ICT Project Management

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Unit 9: Project Human Resource Management

Project Resource Management includes the processes to identify, acquire, and manage the resources needed for the successful completion of the project.

"Human Resource Management is making the most effective use of the people involved with a project"

As Human Resource Management,

- ✓ The project team consists of individuals with assigned roles and responsibilities who work collectively to achieve a shared project goal.
- ✓ The project manager should invest suitable effort in acquiring, managing, motivating, and empowering the project team.
- ✓ Although specific roles and responsibilities for the project team members are assigned, the involvement of all team members in project planning and decision making is beneficial.
- ✓ Participation of team members during planning adds their expertise to the process and strengthens their commitment to the project

As Resource Management,

- ✓ Physical resources include equipment, materials, facilities, and infrastructure.
- ✓ Team resources or personnel refer to the human resources. Personnel may have varied skill sets, may be assigned full- or part-time, and may be added or removed from the project team as the project progresses.

In Human Resource Management,

- ✓ Project manager should be both leader and manager of the project team.
- ✓ In addition to project management activities such as initiating, planning, executing, monitoring and controlling, and closing the various project phases, the project manager is responsible for the team formation as an effective group.
- ✓ Project manager should be aware of different aspects that influence the team, such as:
 - Team environment,
 - Geographical locations of team members,
 - Communications among stakeholders,
 - Organizational change management,
 - Internal and external politics,
 - Cultural issues and organizational uniqueness, and
 - Other factors that may alter project performance.

9.1. Human Resource Management Process

Human Resource / Resource Management processes helps to ensure that the right resources will be available to the project manager and project team at the right time and place.

The Project Resource Management processes are:

- **1. Plan Human Resource Management:** Process of defining how to estimate, acquire, manage, and utilize physical and team resources.
- **2. Estimate Activity Resources:** Process of estimating team resources and the type and quantities of material, equipment, and supplies necessary to perform project work.
- **3. Acquire Resources:** Process of obtaining team members, facilities, equipment, materials, supplies, and other resources necessary to complete project work.
- **4. Develop Team:** Process of improving competencies, team member interaction, and the overall team environment to enhance project performance.
- **5. Manage Team:** Process of tracking team member performance, providing feedback, resolving issues, and managing team changes to optimize project performance.
- **6. Control Resources:** Process of ensuring that the physical resources assigned and allocated to the project are available as planned, as well as monitoring the planned versus actual use of resources, and performing corrective action as necessary.

9.2 Planning Project Human Resource Management

Plan Project Human Resource Management is the process of defining how to estimate, acquire, manage, and use team and physical resources.

- ✓ Planning HRM establishes the approach and level of management effort needed for managing project human resources based on the type and complexity of the project.
- ✓ Human Resource planning is used to determine and identify an approach to ensure that sufficient resources are available for the successful completion of the project.
- ✓ Project resources may include team members, supplies, materials, equipment, services and facilities.
- ✓ Effective human resource planning should consider and plan for the availability of, or competition for, scarce resources.
- ✓ Those resources can be obtained from the organization's internal assets or from outside the organization through a procurement process.
- ✓ Other projects may be competing for the same resources required for the project at the same time and location. This may significantly impact project costs, schedules, risks, quality, and other project areas.

Inputs, Tools and Techniques, Outputs of the Process: planning Project HRM

Plan Resource Management

Inputs

- .1 Project charter
- .2 Project management plan
 - Quality management plan
- Scope baseline
- .3 Project documents
- Project schedule
- Requirements documentation
- · Risk register
- · Stakeholder register
- .4 Enterprise environmental factors
- .5 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Data representation
 - · Hierarchical charts
 - Responsibility assignment matrix
 - · Text-oriented formats
- .3 Organizational theory
- .4 Meetings

Outputs

- .1 Resource management plan
- .2 Team charter
- .3 Project documents updates
 - Assumption log
 - · Risk register

Figure: Inputs, Tools and Techniques, Outputs of the Process: planning HRM

Estimate Activity Resource:

- ✓ Estimate Activity Resources is the process of estimating team resources and the type and quantities of materials, equipment, and supplies necessary to perform project work.
- ✓ The key benefit of this process is that it identifies the type, quantity, and characteristics of resources required to complete the project.
- ✓ This process is performed periodically throughout the project as needed.

