

Unit 13 – Procurement and contracts



Unit 13 - Learning Objectives

To gain an understanding of the following:

- Procurement.
- Supply chain management
- C contracts and how they inform project controlling activities
- Contractual relationships
- Contract administration

Introduction to Procurement

“Procurement is the process by which the resources (goods and services) required by a project are acquired. It includes development of the procurement strategy, preparation of contracts, selection and acquisition of suppliers, and management of the contracts.”

(APM BoK)

Basic Procurement Process

“A procurement strategy should be prepared as part of the project management plan (PMP). The procurement strategy will set out how to acquire and manage the internal or external resources (goods and services) needed for the project.” (APM BoK)

A basic procurement strategy would commonly contain the following:

The make or buy decision

The Make option	The Buy option
Possibly less costly	Possibly Less costly
Easier integration of operations	Utilise expertise of suppliers
Utilises existing capacity that may be idle	Possibly only small volume required (more cost effective to sub-contract)
Direct control is maintained	Limitation of in-house capacity or capability
Avoids unreliable suppliers	Augment existing labour force
Stabilisation of workforce	Multiple sources of supply to maintain
Possibly less costly	Indirect control

Use of a single integrated supplier or multiple discrete suppliers

Using a single integrated supplier, in for example a construction setting would mean that you would employ a builder who would carry out the building and take responsibility for, plumbing, electrical work and decorating.

The other option is to go for multiple discrete suppliers; using the construction example again you retain responsibility for contracting the electricians, plumbers and decorators.

Both methods have their advantages and disadvantages. With a single integrated supplier you are effectively delegating responsibility for the construction to one supplier, which makes communication simpler and reduces your workload. On the negative side you are heavily dependent on that one supplier; anything that goes wrong with the supplier can have a much greater impact. In terms of communication you are distanced from the project and it depends on the level of trust you have for the supplier as to whether or not you can rely on the progress information they are giving you.

With the multiple discrete suppliers you are able to select the people you want for each aspect of the task, you can monitor each aspect of the task directly, rather than having to go through just one supplier. On the minus side it is a far more time consuming way of doing things, it is also dependant on your level of expertise in the area. It might be more efficient to utilise the expertise of others and allow someone else to select the contractors required.

Required supplier relationships

Key to effective supplier relationships is collaboration and the realisation that there are significant benefits to be gained from collaborating closely with suppliers, treating them as a potential source of competitive advantage, rather than a necessary cost.

There is a move away from the more traditional reactive approach to supplier relationships towards a strategic long term focus, with less attention on price and a greater emphasis on delivery capability and value.

Conditions and form of contract

We will discuss the various types of contract later in the module, but for the purposes of the procurement plan it is worth considering the form you wish it to take.

You may decide to use one comprehensive contract or a sequence of contracts, you might use parallel contracts or you might decide that you will use sub-contracts.

In terms of the contracts conditions you will have to consider things like; dispute resolution, termination, and confidentiality and of course contract payment methods.

Types of pricing or methods of reimbursement

We will look at this subject in greater detail later on in the module. During the creation of the procurement plan we should be determining the terms of payment that are most likely to motivate suppliers/contractors to deliver the objectives of the project.

Supplier selection and sources

Determines the method you will employ in your selection process. The decision on whether to go for a competitive tender or non-competitive tender (sole source), also your company may have a list of preferred contractors that you must use.

If you decide to go for a competitive tender it is important to use an objective process when selecting a supplier or contractor, this will help you to avoid the influences of personal preferences. Inform suppliers of your needs, both technical and financial, this will allow you to draw up a short list based on the suppliers best able to meet the criteria you have stipulated.

Procurement Strategy – Implementation

The implementation of the procurement strategy may now be considered in some detail. It should be noted that the procurement processes described are typical of those in general use in the building, civil and engineering industries.

Supply Chain Management influences the progress measurement, cost management, and reporting and could also impact upon the development of the estimate and schedule if early solutions arrived at change at a later date.

