إدارة المشروعات

Projects Management

د. باسم ممدوح الحلوانى

Lecture 5
Time Management
(Scheduling)

Time Management

A range of skills, tools, and techniques used to manage time when accomplishing specific tasks, projects and goals

Importance of Project Schedules:

1. Managers often cite delivering projects on time as one of their biggest challenges
2. Schedule issues are the main reason for conflicts on projects, especially during the second half of projects
3. Time has the least amount of flexibility; it passes no matter what happens on a project

Individual Work Styles and Cultural Differences Cause Schedule Conflicts

- peoples' attitudes toward structure and deadline are different:
  - ✓ **Judgment type people**: prefer to follow schedules, meet deadlines and have closure
  - ✓ **Perception type people**: prefer to keep things open and flexible; deadlines are a signal to start rather than to complete a project
- Difference cultures and even entire countries have different attitudes about schedules

Effects of Poor Time Management

1. Decreased employee morale

- ✓ Employees do not like working for managers that do not know how to manage their time.
- ✓ When managers react without first planning, the employees see this as a weakness in management skills.

2. Lower Employee Productivity

- ✓ With low morale and a lack of trust in their supervisor/manager, employees tend to perform less than usual.

3. High Turnover

- ✓ As morale gets lower and productivity declines, employees lose interest/desire to work for the manager/company.
- ✓ This cost companies a lot of money to consistently train new employees.

Project Time Management Processes

Process Group	Integration Management Process	Major Output
Planning	P1: Defining Activities	Activity List
	P2: Sequence Activities	Project Schedule Network Diagram
	P3: Estimate Activity Resources	Activity Resource Reqs.
	P4: Estimate Activity Duration	Activity Duration Estimates
	P5: Develop Schedule	Project Schedule
Monitoring and Controlling	MC1: Control Schedule	Work Performance Measurements

Project Time Management Processes

- The basis for creating a project schedule is derived from four project time management processes:

1. Activity definition
2. Activity sequencing
3. Activity resource Estimation and
4. Activity duration Estimation (further defining the time and cost)

P1: Defining Activity

An **activity** or **task** is an element of work normally found on the work breakdown structure (WBS) that has an expected duration, a cost, and resource requirements

- Activity definition involves developing a more detailed WBS and supporting explanations to understand all the work to be done so you can develop realistic cost and duration estimates

- Project schedules grow out of the basic documents that initiate a project
  - ✓ Project charter: includes start and end dates and budget information
  - ✓ Scope statement and WBS: help define what will be done

Input	Tools/Techniques	Output
1) Scope Baseline 2) Enterprise Environment Factors 3) Organizational Process Assets	1) Decomposition 2) Component Planning 3) Expert Judgment	1) Activity List 2) Activity Attributes 3) Milestone List

Project Time Management Processes

➢ Activity Lists

An **activity list** is a tabulation of activities to be included on a project schedule that includes:

- ✓ The activity name
- ✓ An activity identifier or number
- ✓ A brief description of the activity

➢ Activity Attributes:

- provide more information such as:

- ✓ Predecessors,
- ✓ Successors,
- ✓ logical relationships,
- ✓ leads and lags

- ✓ Resource requirements,
- ✓ Constraints,
- ✓ Imposed dates, and
- ✓ Assumptions related to the activity

Project Time Management Processes

➢ Milestones

- A milestone is a significant event that normally has no duration
- Not every deliverable or output created for a project is a milestone
- It often takes several activities and a lot of work to complete a milestone
- They're useful tools for setting schedule goals and monitoring progress

Examples include obtaining customer sign-off on key documents or completion of specific products such as software modules or the installation of new hardware

P2: Sequencing Activities

- After defining project activities, the next step is activity sequencing
- Involves reviewing activities and determining dependencies

- A **dependency** or **relationship** is the sequencing of project activities or tasks
  - ✓Does a certain activity have to be finished before another can start?
  - ✓Can the project team do several activities in parallel?
  - ✓Can some overlap?
- Determining these relationships or dependencies among activities has a significant impact on developing and managing a project schedule.

P2: Sequencing Activities

Three types of Dependencies

1. **Mandatory dependencies:** inherent in the nature of the work being performed on a project, sometimes referred to as hard logic

For example, you cannot test code until after the code is written

2. **Discretionary dependencies: (متروك للتقدير)**
   - **d**efined by the project team., sometimes referred to as soft logic and should be used with care since they may limit later scheduling options

For example, we might follow good practice and not start the detailed design of a new system until the users sign off on all of the analysis work.

3. **External dependencies:** involve relationships between project and non-project activities

For example, the installation of a new OS/software may depend on delivery of new hardware from an external supplier.

P2: Sequencing Activities

- it is important that project stakeholders **work together** to define the activity dependencies in their project.
- If you do not define the sequence of activities, you cannot use some of the most powerful scheduling tools available to project managers: **network diagrams** and **critical path analysis**.

Input	Tools/Techniques	Output
1) Activity List & Attributes 2) Milestone List 3) Scope Statement 4) Org Process Assets	1) Determine Dependency 2) PDM 3) Apply Leads/Lags 4) Schedule Network	1) Project Schedule 2) Network Diagrams 3) Update Project Docs