PROJECT ORGANIZATION
(SLIDE SET 04)

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This slide set has been prepared by Ömer Yağız for use in MGMT 409 – Project Management. Material from the slide sets of Gray, Clifford F. and Erik W. Larson, Project Management, 3rd Ed. McGraw-Hill, 2006. and Meredith, J. R. and Samuel J. Mantel, Project Management, 5th Ed. were extensively used in the preparation of this slide set.
• Interface between the project and its parent organization will be the focus of discussion
• Basically there are three ways of fitting the project into the parent organization:
  1. The Project is Part of the Functional Organization, also known as Hybrid Project/Functional Organization
  2. Pure Project Organization
  3. Matrix Organization

Let us have a brief look at each.....
Hybrid Project/Functional Organization

• In this way of organizing, the project is housed in one or more of the functional units of the organization such as marketing, operations, finance, R&D, etc.

Example: The “registration project” at EMU was assigned to the Office of the Vice Rector for Student Affairs. The project team reports to the Vice Rector for Student Affairs.

Another example: A project to develop a new 20 MP digital camera would probably be housed within the Product Development department, with project team members coming from various functional departments such as design engineering, process engineering, marketing, manufacturing, etc.
• Once management decides to implement a project, the different segments of the project are delegated to the respective functional units with each unit responsible for completing its segment of the project.

• The functional organization is used when, due to the nature of the project, one functional area plays a dominant role in completing the project.

• Coordination is maintained through normal management channels.

Another example is given on the next slide...
Hybrid Project/Functional Organization

Hybrid Project/Functional Organization

• Advantages of Hybrid Project/Functional Organization
  – No Structural Change: projects are handled within the existing organizational structure
  – Flexibility in the Use of Staff: specialists within various functional departments can be temporarily assigned to the project and then return to their normal duties within their functional departments
  – In-depth Expertise: the project can benefit from the use of experts coming from the functional units
  – Easy Post-project Transition: normal career paths within a functional unit are maintained since project team members maintain their positions at their units
• Disadvantages of Hybrid Project/Functional Organization
  – Lack of Focus: Because each functional unit has its own routine work and responsibilities, the project may be given low priority
  – Poor Integration: Specialists in functional units may be concerned only with their part of the project and not with what is best for the total project
  – Slow: Takes longer to complete the project due to the necessity of project information and decisions having to be circulated through normal management channels
  – Lack of Ownership: Project may be seen as an extra burden (yük) in addition to normal duties in functional units
• At the other end of the structural spectrum is the creation of independent project teams. This is known as “pure project organization.”

• These teams operate as separate units from the rest of the parent organization.

• These teams become self-contained units with their own technical staff, its own administration.

• Usually a full-time project manager is assigned to head the team and he recruits necessary people from both within and outside the organization.
Pure Project Organization

Pure Project Organization

Projectized Form of Organization – entire organization is designed to support project teams

• Advantages of Pure Project Organization

– Simple: functional organization remains intact; team operates independently.

– Fast: full attention to the project makes it possible to complete the project as soon as possible; team members are not distracted by other obligations and duties. Also decisions are made within the team and not referred up the hierarchy.

– Cohesiveness: team members share a common goal which results in a high level of motivation and togetherness

– Cross-Functional Integration: specialists from different areas work closely together and become committed to optimizing the project rather than their own areas of expertise
• Disadvantages of Pure Project Organization
  – Expensive: a new organizational unit is created and resources are allocated on a full-time basis. This can result in duplication of resources across various projects.
  – Internal Strife: (çekişme) a divisiveness can develop between the project team and the parent organization. Internal infighting may also become a serious problem.
  – Limited Technological Expertise: technical expertise is limited to the talents and experience of the specialists assigned to the project. Sometimes the “we-they” problem prevents consultation with the functional departments
–Difficult Post-Project Transition: problems may be experienced after the project is finished and the team members must be re-assigned to their functional departments. Prolonged absence and the need to catch up with recent developments in their functional departments may present problems to former project team members.
In view of the advantages of the pure project organization and the hybrid functional/project organization, another form of project organization was developed. This is the “matrix organization.” The matrix organization is a combination of the two forms.

