

Software Project Management



Chapter9: Procurement Management



Structure of this course

| | 5 process groups | | | | |
|---------------------------|------------------|----------|-----------|--------------------------|---------|
| 10 knowledge areas | Initiating | Planning | Executing | Monitoring & Controlling | Closing |
| 1. Integration management | | | | | |
| 2. Scope | | | | | |
| 3. Time | | | | | |
| 4. Cost | | | | | |
| 5. Quality | | | | | |
| 6. Human resource | | | | | |
| 7. Communications | | | | | |
| 8. Risk | | | | | |
| 9. Procurement | | | | | |
| 10. Stakeholder | | | | | |

Overview

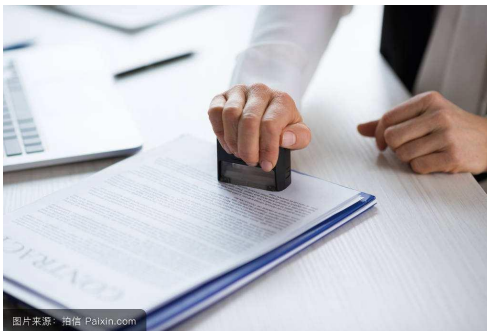
□ Procurement Management?

Getting Some Help

Some jobs are just too big for your company to do on its own

Even when the job isn't too big, it may just be that you don't have the expertise or equipment to do it

You need to use procurement management to find another company to do the work for you. If you find the right seller, choose the right kind of relationship, and make sure that the goals of the contract are met, you'll get the job done, and your project will be a success.

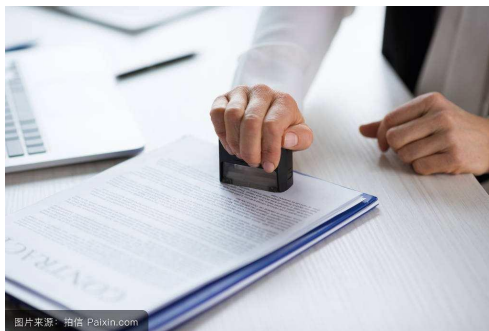


Overview

□ What is Procurement Management?

Project Procurement Management includes the processes necessary to purchase or acquire products, services, or results needed from **outside** the project team.

The project procurement management processes involve **agreements**, including **contracts**, which are legal documents between a buyer and a seller



Overview

Project Procurement management is discussed within the perspective of the buyer-seller relationship.

Buyer

**Depending on the buyer's position
in the project acquisition cycle:**

**A client, customer, prime
contractor, contractor, acquiring
organization, service requestor, or
purchaser**

Seller

**Depending on the application
area:**

**Contractor, subcontractor,
vendor, service provider,
supplier**

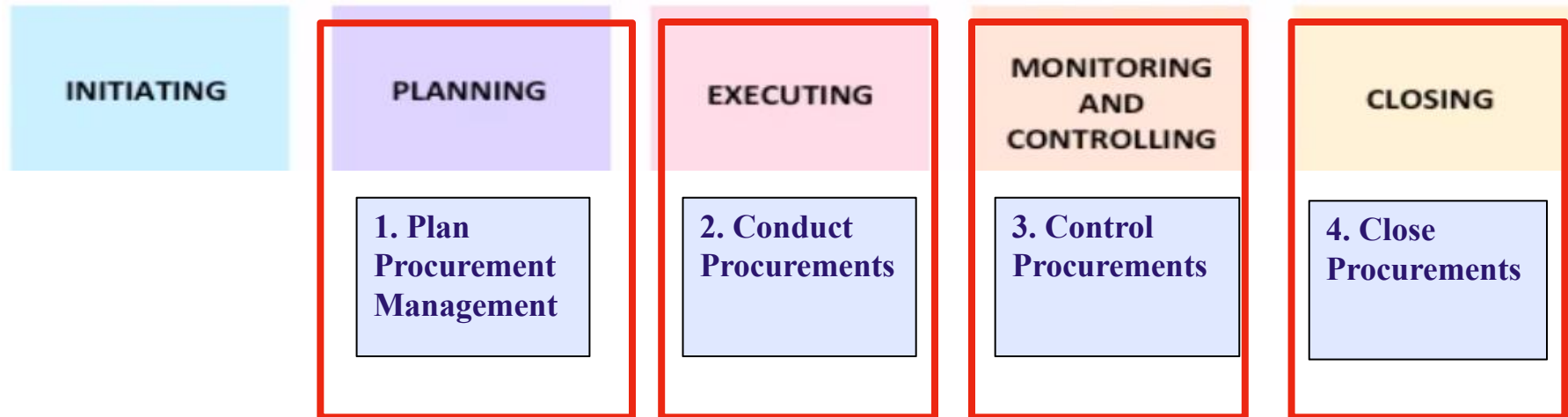
Overview

Two assumptions:

- 1) it is assumed that **the buyer** of an item for the project is **assigned to the project team** and that the **seller is organizationally external to the project team**.
- 2) It is also assumed that a **formal contractual relationship** will be developed and exists between the buyer and the seller.

