**Scope and Project Definition**

**Objectives**

By the end of this reading, you will be able to

* explain project scope from both the customer and project manager viewpoints;
* state the need, problem, or opportunity around which a project will be organized;
* identify the project goal;
* identify and write the project objectives;
* define the criteria that will be used to evaluate project success;
* identify the assumptions, risks, and obstacles that might be associated with the project;
* identify all stakeholders in a project, both internal and external to the organization; and
* determine the communication needs of the stakeholders.

**Project Management Life Cycle Preview**

Every project goes through the same phases. Different project managers and different texts might use different terminology. However, the concepts are the same. For example, Wysocki uses “Scope”, “Launch” and “Monitor” where PMBOK uses “Initiate”, “Execute” and “Control”. Your customer might use even different terms. Adapt the terminology that you use, to suit your customer.

Here is how the Project Management program and the life cycle phases of a project fit together. The program's project is the production of a project plan.

In the first phase, we define the project, size it and get approval to proceed.

In the second phase, we develop a plan for producing the components of the project plan – identifying the planning components plus the cost and schedule for producing them.

In the third phase, we develop the components of a project plan.

In the fourth phase, which overlaps the third phase, we track the production of the planning components against the schedule.

In the fifth phase, we deliver the planning components in a notebook. We will be creating an electronic notebook rather than paper or CD – no demand on trees or oil.

**Project Scope**

**Scope Definition Is Key to Project Success**

All project managers will tell you that the most important part of project planning is scope definition. Most of us have had the experience of beginning work on a project that we thought would be straightforward, only to find it growing larger than we had anticipated, and unwieldy as well. This happens when we plunge into a project without:

* considering what problem or whose needs the project is meant to address;
* defining what work needs to be done;
* specifying what we will have when we finish the project; or
* defining how we can tell when the project has been successfully completed.

**Definitions**

*Stakeholder* is person with an interest in the outcome of a project

*Customer* refers to all stakeholders, especially the one with authorization powers

If we neglect to define these components of a project, we might complete a project to our own satisfaction, but find that it does not necessarily meet the needs of those it was intended to address. In other cases, we can only complete the project by going beyond the time and effort we had agreed to expend because the project goals and objectives were poorly defined.

**Scope: Determining the Major Parts of a Project**

Defining scope can be intimidating (especially at the first stage of the project management process when you are looking for your customer to accept your scope definition). "Scope" can be so large and open-ended! Here is a way to make scope definition concrete and manageable: think of scope as the work required to produce deliverables, fitting constraints of budget and timetable. ***Scope*** is defined by naming:

* the project goal (*primary benefits*).
* all project objectives (*deliverables, cost and schedule*).
* all activities performed (*related directly to the deliverables*).
* the end products that result (*deliverables that can include usable intermediate ones*).

(**Note:** This definition differs slightly from the one in EPM, which limits the idea of scope to the project goal and objectives.)

Since "project objectives," "activities performed," and "end products/quality standards" are determined by people, are carried out by people, and impact people, scope definition necessarily includes identifying and considering the needs of the project stakeholders—that is, all those who have an interest in the project. Think of scope as a highly flexible project specification that becomes fixed at a given point in time. Scope establishes the bounds (as specifications) of the deliverables, budget and timetable. You must get scope fixed at some point in time and then manage that scope as the project progresses through time. In other words, you will be applying project management *processes* to a set of project *specifications.*

You will be subjected to pressures to expand scope for the deliverables while holding the specifications for cost and schedule steady or even reduce them. Course 440 contains a lesson on how to deal with that issue.