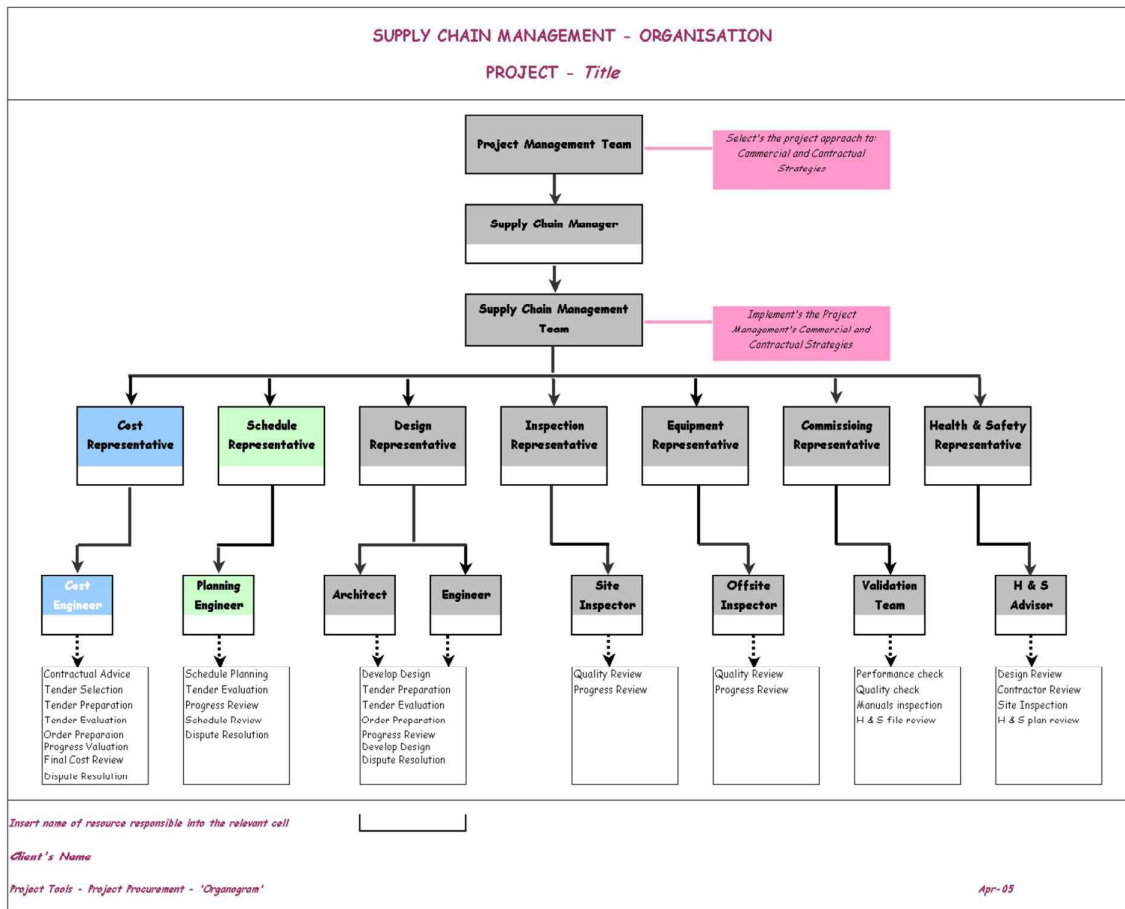
The implementation of a Procurement Strategy involves the following key activities:

- Producing Project Execution Procedures.
- Developing a procurement organisation.
- Developing the contract strategy, selecting appropriate conditions of contract.
- Contract procurement by the tendering process, including pre-qualification, preparing enquiry documentation, tendering and contractor selection, preparing the contract and order.
- Monitoring current status of activities, expediting progress and reporting
- Administering the contract
- Avoiding disputes, advising on dispute resolution

The Supply Chain Management comprises the following:

Inputs	Project Execution Procedures, organisation and procurement strategies
Decisions	Prequalification, selection of appropriate contract arrangements, and tendering information
Activities	Prepare enquiries, tender, bid evaluation, and contractual agreements. Post contract, expedite and monitor progress and resolve disputes
Outputs	Dispute resolution strategy, progress and report information.

Project procurement organigram example



Contract Selection

The selection of a suitable form of contract to satisfy the project's procurement strategy involves assessing a number of issues. The issues include evaluating the requirements of the client and the information that will be available at specific stages of contract development.

The Selection Checklist template (**see the diagram on the following page**) is a development of the assessment of information and requirements used to establish the procurement strategy. It should be considered separately for each package of work designated as a contract in the procurement strategy. The relevance of the checklist of all questions or statements for each issue requires consideration and a record of the answer should be agreed.

The template is split into the three following elements:

Contract selection - general project information

The issues considered in this section are of a general nature to the project including the main objectives, scope and timescale to complete the work.

Contract selection - design stage information

The issues considered in this section are for designing the scope of works including who will be responsible for the completed design of the works, when detailing will be required and where it will be done.

Contract selection - delivery stage information

The issues considered in this section are to enable complete delivery of the scope of works and includes the method of managing and supporting construction, and the time scale constraints.

