

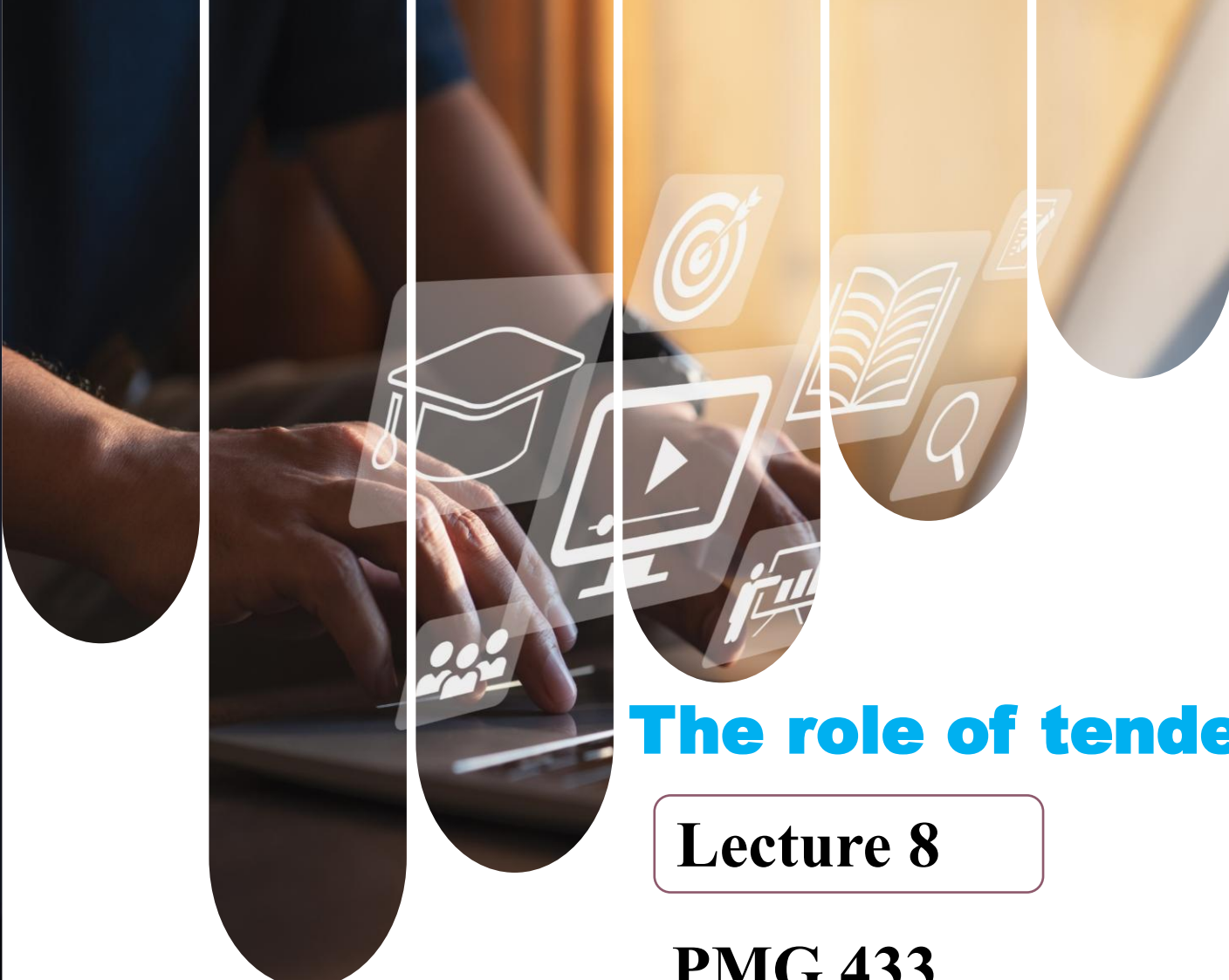
Project Procurement and Supply Chain

Prepared by Dr. Tarek Mohamed

PMG 433

Lecture 8



A decorative graphic on the left side of the slide consists of several overlapping vertical panels. The panels have rounded ends and contain various white line-art icons. From left to right, the icons include a graduation cap, a target with an arrow, a play button, a magnifying glass, a book, a person at a desk, and a group of people. The background of the panels is a mix of dark and light colors, with some panels showing a person's hands typing on a laptop.