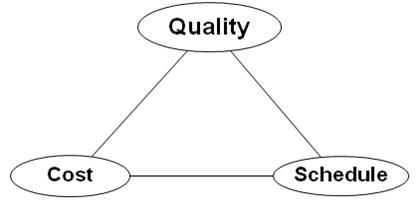
**Scope Puts Boundaries around a Project**

Project scope defines the size of a project. Customer concerns are:

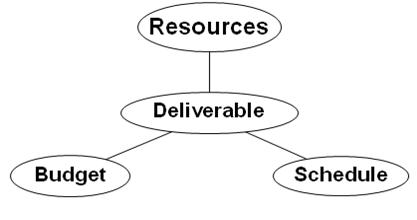
* Will I get the products, services and capabilities that I want? (deliverables)
* Will I get what I want within what I can afford? (budget)
* Will I get what I want within the time that I want? (timeframe)

A set of specifications defines each area of concern. There is a direct relationship with traditional measures - quality, cost and schedule. Quality and the deliverables of a project are the same. Cost corresponds with budget. Schedule and timeframe are the duration of the project. Customers state their specifications. Project managers respond with estimates of the cost and schedule needed to produce the deliverables. A match of specifications and estimates means that no changes are necessary. Most often, however, estimates do not fit customer constraints. There is a squeeze on quality, cost and schedule. Something has to give. Resizing or reprioritizing the project might be necessary

**Figure 3.2—Customer Balance of Specifications**



The project manager has an additional area of concern—resources. Availability of the right resources can have a profound effect on the project. They are necessary to bring the project to a successful conclusion—satisfaction of all the customer’s specifications. Customers and project managers might have to justify their projects to higher managers. Justification usually hinges on comparison of benefits with other projects.

**Figure 3.3—Project Manager’s Balancing Act**

**"People Skills" and Scope**

You might have thought that this early stage of project planning wouldn't involve interpersonal skills. In fact, such skills are crucial to all the phases of project planning! You must begin wearing your "many hats" from the outset of the project management process. As you gather information for the project overview statement, you will be in contact with a variety of people who can give you information relating to work to be done, resources needed, quality standards, and end products. Of course, you will be developing the project overview statement with people in mind: the project stakeholders.

**Identifying Project Stakeholders**

Anyone who has an interest in the project is a stakeholder. This includes customers, members of the project team, senior management, outside contractors, and all those whose work is impacted. Because the project overview statement is meant to be read by all stakeholders, identifying all the project stakeholders and determining the most appropriate way of communicating with them is of utmost importance. Many stakeholders will read the project overview statement. You are likely to find that it is necessary to remind stakeholders of the final version of the overview statement and the corresponding specifications. Consequently, you will need to write it for a general audience and repeat it often.

Perhaps the most important stakeholder(s) at this stage is the customer—the person or persons who are requesting the end product or service. The early stages of project planning will involve a meeting between the customer and the project manager to determine what outcome is wanted for all three areas of specifications. When the customer and the project manager agree upon the specifications, the project overview statement can be drafted. When you develop your project overview statement, identify your most important stakeholders, your major customers, and what they want from you and your project team. It is also important to get a commitment from your customer about their budget and schedule support.

As you also know, senior managers form another primary group of stakeholders at this stage. As their approval is necessary to move forward with the project, you must keep their needs and interests in mind while drafting the project overview statement. Their focus tends to be mostly on benefits. However, capabilities, cost and schedule are significant issues, too.

**Communicating with Project Stakeholders**

Stakeholders need to be able to understand what is happening at every stage of the project. You are part of an organization that has specific communication pathways. Communication in an organization is often closely tied to the organization's structure. Also think about how communication pathways often depart from an organization's "official" structure. Remember, too, that some stakeholders are external to the organization, and the chosen mode(s) of communication must accommodate their needs as well.

Chapter 13 of the PMBOK describes how to manage stakeholders.

Also, Chapter 10 of the PMBOK describes how to develop an effective communications management plan. You will develop a communications management plan with your team in lesson 2 of this course.

**Moving from Scope Definition to Project Definition**

Once you recognize that you are indeed working on a project, you know that the project has a single, one-time outcome and that work is complete as soon as that outcome is realized.

Next, you need to acquire a full understanding of the work involved in your project. Without full knowledge of such things as the project objectives, criteria for success, and who the project stakeholders are (and what their needs are), it is difficult to know what is required of you or how to control and monitor the project to produce the desired outcome. (Note that controlling and monitoring projects will be a primary subject of Project Management 440, lesson 4.) There is an anonymous saying that goes, "If you don't know where you are going, then how will you know when you get there?" By the end of this lesson, you will have gained experience in how to write a complete project overview statement. This is the document that tells others where you are going and how you plan to "get from here to there."

