Chapter 9
Project Human Resource Management
(PMBOK Guide)

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Introduction

• Processes that organize, manage, and lead the project team
• People have assigned roles and responsibilities
• Early involvement of team members in project planning is beneficial
• Processes:
  – Develop human resource plan: roles, responsibilities, requires skills, reporting relationships, and creating staff management plan
  – Acquire project team
  – Develop project team: improving the competencies, team interaction, and overall team environment
  – Manage project team: tracking team member performance, providing feedback, resolving issues, managing changes
Introduction

• Project management team responsible for leadership activities
  – Present in all project phases including initiating, planning, executing, monitoring & controlling and closing
  – Influencing the project team: environment, location, communication with stakeholders, internal/external politics, cultural issues, organizational uniqueness
  – Professional and ethical behaviour
9.1 Develop Human Resource Plan

• Determining and identifying human resources with necessary skills
• Documents roles, responsibilities, project organization charts, and the staffing management plan including timetable for staff acquisition and release
• Identification of training needs, team building strategies, plan for recognition and rewards, compliance considerations, safety issues, and impact of the staffing management plan on the organization
• Project costs, schedules, risks, quality, and other areas may be significantly affected
Inputs, Tools & Techniques, Outputs

Inputs

1. Activity resource requirements
2. Enterprise environmental factors
3. Organizational process assets

Tools & Techniques

1. Organization charts and position descriptions
2. Networking
3. Organizational theory

Outputs

1. Human resource plan
Data Flow

Project Human Resource Management

6.3 Estimate Activity Resources
- Activity resource requirements
- Organizational process assets
- Enterprise environmental factors

Enterprise/Organization

9.1 Develop Human Resource Plan
- Human resource plan

4.2 Develop Project Management Plan

7.1 Estimate Costs

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Inputs

• Activity resource requirements: progressively elaborated
• Enterprise environmental factors
  – Organizational culture and structure
  – Existing human resources
  – Personnel administration policies
  – Marketplace conditions
• Organizational process assets
  – Organizational standard processes and policies and standardized role descriptions
  – Templates for organizational charts and position descriptions
  – Historical information on organizational structures that have worked in previous projects
Tools and Techniques

• Organizational charts and position descriptions
  – Hierarchical-type charts (Organizational Breakdown Structure (OBS))
  – Mixed-based charts (Responsibility Assignment Matrix (RAM)) Can be developed at various level
    • RACI (Responsible, Accountable, Consult, and Inform) Charts
  – Text-oriented formats (other names: Position Descriptions, Role-Responsibility-Authority forms)
  – Other sections of the project management plan
    • Risk register
    • Communication plan
    • Quality plan
Roles and Responsibility Definition Formats

Hierarchical-type Organization Chart

Matrix-based Responsibility Chart

Text-oriented Format

Role __________
Responsibilities __________
                        __________
                        __________
Authority __________
Responsibility Assignment Matrix (RAM) Using a RACI Format

<table>
<thead>
<tr>
<th>RACI Chart</th>
<th>Ann</th>
<th>Ben</th>
<th>Carlos</th>
<th>Dina</th>
<th>Ed</th>
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<td>Define</td>
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<td>A</td>
<td>I</td>
<td>I</td>
<td>R</td>
<td>I</td>
</tr>
</tbody>
</table>

A: Accountable, R: Responsible, I: Informed, C: Consult
Tools and Techniques

• Networking
  – Formal and informal interaction in an organization, industry, or professional environment
  – Proactive correspondence, luncheon meetings, informal conversations, trade conferences, and symposia

• Organizational theory
  – Provides information regarding how people, team, and organizational units behave
Outputs

• Human resource plan (how HR should be defined, staffed, managed, controlled, and released)
  – Roles and responsibilities
    • Role
    • Authority
    • Responsibility
    • Competency (skill and capacity required)
  – Project organization charts
  – Staffing management plan
    • Staff acquisition
    • Resource calendars
    • Staff release plan
    • Training needs
    • Recognition and rewards
    • Compliance (government rules, union contracts, other HR policies)
    • Safety
Illustrative Resource Histogram

Staff Hours for Senior Designers

<table>
<thead>
<tr>
<th>Month</th>
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<th>Feb</th>
<th>Mar</th>
<th>Apr</th>
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9.2 Acquire Project Team