The role of tender management in projects

Lecture 8

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Course Agenda

Chapter

- 
1. Understand the contents of project tender management.
 2. Describe the work involved in project tendering process.
 3. Relationship Between PMBOK® Guide and Tender Management
 4. Key PMBOK® Documents Used in Tender Management.
 5. Example of Tender Management Process in Projects.
 6. Real-World Companies That Use Formal Tender Management

Tender Management in Project Management is the structured process of planning, preparing, issuing, evaluating, awarding, and administering tenders (bids) to procure goods, services, or works from external suppliers.

It is a key part of **Project Procurement Management** and helps ensure that the project selects the most suitable supplier while achieving value for money, transparency, fairness, and compliance with organizational policies.

Definition

Tender Management is the process of managing all activities involved in inviting suppliers to submit bids (tenders), evaluating those bids, selecting the best contractor or supplier, and managing the contract throughout the project.

- Most projects will, at one stage or another, need to go to the marketplace to procure the expertise, materials, equipment, and services required for development, implementation, or execution.
- The way this is done can have a profound impact on project success and profitability.
- The economics of top-class procurement are compelling.
- With the growth of outsourcing, third-party goods and services can account for between 40 percent and 80 percent of a project or company activity.

Objectives of Tender Management

- Obtain the best value for money.
- Ensure fair and transparent competition.
- Select qualified and reliable suppliers.
- Reduce procurement risks.
- Ensure compliance with legal and organizational requirements.
- Achieve project objectives within budget and schedule.

1. Procurement Planning

- Identify project procurement needs.
- Decide what products or services should be purchased externally.
- Develop the procurement strategy.
- Prepare the procurement schedule.

Output:

- Procurement Management Plan

2. Preparation of Tender Documents

- Prepare documents that suppliers need to submit their bids.
- Typical contents include:
- Statement of Work (SOW)
- Technical specifications
- Scope of work
- Bill of Quantities (BOQ)
- Project schedule
- Contract terms and conditions
- Evaluation criteria
- Instructions to bidders

3. Invitation to Tender

The organization announces the procurement opportunity by:

- Open Tender
- Selective Tender
- Limited Tender
- Electronic Tender (E-Tender)

Suppliers are invited to submit proposals before the deadline.

4. Receiving and Opening Bids

- Receive bids before the closing date.
- Securely store submissions.
- Open bids according to procurement procedures.
- Record all submitted proposals.

5. Bid Evaluation

- **Evaluate suppliers using predefined criteria such as:**
 - Technical capability
 - Price
 - Experience
 - Quality
 - Delivery schedule
 - Financial stability
 - Past performance
 - Risk assessment
 - Many organizations use a weighted scoring model.
- **Example:**

Evaluation Criteria	Weight
Technical proposal	40%
Price	30%
Experience	15%
Delivery schedule	10%
Financial capability	5%

6. Negotiation

Negotiate with the preferred supplier regarding:

- Price
- Delivery dates
- Payment terms
- Warranties
- Scope
- Risks
- Contract conditions

7. Contract Award

- Select the winning bidder.
- Obtain approvals.
- Sign the contract.
- Notify unsuccessful bidders.

8. Contract Administration

Monitor supplier performance throughout project execution activities include:

- Performance monitoring
- Progress reporting
- Quality inspections
- Change management
- Payment approvals
- Claims management
- Risk management

9. Contract Closeout

After completing the project:

- Verify all deliverables.
- Finalize payments.
- Resolve claims.
- Archive procurement records.
- Conduct supplier performance evaluation.
- Close the contract.

Types of Tendering

Type

Open Tender

Selective Tender

Limited Tender

Single-Source Tender

Electronic Tender

Description

Any qualified supplier may submit a bid.

Only shortlisted suppliers are invited.

A small number of suppliers are invited.

Only one supplier is selected.

Tendering is conducted online.

- Invitation to Tender (ITT)
- Request for Proposal (RFP)
- Request for Quotation (RFQ)
- Request for Information (RFI)
- Statement of Work (SOW)
- Technical Specifications
- Bill of Quantities (BOQ)
- Draft Contract
- Evaluation Criteria Bid Submission Forms

Roles in Tender Management

Role

Project Manager

Procurement Manager

Technical Experts

Finance Team

Legal Team

Suppliers

Responsibility

Oversees procurement activities and ensures alignment with project objectives.