- 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.
The Matrix Organization

[Matrix Organization Diagram]
# The Matrix Organization

## Division of Project Manager and Functional Manager Responsibilities in a Matrix Structure

<table>
<thead>
<tr>
<th><strong>Project Manager</strong></th>
<th><strong>Negotiated Issues</strong></th>
<th><strong>Functional Manager</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>What has to be done?</td>
<td>Who will do the task?</td>
<td>How will it be done?</td>
</tr>
<tr>
<td>When should the task be done?</td>
<td>Where will the task be done?</td>
<td></td>
</tr>
<tr>
<td>How much money is available to do the task?</td>
<td>Why will the task be done?</td>
<td>How will the project involvement impact normal functional activities?</td>
</tr>
<tr>
<td>How well has the total project been done?</td>
<td>Is the task satisfactorily completed?</td>
<td>How well has the functional input been integrated?</td>
</tr>
</tbody>
</table>
The Matrix Organization

• Different Forms of Matrix Structure
  – Functional (also Weak or Lightweight) Form
    • Matrices in which the authority of the functional manager predominates and the project manager has indirect authority.
  – Balance (or Middleweight) Form
    • The traditional matrix form in which the project manager sets the overall plan and the functional manager determines how work to be done.
  – Strong (Heavyweight) Form
    • Resembles a project team in which the project manager has broader control and functional departments act as subcontractors to the project.
The Matrix Organization

• Advantages of Matrix Organization
  – Efficient: resources can be shared across multiple projects as well as within functional units. Individuals can divide their time and energy across multiple projects on an as-needed basis. Reduces duplication of resources.
  – Strong Project Focus: As compared to a hybrid project/functional setup, this enables a strong project focus by having a formally designated project manager.
  – Easier Post-project Transition: Because the project organization is overlaid on the functional departments, team members maintain their ties to their functional units, making transition easier.
The Matrix Organization

- Flexibility: matrix structure makes possible the flexible utilization of resources and expertise within the organization since the boundaries between the project team and the functional units are not so strict.

The above advantages of the matrix organization make it a popular form used by many firms. But some of its weaknesses or disadvantages result in a complicated project organization form which is quite difficult to manage effectively. Let us have a look at its disadvantages on the next slides...
The Matrix Organization

- Disadvantages of Matrix Organization
  - Dysfunctional (damaging) Conflict: the matrix approach is built on the idea that some tension between the functional managers and project managers who bring critical expertise and perspectives to the project is beneficial for the outcome of the project. If this tension is not kept under control or managed well, it can lead to serious personal and organizational problems.
  - Infighting: If, as in matrix form, resources, people, equipment are being shared by various projects and functional tasks, conflict and competition is unavoidable. Infighting may occur among project managers, who are doing their best to complete their projects.
–Stressful Environment: The universal management principle of “unity of command” is violated by the matrix form. Project team members have at least two superiors or “bosses” – their functional superior and one or more project managers. This creates a lot of stress and can be detrimental to the organization. A lot depends on the leadership and administrative skills of functional managers and project managers in order to minimize stress and serious conflicts.

–Slow: Decision making becomes a slow process when various functional departments and project groups have to come to an agreement. This is especially true for the balanced matrix structure (see slide 17).
Choosing the Appropriate Project Management Structure

• Organization (Form) Considerations
  – How important is the project to the firm’s success?
    • If very important, pure project or projectized structure may be appropriate
  – What percentage of core work involves projects?
    • If over 75% of work involves projects, then a fully projectized structure should be selected
    • If the organization has both standard products and projects, a matrix structure would be preferred
    • If there are very few projects, a less formal arrangement such as functional structure would be satisfactory
  – What level of resources (human and physical) are available?
Choosing the Appropriate Project Management Structure

- 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

  - Basic question is “how much autonomy does the project need in order to be completed successfully?”
  - The higher the levels of the above factors, the more autonomy and authority is needed for the project manager.