- Process of confirming HR availability and obtaining the team necessary to complete project assignments
- Factors to be considered by PM during the process of acquiring the project team
  - Negotiating and influencing whom are in position to provide HR for the project
  - Failure to acquire HR affects project schedules, budgets, customer satisfaction, quality, and risks
  - If HR is not available, PM or project team may be required to assign alternative resources
Inputs, Tools & Techniques, Outputs

Inputs
1. Project management plan
2. Enterprise environmental factors
3. Organizational process assets

Tools & Techniques
1. Pre-assignment
2. Negotiation
3. Acquisition
4. Virtual teams

Outputs
1. Project staff assignments
2. Resource calendars
3. Project management plan updates
Data Flow

Project Human Resource Management

4.2 Develop Project Management Plan
- Project management plan updates
- Organizational process assets
- Enterprise environmental factors

Enterprise/Organization

9.2 Acquire Project Team
- Human resource plan
- Resource calendars
- Project staff assignments

9.3 Develop Project Team

9.4 Manage Project Team

6.3 Estimate Activity Resources
6.4 Estimate Activity Duration
6.5 Develop Schedule
7.2 Determine Budget
Inputs

• Project management Plan
  – Roles, responsibilities, skills, competencies
  – Project organizational chart
  – Staffing management plan (when to get team member)

• Enterprise environmental factors
  – Existing information for HR including who is available, their competency levels, prior experience, interests, cost rate
  – Personnel administration policies such as outsourcing
  – Organizational structure
  – Location or multiple locations

• Organizational process assets
  – Organizational standard policies
  – Processes and procedures
Tools and Techniques

• Pre-assignment (i.e., selected in advance)
• Negotiation
  – Functional managers
  – Other PM teams
  – External organizations, vendors, suppliers, contractors
• Acquisition
  – Hiring or subcontracting
• Virtual teams
  – No limit in geographic location
  – Have the special expertise from other part of world
  – Working from home offices
  – Teams working different shifts/hours
  – People with mobility limitation, disables
  – Projects with high travel costs or limit
Outputs

• Project staff assignments
• Resource calendars
• Project management plan updates
9.3 Develop Project Team

- The process of improving the competencies, team interaction, and overall team environment
- PMs should acquire skills to identify, build, maintain, motivate, lead, and inspire project teams
- PMs should continually motivate the team by providing challenges/opportunities, getting feedback/providing support, recognizing and rewarding good performance
- High performance may be achieved by:
  - Open and effective communication
  - Developing trust among team members
  - Managing conflicts in a constructive manner
  - Encouraging collaborative problem-solving and decision-making
- Problems:
  - Global environment, cultural diversity, multiple languages
Objectives of Developing a Project Team

• Improving knowledge and skills of team members to lower costs, reduce schedules, and improve quality

• Improve feeling of trust and agreement among team members to raise morale, lower conflict, and increase team work

• Create a dynamic and cohesive team culture to improve both individual and team productivity, team spirit, and cooperation, allow cross-training and mentoring between team members to share knowledge and expertise
Inputs, Tools & Techniques, Outputs

**Inputs**
1. Project staff assignments
2. Project management plan
3. Resource calendars

**Tools & Techniques**
1. Interpersonal skills
2. Training
3. Team-building activities
4. Ground rules
5. Co-location
6. Recognition and rewards

**Outputs**
1. Team performance assessments
2. Enterprise environmental factors updates
Data Flow
Inputs

• Project staff assignments
  – Who are on the team
• Project management plan
  – Training strategies and plans
  – Rewards, feedback, additional training, and disciplinary actions
• Resource calendars
Tools and Techniques

• Interpersonal skills (soft skills)
  – Understanding the sentiments of project team members, anticipating their actions, acknowledging their concerns, following up their issues

• Training
  – Classroom, online, computer-based, on-the-job training from another project team member, mentoring, and coaching

• Team-building activities (stages in order)
  – Forming: the team meets and learns about project
  – Storming: the team begins to address the project work, technical decisions, and PM approach
  – Norming: the team begins to work together and adjusts to work habits and behaviours of each other
  – Performing: the team functions as a well-organized unit
  – Adjourning: the team completes the work and moves on from the project

• Ground rules: establishes acceptable behaviour by project team members

• Co-location: placing many team members in the same physical location

• Recognition and rewards:
  – will be effective if it satisfies a need which is valued by that individual.
  – Desirable behaviour should be rewarded (overtime to meet aggressive schedule versus poor planning by team member.
  – Rewards that everyone can achieve should be supported
  – Money as tangible reward
  – Intangible rewards such as opportunity to grow, accomplish, and apply their professional skills to meet new challenges
Outputs

