Chapter 2

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The newly restored Hippodrome Theater in Baltimore, Maryland, re-opened its doors on February 6, 2004, leading the way to economic and cultural revival for the long-neglected west side of the city’s downtown district. In its new form, new spaces have been created so that the theater features modern conveniences such as spacious lobbies, concessions stands, parking facilities, high-tech lighting, and a new sound system. Besides designing and building these modern conveniences, many hours of research and work went toward preserving and restoring ornamental details in the ceiling and walls of the original theater. The restoration was made possible by project supporters who were dedicated to serving their community.

The Hippodrome Theater, designed by Thomas W. Lamb, was originally a regular stop for vaudeville shows. The Hippodrome opened on November 23, 1914, with jugglers, comics, and elephants to entertain opening night audiences. In the late 1930s comic Red Skelton and the original Three Stooges performed at the theater. People also enjoyed musical performances by Frank Sinatra and Glenn Miller and his orchestra. An All-Star Revue that included Ronald Reagan and Jane Wyman was another notable event at the theater. This area became a busy and prosperous retail hub. The theater stopped featuring live shows, and it became a movie theater in the 1950s. For a brief period, it was converted back to a theater for live performances. The environment began to change with the introduction of television and suburban department stores, which kept people away from the city and therefore businesses suffered. In the 1970s and 1980s, the theater became an adult film house. Following the economic decline of its urban surroundings, the building officially closed in 1990.

The Greater Baltimore Committee (GBC), composed of business and civic leaders, decided to search for financial support to restore the old theater. They brought the state governor and other state government officials on a tour of the dilapidated theater in early 1998. Despite the dim, temporary lighting system, holes in the floor, and the water-damaged plaster in the ceiling, they saw its potential for reviving cultural and economic activities in the community. Early signs of community rebirth were already evident as the nearby University of Maryland at Baltimore expanded its campus with over $200 million in new building projects. The GBC presented a plan to rebuild the theater and provide services to the surrounding neighborhood. The plan included the establishment of The Hippodrome Foundation that supports the theater’s relationship with the surrounding community. It focuses on neighborhood redevelopment, affordable ticket prices, and educational programs to encourage young people to be involved in the arts. The committee won financial support for the restoration project from the state, the city, an adjacent county, financial institutions, and private foundations. The France-Merrick Foundation provided a grant and became the project’s largest private donor. Groundbreaking ceremonies for the $65 million renovation took place in June 2002. The construction project was completed on time for the opening night show, *The Producers*, held on February 10, 2004.

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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 (see Figure 2.1). You will become familiar with

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

NEEDS IDENTIFICATION

Needs identification is the initial phase of the project life cycle. It starts with the recognition of a need, problem, or opportunity and ends with the issuance of a request for proposal (RFP). The customer identifies a need, a problem, or an opportunity for a better way of doing something and therefore sees some benefit to undertaking a project that will result in an improvement or advantage over the existing condition.

For example, suppose a company’s management recognizes that the time the company takes to issue invoices and collect payments from its customers is too long. Furthermore, the fact that company payment records are not up to date has caused second invoices to be sent to customers who have already paid, thus upsetting some good customers. Also, as business increases, more clerical staff must be added to process the additional invoices and payments, and more file cabinets must be purchased to store the growing amount of paperwork. Management recognizes several problems and opportunities for improvement, so it develops an RFP asking contractors to submit proposals for implementing an automated billing and collection system. In a different scenario, the company’s management might request a proposal...
from an in-house individual or project team rather than from an external contractor.

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. For example, if a business thinks the scrap rate or reject rate from one of its manufacturing processes is too high, it may need to gather data regarding the actual rate and its impact on costs and cycle times. It is important to try to quantify the problem so as to determine whether the expected benefits from implementing a solution outweigh the costs or consequences of conducting the project and, if so, by how much.

Once the magnitude of the benefit or improvement has been estimated, the customer can determine the budget for a project to implement an improvement. For example, if a business estimates that it could save $100,000 a year by reducing its scrap rate from 5 percent to 1 percent, it might be willing to pay a one-time cost of $200,000 for new automated production equipment, thus breaking even after two years of operation. However, the business may not be willing to spend $500,000 for a solution. 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 or overall benefit. Even in a nonbusiness example, such as staging a town’s Fourth of July celebration, there is usually a budget within which the project must be accomplished.

There are often situations where a company has identified several needs but has limited funds and people available to pursue projects to address all of those needs. In such cases, the company must go through a decision-making process to select those needs that, when met, will result in the greatest overall benefit.

**PROJECT SELECTION**

**REINFORCE YOUR LEARNING**

1. The initial phase of the project life cycle is _______. It starts with the recognition of a need or opportunity and ends with the issuance of a _______ _______.

**REINFORCE YOUR LEARNING**

2. Project selection involves _______ various needs or opportunities, and then _______ which of those should move forward as a _______.

