Lecture 8: Planning and Project Work Performance Domains

Topics Covered

- Planning Variables and Considerations
- Managing Communication, Physical Resources, and Procurement
- Monitoring and Controlling Project Work

Learning Objectives:

- Gain insights into project planning and work execution.
- Learn how to manage resources and communication for successful project outcomes.

Introduction to Planning Performance Domain

- **Planning Performance Domain**: Encompasses the activities necessary to organize, elaborate, and coordinate project work.
- Importance:
  - Aligns project goals with stakeholder expectations.
  - Establishes the foundation for delivering project deliverables.

Planning Variables and Considerations

Key Variables

1. **Development Approach**
    - **Predictive**: Up-front detailed planning.
    - **Adaptive**: Incremental planning with adjustments each iteration.
    - **Hybrid**: Combination based on project needs.
2. **Project Deliverables**
    - Defines planning requirements based on industry and type of deliverables (e.g., construction vs. software).
3. **Organizational Requirements**
    - Influence of policies, procedures, and organizational culture on planning

Planning Variables and Considerations (Continued)

Additional Variables

4. **Market Conditions**
    - Competitive environments may require faster planning and execution.
5. **Legal or Regulatory Restrictions**
    - Some projects must adhere to specific regulations, impacting the planning process.

Example: Legal Compliance in Pharmaceutical Project

- **Scenario**: Developing a new drug must follow strict FDA guidelines.
- **Planning Impact**: Extensive planning for testing phases, compliance documentation, and regulatory submissions.

Project Scope

- **Product Scope**: Features and functions of the final deliverable.
- **Project Scope**: Work necessary to deliver the product scope.
- Tools for scope planning:
  - **Work Breakdown Structure (WBS)**: Visual hierarchy of project tasks.
  - **Scope Statement**: Defines the project boundaries.

Estimation Techniques

- **Estimating Resources and Time**:
  - **Analogous Estimating**: Based on past projects.
  - **Parametric Estimating**: Uses statistical relationships (e.g., cost per unit).
  - **Three-Point Estimating**: Averages optimistic, pessimistic, and most likely scenarios.
- **Range of Estimates**: Broad early in the project, refined over time.

Managing Communication in Projects

- **Communication Planning**:
  - **Stakeholder Analysis**: Identifies who needs information and when.
  - **Communication Plan**: Establishes methods, frequency, and content for stakeholder communication.

Managing Communication (Continued)

Methods of Communication

1. **Formal and Informal**:
    - Formal (reports, emails) vs. informal (conversations, instant messaging).
2. **Verbal and Written**:
    - Combination of presentations, documentation, and meetings ensures clear messaging.

Managing Physical Resources

- **Physical Resources**: Non-human assets (e.g., materials, equipment).
- **Resource Planning**:
  - Inventory tracking, ordering timelines, and storage considerations.

Example: Construction Project Resource Management

- **Scenario**: A building project with specific material needs.
- **Resource Plan**: Includes procurement schedules, supplier selection, and delivery logistics.

Procurement Management

- **Procurement Planning**:
  - **Make-or-Buy Analysis**: Deciding to produce internally or purchase externally.
  - **Bid Process**: Competitive selection for vendors (Request for Information, Proposal, or Quote).

Bid Process Steps

1. **Bid Documents**: RFI, RFP, RFQ based on project needs.
2. **Bidder Conferences**: Clarify requirements for vendors.
3. **Vendor Selection**: Evaluation of bids based on criteria such as price, experience, and quality.

Contract Types

- **Fixed-Price Contract**: Set price for specified work.
- **Cost-Plus Contract**: Buyer covers costs plus a fee.
- **Time & Materials Contract**: Based on time worked and materials used.

Monitoring and Controlling Project Work

- **Objective**: Track project progress and ensure alignment with the plan.
- **Key Components**:
  - **Performance Metrics**: Indicators of progress.
  - **Variance Analysis**: Comparing actual performance with the plan.

Example: Tracking Progress in Software Development

- **Scenario**: Agile software project with bi-weekly sprints.
- **Monitoring Tools**: Burn-down charts, sprint retrospectives to ensure timely delivery.

Change Control Process

- **Importance of Change Management**:
  - Ensures project remains aligned with objectives despite changes.
  - Minimizes scope creep and associated risks.
- **Steps**:
  i. Identify the need for change.
  ii. Evaluate impact.
  iii. Approve or reject change.
  iv. Document and communicate decision.

Case Study: Adapting to Change in a Product Launch

- **Scenario**: Consumer product launch with sudden regulatory change.
- **Action**: Change request submitted, impact assessed, timeline adjusted, stakeholders informed.

Planning and Controlling Deliverables

- **Baseline Metrics**: Set at the beginning to measure performance.
  - **Budget Baseline**: Approved project budget.
  - **Schedule Baseline**: Planned timeline.
  - **Scope Baseline**: Defined scope.

Ensuring Quality in Project Work

- **Quality Management Plan**:
  - Defines quality metrics, testing, and validation.
- **Continuous Monitoring**:
  - Regular checks against quality standards to ensure deliverables meet requirements.

Example: Quality Control in Manufacturing

- **Scenario**: Manufacturing project for a consumer product.
- **Quality Tools**: Quality assurance tests and inspections to reduce defects.

Learning and Knowledge Transfer

- **Continuous Improvement**:
  - Lessons learned after each phase or iteration.
  - Knowledge transfer ensures future projects benefit from insights.
- **Retrospectives**:
  - Regularly scheduled reviews to refine processes and methodologies.

Knowledge Management in Practice

- **Project Repository**: Store documents, processes, and lessons learned.
- **Training Sessions**: Ongoing knowledge-sharing initiatives.

Summary of Planning and Project Work Performance Domains

- Importance of thorough planning and resource management.
- Effective communication and monitoring practices.
- Flexibility through structured change control processes.