Estimate Activity Resources

Inputs

- .1 Project management plan
 - Resource management plan
 - Scope baseline
- .2 Project documents
 - · Activity attributes
 - Activity list
 - Assumption log
 - Cost estimates
 - Resource calendars
 - · Risk register
- .3 Enterprise environmental factors
- .4 Organizational process assets

Tools & Techniques

- .1 Expert judgment
- .2 Bottom-up estimating
- .3 Analogous estimating
- .4 Parametric estimating
- .5 Data analysis
- Alternatives analysis
- .6 Project management information system
- .7 Meetings

Outputs

- .1 Resource requirements
- .2 Basis of estimates
- .3 Resource breakdown structure
- .4 Project documents updates
 - Activity attributes
 - Assumption log
 - · Lessons learned register

Figure: Inputs, Tools and Techniques and Output of the process: Estimate Activity Resource

Note: Topic inside "Input, tool and techniques and outputs" are already explained in details in previous chapter. See there.

9.3. Acquire Project Team

- ✓ Acquire project team is the process of confirming human resource availability and obtaining the team necessary to complete project activities.
- ✓ Project team is considered as the one of crucial resource. Therefore acquiring project team or acquiring resource is the process of obtaining team members, facilities, equipment, materials, supplies, and other resources necessary to complete project work.
- ✓ The key benefit of this process is that it outlines and guides the selection of project team and assigns them to their respective activities
- ✓ This involves getting the human resources needed (individuals or groups) assigned to and working on the project. In most environments, the "best" resources may not be available, and the project management team must take care to ensure that the resources which are available will meet project requirements.
- ✓ This process is performed periodically throughout the project as needed.

How to acquire project Team?

- 1. **Identify the skills and expertise needed for your project**: This will help you determine the types of team members you need to bring on board.
- 2. **Determine the size and structure of your team**: Consider factors such as the complexity of the project, the budget, and the timeline.
- 3. **Create a job description for each team member:** This should outline the responsibilities and qualifications required for each role.
- 4. **Recruit team members:** This can be done through various channels, such as job postings, networking, or referrals.
- 5. **Select the best candidates for each role**: Consider factors such as their skills and experience, as well as their fit with the team and the project.
- 6. **Onboard new team members**: This includes providing them with the necessary training and resources to be successful in their roles.
- 7. **Communicate** with your team regularly to ensure that everyone is on track and has the support they need to be successful.

Considering Project team as a major resource: The inputs for acquiring process, Tools and technique used for acquiring and output of the process: Acquiring project team are as follows from PMBOK Guide:

Inputs, Tools and Technique and Output of the process: Acquiring Project Team

Acquire Resources

Inputs

- .1 Project management plan
 - Resource management plan
 - Procurement management plan
 - Cost baseline
- .2 Project documents
 - Project schedule
 - · Resource calendars
 - · Resource requirements
 - Stakeholder register
- .3 Enterprise environmental factors
- .4 Organizational process assets

Tools & Techniques

- .1 Decision making
 - Multicriteria decision analysis
- .2 Interpersonal and team skills
 - Negotiation
- .3 Pre-assignment
- .4 Virtual teams

Outputs

- .1 Physical resource assignments
- .2 Project team assignments
- .3 Resource calendars
- .4 Change requests
- .5 Project management plan updates
 - Resource management plan
 - · Cost baseline
- .6 Project documents updates
 - Lessons learned register
 - Project schedule
 - Resource breakdown structure
 - · Resource requirements
 - · Risk register
 - Stakeholder register
- .7 Enterprise environmental factors updates
- Organizational process assets updates

Figure: Inputs, Tools and Technique and Output of the process: Acquiring Project Team

9.4. Develop Project Team

- ✓ Develop Team is the process of improving competencies, team member interaction, and the overall team environment to enhance project performance.
- ✓ Team Developments process results in improved teamwork, enhanced interpersonal skills and competencies, motivated employees, reduced attrition, and improved overall project performance.
- ✓ This process is performed throughout the project.
- ✓ Team members often have diverse industry experience, communicate in multiple languages, and sometimes work with a "team language" or cultural norm that may be different from their native one.
- ✓ The project management team should capitalize on cultural differences, focus on developing and sustaining the project team throughout the project life cycle, and promote working together interdependently in a climate of mutual trust.