Procurement Management Overview

5 Process Groups



4 Procurement Management processes

Chapter 9: Contents

1 Plan Procurement Management

2 Conduct Procurements

3 Control Procurements

4 Close Procurements

9.1 Plan Procurement management

Plan Procurement Management

The process of documenting project procurement decisions, specifying the approach and identifying potential sellers.

The key benefit of this process is that it determines **whether** to acquire outside support, and if so, **what** to acquire, **how** to acquire it, **how much** is needed, and **when** to acquire it.

9.1 Plan Procurement management

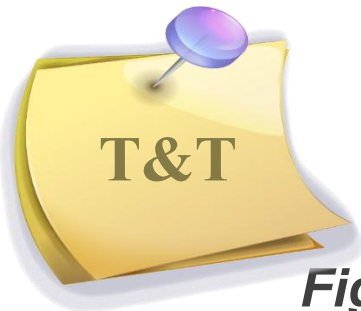
Plan Procurement management **identifies** those **project needs** that can **best be met or should be met** by **acquiring products, services, or results outside of the project organization**, versus those **project needs** which can be **accomplished by the project**

Also includes **evaluating potential sellers**, particularly if the buyer wishes to exercise some degree of influence or control over acquisition

decisions.

Also includes evaluating the **risks** involved with each **make-or-buy analysis**

9.1 Plan Procurement management



Make or Buy Analysis

Figuring out whether or not you should contracting the work or doing it yourself.

Deciding whether to build your own solution to your problem or buy one that is already available.

How much does it cost to build it versus buy it?

How will this decision affect the scope of your project?

How about your project schedule?

Do you have time to do the work and still meet your commitments?

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9.1 Plan Procurement management

Types of contracts

All legal contractual relationships generally fall into one of two broad families: **fixed-price** or **cost reimbursable**

There is a third hybrid type commonly in use called the **time and materials contract**.

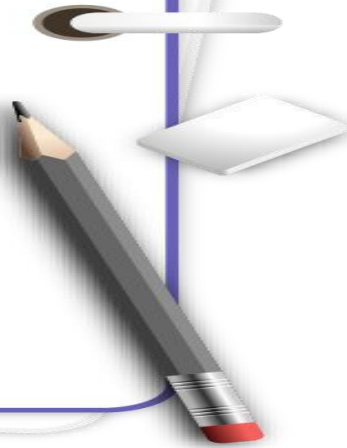
1. Fixed-price contracts.
2. Cost-reimbursable contracts.
3. Time and Material Contracts (T&M).



9.1 Plan Procurement management

Fixed price Contracts

This category of contracts involves setting a fixed total price for a defined product, service, or result to be provided.



Fixed-price

- *Firm Fixed Price Contracts (FFP)*
- *Fixed Price Incentive Fee Contracts (FPIF)*
- *Fixed Price with Economic Price Adjustment Contracts (FP-EPA)*

9.1 Plan Procurement management

Types of fixed price contracts

*Firm Fixed Price Contracts (**FFP**): the most commonly used contract type*

- It is favored by most buying organizations because the price for goods is set at the outset and not subject to change unless the scope of the work changes;
- Under the FFP contract, the buyer should precisely specify the product or services to be procured.

9.1 Plan Procurement management

Fixed Price Incentive Fee Contracts (FPIF):

this fixed –price arrangement gives the buyer and seller some flexibility in that it allows for deviation from performance, with financial incentives tied to achieving agreed upon metrics.

Under FPIF contracts, a price ceiling is set, and all costs above the price ceiling are the responsibility of the seller, who is obligated to complete the work

9.1 Plan Procurement management

Fixed Price with Economic Price Adjustment Contracts

*(FP-EPA): this contract type is used whenever the seller's performance period **spans a considerable period of years**, as is desired with many long-term relationships.*

The FP-EPA contract is intended to protect both buyer and seller from external conditions beyond their control.