Assessing the Selection Checklist

The contract selection checklist should be completed, and the answers or statements evaluated. The most appropriate forms of contract can be advised following consideration of the checklist evaluation. No quantitative calculation based upon the answers can dictate which the most appropriate form of contract is. Experience has shown that the most appropriate form of contract selected should reflect a pessimistic contractual scenario despite the optimism in the answers of the project team.

Standard forms of contract – Construction Industry

Standard forms of contract have been compiled by a series of consultative bodies representing clients and consultants, contractors, and suppliers to meet common requirements. The standardisation is based upon common experiences of these representative bodies and is an attempt to provide a basis for reaching an agreement whereby one party (the contractor) undertakes to perform the requirements of the other party (the client). The experiences of the representatives of these bodies are used to compile a set of standard conditions that are universally understood by the parties to the contract.

The standard conditions of contract – Construction, have been prepared by the following bodies to meet specific types of project work.

J.C.T. Joint Contracts Tribunal Limited (J.C.T.) – used primarily in the U K for both minor and major building works. Mechanical and electrical work is limited to domestic requirements.

General Conditions of Contract (G.C.E.) – used primarily in the U K for projects that has elements of both building and civil works and significant mechanical and electrical work.

Institution of Civil Engineers (I.C.E.) - used for U K projects and in countries where the project team are influenced by U.K. legal practices. The conditions are for primarily major civil engineering works with significant mechanical and electrical work.

The Engineering Construction Contract (E.C.C.) – suite of conditions introduced mid 1990 are a development being used for the same applications as I.C.E. The E.C.C. conditions introduce the method of evaluating change in the contract by 'actual cost'.

Federation Internationale Des Ingenieurs Conseils (FIDIC) – used throughout the world for projects outside of the U.K. involving building, civil and engineering, process plant and turnkey works.

Institute of Chemical Engineers (IChemE) – used throughout the world where the project is influenced by U.K. legal practices, the conditions are for use on projects that involve process plant and turnkey works.

Federation of British Electro, Technical and Allied Manufacturer's Association – used in the U.K. for work on process plants aimed at mechanical engineering and electrical disciplines for both new construction and modification works.

Highways works – used in the U.K. for road construction and associated structures, bulk earthworks and landscaping projects.

Demolition works – used in the U.K. specifically for demolition works.

Client's bespoke – used throughout the world when working on projects for a specific client. Clients have prepared conditions of contract that are pertinent to their particular industry

The Tendering Process

The tendering process – flowchart (see the diagram on page 19) shows the sequence and stages required to implement the project contract strategy for contract production. Some stages may in practice be overlooked but the decisions and content will still be required.

Contract Strategy – agreeing the scope of work, appropriate conditions of contract and the basic contractual requirements that are determined as the initial proposal.

Tendering Stages

Pre-qualification – informing potential consultants, contractors or suppliers of the project, timescale and scope. The pre-qualification process includes preparing information to advise parties of the work required, the proposed contract provisions and the information that will be available. Interest in tendering for the work is recorded on receipt of compliant 'expressions of interest' within the stated time scale.

Tender list – selecting potential tenders from the information provided in 'expressions of interest'. The product of the assessment is a short list of potential tenders capable of undertaking the work from which the tender list should be made.

Tender enquiry – preparing the documentation from the information made available and influenced by the requirements of the proposed contract. The enquiry should be issued to the planned project timescale. Suitable time should be allowed for compilation and submission of the tender in the required form and time in accordance with project procedure or codes for selective tendering. The project team should agree before receipt of tenders as to how the selection criteria will be used.

Tender evaluation – comparing the submitted compliant tenders for arithmetic accuracy and ensuring 'like for like' technical and commercial proposals. If there are any

anomalies these must be resolved by discussions between the parties. The objective of any discussion is to complete the 'like for like' assessment and to create documentation that will be included in the contract.

Note: The technical evaluation will be conducted separately from the commercial evaluation. Those conducting the technical evaluation will not have access or information relating to the commercial section of the tender.

Tender recommendation – preparing a complete arithmetic reconciliation of the tender submission, and comparison of all tenders using a weighted selection criteria matrix. The information is used to make a recommendation as to the project's preferred contractor, consultant or supplier.

The Contract - compiling all the information prepared by the project team upon which the tender submissions from the appointed tenderer is based to create a formal contract agreement

The Order - preparing a formal Purchase Order document that will create the commitment within the cost control system. The component parts of the order should be identical to the contract as it will be the contract that will be used as the basis in dispute resolution.

Supply chain hints and Tips

- Structure the supply chain organisation to complement the project organisation.
- Select the most appropriate conditions of contract
- Select the most competitive and appropriate supplier of resources
- Monitor progress of all the work
- Avoid or resolve disputes quickly

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