

MGMT 8040 Project Procurement and Quality Management - 12 hours (1.2 CEUs)

COURSE OBJECTIVES

After completing this course, students will know:

- What quality is
- What the processes of project quality management are
- Tools and techniques to achieve quality
- What project procurement management is
- What the processes of project procurement management are

PREREQUISITE None

TEXTS

A Guide to the Project Management Body of Knowledge (PMBOK® Guide), 6th Edition, Project Management Institute, 2017

The Team® Handbook, Third Edition, Oriel, 2003

INSTRUCTOR

Module 3

Module Objectives

The objectives of this module are:

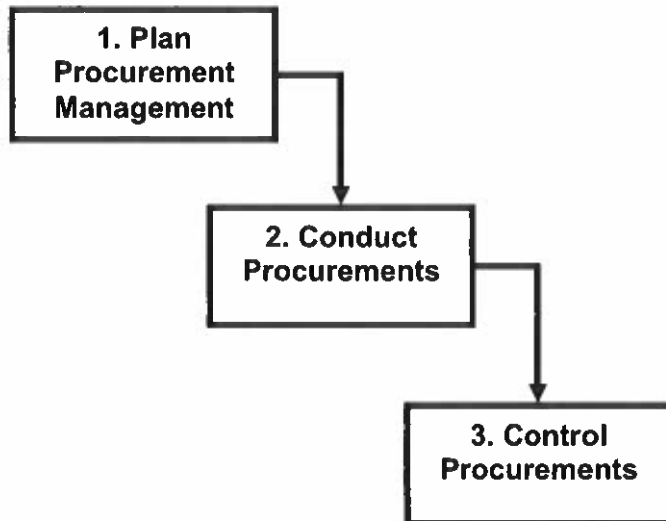
- Identify the processes of project procurement management
- Understand what make-or-buy analysis is
- Learn the advantages of various types of contracts.

Reading Assignments

PMBOK® Guide, Chapter 12

Project Procurement Management

The processes of project procurement management are shown in the following figure:



These processes are defined in the *PMBOK® Guide* as follows:

1. Plan Procurement Management – the process of documenting project procurement decisions, specifying the approach, and identifying potential sellers.
2. Conduct Procurements – the process of obtaining seller responses, selecting a seller, and awarding a contract.
3. Control Procurements – the process of managing procurement relationships, monitoring contract performance, and making changes and corrections as appropriate, and closing out contracts.

Figure 12-3 of the *PMBOK® Guide* shows how these procurement management processes relate to other *PMBOK® Guide* processes.

Make-or-Buy Analysis

The *PMBOK® Guide* describes the technique of make-or-buy analysis. Make are those items or activities that are made or performed within the organization. Buy are those items or activities that are made or performed outside the organization.

Besides the obvious choices of making the product or service in-house, or procuring the product or service from a seller, there are times when the product or service could either be made in-house or procured. The following table summarizes potential make-or-buy categories:

Make-or-Buy Categories	When to Select
Must make	• Those items or activities that must be made or performed in the organization
Should make	• Those items or activities that should be made or performed in the organization
Could make or buy	• Those items or activities that could be made or performed either inside or outside of the organization
Should buy	• Those items or activities that should be made or performed outside of the organization
Must buy	• Those items or activities that must be made or performed outside of the organization

Make-or-Buy Categories

Contract Types

The *PMBOK® Guide* describes several types of contracts that are commonly used to procure project resources that are not available to the performing organization:

- Fixed price (lump sum)
 - Firm fixed-price (FFP)
 - Fixed-price incentive fee (FPIF)
 - Fixed-price with economic price adjustment (FPEPA)
- Cost-reimbursable
 - Cost-plus fixed fee (CPFF)
 - Cost-plus incentive fee (CPIF)
 - Cost-plus award fee (CPAF)
- Time and material (T&M)

The pros and cons of these contract types are summarized in the following chart:

Contract Type	Pros	Cons
Fixed-price (lump sum)	• Better definition of total project cost than T&M and cost-reimbursable • Better than T&M and cost-reimbursable when scope is very well defined (construction contract, etc.)	• Need more well-defined scope of work than T&M and cost-reimbursable • Higher cost than T&M and cost-reimbursable
Cost-reimbursable	• Better for long-term projects than T&M • Better definition of total project cost than T&M • Better cost control than T&M	• Takes longer to put in place than T&M • Need more well-defined scope of work than T&M
Time & material (T&M)	• Faster to put in place • Good for additional personnel needs • Good when scope of work is not well-defined	• Little incentive to control costs

Pros and Cons of Contract Types

Procurement Management Plan

The Procurement Management Plan is one of the primary outputs of the Plan Procurement Management process. The Procurement Management Plan usually is a subset of the overall Project Management Plan, although on larger projects it is sometimes a stand-alone document. Some of the potential elements of the Procurement Management Plan are:

