CHAPTER 1

PROCUREMENT AND BEST BUSINESS PRACTICES

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The role of the procurement and *supply management* professional is rapidly changing. While in the past the procurement professional's area of responsibility was clearly relegated to efficient "processing" of purchase orders, the pace of today's business environment has expanded that role to control of the entire sourcing and acquisition process. To be successful in this rapidly changing, dynamic marketplace requires not only the traditionally disciplined approach to managing critical business relationships but also the ability to quickly understand and employ strategic new methods and technology. Procurement professionals today must have the ability to assess and respond effectively to current market conditions and the foresight to envision the future needs of the organization, setting into motion plans that will respond to the changing dynamics of the continually reinvented organization. Indeed, today's procurement management professional must be a master of change. And to facilitate that dynamic of change, the procurement professional must also be a master of best practices—methods shown to provide outstanding results—to continually ensure that change drives improvement in the *business process* and does not simply replace one poorly functioning system with another poorly functioning system. That is why we begin this Desktop Reference by reviewing the key elements of those processes and best practices that are fundamental to excellence in procurement.

1.1 UNDERSTANDING PROCUREMENT

Effective *procurement* requires the utilization of sound business practices that maximize value to the organization through the acquisition of goods and services. This follows the old adage that the Procurement Department's role is to deliver the right material (or service) in the right amount to the right place at the right time and at the right price. You can do this by employing well-conceived strategies—a plan to enhance competitive bidding, for example—that leverage clearly defined processes to manage the supply base. As a procurement professional, you will be expected to conceive and implement strategies that employ best practices.

Employing best practices in procurement ensures that the organization and ultimately the procurement professional make correct decisions. This means that an organization must develop plans that are in alignment with its goals and best interests. Frequently, these plans evolve from well-defined sourcing strategies developed to help the organization achieve its overall objectives. In turn, sourcing strategies rely on a clear set of tactical procedures to ensure their implementation. At the root of these tactical procedures are the day-to-day methods

the organization employs to convey its requirements to the supplier. Many organizations refer to these processes as *standard operating procedures (SOPs)* and maintain them in formalized document libraries.

1.2 UNDERSTANDING AND CONVEYING REQUIREMENTS

Sound business practice requires that you understand and can clearly describe to a prospective supplier the requirement of your purchase. Unless you can describe to a supplier exactly what you need, the procurement process will not be successful. As we will detail below, this description often takes the form of a *specification* for materials or a *statement of work (SOW)* for services. Most commonly, it is the internal user who generates this information—often called a *requirement*—and it is the procurement professional's responsibility to ensure that it is properly conveyed to the supplier in the procurement document (such as the purchase order or contract). In the case where a purchase is particularly complex, the process of stating organizational needs is so critical that you may find a face-to-face meeting with your supplier is in order. That way, you can ensure that there are no misunderstandings or faulty interpretations of the requirement. A well-developed and well-stated requirement describing exactly what it is you expect to receive is the key to successful procurement. For this reason, you must ensure that there are systems in place that accurately convey the needs of your customers to you so that you can formalize them into a contract or purchase order. At the minimum, you should include the following elements in your procurement documents when stating requirements:

(a) MATERIAL OR SERVICE. This describes what it is you expect to receive from the supplier. This description can be provided in the form of a specification, an SOW, a drawing, a part number, or the nomenclature of an *off-the-shelf* or brand-name part. Along with the stated quantity and the quality of the purchase, this can be the basis for approving payment and must be easy for third parties such as receiving personnel, finance, and auditors to understand the transaction after it is completed.

(b) SPECIFICATION. A specification contains a technical description of the material being purchased. In its simplest terms, it can be a reference to a supplier's stock number or a brand name. It can also refer to an engineering drawing (or a set of drawings) provided by the user that shows the part or assembly with call-outs for the type of materials required and all necessary dimensions to produce the part. Or, in the case of chemicals and other formulated and processed materials, the specification can be tendered as a recipe or in compositional format.

