CHAPTER 2
Needs Identification

LEARNING OBJECTIVES

Recall that the project life cycle consists of four phases: identifying needs, proposing a solution, performing the project, and terminating the project. This chapter focuses on needs identification, the first phase of the project life cycle. Based on this chapter, the students should become familiar with:

- identifying needs and selecting projects
- developing requests for proposal
- the proposal solicitation process

TEACHING STRATEGIES

1. Have the students read the case studies in class and answer the questions in groups of three or four. Next, select five participants to act out the group activity. This is an excellent way to stimulate class discussion and interest. This is a good case study to do right before you lecture on this chapter and then again after you lecture on the chapter. The difference in responses "before" and "after" will reinforce the importance of the topics covered.
2. Ask your students if they have ever seen an RFP or written an RFP.
3. Ask your students to identify situations in the real world that would require an RFP. Ask them to describe in detail what the RFP might look like.

LECTURE OUTLINE

1. Real-World Examples

A. Vignette: Successful Messaging Services in Poland

- Polska Telefonia Cyfrowa (PTC) is Poland's leading wireless services provider, and maintains Era, the largest mobile network in Poland.
    - Era serves more than seven million subscribers and has almost 37 percent share of the total Polish market.
- Several years ago, it introduced Eranet (a basic e-mail service for Era) powered by Sun Internet Mail Server (SIMS), which is equipped with

short messaging service (SMS) applications. The messaging system is designed to notify mobile subscribers by cell phone text messages when they have new e-mail. PTC decided to expand its offerings to customers by delivering two-way SMS services.

- A detailed needs assessment was a key to this successful initiative. Sun Services helped to map out all of the requirements for the Eranet project from the beginning and remained involved at every stage.
- Since PTC intended to grow its subscriber base and e-mail volume quickly, solutions needed to consider security, scalability, and availability.
- The project was completed in just 12 months, which was nearly 50 percent earlier than anticipated.
- With the implementation of the new Sun e-mail software, PTC was able to grow its subscriber base by approximately 80 percent in one year, with the anticipation of further growth.
- This will enable the company to achieve 100 percent payback on the new messaging infrastructure in only two years.

B. Vignette: Red Light, Green Light

- Catherine Aczel Boivie joined Pacific Blue Cross in 2003 as the Vice President of Information Technology. When she began, she and the CEO agreed on two principles:
  - Technology has no value alone, and
  - Technology management needs to focus on enabling business as opposed to operations.
- Boivie made it her personal mission to turn the IT department into a business enabler.
- Pacific Blue Cross created a Balanced Scorecard that displays and measures the organization’s performance from the following six perspectives: qualitative, quantitative, infrastructure, clients, people, and community-related goals.
- After compiling a list of all projects currently in progress, Boivie introduced the project management office (PMO) function.
- A report she called the Traffic Light was implemented to allow the PMO to regularly report project status to IT management, executive committees, and the board of directors.
- During Boivie’s second year at Pacific Blue Cross, she introduced a gating process to govern her projects.
- Finally, a change review board was implemented to review all change requests and prioritize how the proposed changes enable the business.

- While her company still faces a number of challenges, Boivie is confident that the project management processes she put in place will help ensure that each project is focused on advancing business goals, and can be completed on time and within budget!

2. Needs Identification

A. Needs identification is the initial phase of the project life cycle. Display and briefly review Figure 2.1.

B. It starts with the recognition of a need, problem, or opportunity and ends with the issuance of a request for proposal (RFP).

C. Before a request for proposal is prepared, the customer must clearly define the problem or need. This may mean gathering data about the magnitude of the problem.

D. It is important to try to quantify the problem so as to determine whether the expected benefits from implementing a solution outweigh the costs of conducting the project and, if so, by how much.

E. Once the magnitude of the benefit or improvement has been estimated, the customer can determine the budget for a project to implement an improvement.

F. Businesses have a limited amount of funds available and, therefore, usually want to spend those funds on projects that will provide the greatest return on investment.

G. Even in a non-business example, such as staging a town's Fourth of July celebration, there is usually a budget within which the project must be accomplished.

H. There are often situations where a company has identified several needs but has limited funds and people available. In such cases, the company must select the project(s) with the greatest benefit for the cost expended.

3. Project Selection

A. *Project selection* involves evaluating various needs or opportunities, and then deciding which of those should move forward as a project to be implemented.