**REINFORCE YOUR LEARNING**

3. Benefits and consequences can be both _______ and tangible or qualitative and _______.

**Project selection** involves evaluating various needs or opportunities, and then deciding which of these should move forward as a project to be implemented. The benefits and consequences, advantages and disadvantages, plusses and minuses of each opportunity need to be considered and evaluated. They can be both quantitative and qualitative, tangible and intangible. Quantitative benefits could be financial, such as an increase in sales or a reduction in costs. There also may be intangible benefits associated with an opportunity, such as improving the company’s public image or employee morale. On the other hand, there are quantitative consequences associated with each opportunity, such as the cost required to implement the project or disruption to work throughput while the project is being implemented. Some consequences may be less tangible, such as legal barriers or reaction from a particular advocacy group.

The steps in project selection are as follows:

1. Develop a set of criteria against which the opportunity will be evaluated. These criteria will probably include both quantitative and qualitative factors. For example, if a pharmaceutical company is
considering opportunities involving the development and introduction of several new products, it might evaluate each opportunity against the following criteria:

• Alignment with company goals
• Anticipated sales volume
• Increase in market share
• Establishment of new markets
• Anticipated retail price
• Investment required
• Estimated manufacturing cost per unit
• Technology development required
• Return on investment
• Human resources impact
• Public reaction
• Competitors’ reaction
• Expected time frame
• Regulatory approval

Sometimes the opportunities and needs may not all be similar, such as several alternative new products. They could be very different and all compete for a company’s resources. One may be to put a new roof on the factory, another to implement a new information system, and a third to develop a new product to replace one that is outdated and for which sales are rapidly declining.

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. These costs may then be analyzed using certain mathematically based financial models so they can be compared on an equal basis. Such financial or economic models can include methodologies used to calculate simple payback, discounted cash flow, net present value, internal rate of return, return on investment, or life cycle costs associated with each opportunity being considered.

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. These could be employees, consumers, or community residents, depending on the specific opportunity. Methods of gathering this information could include surveys, focus groups, interviews, or analysis of available reports. For example, if the opportunities being considered have to do with introducing several alternative food preparation products into the market, it may be valuable to conduct some focus groups with consumers to determine their needs and preferences. In the
case of building an on-site day care center, it may be worthwhile to survey employees to determine how many employees would use the day care center for children or elderly relatives, and how often (all day, second shift, before or after school), ages of children, the health care needs of elderly relatives, and so forth.

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. Each person on the evaluation and selection team or committee should have a different background and experiences to bring to the decision-making process. There may be someone from marketing who knows consumer preferences; someone from finance who knows costs and the company’s financial condition; someone from production who understands what process and equipment changes may be needed; someone from research and development who can provide expertise on how much additional technology development may be required; and someone from human resources to represent any impact on the workforce or the community.

Although it may take longer and be more stressful to gain group consensus on project selection and priorities, it will most likely be a better quality decision than if the decision is made by just one individual. Acceptance of the decision will also be greater.

One approach to the evaluation and selection process would be to have the evaluation and selection committee meet to develop a set of evaluation criteria. They may also develop some type of rating system (such as High-Medium-Low, 1 to 5, 1 to 10) against which to rate each opportunity against each criterion. Then each committee member should be provided with any data and information that has been collected, analyzed, and summarized. Before the entire committee meets, each member can individually assess the benefits and consequences, advantages and disadvantages of each opportunity against the evaluation criteria. This will give each member sufficient time for thoughtful preparation prior to a meeting of the entire committee.

It is advisable to develop a project evaluation form listing the criteria with 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.

In most cases the project selection will be based on a combination of quantitative evaluation and what each person feels in her or his “gut” based on experience. Although the final decision may be the responsibility of the company owner, president, or department head, having a well-understood evaluation and selection process and a well rounded committee will increase the chances of making the best decision that will result in the greatest overall benefit.

Once the decision has been made regarding which opportunity or opportunities to pursue, the next step is to prepare a request for proposal.
if it is expected that a contractor or consultant will be hired to perform
the project. If the project is going to be carried out by an in-house pro-
ject team, then a document should be prepared outlining the project
requirements in a form similar to what would be included in an RFP.

PREPARING A REQUEST FOR PROPOSAL

The purpose of preparing a request for proposal is to state, compre-
hensively and in detail, what is required, from the customer’s point of
view, to address the identified need. 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 re-
quirements at a realistic price. For example, an RFP that simply re-
quests contractors to submit a proposal for building a house is not
specific enough. Contractors could not even begin to prepare propos-
als without information about the kind of house that is wanted. An
RFP should be comprehensive and provide sufficiently detailed infor-
mation so that a contractor or project team can prepare an intelligent
proposal that is responsive to the customer’s needs. A sample RFP is
shown in Figure 2.2.

It should be noted that in many situations a formal RFP may 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. For example, if a company needs to change
the layout of its manufacturing facility to make room for new pro-
duction equipment that has to be incorporated into the production
flow, the manufacturing manager may simply ask one of the supervi-
sors to put together a proposal for “what it’s going to take to recon-
figure the production line.”