9.1 Plan Procurement management

Types of contracts

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1. **Fixed-price contracts.**
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3. **Time and Material Contracts (T&M).**

9.1 Plan Procurement management

Cost-reimbursable Contracts

This category of contracts involves payments (cost reimbursements) to the seller for all legitimate actual costs incurred for completed work, plus a fee representing seller profit.

Three of the more common types of cost-reimbursable contrasts are

- *Cost Plus Fixed Fee (CPFF),*
- *Cost Plus Incentive Fee (CPIF) ,*
- *and Cost Plus Award Fee (CPAF)*

9.1 Plan Procurement management

Cost Plus Fixed Fee Contracts (CPFF). The seller is reimbursed for all allowable costs for performing the contract work, and receives a fixed-fee payment calculated as a percentage of the initial estimated project costs.

A fee is paid only for completed work and does not change due to seller performance

9.1 Plan Procurement management

Cost Plus Incentive Fee Contract (CPIF). The seller is reimbursed for all allowable costs for performing the contract work and receives a predetermined incentive fee based upon achieving certain performance objectives as set forth in the contract

If the final costs are less or greater than the original estimated costs, then both the buyer and seller share costs from the departures based upon a pre-negotiated cost-sharing formula, e.g. 80/20 split over/under target costs based on the actual performance of the seller

9.1 Plan Procurement management

Cost Plus Award Fee Contracts (CPAF). The seller is reimbursed for all legitimate costs, but the majority of the fee is earned only based on the satisfaction of certain broad subjective performance criteria defined and incorporated into the contract.

The determination of fee is based solely on the subjective determination of seller performance by the buyer, and is generally not subject to appeals

9.1 Plan Procurement management

Types of contracts

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9.1 Plan Procurement management

Time and Material contracts (T&M)

A hybrid type of contractual arrangement that contain aspects of both cost-reimbursable and fixed-price contracts.

The “Time” part means that the buyer pays a fixed rate for labor----- usually a certain number of dollars per hour;

The “Materials” part means that the buyer also pays for materials, equipment, office space, and anything else that has to be paid for.

9.1 Plan Procurement management

Types of contracts

1. Fixed-price contracts. 总价合同

1. Firm Fixed Price Contracts (FFP) 固定总价合同

2. Fixed Price Incentive Fee Contracts (FPIF) 总价加激励费用合同

3. Fixed Price with Economic Price Adjustment Contracts (FP-EPA) 总价加经济价格调整合同

2. Cost-reimbursable contracts. 成本补偿合同

1. Cost Plus Fixed Fee (CPFF) 成本加固定费用合同

2. Cost Plus Incentive Fee (CPIF) 成本加激励费用合同

3. Cost Plus Award Fee (CPAF) 成本加奖励费用合同

3. Time and Material Contracts (T&M). 工料合同

High risk-----low risk
CPAF/CPIF CPFF T&M FP-EPA FPIF FFP

Test

1. The buyer will pay for the cost of phone service, rent on the facilities, and employees, plus an additional \$2500 per month

Cost Plus Fixed Fee (CPFF)

2. The buyer will pay the seller a total of \$285,000 for 18 months of technical support services

Firm Fixed Price Contracts (FFP)

3. The buyer will pay for the cost of phone service and rent on the facilities, plus \$4,500 per month for employees' time. Costs will not exceed \$14,500 per month

Time and materials

Chapter 9: Contents

1 Plan Procurement Management

2 Conduct Procurements

3 Control Procurements

4 Close Procurements

9.2 Conduct Procurements

The process of obtaining seller responses, selecting a seller, and awarding a contract.

The key benefit of this process is that it provides alignment of internal and external stakeholder expectations through established agreements.

9.3 Control Procurements

The process of managing procurement relationships, monitoring contract performance, and making changes and corrections to contracts as appropriate.

The key benefit of this process is that it ensures that both the seller's and buyer's performance meets procurement requirements according to the terms of the legal agreement.

9.4 Close Procurements

The process of completing each procurement

The key benefit of this process is that it documents agreements and related documentation for future reference.

Close the contract when the work is done

- **Procurement audits**
- **Records management system**

The contract is complete when all of its terms are met....even if the buyer or seller is not completely satisfied with the work

Chapter 9 Summary

A

Understand the concept of Procurement management

B

Mastering the different types of contract