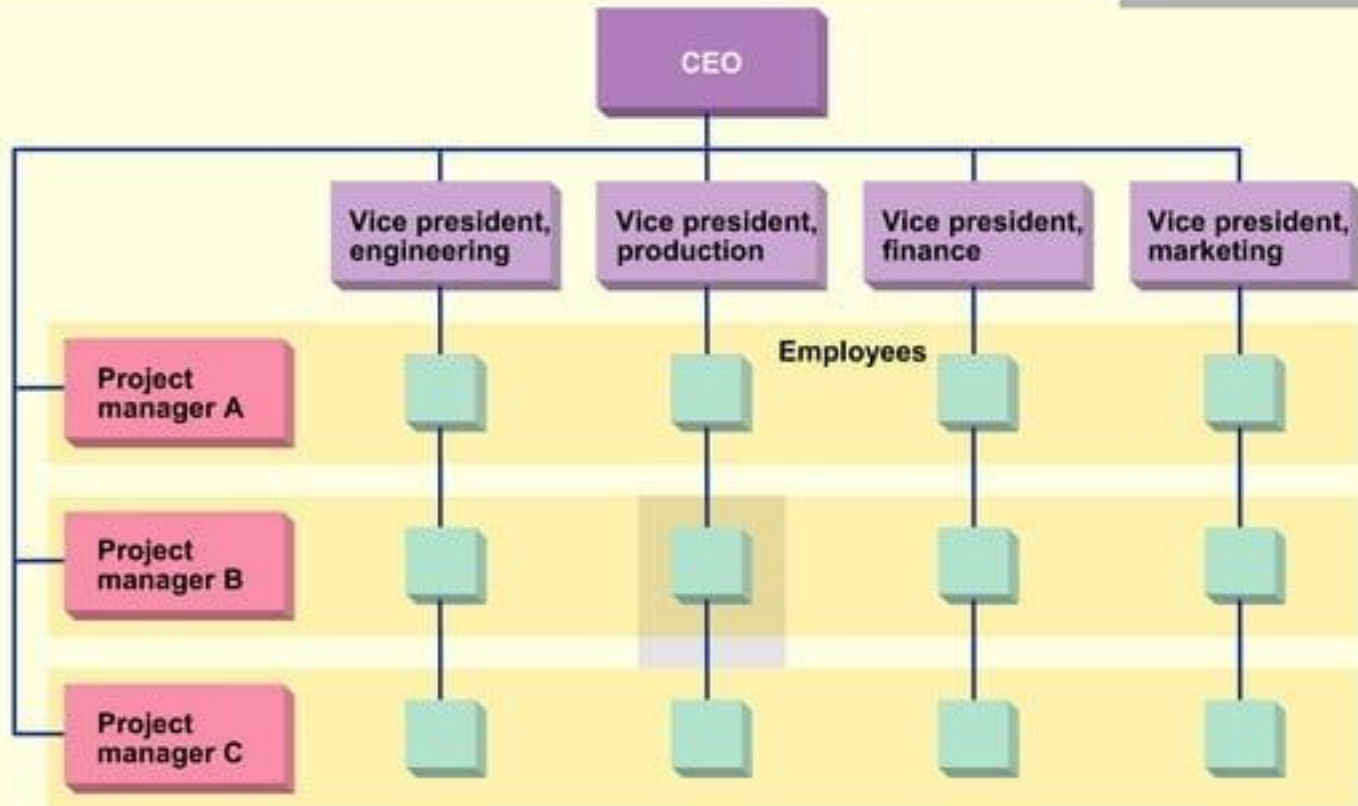
- Matrix Design

- Employees in the resulting matrix are members of both their departments and a project team under a project manager.
- The matrix creates a multiple command structure in which an employee reports to both departmental and project managers.

Different Matrix Forms

- **Weak Form**
 - The authority of the functional manager predominates and the project manager has indirect authority.
- **Balanced Form**
 - The project manager sets the overall plan and the functional manager determines how work to be done.
- **Strong Form**
 - The project manager has broader control and functional departments act as subcontractors to the project.