The POS is also a vision of what your customer can expect. Your team can use it as a vision to guide its decisions and actions.

Customers generally want project information in a standardized format. Having the standard enables the customer to focus attention immediately on the project information. There is no waste of time learning new formats.

Your customer uses a Project Overview Statement (POS) of the project to decide the project’s fate. The POS is the same as the EPM text suggests. There are other formats and names such as project charter. They still have the same basic contents and the POS.

The EPM POS has a standard format to describe a project. It addresses only critical information that affects decision-making. The EPM text provides a blank form on page 126 and a sample project description on pages 539. There is something interesting about the standard format. Your degree of compliance with it is a strong indicator of how well you can comply with the customer’s specifications. This is the customer’s first reality check on you and your team "Can you satisfy my project needs?"

**Content of the POS (Project Overview Statement)**

The critical information in the POS is:

* Problem/opportunity
* Project goal
* Project objective
* Success criteria
* Assumptions, risks and obstacles

**What is the Problem?**

Defining the ***problem*** is, of course, key to describing the work involved in solving the problem—the project scope. In the absence of a well-defined problem, everyone involved in a project has the tendency to assume that he or she knows what the problem is. However, it usually turns out that everyone has a different idea! Without a sound definition of the problem, you are likely to waste valuable resources. You are also likely to develop the right solution to the wrong problem!

Just as the project overview statement provides the foundation for the project itself, the problem statement provides the foundation for the project overview statement. The problem statement addresses the question "What needs to be done?"

Projects can be responses to problems or opportunities. Each type comes with its own constraints and risks. If your project is based on an opportunity rather than a problem, you still need to approach the planning task with the questions "What need does this address?" and "What needs to be done?" "What benefits can be expected?"

**What is the Project Goal?**

**Key Terms**

* problem
* goal
* objectives
* milestones

The project ***goal*** statement needs to be a very short and specific definition of the ultimate deliverable or outcome that is to result from the project. You might consider the project time frame to be part of the project goal. It is. Committing your team to a particular completion date can be deadly. A far better approach is to identify the calendar time required after the start date of the project! Keep the completion date flexible. Remember: at this point, your chief task is to get senior management to accept the project. Give these important stakeholders enough information to be able to authorize the project, but don't volunteer anything that will be impossible to deliver

**Writing Clear Objectives**

The ***objectives*** represent the results of major steps that will be taken to reach the project goal. These are also referred to as ***milestones*** in project management. Objectives are not the actual work to be done, but they are "mini" goals that direct the work tasks. They typically represent deliverables. All objectives must be achieved for the project goal to be achieved. Thus, in this course, we will use objectives as a way to describe, using active language, the work to be done to achieve the project goal. We will use "milestones" as markers of progress in a project. Milestone is usually defined as "an event of special importance, usually representing the completion of a major phase of project work. In other words, there is a deliverable at each milestone. Reviews are often scheduled at milestones."

To write clear objectives,

* describe the work that will actually be performed in precise terms;
* use active verbs (They represent tasks.); and
* apply the "S.M.A.R.T." method described in chapter 4, p. 129, of EPM.

Let's say you have the following objective:

Build a cabin by next year.

The description is very fuzzy. How would you revise this objective to make it more specific? You might ask: What kind of a cabin? Where will I build it? What cost range does it have to fit? Would I need to finish it before the winter storms begin? After this analysis, you might revise your objective further with:

Build a 50-foot by 50-foot A-frame Douglas fir log cabin on the outskirts of North Bend, Washington, with a budget of $100,000.00, between May 1 and November 1, next year.

Well-written objectives help us view the project in terms of its major components. They also help decision-makers and members of the project team understand the scope of the project. Having the specifications of the deliverable enables project teams to develop more probable estimates of cost and schedule. The customer also has better measures to compare with available budget and required timeframe.