• Team performance assessments
  – Team effectiveness should be formally/informally assessed
  – It is measured in terms of technical success according to project objectives, schedule, and budget
  – Task oriented or result oriented outcomes
  – Specific job-related and people-related qualities
  – Indicators:
    • Improvements in skills
    • Improvement in competencies
    • Reduced staff turnover rate
    • Increased team cohesiveness (openly share information and experience)
  – Results: identifying specific training, caching, mentoring, assistance or changes needed

• Enterprise environmental factors updates
  – Personnel administration
  – Updating employee training records and skill assessments
9.4 Manage Project Team

• The process of tracking team member performance, providing feedback, resolving issues, managing changes
• Project management team observes team behaviour, manages conflict, resolves issues, and appraises team member performance
• Change requests can be submitted, HR plan is updated, issues resolved, input is provided for performance appraisals, and lessons learned are added to the organization’s database
• Skills needed:
  – Communication
  – Conflict management
  – Negotiation and
  – leadership
Inputs, Tools & Techniques, Outputs

**Inputs**
1. Project staff assignments
2. Project management plan
3. Team performance assessments
4. Performance reports
5. Organizational process assets

**Tools & Techniques**
1. Observation and conversation
2. Project performance appraisals
3. Conflict management
4. Issue log
5. Interpersonal skills

**Outputs**
1. Enterprise environmental factors updates
2. Organizational process assets updates
3. Change requests
4. Project management plan updates
Data Flow
Inputs

• Project staff assignments
• Project management plan
  – Roles and responsibilities
  – Project organization, and
  – The staffing management plan
• Team performance assessments
  – Based on which issues are resolved, communication is modified, conflict is addressed, and team interaction is improved
• Performance reports
  – Schedule control, cost control, quality control, scope verification
  – Help HR requirements, recognition and rewards, updating the staffing management plan
• Organizational process assets
  – Certificates of application
  – Newsletters
  – Websites
  – Bonus structures
  – Corporate apparel
  – Other organizational perquisites
Tools and Techniques

• Observation and conversation
• Project performance appraisals
  – Objectives include: Clarification of roles and responsibilities, constructive feedback to team members, discovery of unknown or unresolved issues, development of individual training plan, and the establishment of specific goals for future time periods
  – Need depends on length and complexity of the project, organizational policy, labor contract requirements, and the amount and quality of regular communication
Tools & Techniques

• Conflict management:
  – Conflict is natural and inevitable and forces a search for alternatives
  – Conflict is a team issue coming from scarce resources, scheduling priorities, and personal work style
  – Team ground rules, group norms, solid PM practices like communication planning and role definition reduces the amount of conflict
  – Openness resolves it
  – Resolution should focus on issues, not personalities
  – Resolution should focus on the present, not the past
  – Team members are initially responsible for its resolution
  – If unable, PM should help. Early, in private, using direct and collaborative approach
  – If not resolved yet, formal procedures may be used, including disciplinary actions
  – Factors influencing conflict resolution methods
    • Relative importance and intensity of the conflict
    • Time pressure for resolving the conflict
    • Position taken by players involved
    • Motivation to resolve conflict on a long-term or short-term basis
  – Conflict resolving techniques
    • Withdrawing/avoiding
    • Smoothing/accommodating
    • Compromising
    • Forcing
    • Collaborating
    • Confronting/problem solving
Tools and Techniques

• Issue log

• Interpersonal skills
  – PM uses technical, human, and conceptual skills to analyze situations and interact appropriately with team members
Tools & Techniques

– Some of interpersonal skills needed by PM
  • Leadership
  • Influencing
    – Ability to be persuasive and clearly articulate points and positions
    – High levels of active and effective listening skills
    – Consideration of various perspectives in any situation, and
    – Gathering relevant and critical information to address important issues and reach agreements while maintaining mutual trust
  • Effective decision making
    – Focus on goals to be served
    – Follow a decision-making process
    – Study the environment factors
    – Develop personal qualities of the team members
    – Stimulate team creativity, and
    – Manage opportunity and risk
Outputs

• Enterprise environmental factors updates
  – Input to organizational performance appraisals
  – Personnel skill updates

• Organizational process assets updates
  – Historical information and lessons learned documentation
  – Templates
  – Organizational standard processes

• Change requests
  – Moving people, outsourcing, replacing team members
  – Preventing actions: cross-training team members

• Project management plan updates