A Matrix Organization



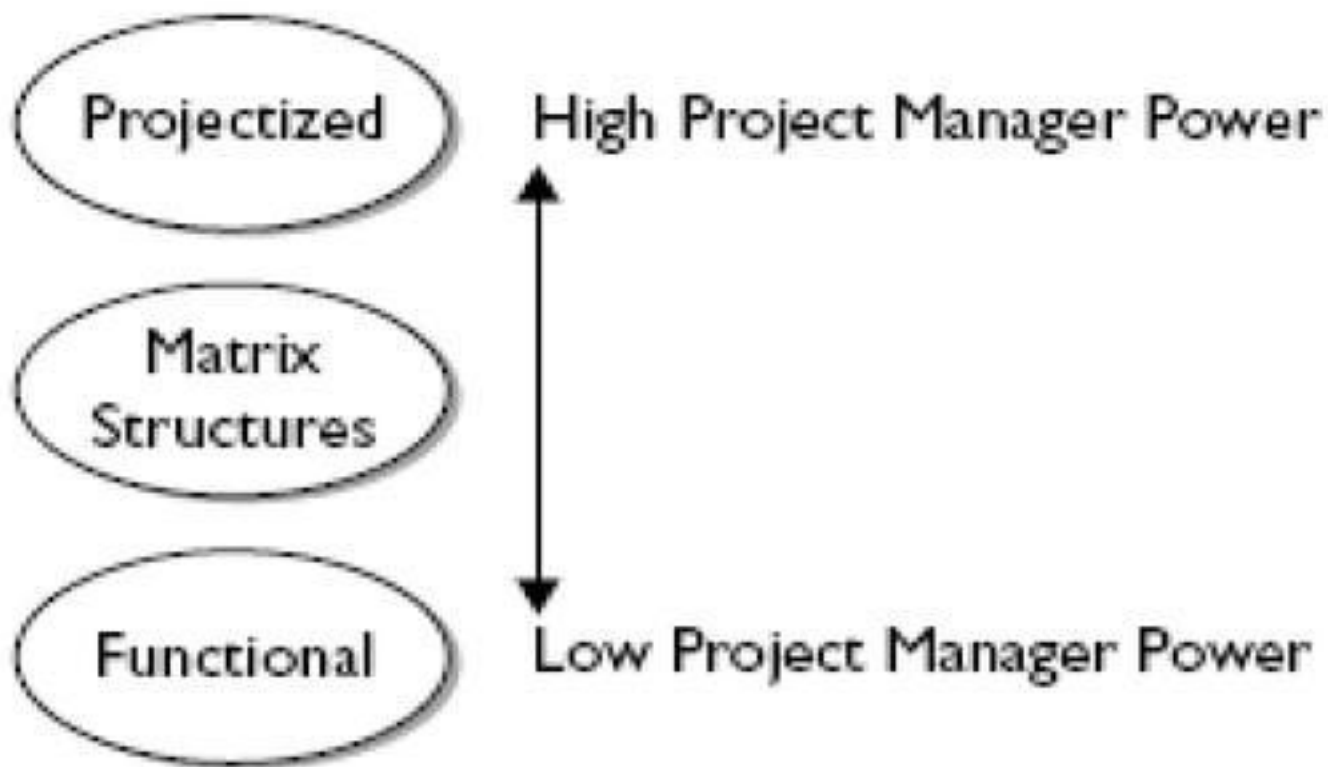
Matrix Design Advantages

- Enhances organizational flexibility.
- Involvement creates high motivation and increased organizational commitment.
- Team members have the opportunity to learn new skills.
- Provides an efficient way for the organization to use its human resources.
- Team members serve as bridges to their departments.
- Useful as a vehicle for decentralization.

Matrix Design Disadvantages

- Matrix Design Disadvantages
 - Employees are uncertain about reporting relationships.
 - Managers may view design as an anarchy in which they have unlimited freedom.
 - The dynamics of group behavior may lead to slower decision making, one-person domination, compromise decisions, or a loss of focus.
 - More time may be required for coordinating task-related activities.

Level of managerial power



Influences of Organizational Structure on Projects

Project Characteristics	Organizational Structure Type				
	Functional	Matrix			Project
		<i>Weak Matrix</i>	<i>Balanced Matrix</i>	<i>Strong Matrix</i>	
Project manager's authority	Little or none	Limited	Low to Moderate	Moderate to high	High to almost total
Percent of performing organization's personnel assigned full-time to project work	Virtually none	0-25%	15-60%	50-95%	85-100%
Who controls the project budget	Functional manager	Functional manager	Mixed	Project manager	Project manager
Project manager's role	Part-time	Part-time	Full-time	Full-time	Full-time
Common title for project manager's role	Project Coordinator/ Project Leader	Project Coordinator/ Project Leader	Project Manager/ Project Officer	Project Manager/ Program Manager	Project Manager/ Program Manager
Project management administrative staff	Part-time	Part-time	Part-time	Full-time	Full-time

PMBOK® Guide, 2000, 19, and PMBOK® Guide 2004, 28.

When to use a Functional Organization

- Projects with high degree of certainty, stability, uniformity and repetition.
 - Requires little communication
 - Role definitions are clear
- The more people on the project, the more need for a formal structure
- Project manager insists on a previously successful structure

When to Use a Project or Matrix Organization

- Project with degree of uncertainty
 - Open communication needed among members
 - Roles are defined on project basis
- Requirements change during development
- New technology develops during project

Choosing the Appropriate Project Management Structure

- **Organization (Form) Considerations**
 - How important is the project to the firm's success?
 - What percentage of core work involves projects?
 - What level of resources (human and physical) are available?



Choosing the Appropriate Project Management Structure (cont'd)

- **Project Considerations**

- Size of project
- Strategic importance
- Novelty and need for innovation
- Need for integration (number of departments involved)
- Environmental complexity (number of external interfaces)
- Budget and time constraints
- Stability of resource requirements

Steps in choosing an Organizational form

- steps for the selection of a project organization:
 - 1. Define the project with a statement of the objective(s) that identifies the major outcomes desired
 - 2. Determine the key tasks associated with each objective and locate the units in the parent organization that serve as functional “homes” for these types of tasks
 - 3. Arrange the key tasks by sequence and decompose them into work packages

Steps in choosing an Organizational form

- Criteria for the selection of a project organization (cont.):
 - 4. Determine which organizational units are required to carry out the work packages and which units will work particularly closely with which others
 - 5. List any special characteristics or assumptions associated with the project
 - 6. In light of items 1-5, and with full cognizance of the pros and cons associated with each structural form, choose a structure