(c) STATEMENT OF WORK (SOW). Unlike a specification, the SOW describes the requirements for a service. It may be stated in detailed and prescriptive format, describing not only what needs to be done but the method to be used and how often the service must be done as well. Or it may simply be stated in terms of

expected outcomes. Frequently, the SOW also contains a set of metrics describing the level of performance required. These are called *key performance indicators (KPIs)* and are often used to determine the level of performance requiring corrective action or, conversely, when an incentive bonus may be due.

NOTE

We'll discuss the SOW in greater detail in Chapter 2, ''Sourcing Management.''

(d) TIME OF PERFORMANCE. This indicates the date when you expect to receive the product or service you're procuring in the procurement document. The document must clearly state delivery or work completion dates so that the supplier understands precisely what is required.

TIPS AND TECHNIQUES

Expressions such as ''Rush'' or ''ASAP'' are inappropriate because they can be open to a variety of interpretations. It requires only a little more effort to specify an exact date. Consider calling the supplier to determine the earliest possible date and pass that along to your internal customer. If the proposed date is acceptable, it should then be included in your procurement document.

(e) PRICE AND PAYMENT TERMS. You'll need to include exactly how much your organization has agreed to pay for the specified product or service in the requirement so that you avoid misunderstandings and can clearly determine your organization's financial obligation.

The procurement document should also specify when payment is due. This is usually expressed as a net number of days, such as Net 30 or Net 45. A discount period may be included where the supplier specifies the amount of the discount as well as the number of days the buyer can make payments and still earn the discount. The discount period is often expressed as a formula:

2/10 Net 45

This means that if payment is made within 10 days, a 2 percent discount can be taken, but the total balance is nevertheless due in 45 days. The annualized discount savings for a 2 percent discount for 10 days (in this example) actually equals 73 percent! ($2 \times 365 \div 10$)

(f) SHIPPING DESTINATION, METHOD, AND TERMS. If you're procuring materials and intend to use a specific carrier to transport the purchased material, you should include this in your requirement as well. You'll need to specify the level of service—overnight air, second-day air, ground, and so on—and indicate if the supplier is to bill your account, pay for it, and then bill your organization

or absorb the freight cost outright. In your instructions, include the exact destination of the shipment and the point at which the ownership of the goods, or title, transfers from the seller to the buyer. Fortunately, there are standard expressions for these terms, which we will introduce in Chapter 3 when we outline transportation terms.

1.3 CREATING STRATEGIC PLANS AND TACTICS

Virtually all organizations develop a set of key goals and objectives to guide their operations and, typically, formulate a broad plan to achieve them. This plan is usually referred to as a *strategic plan*. It focuses activities to achieve the organization's overall mission. So, as each segment of the organization pursues individual commitments to achieve its goals, it generates the need for materials and services from the supply community. The Procurement Department, as the interface between internal departments and their suppliers, then formulates its plans based on meeting these needs and commitments in alignment with the various conditions that drive its supply base.

As you look closely at the various missions within the organization based on their functional roles, specific sets of strategies that determine how and when goods or services must be purchased become apparent:

(a) FINANCE. Strategies involving finance are critical to the organization's success. Cash position relative to the overall economy often determines when new technology can be acquired or when additional product lines can be launched. In a period of declining prices, organizations may want to postpone major purchases for a period of time in the anticipation of lower pricing in the near future. Business organizations with strong cash positions during weak economic times frequently find acquisitions of other companies an attractive way to expand market position. Obviously, these strategies generate procurement requirements that must be dovetailed with overall procurement strategies so that they are properly met with appropriate action when it is needed.

(b) MANUFACTURING AND OPERATIONS. Manufacturing and operational strategies develop from the need to meet customer demand. The influx of orders and the development of new product lines generate procurement requirements that are critically time phased to meet current market demands. At various phases of the product life cycle, significantly different requirements must be met, so it is imperative that the Procurement Department develop its strategy accordingly. For example, early involvement in the development phase of a new product can be critical since that is when much of the sourcing, supplier qualification, and contracting activity will take place.