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 ele-
ments the customer wants the contractor or project team to per-
form. For example, if the RFP is for a house, the contractor needs
to know whether he should design and build the entire house,
built it according to the customer’s design, or include finishing
the basement and installing the carpeting. If a customer needs a
marketing brochure, the RFP must state whether the contractor is
to design the brochure or design, print, and mail it.

2. The RFP must include the customer requirements, which define spec-
ifications and attributes. Requirements cover size, quantity, color,
weight, speed, and other physical or operational parameters the
contractor’s proposed solution must satisfy. For the marketing
brochure, the requirements might be for a trifold self-mailer,
printed on card stock in two colors, with a print run of 10,000.
Requirements for the house might include an overall size of
3,000 square feet with four bedrooms, two baths, a two-car
garage, central air conditioning, and a fireplace.
To Whom It May Concern:

AJACKS Information Services Company is seeking proposals from contractors with relevant experience to conduct a market survey of the technical information needs of manufacturing firms nationwide. The objectives of this project are

1. To determine the technical information needs of manufacturing firms nationwide, and
2. To recommend approaches to promote the purchase and utilization of AJACKS Information Services by such firms.

This project must provide adequate information for AJACKS Information Services Company to determine

- Future information products or services, and
- The best methods for delivering these products or services to its customers.

The contents of this request for proposal are to be considered confidential information.

1. Statement of Work

The contractor will perform the following tasks:

**Task 1: Identify Technical Information Needs of Manufacturing Firms**

Conduct a survey of manufacturing firms nationwide to determine their specific needs for external (to their firms) technical information. The assessment should determine the various specific types of technical information needed and the frequency with which each type of information is needed.

**Task 2: Determine the Best Approaches to Promote the Purchase and Utilization of AJACKS Information Services by Businesses**

The survey should include an identification of the firms’ perceptions of the most effective direct and indirect marketing approaches that influence the firms’ decisions to both purchase and utilize specific services or products, in particular, information services.

2. Requirements

The survey should determine the various specific types of technical information needed and the frequency with which each type of information is needed.

The survey should identify the current sources for the various types of technical information that are used by manufacturing firms, their frequency of use, and the firms’ perception of the value (benefit, cost, accuracy, timeliness) of each source. It should determine the various methods the firms currently use to access these sources of information. The survey should determine the average and range of funds (both internal to the firm and external fees) that firms currently expend for obtaining the various types of technical information.

The assessment must provide sufficient detail to permit demand-driven product planning by AJACKS Information Services Company. Therefore, it must include: (1) the information content most frequently needed by firms; (2) the applications for which the firms use the information; (3) the persons (title, skill level) responsible for both accessing and utilizing the information; and (4) the channels that firms use to access the various types of information.

AJACKS Information Services Company is interested in developing and delivering products and services that are valued by the users (manufacturing firms). With these interests in mind, the contractor must generate information about which firms (as distinguished by size, sector, location, or other important factors) may benefit most from information products and services or represent the most appropriate markets for such products and services.

The contractor should determine the size of the market for the various types of technical information and determine the market sensitivity to price, timeliness, accuracy, and delivery mechanisms for such information.

The survey methodology should include both focus groups and mail surveys.

The focus groups should be categorized by major manufacturing sectors and by multisector firm size (large, medium, small).
Based on the results from the focus groups, a draft mail survey questionnaire should be developed and pre-tested on representative firms. This survey instrument should be finalized after sufficient pre-testing. The contractor should provide a sampling design for the mail survey that is stratified by sector and firm size, is representative of the entire population of manufacturing firms, and is sufficiently large to present the survey results for each stratum at the 90 percent confidence level.

3. Deliverables
   A. A detailed report of the results of Task 1 must be prepared that identifies and analyzes the results for all respondents and also provides detailed analyses (1) for each sector and (2) by firm size. The contractor must provide twenty (20) copies of the report. The database of the survey responses used in the analysis must be delivered in a format suitable for further analysis by AJACKS Information Services Company.
   B. Based on the analysis of Tasks 1 and 2, provide a detailed report of recommendations of the most effective approaches, and associated costs, to promoting technical information services to manufacturing firms with the objective of getting such firms to purchase and use such services. Discuss any differences in approaches based on sector or size of business. The contractor must provide twenty (20) copies of the report.
   C. Written reports on project progress must be faxed to AJACKS Information Services Company on the 15th and 30th of each month. Reports should be brief and focus on progress compared to the contractor’s original plan and schedule. These reports should cover activities, milestones achieved, plans for the next month, obstacles encountered or anticipated, and hours and dollars expended. For any work items where progress is behind schedule, a plan must be proposed to complete the project within the original schedule and budget.

4. Items Supplied by AJACKS Information Services Company
   AJACKS will provide the contractor with detailed information about its current information services and products as well as statistical information regarding its current customer base.

5. Approvals Required
   The contractor must obtain the approval of AJACKS for the final version of the survey instrument before it is implemented.

6. Type of Contract
   The contract will be for a fixed price for all of the work the contractor proposes to meet all the requirements of this request for proposal.