Manages the tendering process.

Evaluate technical proposals.

Reviews financial aspects of bids.

Reviews contracts and compliance.

Submit bids and execute the contract if selected.

Benefits of Effective Tender Management

- Competitive pricing
- Improved supplier quality
- Reduced procurement risks
- Better contract performance
- Increased transparency
- Compliance with procurement policies
- Improved project success

Example of Tender Management Process

A construction company plans to build a new office building.

- 1.The project team prepares the technical specifications and Statement of Work.
- 2.An open tender is advertised.
- 3.Six contractors submit bids.
- 4.The evaluation committee scores each proposal based on technical capability, price, experience, and schedule.
- 5.The highest-ranked contractor is selected.
- 6.The contract is negotiated and signed.
- 7.The contractor performs the work while the project team monitors quality, schedule, and costs.
- 8.After successful completion, the contract is closed and supplier performance is documented.

Relationship Between PMBOK® Guide and Tender Management

PMBOK® Procurement Process

Tender Management Activities

Plan Procurement Management

Identify procurement requirements, define procurement strategy, determine contract type, prepare procurement management plan, develop tender schedule.

Conduct Procurements

Prepare tender documents, advertise the tender, invite suppliers, receive bids, evaluate proposals, negotiate with bidders, select the winning supplier, award the contract.

Control Procurements

Monitor supplier performance, manage contract execution, approve payments, manage changes, resolve claims, conduct contract closeout.

1. Plan Procurement Management

The PMBOK® Guide focuses on planning before issuing the tender.

Tender management activities include:

- Defining procurement objectives
- Identifying goods and services to be procured
- Selecting the procurement method (open, selective, limited, or single-source tender)
- Choosing the contract type (Fixed-Price, Cost-Reimbursable, or Time & Material)
- Developing evaluation criteria
- Preparing the Procurement Management Plan

PMBOK® Output:

- Procurement Management Plan
- Procurement Statement of Work (SOW)
- Source Selection Criteria
- Procurement Documents

This process corresponds most closely to the core of tender management.

Tender management activities include:

- Preparing tender documents
- Publishing the invitation to tender
- Responding to bidders' questions
- Receiving bids
- Opening bids
- Evaluating technical and financial proposals
- Negotiating with suppliers
- Selecting the successful bidder
- Awarding the contract

PMBOK® Outputs:

- Selected Sellers Agreements (Contracts) Resource Calendars

After the contract is awarded, tender management shifts to contract administration.

Activities include:

- Monitoring supplier performance
- Tracking delivery schedules
- Inspecting quality
- Processing payments
- Managing contract changes
- Resolving disputes and claims
- Closing the contract

PMBOK® Outputs:

- Work Performance Information
- Procurement Documentation Updates
- Closed Procurement Records

Project Procurement Management (PMBOK®)

Plan Procurement Management

- Procurement Strategy
- Contract Type
- Tender Documents
- Evaluation Criteria

Conduct Procurements

- Issue Tender
- Receive Bids
- Evaluate Bids
- Negotiate
- Award Contract

Control Procurements

- Monitor Performance
- Manage Changes
- Approve Payments
- Resolve Claims
- Close Contract

Key PMBOK® Documents Used in Tender Management

PMBOK® Document

Procurement Management Plan

Statement of Work (SOW)

Procurement Documents

Source Selection Criteria

Contract

Procurement Performance Reviews

Purpose in Tender Management

Defines how procurement activities will be managed.

Describes the work to be performed.

Includes the Invitation to Tender (ITT), Request for Proposal (RFP), Request for Quotation (RFQ), and bidding instructions.

Defines how suppliers will be evaluated.

Formal agreement with the selected supplier.

Measures supplier performance during contract execution.

- Ensures procurement aligns with project objectives.
- Promotes transparency and fairness in supplier selection.
- Supports compliance with organizational and legal requirements.
- Improves supplier selection through objective evaluation criteria.
- Reduces procurement and contractual risks.
- Enhances cost, quality, and schedule performance.
- Strengthens contract administration and supplier relationship management.