- What types of contracts will be used;
- What evaluation criteria is necessary to properly select the best vendor for the job;
- What types of information the project team will provide to the administration department;
- How the vendors will be managed;
- How vendor payments will be scheduled; and
- How the procurement process will be coordinated with other project aspects such as scheduling and performance reporting

Procurement Statement of Work (SOW)

The Procurement Statement of Work is another output of the Plan Procurement Management process. The Procurement SOW describes the item or service to be procured. Some of the key elements of the SOW are:

- Summary of work requested
- Background
- Description of major deliverables
- Expected benefits
- Items not in scope
- Business objectives

Source Selection Criteria

Another output of the Plan Procurements process is the source selection criteria. These criteria are used to score the seller proposals. An example of source selection criteria is shown in the following chart:

Source Selection Criteria	Weighting
• Understanding of contract requirements	• 10%
• Quality of previous work	• 20%
• Experience of key personnel	• 20%
• Availability of staff	• 10%
• Availability of equipment	• 10%
• Price	• 30%

Source Selection Criteria Example

Proposal Evaluation Techniques

In the Conduct Procurements process, the source selection criteria described above are used to score the proposals received from the potential sellers. This is illustrated in the following table:

Source Selection Criteria	Score (1-10)	Weighting	Weighted Score
• Understanding of contract requirements • Quality of previous work • Experience of key personnel • Availability of staff • Availability of equipment • Price		• 10% • 20% • 20% • 10% • 10% • 30%	
TOTAL WEIGHTED SCORE			

Proposal Evaluation Example

Another tool used in the Conduct Procurements process is procurement negotiations. Procurement negotiations achieve a mutual agreement between the buyer and the seller(s). Negotiations are common on projects and are needed to reach agreement on scope, cost and schedule objectives, changes to these objectives, contract terms and conditions, assignments and resources. The following chart lists five points to consider in the negotiation process:

Negotiation Points	Example
• Separate the people from the problem • Establish rapport before you negotiate • Focus on interests not positions • Invent options for mutual gain • When possible use objective criteria	• Don't personalize the negotiation • It is easier to reach agreement if the parties like each other • Focus on what each party wants to achieve • Brainstorm solutions that are better for both parties • Use standard references to help settle disagreements

Points to Consider in Negotiation

The outputs of the Conduct Procurements process may include:

- **Selected seller(s)** – the seller(s) who are selected to receive a contract from the buyer to supply the goods or services
- **Agreements** – the documents that contain the mutually binding legal agreements
- **Resource calendars** – when resources will be made available to the project
- **Change requests** – changes requested to the Project Management Plan or other plans
- **Project Management Plan updates**, including updates to the Procurement Management Plan

Control Procurements

The process of Control Procurements ensures that both buyer and seller perform according to the requirements of the contract. Some of the tools and techniques used in this process may include:

- Procurement performance reviews conducted by the buyer
- Inspections and audits conducted by the buyer
- Performance reporting conducted by the seller
- Payment systems of the buyer to ensure payments to the seller are made according to the contract

Some of the outputs of the Control Procurements process may include:

- Closed procurements – the buyer provides notice to the seller that the contract has been completed
- Final procurement file, to be filed with the final project file documents
- Deliverable acceptance – the buyer notifies the seller that the contract deliverables have been accepted or rejected
- Lessons learned documentation – documents the positive aspects that occurred in the performance of the contract, and the recommendations for improvement

Module 3 Summary

In Module 3, we learned how to:

- Identify the processes of project procurement management
- Conduct a make-or-buy analysis
- Select the best types of contract for the procurement situation

Quality Assignment 2

The second quality assignment is to address the project improvement project that you defined in Quality Assignment 1. Create a table listing the Six Sigma steps 2 through 5 as shown in the example below. Choose all of the potential strategies listed in The Team Handbook that you could use for each step. List the result of using each strategy.

Six Sigma Steps	Strategies	Results
2. Measure		
3. Analyze		
4. Improve		
5. Control		

Six Sigma Strategies and Results

Discussion Postings

Post your discussion posting by the date shown in the Syllabus. Discussion postings must be a minimum of 100 words. In order to obtain full credit, review and comment on a minimum of two other students' discussion postings within two days after the scheduled posting date. Please respond to comments on your discussion postings.

The discussion posting for Module 3 is:

1. List the deliverables in a project that you are working on or are familiar with. Select the make/buy category for each deliverable, along with the selection rationale.
2. What contract types have you used or observed being used? What were the pros and cons of each one?
3. Which of the negotiation points have you used? What was the result?
4. What did you like best in this course?
5. What changes would you suggest to improve the course in the future?
6. What were the most interesting or most important ideas and/or tools that you learned in this course?