7. Due Date
   The contractor must submit five (5) copies of the proposal to AJACKS Information Services Company on or before February 28th.

8. Schedule
   AJACKS Information Services Company expects to select a contractor by March 30th. The required period of performance of this project is six months, from May 1st to October 30th. All deliverables must be provided to AJACKS on or before October 30th.

9. Payment Terms
   AJACKS Information Services Company will make payments to the contractor according to the following schedule:
   • One-third of total amount when project is shown to be one-third complete
   • One-third of total amount when project is shown to be two-thirds complete
   • One-third of total amount when AJACKS Information Services Company is satisfied that the project is 100 percent complete and that the contractor has fulfilled all contractual obligations

10. Proposal Contents
    As a minimum, the contractor’s proposal must include the following:
    A. Approach
       A discussion that indicates the contractor clearly understands the request for proposal and what is expected. Also, a detailed discussion of the contractor’s approach to conducting the project and a detailed description of each task and how it will be accomplished.
Some requirements address performance. If the RFP is for an automated billing and collection system, performance requirements might include the capacity to process 12,000 transactions a day and provisions for special functions such as consolidated multiple invoices for individual customers and automatically generated second invoices for payments not received within 30 days of the initial invoice.

Such performance requirements may also be used as acceptance criteria by the customer. For example, the project contractor will have to run tests on the automated billing and collection system to prove to the customer that it meets the performance requirements before the customer accepts the system and makes the final payment to the contractor.

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. With the brochure example, the only deliverable might be 10,000 copies of the brochure. With the billing and collection system, the contractor may be expected to supply the hardware (computers), software (disks, as well as certain printouts), operator manuals, and training sessions.
Deliverables could also include periodic progress reports or a final report that the customer requires the contractor to provide.

4. **The RFP should list any customer-supplied items.** For example, the RFP might state that the customer will supply a copy of its logo for use on the brochure. If the RFP is for a piece of automated equipment for testing electronic circuit boards, it may state that the customer will provide a certain quantity of the boards for the contractor to use during factory testing of the equipment before it is shipped to the customer.

5. **The RFP might state the approvals required by the customer.** For example, the housing customer may want to review and approve the plans before construction is started. The brochure customer may want to review and approve the brochure’s layout before printing is started.

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. For example, if the RFP is to remodel a basement, the RFP might state that the contractor will be paid for the hours expended and the cost of materials.

7. **An RFP might state the payment terms the customer intends to use.** For example, the brochure customer may intend to make one payment at the end of the project. On the other hand, the customer for the house may specify progress payments, based on a percentage of the total price, that are made as certain milestones are accomplished—25 percent when the foundation is complete, another 25 percent when the framing is complete, and so on, until the entire project is finished.

8. **The RFP should state the required schedule for completion of the project.** It might state simply that the house must be completed within six months, or it might include a more detailed schedule. For example, the billing and collection system must be designed and developed and a design review meeting conducted within four months of the start of the project; then, the system must be installed and tested within four months of the design review; and, finally, the contractor must provide all system documentation and operator training within one month of the system’s installation.

9. **The RFP should provide instructions for the format and content of the contractor proposals.** If the customer is going to compare and evaluate proposals from several contractors, it is important that they be consistent in format and content so that a fair evaluation can be made. 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 by which the customer expects potential contractors to submit proposals.** Customers want to receive all proposals by a certain date so that they can compare and evaluate
Real World Project Management

Hospital Goes Wireless

In early June 2004, the El Camino Hospital in Mountain View, California, began to offer high-speed wireless Internet access to its patients and visitors at the hospital’s main campus and at its two off-campus dialysis clinics. The idea for the service came from patients who are required to go to the clinic for dialysis treatments two or three times a week. A patient spends about six hours for each visit, and now has the convenience of free wireless Internet access while getting treatment. The hospital plans to offer free access to patients, whereas visitors will be charged a US$3-a-day fee.

This is the latest service to develop from the El Camino Hospital’s wireless technology project. To successfully implement this information technology overhaul, the hospital management incorporated technology into its strategic plan for cost savings while providing high-quality patient care. Three years ago, the hospital lost US$13 million. The hospital revised its enterprise architecture to include technology as a major focus for improving its business processes. The management team decided to invest in new technology to help hospital staff gather and record patient data efficiently and accurately.

Physicians use wireless tablet PCs and PDAs for entering orders for patient care. A voice over Internet protocol, VoIP, is being implemented for all phones used in the hospital.

The project team had to address special issues associated with wireless technology, such as interference with medical equipment and information security. The hospital’s medical equipment was upgraded to work at a different frequency. Two levels of security keep public Internet access separate from the hospital’s internal data network.

The new system saves money. The prescription drug order entry system saved the hospital US$130,000 annually in drug costs. This is possible because the system can automatically provide a suggestion for a cheaper, but just as effective, alternative to a medication when the order is being placed. In addition, the pharmacist can suggest ways to reduce number of medications prescribed by multiple doctors to a single in-house patient; pharmacists have the ability to quickly review all drugs prescribed to a single patient. Also, error costs related to prescriptions have decreased. In the past, each incident of an error of this type cost anywhere from US$3,000 to US$12,000.