**Success Criteria**

In project management, it is very important to be able to answer the question "What do we want to have when we have finished the project?" Since the project overview statement is largely a tool for gaining early support of the customer, a clear statement of the ***success criteria*** is of particular importance. The purpose of the statement of success criteria in the project overview statement is twofold:

1. (It establishes the business value (benefit) of doing a project, and is therefore a basis for selling the project to senior management; and
2. It tells stakeholders when the project is completed. It is very important to have customer acceptance of the project success criteria.

In addition to quantifying the end result, it is important to be able to quantify the business benefits that successful completion of the project will have for the customer – stated in terms that are meaningful to the customer. For example, will completion of the project result in a new product or service? Will it result in more efficient internal systems? Will there be better customer service? Will there be an upgrade of business processes or computer systems? Think about how you might measure "customer satisfaction" and "internal efficiency" in addition to more tangible outcomes such as "Six departments upgraded to the latest version of Microsoft Word."

**Assumptions, Risks, Obstacles**

**Key Terms**

* success criteria
* preliminary risk

You will be studying risk assessment in greater detail in 420. For now, the project overview statement needs a ***preliminary risk*** assessment to identify likely, significant risks. If the customer isn't made aware of such risks at the outset, it won't help you to brush them aside at this stage only to have them become problems later. Customers will certainly be skeptical about how realistic your project is if you present a plan that doesn't have any associated risks. In addition to assessing risks, you can mention contingencies for dealing with them as a way of demonstrating that you can manage them.

Further, it may work to your benefit to alert the customer to potential problems, since customers might be able to help you solve them. As a guide to stating assumptions and risks, consider the following points for each of the project objectives:

* what resources are involved? Are there risks associated with obtaining these resources?
* what problems and/or delays might be associated with this objective?
* what effect would delays have on the overall budget and schedule plan?
* what are likely time, cost, and labor-hour overruns?
* what assumptions are part of any contingency plan, given the resources and constraints?

Remember to quantify information wherever possible.

**Getting Customer Acceptance**

Always be sure that at some point you meet with the customer and get acceptance of the POS. Doing so establishes a contractual relationship between the customer and you. Each of you knows what to expect from the other.

Skipping this step is one of the biggest causes of project failure. It is important that the customer clearly understands the outcomes of your planning process. It is to your advantage to have POS information out in the open. Therefore, when you are obtaining approvals from the key project stakeholders, make sure your customer is among them.

If the project is worth doing – satisfies the specifications for deliverables, budget and timetable; and produces the desired benefits – promote acceptance of the POS. Otherwise, reconfigure the project and promote a lesser scope. You might even perceive that the project is not worth doing -regardless of scope. The customer needs to know that opinion. The customer might still sponsor the project. Do the best that you can. The customer might know something that you do not.

**Quality Management Processes: The "Go/No Go" Decision**

Once you have written the POS, you should evaluate it from the perspectives of your stakeholders. Use the following checklist as a tool for determining whether the project status is likely be a ***go/no go***; that is, would it likely be assigned "go (Do it.)" or "no go (Do not do it.)" If your answer is "no go," you should be able to pinpoint the areas that need adjustment.

**Key Terms**

* go/no go

1. Problem statement
   * Has the problem or opportunity been stated clearly?
   * Is it clear who the requestor is?
   * Have you clearly stated how the expected benefits will be achieved?
2. Project goal
   * Have you clearly stated the desired end result of the project?
   * Is the goal statement specific and measurable?
   * Is the goal realistic and manageable?
3. Project objectives

Are all objectives:   
necessary?

* + stated clearly and realistically?
  + written with an end result that is definable and measurable?
  + written with a beginning and an end (that is, they are finite)?
  + S.M.A.R.T.?

1. Success Criteria   
   * Are the criteria stated as objectives that are to be accomplished?
2. Risks and Assumptions   
   * Have the major risks and assumptions been stated?
   * Are the major risks and assumptions and any contingency plans realistic?
   * Do the stated risks and assumptions allow stakeholders to assess benefits and costs associated with the project?
3. Is the project overview statement understandable to an outsider?
4. Would you plan, implement, and manage the project as stated in the project overview statement?
5. Are you able to manage this project? Would you put your career on the line for this project?