

MBA CLASS 4

Subject Profile: PROJECT MANAGEMENT

Session 5

PROJECT COST MANAGEMENT



On completion of this Session, you will be able to:

1. Prepare project budgeting
2. Develop costs scheduling & project accounting
3. Define cost control plans

ACTIVITIES:

- **Lecturing**
- **Reading for comprehensive:** Estimated cost of a designed project
- **Group discussion:** Cost scheduling and control
- **Presentation:** Estimates cost of the new project

Home exercise: Monitoring procedure and quality measurable standards for the new project

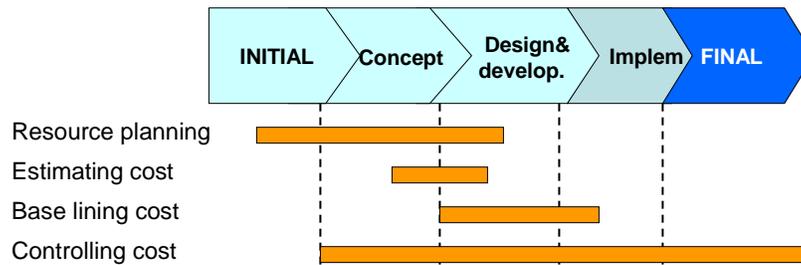
- **Assessment:** Self-assessment

LEARNING TOOLS

- PMBOK Guide
- Lecture notes
- Sample of project estimated cost
- Assignment material

Project cost management definition

- Project cost management is the process of estimating, base-lining and controlling the cost of a project

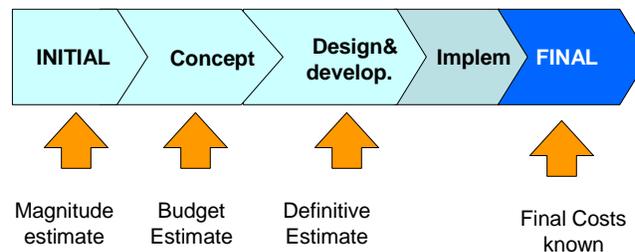


1. Project cost estimating

1.1. Estimating project cost process

Estimating project costs

- Estimating project cost is the process of determining the cost for each resource needed to complete project activities



Estimate quality

The quality of any estimate will depend on a good understanding of:

- The time constraints of the project
- The estimating supporting mechanisms
- The currency of market information provided
- The clarity and accuracy of the project scope
- The skills and experience of the estimator
- Previous projects with similarities.

1.2. Estimating project cost requirements

Estimating project cost requirements

- Work breakdown Structure (WBS)
- Resource requirements
- Resource rates
- Activity duration estimates
- Historical information
- Chart of accounts

Descriptions

- **WBS:** Used to organize the cost estimates and to ensure that all identified work has been estimated.
- **Resources rates:** the unit rates (staff cost/h, bulk material cost/m etc) for each resource
- **Activity duration estimates:** this may affect finance, tax and interest costs which may need to be included in the overall of the project.
- **Historical information:** (Previous project results; estimating database etc.)

- **Chart of accounts:** describes the coding structure used to report financial information. The project estimates must be assigned to the correct accounting category

1.3. Project estimating cost elements

Estimating cost elements

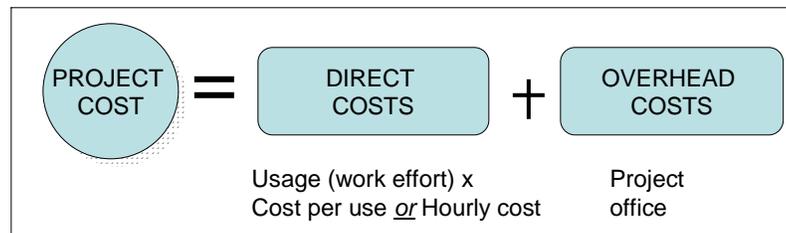
- Insurance
- Materials
- Management
- Plant&Equipment
- Fees&Taxation
- Contingency
- Inflation
- Labor
- Transport
- Sub-contract
- Overhead & administration

LA TROBE UNIVERSITY – HANOI UNIVERSITY
GRADUATE SCHOOL OF MANAGEMENT
MBA CLASS: Project Management - Session 8: Procurement Management
Version 2.0

5

1.4. Direct and indirect project cost

Direct and overhead costs



Estimating costs mechanisms and tools

- Top-down estimating model
- Bottom-up estimating model
- Cost models
- Software modeling tools

Methods' descriptions

“Top-down estimating” model

- That uses the actual cost of similar projects as the basic for estimating the cost of the current project
- This cheap method is used to estimate total project costs when there is limited information about the project,
- Requires expert experience and judgment

“Bottom-up” model

- Summaries the individual estimates of project items to get total project cost.
- Is more accurate when smaller work items are used

Cost model

- Use the costs of project parameters (like m, m2, m3 etc.) to predict project costs
- This method is simple but required accurate data.

Software modeling

- Uses computerized tools/spreadsheets
- Allow rapid many alternative and accurate estimates but depends on quality of software and experiences of estimator.