Another example is El Camino Hospital’s new just-in-time inventory system. This system saves on both size and cost of the hospital’s storage needs. The hospital has implemented an automated supply chain, just like one that may be used in retail: the system automatically sends an order to restock items removed from inventory.

Ultimately, in addition to the cost savings, El Camino Hospital patients are safer with the new IT infrastructure. It enables employees to provide patient care with improved efficiency and increased productivity.

them at the same time. For example, a customer may give potential contractors 30 calendar days from the time the RFP is formally issued to submit a proposal. Customers usually state in the RFP that any proposals submitted after the due date will not be accepted for consideration, because it would be unfair to give some contractors extra time.

11. An RFP may include the evaluation criteria. These are the criteria that the customer will use to evaluate proposals from competing contractors in order to select the one to perform the project. Criteria might include the following:
   a. The contractor’s experience with similar projects. How recently has the contractor completed similar projects? Were they completed within budget and on schedule? Were the customers satisfied?
   b. The technical approach proposed by the contractor. What type and configuration of computer hardware will be used? What is the design approach for the database? Which software language will be used for developing the management information system?
   c. The schedule. Will the contractor be able to meet or beat the required schedule?
   d. The costs. If the estimate is based on time and materials, are the costs reasonable? Have any items been left out? Does it appear that the contractor has submitted a low cost estimate but will add costs after the project is under way, resulting in final costs that are much higher than the original estimate?

12. In rare cases an RFP will indicate the funds the customer has available to spend on the project. Usually, the customer expects contractors to submit a proposal that meets the requirements in the RFP at the most reasonable cost. In some situations, however, it may be helpful for the customer to indicate a “ballpark” amount to be spent. For example, stating in the RFP that the cost of building the house should be about $300,000 would be helpful. Contractors can then submit proposals that are appropriate to that level of funding, rather than submitting proposals for houses that cost far more than the customer has available. Otherwise, all the contractors might submit proposals with prices much higher than the available funding, and the disappointed customer will have to ask all the contractors to resubmit proposals for a less expensive house.

SOLICITING PROPOSALS

Once the RFP has been prepared, the customer solicits proposals by notifying potential contractors that the RFP is available. 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. For example, a customer who has prepared an RFP for designing and building a customized piece of automated testing equipment might send it to several well-known companies (contractors) that specialize in producing such equipment. Another approach to soliciting potential contractors is for
the customer to advertise in certain business newspapers that the RFP is available and give instructions on how interested contractors can obtain a copy. For example, federal government organizations advertise their RFPs in Commerce Business Daily.

Business customers and contractors consider the RFP/proposal process to be a competitive situation. Customers should be careful not to provide one or more of the contractors with information that is not provided to all interested contractors. Therefore, during the proposal development phase, customers may not want to answer questions from individual contractors who are preparing proposals for fear of giving those contractors an unfair competitive advantage over other contractors who do not have the same information. Business or government customers may hold a bidders’ meeting to explain the RFP and answer questions from interested contractors.

As a final note, we should repeat that not all project life cycles include the preparation of a written request for proposal and subsequent proposals from contractors. Some endeavors move right from defining what needs to be done into the project phase of the life cycle, where the project is planned and performed to satisfy the need. This process bypasses the RFP and proposal steps. For instance, when a company decides to initiate and implement a project to meet a certain need or solve a particular problem, it may use its own staff and project team rather than external contractors. Or when a group of volunteers decides to put on a countywide week-long arts festival, the volunteers may elect to do all the work themselves. When an accident victim requires a series of reconstructive surgeries, a team of surgeons may determine what needs to be done and then plan and perform a series of operations spanning several years. In all these examples, requests for proposal or proposals from contractors would not be appropriate.
There are other projects in which requirements are not written down in a formal RFP but are communicated to several providers or suppliers (contractors). For example, in planning a wedding, the bride and groom may define their requirements for the reception, dinner, flowers, and other items and then shop around to select the suppliers that most closely match their requirements and budget.

Although projects can be businesslike or informal, they all start with the identification of a need, problem, or opportunity and then proceed to the customer’s defining (in writing or orally) the scope, requirements, budget, and schedule for what is to be accomplished.

**SUMMARY**

Needs identification is the initial phase of the project life cycle. The customer identifies a need, a problem, or an opportunity for a better way of doing something. The need and associated requirements are usually written down by the customer in a document called a request for proposal (RFP).

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. It is important that the customer try to quantify the problem so as to determine whether the expected benefits from implementing a solution outweigh the costs or consequences of conducting the project.

There will be situations where several needs or opportunities have been identified but there are limited funds or resources available to pursue all of them. Project selection involves evaluating and selecting various needs and opportunities, and then deciding which of those should move forward as a project to be implemented. The steps in project selection are: developing a set of criteria against which the opportunity will be evaluated; listing assumptions about each opportunity; gathering data and information about each opportunity; and evaluating each opportunity against the criteria. Having a well-understood evaluation process and a well-rounded evaluation and selection committee will increase the chances of making the best decision that will result in the greatest overall benefit.