Other strategies developed in conjunction with procurement can similarly support operational strategies. These include *just-in-time (JIT)* delivery, *supplier-managed inventory (SMI)*, and a variety of other programs developed to enhance well-run operations and eliminate non-value-added costs.

(c) SALES AND MARKETING. Sales and marketing drive product or service adoption and develop strategies that are critical to the organization's revenue stream. Accurately forecasting anticipated volumes provides critical data to operations and can be the basis for developing supply management strategies. The timing of a new product launch typically generates requirements for additional capital equipment and marketing material, so it is important that strategic plans be coordinated with the Procurement Department to the extent that its involvement will be required.

(d) SUPPLY MANAGEMENT. While procurement strategies are generally created to respond to the needs of other internal organizations, it is important for Procurement to develop plans that anticipate changing conditions in the marketplace as well. As a result, you often find strategies for procurement formulated along commodity lines to allow for specific trends that may be affecting one industry more than another. Changes in supply or demand can trigger decisions to hold procurement plans for later or to accelerate them in the face of temporary opportunity. Prices are rarely in equilibrium, so commodity-specific strategies must be developed to react quickly to changing supply-and-demand conditions.

Typically, supply management strategies focus on key areas of spending and technology, seeking formularies to balance various needs at any given time. Thus, it is important to have well-conceived decision-making strategies for favoring one aspect over another. For example, it must be clear to the individual buyer whether the acquisition of advanced technology overrides the need to reduce costs when the organization's strategy seeks to gain greater market penetration of its products or services based on price competition. You can easily see how the interpretation of this strategy can affect supplier selection, favoring a supplier with superior technology over a supplier with best pricing (or vice versa). Supplier selection, therefore, becomes one of the key elements in the Procurement Department's strategic plan.

The purchaser must understand that strategic planning has a dual aspect: internal strategies that drive procurement decisions in response to market conditions. In the final analysis, the key to effective strategy for procurement is the proper alignment of procurement activity with the strategic plans of its internal customers and conditions in the supply base. This will be manifest in both long-term and short-term commodity plans that relate procurement decisions to individual market conditions and specific internal needs.

1.4 FINDING INNOVATIVE METHODS AND EXPLORING ALTERNATIVES

Closely linked to the development and implementation of procurement strategy is the traditional role of the Purchasing Department as a strategic tool itself. In most organizations, policy requires the implementation of business processes through procurement activities that reduce cost and increase life-cycle value. Later in this chapter, we explore some of these methods in more detail, but for now it

would be valuable to point out that the strategies just outlined require specific tactics to ensure favorable results. A program to reduce the purchase prices of a specific set of materials may best be implemented through a competitive bidding process—as a tactical tool—whereas the codevelopment of new technology that requires prodigious engineering costs from a potential supplier might be more easily gained through negotiation.

To be effective, the procurement professional must continually explore new methods and seek out alternatives that will improve existing processes. In turn, these improvements will spawn new strategies. Tactics and strategies thus feed one another in a cycle of *continuous improvement*.

1.5 PROVIDING PROCUREMENT SERVICES

The decision to initiate a particular purchase develops in a variety of ways and from a variety of circumstances. Usually, purchases are initiated by an internal user based on some planned and budgeted need that can be justified by a specific operational purpose. For example, new technology may require the purchase of new manufacturing equipment, or the development of a new product line may require building models or ordering special tools. In a manufacturing environment, raw material needs are generated through a formal planning process based on incoming customer orders and forecasts of anticipated production needs.

For the purchaser, it is important to understand the overall needs and responsibilities of the internal customer so that when requirements are generated, they can be fulfilled in the most expeditious manner possible. Often, this requires the development of close relationships with those staff members responsible for generating the procurement requirements you will be handling. It also involves understanding the supplier community and its marketplace, including an in-depth knowledge of industry standards and methodologies, so that you can best advise your internal users on which supplier may be best able to handle a specific requirement or how to develop a requirements statement using language common to the industry. While you are rarely expected to provide technical expertise, your customers should be able to rely on you and your team to find new suppliers, assist in the selection of an existing supplier for a specific job, and advise them on which supplier provides the best business solution in any given situation.