Example of Tender Management Process in Projects

Example 1 : Construction Project

Project: Construction of a New Hospital

Project Budget: \$50 million

Step 1: Identify Procurement Requirements

The project team determines that the following must be procured from external suppliers:

- Construction contractor
- Medical equipment
- HVAC systems
- Elevators
- Electrical systems

Step 2: Prepare Tender Documents

The procurement team prepares:

- Statement of Work (SOW)
- Technical specifications
- Bill of Quantities (BOQ)
- Drawings
- Contract conditions
- Evaluation criteria
- Bid submission instructions

Example of Tender Management Process in Projects

Step 3: Issue the Tender

An **Open Tender** is advertised.

Five construction companies submit bids.

Company	Bid Price
Company A	\$48 million
Company B	\$47 million
Company C	\$50 million
Company D	\$46 million
Company E	\$49 million

Example of Tender Management Process in Projects

Step 4: Evaluate the Bids

The evaluation committee uses a weighted scoring model.

Criteria	Weight
Technical Capability	40%
Price	30%
Experience	15%
Project Schedule	10%
Financial Stability	5%

Company	Technical	Price	Experience	Schedule	Total Score
A	38	26	14	9	87
B	35	28	13	8	84
C	39	24	15	10	88
D	32	30	12	8	82
E	37	25	14	9	85

Although Company D submitted the **lowest price**, Company C achieved the **highest overall score** due to its superior technical proposal and experience.

Example of Tender Management Process in Projects

Step 5: Negotiate

Negotiations are held with Company C regarding:

- Payment schedule
- Completion date
- Warranty period
- Performance guarantees
- Risk allocation

Example of Tender Management Process in Projects

Step 6: Award the Contract

The contract is signed with Company C.

Step 7: Contract Administration

During construction, the project manager monitors:

- Progress against schedule
- Construction quality
- Safety performance
- Cost control
- Change orders

Step 8: Contract Closeout

Upon project completion:

- Final inspection is conducted.
- Defects are corrected.
- Final payment is released.
- Contractor performance is evaluated.
- Contract documentation is archived.

Example 2: Information Technology (IT) Company

Company: A commercial bank implementing a new Core Banking System

Procurement Need

Purchase:

- Banking software
- System implementation services
- Staff training
- Technical support

Example of Tender Management Process in Projects

Tender Process

1. Prepare Request for Proposal (RFP).
2. Invite software vendors.
3. Vendors submit technical and financial proposals.
4. Technical evaluation committee assesses functionality and compliance.
5. Financial proposals are evaluated.
6. Vendor demonstrations are conducted.
7. Contract negotiations take place.
8. The highest-ranked vendor is selected.
9. Implementation begins.
10. Performance is monitored using Service Level Agreements (SLAs)

Example 3: Pharmaceutical Company

Company: Pfizer (or any large pharmaceutical manufacturer)

Project: Construction of a new sterile manufacturing line

Procurement requirements include:

- Cleanroom construction
- Production equipment
- HVAC systems
- Laboratory instruments

Tender Activities

- Develop technical specifications.
- Invite pre-qualified suppliers.
- Conduct technical evaluation.
- Perform site visits to suppliers.
- Evaluate financial offers.
- Negotiate delivery schedules.
- Award contracts.
- Monitor installation and commissioning.

Real-World Companies That Use Formal Tender Management

Company

Typical Procurement Projects

Siemens

Power plants, industrial automation, rail systems

Bechtel

Infrastructure, airports, highways, energy projects

Samsung Engineering

Petrochemical and industrial construction

Toyota

Manufacturing equipment, robotics, production lines

Pfizer

Pharmaceutical facilities, laboratory equipment, packaging lines

Nestlé

Food processing equipment, logistics services, packaging materials

Microsoft

Cloud infrastructure, data center construction, IT services

Shell

Offshore platforms, pipelines, drilling equipment, engineering services

Key Lessons

- Tender Management is more than choosing the lowest bidder.
- Successful organizations evaluate suppliers based on technical capability, quality, experience, risk, delivery schedule, financial strength, and total value.
- This approach aligns with the PMBOK® Guide's emphasis on selecting sellers using predefined evaluation criteria and managing contracts throughout the project lifecycle.
- Request for Quotation (RFQ) is mainly used to obtain price quotations for standard products or services

Summary of Learning Objectives

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1. Understand the contents of project tender management.
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Thank You