Objectives of the Developing of a Project Team are:

- ✓ Improving the knowledge and skills of team members to increase their ability to complete project deliverables, while lowering costs, reducing schedules, and improving quality;
- ✓ **Improving feelings of trust and agreement among team members** to raise morale, lower conflict, and increase teamwork;

- ✓ Creating a dynamic, cohesive, and collaborative team culture to: (1) improve individual and team productivity, team spirit, and cooperation; and (2) allow crosstraining and mentoring between team members to share knowledge and expertise; and
- ✓ **Empowering the team** to participate in decision making and take ownership of the provided solutions to improve team productivity for more effective and efficient results

One of the best model used to describe Team Development is "TUCKMAN LADDER"

Tuckman Ladder includes five stages of development that teams may go through.

- 1. **Forming.** This phase is where the team members meet and learn about the project and their formal roles and responsibilities. Team members tend to be independent and not as open in this phase.
- **2. Storming.** During this phase, the team begins to address the project work, technical decisions, and the project management approach. If team members are not collaborative or open to differing ideas and perspectives, the environment can become counterproductive.
- **3. Norming.** In this phase, team members begin to work together and adjust their work habits and behaviors to support the team. The team members learn to trust each other.
- **4. Performing.** Teams that reach the performing stage function as a well-organized unit. They are interdependent and work through issues smoothly and effectively.
- **5. Adjourning.** In this phase, the team completes the work and moves on from the project. This typically occurs when staff is released from the project as deliverables are completed or as part of the Close Project or Phase process

The duration of a particular stage depends upon team dynamics, team size, and team leadership. Project managers should have a good understanding of team dynamics in order to move their team members through all stages in an effective manner.

Inputs, Tools and techniques and Outputs of the process: Develop Project Team

Develop Team

Inputs

- .1 Project management plan
 - Resource management plan
- .2 Project documents
 - Lessons learned register
 - Project schedule
 - Project team assignments
 - Resource calendars
 - · Team charter
- .3 Enterprise environmental factors
- .4 Organizational process assets

Tools & Techniques

- .1 Colocation
- .2 Virtual teams
- .3 Communication technology
- .4 Interpersonal and team skills
 - Conflict management
 - Influencing
 - Motivation
 - Negotiation
 - Team building
- .5 Recognition and rewards
- .6 Training
- .7 Individual and team assessments
- .8 Meetings

Outputs

- Team performance assessments
- .2 Change requests
- .3 Project management plan updates
 - Resource management plan
- .4 Project documents updates
 - Lessons learned register
 - · Project schedule
 - Project team assignments
 - Resource calendars
 - · Team charter
- .5 Enterprise environmental factors updates
- .6 Organizational process assets updates

9.5. Manage Project Team

- ✓ Process of tracking team member performance, providing feedback, resolving issues, and managing team changes to optimize project performance.
- ✓ The key benefit of this process is that it influences team behavior, manages conflict, and resolves issues.
- ✓ This process is performed throughout the project
- ✓ Managing the project team requires a variety of management and leadership skills for fostering teamwork and integrating the efforts of team members to create high-performance teams.
- ✓ Team management involves a combination of skills with special emphasis on communication, conflict management, negotiation, and leadership.
- ✓ Project managers should provide challenging assignments to team members and provide recognition for high performance.
- ✓ The project manager needs to be sensitive to both the willingness and the ability of team members to perform their work and adjust their management and leadership styles accordingly.
- ✓ Team members with low-skill abilities will require more intensive oversight than those who have demonstrated ability and experience

Inputs, Tools and Techniques and Output of the process: Manage Project Team

Manage Team Inputs Tools & Techniques **Outputs** .1 Project management plan .1 Interpersonal and team skills .1 Change requests · Conflict management Resource management plan .2 Project management plan .2 Project documents Decision making updates Issue log Emotional intelligence Resource management plan Lessons learned register Influencing Schedule baseline Project team assignments Leadership · Cost baseline Team charter .2 Project management .3 Project documents updates .3 Work performance reports information system · Issue log .4 Team performance Lessons learned register assessments · Project team assignments .5 Enterprise environmental .4 Enterprise environmental factors factors updates .6 Organizational process assets

Figure: Inputs, Tools and Techniques and Output of the process: Manage Project Team

End of Unit 9