Your customers will frequently have specific goals that relate to how and where purchases are made, such as the development and use of a new source for advanced technology or the use of a supplier who is willing to undertake the codevelopment of new engineering processes, that will enable your organization to develop a better position in the marketplace for its products or services. Occasionally, the need will arise to use *minority business enterprises (MBEs)* suppliers, which are classified as minority or disadvantaged businesses or sources within a certain geographical region or national boundary, to enhance your organization's own competitive position in these areas. Your sensitivity to such issues and ability to enhance these positions will help build strong relationships within your

customer base that will open further opportunities for your involvement in their business processes.

You and your team will also be responsible for evaluating overall supplier performance and developing ways to work with suppliers to improve that performance. If you can do this effectively, you will add measurable value to your internal customers' mission.

1.6 ACCEPTING ORDERS

Requests to purchase or contract for materials and services can be submitted to the Procurement Department in a number of ways. However, regardless of the method of submission, a number of common elements define the process and requirements in most organizations:

1. The procurement staff must have documented evidence that the order has been duly authorized in accordance with prescribed organizational policy prior to processing it for placement.
2. The information outlined in the "Understanding and Conveying Requirements" section that originates with the requestor must be present, along with any required accounting data, user information, and known supplier sources. Briefly summarized, this information includes:
   - **a.** The user's name and department
   - **b.** The cost code, general ledger (GL) account, or budgeting center being charged
   - **c.** A description of the purchase in terms that can be understood by the supplier
   - **d.** The quantity needed (and the amount of acceptable overage or underage, if applicable)
   - **e.** The date required
   - **f.** Estimated cost (if not exactly known)
   - **g.** Suggested suppliers (and justification if a specific *sole source* is required)
   - **h.** The shipping address or location where the materials are to be delivered or where the work is to be performed
3. The order must not have been placed previously without proper procedural due diligence by the Procurement Department. In most organizations, the Procurement Department is the only authorized buying entity, and purchases made outside the authority of the Procurement Department are considered unauthorized and are frequently referred to as *maverick purchases*.

(a) ORDER APPROVAL AND AUTHORITY. Most organizations designate individuals or job positions within each department that are authorized to approve requests for purchases. Often, this authority is hierarchical, requiring increasingly

higher approval according to an existing chain of command and depending on the spending amount represented by the request.

In most organizations, all but a few specialized spending requirements must be placed by the Procurement Department. Buying through other channels is usually considered unauthorized spending and is strongly discouraged. There are a number of important considerations for this. First of all, spending outside of the recognized procurement channels cannot benefit from negotiated discounts accorded the larger volumes that are placed within the system, and the volume of these purchases do not count toward further discounts since they are often purchased from noncontractual sources. Second, these purchases do not benefit from the trained due diligence performed by the professional buyer and can result in liability for the organization. Third, they are not likely to be properly captured in the budget and so cannot provide visibility for future requirements and expense allocations. And, finally, they are not likely to be placed with the most qualified supplier because the maverick buyer will have few resources or incentives to perform more than the most perfunctory competitive analysis.

(b) TYPES OF PURCHASE REQUESTS. Purchase requests can be generated in a number of different ways depending on the organization's level of automation and the nature of the purchase. We'll discuss some of the more commonly used processes, such as requisitions, catalog ordering, material requirements planning (MRP), and system-generated orders.

(i) Requisitions. *Requisitions* are documents generated by the user or user department containing the specific information outlined in the preceding paragraphs. They may be submitted as a paper form through standard internal distribution channels or as an electronic document through an existing computerized system, often linked to the organization's primary data system. Sometimes organizations use e-mail to transmit them.

NOTE

Paper requisitions usually contain the written signatures of the approving professionals, whereas electronic requisitions are signed digitally. In general, today's electronic systems automatically route user requests to the approval authority based on an existing work-flow hierarchy. Approval dates and times are maintained in a work-flow database within the system and kept for future audit reference. Appendix A contains a sample material requisition.