2. costs budgeting/baseline project costs

2.1. Assignment brief

Project cost budgeting

Project cost budgeting (or base-lining project costs) is the process of allocating estimated costs against project activities and agreeing stakeholders on the cost baseline for measuring cost performance

LA TROBE UNIVERSITY – HANOI UNIVERSITY
GRADUATE SCHOOL OF MANAGEMENT
MBA CLASS: Project Management - Session 8: Procurement Management
Version 2.0

8

2.2. Base-lining project costs requirement and tools

Base-lining project costs requirement and tools



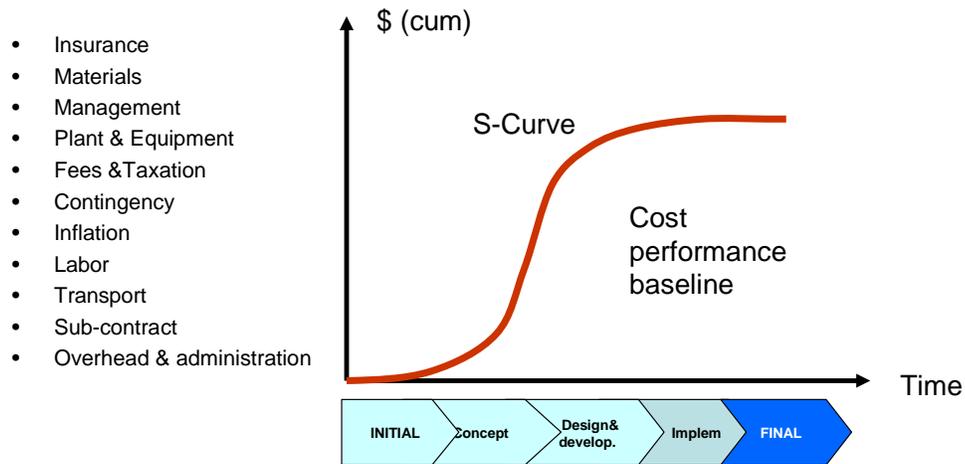
- Cost estimates
- WBS
- Project schedule



- Based-lining project costs mechanism

2.3. Project cost baseline

Project cost baseline



- Based-lining project costs involves the allocation of costs across the time (or fiscal) periods in which the project will be conducted.
- Cost is not incurred at a steady rate that is why it is inaccurate to allocate costs on a straight line, it typically like a “S-curve”.

3. Controlling project costs

Controlling project costs

Controlling project costs is the process of:

- Influencing factors which create changes to the cost baseline to ensure the changes are beneficial.
- Determining that the cost baseline has changed
- Managing the actual changes when and as they occur.

3.1. Requirement of controlling process

Controlling project costs requirements

- Project cost baseline
- Cost performance report
- Change requests
(increasing/decreasing budget)
- Project cost control plan

3.2. Controlling mechanisms and tools

Controlling project costs mechanisms and tools

- **Change control procedure:** Defines procedures for changes to cost baseline
- **Planning update:** refined estimates analysis of alternatives
- **Performance measurement:** Assess magnitude of variance and determine corrective action Earned Value Analysis
- **Software:** Project management software, Spreadsheets

LA TROBE UNIVERSITY – HANOI UNIVERSITY
GRADUATE SCHOOL OF MANAGEMENT
MBA CLASS: Project Management - Session 8: Procurement Management
Version 2.0

13

3.3. Earned Valued (EV)

- EV is a tool for monitoring both cost and schedule
- EV is the dollar value of the actual work done at the budgeted cost rate
- EV is also known as Budgeted Cost of Work Performed (BCWP)

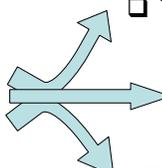
3.4. Project cost variance (CV)

Project cost variance (CV)

CV is the difference between what we said it would cost and what is actually has cost

$$\text{CV} = \text{BCWP}^* - \text{ACWP}^{**}$$

* BCWP - Budgeted Cost of Work Performed
**ACWP – Actual cost of work performed



- The project is under or over budget
- If the EV is greater than actual cost, the project is on average under budget
- If it is less, it is on average over budget

LA TROBE UNIVERSITY – HANOI UNIVERSITY
GRADUATE SCHOOL OF MANAGEMENT
MBA CLASS: Project Management - Session 8: Procurement Management
Version 2.0

15

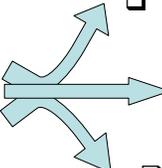
3.5. Project Schedule variance (SV)

Project Schedule variance (SV)

SV is the difference between what we said we would do and what we have actually done

$$\text{SV} = \text{BCWP} - \text{BCWS}^{***}$$

***BCWS - Budgeted Cost of Work Scheduled



- The project is early or late
- If the EV is greater than scheduled cost, the project is on average early
- If it is less, it is on average late

LA TROBE UNIVERSITY – HANOI UNIVERSITY
GRADUATE SCHOOL OF MANAGEMENT
MBA CLASS: Project Management - Session 8: Procurement Management
Version 2.0

16

3.6. Controlling Project Cost deliverables

Controlling Project Cost deliverables

- Revised cost estimates
- Budget updates
- Corrective action
- Estimate at completion
- Lessons learned



LA TROBE UNIVERSITY – HANOI UNIVERSITY
GRADUATE SCHOOL OF MANAGEMENT
MBA CLASS: Project Management - Session 8: Procurement Management
Version 2.0

17

Descriptions

- **Revised cost estimates** are modifications to the cost information used to manage the project.
- **Budget updates** are special category of revised cost estimates. Budget updates are changes to an approval cost baseline.
- **Estimate at completion** is a forecast of total project costs based on project performance