B. The benefits and consequences, advantages and disadvantages, plusses and minuses of each opportunity need to be considered and evaluated. They can be quantitative and qualitative, tangible and intangible.

C. The steps in project selection are to:

   1. *Develop a set of criteria against which the opportunity will be evaluated.* For example:

- Alignment with company goals
- Anticipated sales volume
- Increase in market share
- Establish new markets
- Anticipated retail price

Sometimes the opportunities and needs may not all be similar.

2. *List assumptions* that will be used as the basis for each opportunity. For example, if one opportunity is to build an on-site day care center for children and elderly relatives of company employees, one assumption might be that the company would be able to obtain a bank loan to build such a center.
3. *Gather data and information for each opportunity* to help ensure an intelligent decision regarding project selection. For example, it may be necessary to gather some preliminary financial estimates associated with each opportunity, such as estimated revenue projections and implementation and operating costs.

   In addition to gathering hard data, it may also be necessary to obtain other information regarding each opportunity. This could include getting information from various stakeholders who would be affected by the opportunity.
4. *Evaluate each opportunity against the criteria.* Once all the data and information has been collected, analyzed and summarized for each opportunity, it should be given to all the individuals who are responsible for performing the evaluation. It is beneficial to have several individuals involved in the evaluation and selection decision in order to get various viewpoints.

It is advisable to develop a project evaluation form which would list the criteria and provide space for comments and a rating box for each criterion. Each evaluation and selection committee member could then complete a form for each opportunity prior to coming to a meeting of the entire committee.

4. Preparing a Request for Proposal

A. The purpose of preparing a request for proposal is to state, comprehensively and in detail, what is required, from the customer's point of view, to address the identified need.

B. A good RFP allows contractors or a project team to understand what the customer expects so that they can prepare a thorough proposal that will satisfy the customer's requirements at a realistic price.

C. It should be noted that in many situations a formal RFP might not be prepared; instead, the need is communicated informally—and sometimes orally rather than in writing. This is often the case when the project will be implemented by a firm's internal staff rather than by an external contractor.

D. Following are some guidelines for drafting a formal request for proposal to external contractors:

1. An RFP must provide a **statement of work (SOW)**. An SOW deals with the scope of the project, outlining the tasks or work elements the customer wants the contractor or project team to perform.
2. The RFP must include the **customer requirements**, which define specifications and attributes. Requirements cover size, quantity, color, weight, speed, performance, and other physical or operational parameters the contractor's proposed solution must satisfy. The customer may also use these requirements as acceptance criteria.
3. The RFP should state what **deliverables** the customer expects the contractor or project team to provide. Deliverables are the tangible items that the contractor is to supply. Deliverables could include periodic progress reports or a final report as well as a final product.
4. The RFP should list any **customer-supplied items**.
5. The RFP might state the **approvals required by the customer**.
6. Some RFPs mention **the type of contract** the customer intends to use. It could be fixed price, in which case the customer will pay the contractor a fixed amount regardless of how much the work actually costs the contractor. (The contractor accepts the risk of taking a loss.) Or the contract might be for time and materials. In this case, the customer will pay the contractor whatever the actual costs are.
7. An RFP might state **the payment terms** the customer intends to use. The customer may specify progress payments or pay when the entire project is finished.
8. The RFP should state **the required schedule for completion** of the project. It might state simply a required completion date or it might give a more detailed schedule.
9. The RFP should provide **instructions for the format and content of the contractor proposals**. Instructions might state the maximum number of pages, the number of details the customer wants the contractor to show regarding the costs, and other specifications.
10. The RFP should indicate the **due date for proposals**.

11. An RFP may include the **evaluation criteria** that will be used to evaluate proposals from competing contractors. Criteria might include the following:
    a. the contractor's experience with similar projects
    b. the technical approach proposed by the contractor
    c. the schedule
    d. the costs
12. In rare cases an RFP will indicate the funds the customer has available to spend on the project. Contractors can then submit proposals that are appropriate to that level of funding.

5. Soliciting Proposals

A. Once the RFP has been prepared, the customer solicits proposals by notifying potential contractors that the RFP is available.

B. One way for customers to do this is by identifying a selected group of contractors in advance and sending each of them a copy of the RFP.

C. Another approach to soliciting proposals is to advertise in certain business newspapers and on websites that the RFP is available. For example, federal government organizations advertise their RFPs in *Commerce Business Daily*.