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. 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 reasonable price.

RFPs may contain a statement of work; customer requirements for physical or operational parameters, such as size, quantity, color, weight, and speed; deliverables the customer expects the contractor to provide; a list of any customer-supplied items; any approvals required by the customer; the type of contract the customer intends to use; the payment terms; the required schedule for completion of the project; instructions for the format and content of the contractor proposals; the due date by which the customer expects potential contractors to submit proposals; and criteria by which the proposals will be evaluated.
Once the RFP has been prepared, the customer solicits proposals by notifying potential contractors that the RFP is available. Business customers and contractors consider the RFP/proposal process to be a competitive situation. Customers should be careful not to provide one or more contractors with information that is not provided to all interested contractors.

Not all project life cycles include the preparation of a written request for proposal and subsequent proposals from contractors. Some endeavors move right from defining the need into the project phase of the life cycle.

**QUESTIONS**

1. Why is it important to do a thorough and detailed job of needs identification?
2. Describe a situation in your life in which you performed needs identification.
3. Why is it important to select the right project before you begin working?
4. Describe how a business selects which projects to work on when there are numerous projects that could be done.
5. Give examples of situations in which a business might develop a request for proposal.
6. Give examples of situations in which an individual might develop a request for proposal.
7. Why is it important for a business to try to quantify the expected benefits of implementing a solution to a problem?
8. What should be contained in a statement of work?
9. What is meant by customer requirements? Why must they be precise?
10. Why would an RFP state the approvals that will be required during the project? Give some examples.
11. Why would a customer give contractors instructions in the RFP to submit their proposals according to a standard format?
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.

**WORLD WIDE WEB EXERCISES**

If you have difficulty accessing any of the web addresses listed here, you can find these exercises (with up-to-date addresses) at [www.towson.edu/~clements](http://www.towson.edu/~clements).

In order to answer the following questions, perform a search for requests for proposals using your favorite search engine.

1. Based on the results of your search, find an RFP that has been posted on the web. What company developed the RFP and what are they looking to accomplish?
2. Evaluate the effectiveness of this RFP based on information you have studied in this chapter. Discuss the strengths and weaknesses of the RFP. Are there any items missing from the RFP that should have been included?

3. Based on what you learned in this chapter, download the proposal and revise it. Highlight the areas you revised. What makes your revised RFP better than the original?

4. Locate a website that provides suggestions for developing RFPs. Compare and contrast this with what was presented in the chapter.

5. Explore and describe at least three software packages that can help you develop an RFP. Download a demo copy of at least one, if possible.

**CASE STUDY #1  A Midsize Pharmaceutical Company**

Jennifer Childs is the owner and president of a midsize pharmaceutical company. At an October staff meeting she tells her managers that company profits for the year are expected to be $200,000 more than anticipated. She tells them she would like to reinvest this additional profit by funding projects within the company that will either increase sales or reduce costs. 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. She mentions that they should not assume the funds will be divided equally among the three of them. She also mentions that she is willing to put all of the funds into just one project if it seems appropriate.

Julie Chen, manager of product development, has had a team of scientists working on a new prescription drug. This effort has been taking much longer than expected. She is worried that larger firms are working on a similar prescription drug and that these firms might get it to the marketplace first. Her team has not made any major breakthroughs yet, and some tests are not producing the expected results. She knows this is a risky project but feels that she can’t stop it now. Julie believes the company’s long-term growth depends on this new drug, which can be sold worldwide. She has tried to be optimistic at staff meetings about progress on this development project, but she knows that Jennifer is growing impatient and that her peers believe she should have terminated the project after the initial tests were negative. Julie would like to use the additional funds to accelerate the development project. She would hire a highly respected scientist from a larger firm and buy more sophisticated laboratory equipment.

Tyler Ripken, manager of production, has been with the company only six months. His early observation is that the production flow is very inefficient. He believes this is the result of poor planning when additions were made to the plant over the years as the company grew. Tyler would like to form several employee teams to implement a better layout of the equipment in the plant. He thinks this would increase plant capacity while reducing costs. When Tyler mentions this idea to some of his supervisors, they remind him that when Jennifer’s
father ran the business, Jennifer was in charge of production, and she was responsible for the design of the current plant layout. They also remind Tyler that Jennifer is not a fan of using employee teams. She believes production employees are paid to do their jobs, and she expects her managers to be the ones to come up with and implement new ideas.

Jeff Matthews, manager of operations, is responsible for the company’s computers and information systems as well as its accounting operations. Jeff believes that the company’s computer systems are outdated, and as the business has grown, the older computer equipment has been unable to handle the volume of transactions. He thinks that a new computer system could keep better track of customer orders, reduce customer complaints, and issue more timely invoices, thus improving cash flow. The employees in Jeff’s operation joke about their outdated computers and put pressure on Jeff to buy newer equipment. Jennifer has told Jeff in the past that she is not interested in spending money on new computers just for the sake of having the latest equipment, especially if the current system is working all right. She had suggested that Jeff look into hiring an outside service to do the accounting operations and reduce his own staff. Jeff would like to use this year’s excess profits to buy new computers and to hire a computer programmer to upgrade the software to run on the new computers. He feels that this would be cost-effective.