(ii) Catalog Ordering. The *electronic catalog* is another automated method for ordering standard products. Here, the user accesses a listing of products available for ordering within the organization's electronic requisitioning system (usually available as a distinct section on the organization's internal network or *intranet*). By using a search engine that returns data stored by key words or product categories, users can find products they are authorized to purchase and in some

systems perform side-by-side comparisons of pricing, features, and functions from competing suppliers in order to make the appropriate selection.

There are numerous ways to generate and store electronic catalog data, depending on the system being used. However, the Procurement Department (or a cross-functional team led by Procurement) generally selects the suppliers in advance; negotiates the prices, terms, and conditions; and processes whatever contractual documents are needed. In many systems, the supplier actually maintains the data, either outside or inside the organization's firewall, depending on security requirements. Changes to the data can be made in real time (that is, immediately) or at periodic intervals and typically require the designated buyer's approval.

Systems are available today that enable users to "punch out" of the existing electronic catalog and access a supplier's Web site catalog (or a group of catalogs) directly, often through the common tools such as a Web browser. Once accessed, items can be captured and moved directly into the user's system and then processed as a normal catalog order. This can be as simple as dragging a desired item into the user's requisitioning system. As convenient as this sounds, there is a catch: The supplier must be prequalified since significant work is required in advance to ensure compatibility between the systems of each party.

NOTE

Appendix C contains a sample electronic catalog page.

(iii) Electronic Data Interchange (EDI). *Electronic Data Interchange (EDI)* and its European counterpart maintained by the United Nations (*EDIFACT)* is a process widely used by large organizations and government entities and their trading partners. Its primary function is to exchange data related to procurement between computers. EDI, along with other procurement standards and processes such as `ebxml`, `Rosettanet`, `OASIS`, and `OAG`, is covered in Chapter 7.

(iv) MRP and System-Generated Orders. *Material Requirements Planning (MRP)* systems, typically used in manufacturing operations, generate automated requisitions or special electronic listings of current and planned requirements that can be transmitted directly to a supplier. Overall requirements are based on a combination of incoming customer orders and forecasts of customer orders and can be time phased so that material reaches the organization at a specific time. (We will review this in more detail in Chapter 10.) Each product (or line of products) has a distinct *bill of materials (BOM)*, a formulary of the parts that constitute the final product, from which detailed requirements can be quantified and summarized by the supplier. These summaries are usually transmitted electronically.

Table 1.1 contains an exploded BOM, with a brief summary of the combined requirements by the supplier in typical printed format. As you can see in

Level	Part Number	Revision	Quantity	Unit of Measure	Description	Supplier
1	15400–10000	A	Parent	Each	Lamp assembly	Make
2	24001–30010	A	1	Each	Lamp switch	Delta
2	25950–40010	B	1	Each	Lamp switch housing	Delta
2	34009–40023	A	2	Each	10–32 hex nut	Omni
2	35010–45098	B	2	Each	10–32 bolt	Omni
3	40900–10000	C	1	Each	Light socket assembly	Delta
4	60902–29845	B	1	Each	40-watt light bulb	Consolidated
4	48098–60090	B	1	Each	Lamp cone assembly	Delta
5	89009–34896	D	1	Each	Swing arm assembly	Marsten
5	34009–40023	A	10	Each	10–32 hex nut	Omni
5	35010–45098	B	10	Each	10–32 bolt	Omni

Table 1.1 Bill of Material: Swing Arm Task Lamp Assembly (Listing)

Table 1.1, in a simple listing, parts are grouped by level. In most production environments, the final product is composed of a number of *subassemblies*, sections that must be assembled or manufactured separately before being built into the product being sold, so the order in which they are assembled is designated by a level number. Thus, Level 5 parts in a subassembly are put together before Level 4 parts, and so on. This table lists the parts by their order of assembly but does not show their relationship to one another. A listing such as this shows the number of common parts being used and their specific order of assembly. Note that Part Number 34009-40023, a hex nut, is listed on both Level 2 and Level 5. Another type of listing would list the BOM by specific part number so that total requirements for the product could be determined.