D. Business customers and contractors consider the RFP/proposal process to be a competitive situation.

E. Customers should be careful not to provide to one or more of the contractors information that is not provided to all interested contractors.

F. Business or government customers may hold a bidders' meeting to explain the RFP and answer questions from interested contractors.

G. Not all project life cycles include the preparation of a written RFP. Some bypass the proposal steps and move right into planning and performing the project.

H. There are other projects in which requirements are not written down in a formal RFP, but are communicated verbally to several providers or suppliers (contractors).

I. Although projects can be businesslike or informal, they all start with the identification of a need, problem, or opportunity.

6. Critical Success Factors

A. The need must be clearly defined before preparing a request for proposal (RFP).

B. When selecting a project from among several needs or opportunities, the decision should be based on which project will provide the greatest overall benefits compared to its costs and possible consequences.

C. Having a well-understood evaluation and selection process and a well-rounded committee will increase the chances of making the best project selection decision.

D. A good RFP allows contractors or a project team to understand what the customer expects so they can prepare a thorough proposal that is responsive to the customer's needs and requirements.

E. A request for proposal should include a statement of work, customer requirements, expected deliverables, and the criteria by which the customer will evaluate proposals.

F. An RFP should provide instructions for the format and content of contractor proposals so the customer will be able to make a consistent and fair comparison and evaluation of all the proposals.

G. Customers must be careful not to provide information to only some of the contractors because it would give these contractors an unfair competitive advantage in preparing their proposals.

QUESTIONS

1. Why is it important to do a thorough and detailed job of needs identification?

It is important to thoroughly study the problem or opportunity in order to develop a quality RFP and/or quality solution. If the need isn't clearly defined, you can't expect the proposed solutions to be clearly defined either.

2. Describe a situation in your life in which you performed needs identification.

Answers will vary from student to student.

3. Why is it important to select the right project before you begin working?

In reality too many projects are started that should never have been started. It is wise to take the time to decide which needs or opportunities should go forward as a project before you start working.

4. Describe how a business selects which projects to work on when there are numerous projects that could be done.

A four-step process is recommended:

a) Develop a set of criteria against which the opportunity will be evaluated.
b) List assumptions that will be used as the basis for each opportunity.
c) Gather data and information for each opportunity
d) Evaluate each opportunity against the criteria.

5. **Give examples of situations in which a business might develop a request for proposal.**

   There are many possible answers to this question. Some examples might include an RFP for a new billing system, an RFP for a comprehensive management training program, an RFP for a new heating system for a major office building, etc.

6. **Give examples of situations in which an individual might develop a request for proposal.**

   There are many possible answers to this question. Some examples might include an RFP for a new in-ground pool, a new deck, or a new house. These may or may not be written.

7. **Why is it important for a business to try to quantify the expected benefits of implementing a solution to a problem?**

   If a business did not do this in advance, they might find out that the costs of the solution exceed the benefits. In addition, because most businesses have limited resources, they must prioritize their projects based on the expected benefits.

8. **What should be contained in a statement of work?**

   A statement of work should define the scope of the project and outline the tasks or work elements to be performed. The SOW should be very precise.

9. **What is meant by customer requirements? Why must they be precise?**

   The RFP must include the customer requirements, which define specifications and attributes. Requirements cover size, quantity, color, weight, speed, performance, and other physical or operational parameters the contractor's proposed solution must satisfy.

   These requirements must be very precise because this is what the contractor will use as a guideline as they develop the proposal and/or solution and the customer may also use it as acceptance criteria.

10. **Why would an RFP state the approvals that will be required during the project? Give some examples.**

    It is important to state the approvals required during the project so the final solution matches what the customer expects. Examples would include reviewing the design specifications for a house before construction begins, reviewing a prototype user interface for a new software system before coding begins, etc.

11. **Why would a customer give contractors instructions in the RFP to submit their proposals according to a standard format?**

    This is done so all proposals have a standard form and are thus easier to evaluate. If this was not done, for example, one proposal might be 5 pages and another might be 50 pages. One might include technical specifications and another might not.

12. **Develop an RFP for a real-world project such as landscaping the grounds surrounding a nearby business office, building a deck for your house, or holding**

a big graduation celebration. Be creative in specifying your needs. Feel free to come up with unique ideas for the RFP.