After Jennifer’s October staff meeting, Joe Sanchez, manager of marketing, stops by Jennifer’s office. He says that although he has not been asked to come up with project ideas for the extra profits, his feeling is that she should forget this project nonsense and just give him a larger budget to hire a few more sales representatives. “That would increase sales faster than anything else,” Joe tells her. “And besides, that’s what your father would have done!” Joe is counting on disagreements among the other three managers in establishing priorities. He hopes that if Jennifer sees a lack of consensus, she might give him funds to hire the additional sales representatives.

CASE QUESTIONS
1. How should Jennifer go about making her decision?
2. What kind of additional data or information should she collect?
3. What exactly should Jennifer require the others to submit in the way of proposals?
4. What do you think Jennifer should do with the $200,000? In explaining your answer, address the concerns and positions of Julie, Tyler, Jeff, and Joe.

GROUP ACTIVITY
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.

After Jennifer and Joe reenter 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.

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

Polk County is the largest, yet one of the most sparsely populated, counties in the state. It has a fairly mountainous terrain. The lakes and forests provide great fishing and hunting for many of its residents as well as for people from outside the county. It gets some pretty rough winters. It has the highest unemployment rate in the state. Both the average age of its population and the percentage of people over age 65 are substantially higher than the state statistics.

Mainville, located on the eastern side of the county, is the county seat. With a population of 15,000, it is the largest town in the county. Many of the people in Mainville work for the hospital, for the town school system, for the town government, or at the Big John’s superstore that is on the outskirts of town just beyond the town limits. The largest employer in the county is a state correctional facility for female offenders located in the southwestern part of the county.

The county is governed by an elected three-member board of commissioners. They receive a minimal stipend for serving on the board. The current members are Commissioners Thomas, Richardson, and Harold. None of them are from Mainville; they all are from more remote parts of the county. They don’t want much to do with Mainville, other than traveling there once a week for the commissioners’ meeting at the county office building. Both Commissioners Thomas and Harold are retired. Commissioner Richardson lives on the western edge of the county and is a foreman at Ye Olde Saw Mill in the adjacent western county.

JR is the supervisor of the county Transportation Department; he lives in Mainville. Most of the department’s budget is used to clear and salt the roads during the long winters, and for minimal maintenance. Until about five years ago, the county Transportation Department would get a special allocation of state funds, thanks to the state Senator Joe Smoozer, who was from Mainville. Twenty years before Joe had been supervisor of the county Transportation Department, then was elected to the state senate. JR had worked for Joe at the Transportation Department, and they became good friends. After years of being reelected, Joe gained enough seniority in the state senate to be named head of its Transportation Committee. Through that position, he was able to make sure that each year Polk County got a special allocation of state funds for its Transportation Department. However, Joe passed away about five years before, and the special allocation stopped. The new state senator representing Polk County is focused on economic development for the county, not on transportation.

Without the special state allocation, the county roads have gotten progressively worse. JR is concerned. He knows there are several
critical projects that must be done. However, with his budget, he is worried that he may not even be able to do one of them. The county commissioners will make the final decision. He also knows that the commissioners will not be willing to raise the tax rate to pay for such projects. However, they may reallocate some funds from another department’s budget.

One project is at the entrance to the Big John’s superstore that opened three years before. The store is off a two-lane highway. Everyone seems to shop at the store because there aren’t any shopping malls in the county. The traffic on the highway has increased substantially in the past three years. The store entrance is at the base of a hill so it is difficult for cars traveling in one direction to see cars in the opposite direction until they come over the crest. As a result, people making a left turn into the store entrance need to be careful of cars coming over the crest in the opposite direction. There have been a number of accidents at this spot since the store opened. JR knows that either the road needs to be widened to add a turn lane or a traffic light needs to be installed.

JR approached the manager of the store about possibly paying for the improvements to the highway in front of the store entrance. However, the manager said that the store was already a good community citizen; it had created jobs for people, kept its prices low, gave discounts to senior citizens, and donated a percentage of its sales receipts to various charities and fund-raisers in the county. As a result, he said the store was barely making a profit. If it didn’t make a profit, corporate headquarters would close it down, and a lot of people would be put out of work. (By the way, Commissioner Thomas’ wife works part-time at the store.) Although the store manager sympathized with JR, he said the store could not pay for adding a turn lane to the highway. Concern about the increase in the number of accidents has been raised by several residents at the commissioners’ meetings in the past, but nothing has been done. The commissioners just said that the people must be more careful. However, several months ago, one person was very seriously injured. JR knows that if something isn’t done, someone will be killed there eventually.