Table 1.1 shows the format used for a simple listing of a BOM. It shows the assigned part number, the engineering revision number, the quantity (and the unit of measurement), along with their nomenclature and the supplier.

Figure 1.1 shows where the parts from the Table 1.1 BOM are actually used in relation to one another. This view of the lamp assembly BOM shows the relationships between individual parts in their subassemblies and how they roll up into the final product.

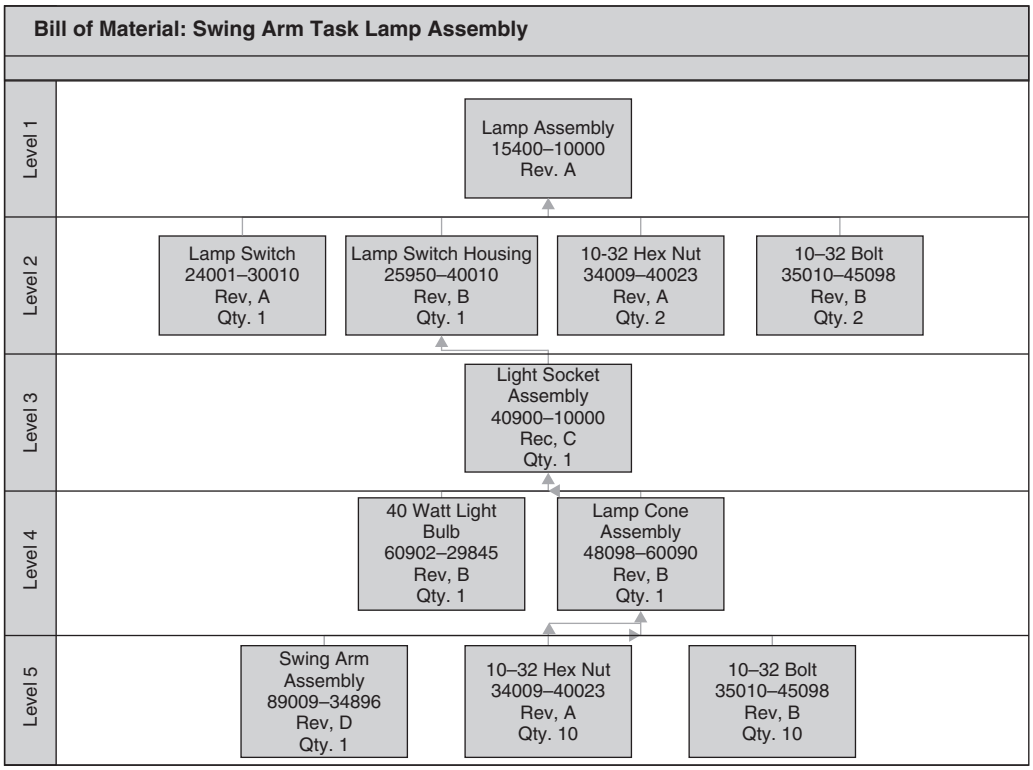

FIGURE 1.1 DIAGRAMMATIC BILL OF MATERIALS (BOM)

1.7 PLACING ORDERS

There are two key considerations that must be addressed in any system for placing orders with suppliers: first, the format used to convey the order to the supplier, and second, the priority of placement. We'll discuss these issues in this section.

(a) ORDERING FORMATS. A number of different formats can be used to convey purchase orders (POs) to the supplier, depending on the circumstances and the nature of the requirement. Each method has its own specific requirements, as you can see from the following: POs, blanket POs, contracts, credit cards, and system-generated orders.