Answers will vary from student to student.

INTERNET EXERCISES

The Web Exercises can be a very valuable part of this course. You should assign these exercises to your students as homework or complete them with them in a computer lab. The Web exercises in this chapter involve investigating and evaluating a Request for Proposal found on the Web.

CASE STUDY # 1 A MIDSIZE PHARMACEUTICAL COMPANY

This case study involves an owner and Chief Executive Officer of a midsize global pharmaceutical company who states that profits for the year are expected to be $2,000,000 more than anticipated. She asks her three key managers to get together to develop a prioritized list of potential projects and then to meet with her to "sell" her on their ideas. A fourth manager also has some ideas for how to use this extra money.

Answers to Case Questions

1. **How should Jennifer go about making her decision?**

   She has identified an opportunity. She has $2,000,000 of unexpected profits that she would like reinvest in the company. In this case, she is soliciting proposals from her internal managers. She should state comprehensively, and in detail, what she expects in the proposals including several of those items discussed in this chapter (due date for proposals, format required, evaluation criteria to be used, etc.). In this case, the RFP may or may not be in written form. She should then evaluate each proposal submitted based on the stated criteria.

2. **What kind of additional data or information should she collect?**

   Among other things, information on cost and benefits should be collected. Costs should include one-time and on-going expenses. Additional data such as specific tasks and timeframes is also needed.

3. **What exactly should Jennifer require the others to submit in the way of proposals?**

   Each proposal should include the cost and anticipated benefits of the project. At a minimum, it should also include the tasks to be performed, the resources used, and a schedule.

4. **What do you think Jennifer should do with the $2,000,000? In explaining your answer, address the concerns and positions of Julie, Tyler, Jeff, and Joe.**

   At this point it is too early to tell. Jennifer must evaluate each of the proposals based on the established criteria and then select the proposal or proposals that provide the greatest benefit to the company.

Group Activity

This is an excellent way to stimulate class discussion and interest. Take a few minutes and have some students act it out in class.

1. Select five course participants to play the roles of Jennifer, Julie, Tyler, Jeff, and Joe. While Jennifer and Joe leave the room, have Julie, Tyler, and Jeff role-play (preferably in front of the remaining course participants) a meeting in which they discuss their proposed projects and develop a prioritized list to "sell" to Jennifer.
2. After Jennifer and Joe re-enter the room, have all five participants role-play (preferably in front of the class) a meeting with Jennifer in which Julie, Tyler, and Jeff try to sell her on the prioritized list of projects and Joe promotes his agenda.
3. Discuss what took place. What positions did the players take? How was the final decision made? What was the final decision?

CASE STUDY # 2 TRANSPORTATION IMPROVEMENTS

This case involves a large, mostly sparsely populated county that has a fairly mountainous terrain. Various road projects are being discussed.

Answers to Case Questions

1. **What criteria should Zachary use to evaluate the projects?**

   Various options can be used as discussed in this chapter. The criteria should be defined in advance of evaluating the projects.

2. **What assumptions should he make?**

   Assumptions regarding the safety to the entrance outside of Big John's superstore

   Assumptions about the need to widen and repair Elk Mountain Road

   Assumptions regarding County Route 1045 and the bridge

   The assumptions need to be evaluated.

3. **What data and information should he gather and how should he go about gathering the data and information?**

Surveys and various types of research methods could be used to gather data related to the assumptions in the case study.

4. **After he has evaluated each project against the evaluation criteria, how should he decide the priority of the three projects?**

    This is a great opportunity to get the class to walk through the four step project selection process. Split the class into groups and see what they come up with.

Group Activity

Ask each course participant to individually answer the first case question. Then, divide the course participants into groups of three or four to discuss the case questions. Each group must select a spokesperson to present its answers to the entire class.

HOMEWORK

1. Have them read the Real-World Vignette about the *Successful Messaging Services in Poland* and discuss identified needs and the RFP process. See if they can find any information about this on the Web.
2. Have them read the chapter and answer all of the Reinforce Your Learning questions and the questions at the end of the chapter.
3. This is a good time to get your students to start reading some of PMI's publications—either on-line or printed. These articles are typically very readable and might relate to something that interests your students. Have each student read one such article and prepare a one-page summary. If time permits, have each student discuss his or her article in class.
4. Have them find a Request for Proposal on the Web and evaluate it against the guidelines in this book.