A second project is to widen and repair Elk Mountain Road in the northwest part of the county. Many people use the road to go to the lakes on Elk Mountain and for hunting. JR can’t remember the last time the road was paved or fixed in any way. Rough winters have left it filled with potholes. After each winter the potholes get larger and deeper and there are more of them. Because of the unemployment in the county, recently independent loggers from the county have started using the road to go up to Elk Mountain to clear trees and bring the logs to several sawmills. The logging trucks are causing the road to deteriorate at an even faster rate. One of the mills getting the logs is Ye Olde Saw Mill in the adjacent county, where Commissioner Richardson is foreman. Both Commissioners Thomas and Richardson know the worsening conditions of Elk Mountain Road; after all, they use it frequently for going hunting and fishing on Elk Mountain. They also get an earful of complaints from many of their friends who use the road.
Finally, County Route 1045 is the main road to the state correctional facility in the southwestern part of the county. It is a two-lane road, just like all the other roads in the county. Near the prison, the road has a bridge that goes over Crockett Creek. Four years before, the bridge barely passed state inspection. At the time, JR was told that the bridge needed to be substantially upgraded by the next scheduled inspection, or it might not pass, and the bridge would have to be closed. That inspection is scheduled for next year. After the winter thaw, the water in Crockett Creek can get pretty high and flow pretty fast. People have voiced their concern about the bridge washing out. If that happened, traffic would need to be rerouted nearly 15 miles for most of the people who work at the prison.

At one commissioners' meeting last year, Commissioner Thomas said to wait until the bridge washed out; then maybe the state would give the county some money to build a new one. Besides, all those people who worked at the prison were state employees anyway and made a lot of money compared to retired people who have to live on a fixed income. That raised the ire of Commissioner Harold, whose daughter is a correctional officer at the prison, and he and Commissioner Thomas got into a shouting match at the meeting.

It is now June, and the commissioners will be reviewing the county Transportation Department's budget for next year at the September 15 commissioners' meeting. JR is worried that unless he presents a good case for which project should be given priority, the commissioners will probably not provide an increase in his budget for any of them. He fears that all three of the projects are disasters waiting to happen.

Zachary is a civil engineering student at the state university going into his senior year. He is from Mainville and is working at the county Transportation Department for the summer. It is June 15 when JR asks Zachary to help him pull together some information on the three projects by August 15, before Zachary goes back to school. JR can then be prepared for the commissioners' September 15 budget review meeting.

Because Zachary has lived in Mainville all his life, he is somewhat familiar with the three situations, although he has never given them much thought. However, the more he thought about it, he realized he had a personal connection to each of them.

That serious accident in front of Big John's superstore several months ago—the person who was seriously hurt was Peggy Sue Suite, one of Zachary's best friends from high school. She was going to turn left into the store entrance when she was struck from behind by a pickup truck that hit a patch of ice and couldn't stop in time. She is still in rehabilitation and wears a neck brace.

Last hunting season, Zachary was driving up Elk Mountain in his old clunker of a car. The week before, he had just wired up the muffler to the frame because the bracket fell off. He didn't do the greatest job of it, and the muffler and tail pipe hung pretty low to the ground. The next week when he was driving up Elk Mountain Road, he was almost run off the road by a logging truck coming down the mountain that seemed to enjoy the advantage it had over Zachary's smaller
car. Zachary hit a huge pothole and ripped the muffler and tail pipe off his car. Although he was mad at the truck driver and the loggers who were tearing up the road, Zachary was just glad he wasn’t hurt and his car didn’t get sideswiped.

Zachary’s brother is a correctional officer at the prison. Zachary heard him say more than once that it was just a matter of time until the Crockett Creek bridge collapsed or washed out. He swears he can feel it shake and sway when he goes over it. He said he hopes that he or his girlfriend (Commissioner Harold’s daughter) aren’t on it when it happens.

“Why don’t the commissioners just give you the money for all three projects?” Zachary asked JR.

“I wish it was that simple,” replied JR. “They don’t want to raise taxes, and even if they did, we are a poor county and the people probably wouldn’t have the money to pay any more taxes anyway. They also have other budgets to think about besides just the Transportation Department. I’m sure all the other county departments would like more money too.

“Zachary, I’m hoping that some of what you learned at that university is going to help you put together what I need—a priority ranking of the three projects and the information on each one to back it up. I know the commissioners are going to ask a lot of questions, and I need to be prepared. If we’re lucky, they’ll approve the project we recommend. If we don’t have a good story to help them with a decision, they may just argue about it and deadlock with no decision. And we won’t get any money for any of the projects. Yep, I think this will give you an opportunity to get a different kind of education than you get at the university. Why don’t we get together next week and you can give me your ideas about how you’ll tackle this? This may be a bigger job than you think. I want you to work on it full-time for the next two months. This is very important, and I want you to do a thorough job.”

CASE QUESTIONS
1. What criteria should Zachary use to evaluate the projects?
2. What assumptions should he make?
3. What data and information should he gather, and how should he go about gathering the data and information?
4. After he has evaluated each project against the evaluation criteria, how should he decide the priority of the three projects?

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.