(i) Standard Purchase Orders. The *purchase order* is likely the most commonly used form of procurement document. As a contractual document, the PO contains all of the information outlined in the requirements section, along with the organization's standard *Terms and Conditions* boilerplate. POs are numbered for unique identification and audit control and, in paper format, usually contain a number of copies for distribution to the supplier, the Accounting Department, the

original requestor, and the files. POs can be transmitted by any common form of mail, by fax, or by a variety of other electronic processes, including e-mail.

(ii) Blanket Purchase Orders. The *blanket purchase order* covers a procurement commitment to a supplier for specific products or services at an agreed-upon price for a set period of time or for a limited quantity or spending amount. Commonly used to eliminate many smaller orders so as to minimize the amount of paperwork processed, the blanket PO, once placed by the Procurement Department, can be used by other groups within the organization to set releases as frequently as needed and when needed.

(iii) Contracts. A *contract* generally covers services or other complex purchases that require special legal language or terms and conditions beyond the scope of a typical PO. A contract is also used when requirements extend over periods of time longer than a year or when automatic renewal may be required to ensure continuing operations.

Under the broader heading of contracts, we can include a number of similar documents used in the normal course of business, such as the *memorandum of understanding (MOU)* and the *letter of intent (LOI)*. Many organizations also have specialized agreements used for particular purposes, such as an *agreement for consignment* or a *master supply agreement*. We discuss these in more detail in Chapter 3.

(iv) Procurement Cards or Credit Cards. Issued to specific users within the organization whose duties require making frequent small purchases, the *procurement card (P-card)* or credit card can effectively reduce the clutter of low-value requisitions and purchases processed by the Procurement Department that can interfere with efficient supply management. Used mainly for incidental purchases associated with nonproduction or *maintenance, repair, and operations (MRO)* products, P-card purchases can be controlled through limits placed by the organization for specific products or services (or classes of products and services), or even through limits on the industry type or individual supplier.

The card also reduces the time it takes to place an order as well as the cycle time for payment to the supplier, reducing (or eliminating) the typical cost associated with the buying and payment of POs.

Estimates of the transactional cost of the PO and payment process vary widely, often ranging from $50 to $250. According to the National Association of Purchasing Card Professionals (NAPCP, www.napcp.org), purchasing card efficiencies result in savings ranging from 55 to 90 percent of this transactional cost. NAPCP adds that additional savings can accrue through:

- Supply base consolidation.
- Reinforcement of general purchasing best practices.
- A significant source of spend information.

- Streamlining payees in the accounts payable system.
- An opportunity for suppliers to streamline their processes.

Of course, one of the major drawbacks to use of the P-card is the limited amount of control over where purchases are made. When an organization is attempting to consolidate suppliers for better pricing, Procurement has no way to ensure that existing suppliers under contract get used.

(v) System-Generated Orders. There are a variety of orders that are generated internally through various planning and scheduling systems such as MRP or other automated inventory replenishment systems. For the most part, organizations using these systems issue documentation electronically as agreed upon with the supplier in advance (and usually according to a contract). MRP and system-generated orders have already been described in this chapter.

Externally managed inventory through a formal SMI program is a relative of system-generated orders, insofar as replenishment signals are controlled by the supplier based on a negotiated level of inventory or the receipt of incoming orders.

(b) PLACEMENT PRIORITY. Electronic catalog and system-generated orders are most commonly transmitted in real time directly to the supplier through some electronic media. A manually generated order, however, requires buyer intervention to accomplish several tasks. With a manually generated order, the buyer must determine proper authorization, establish the source of supply, and review requirements for legality and conformance to applicable regulations such as those related to the *Environmental Protection Agency (EPA)* or the *Occupational Safety and Health Administration (OSHA)*. A manually generated order also requires that the buyer convert the requisition to a PO or contract. Because buyers typically have backlogs of multiple orders to place, some process for determining the order and timing of their placement must be implemented.

(i) First In, First Out (FIFO). Using the *first in, first out (FIFO)* method, orders received in the buyers' queues are prioritized by order of receipt so that the oldest one becomes the next to be placed. While this sounds fair, it could adversely affect operations if applied too blindly because it ignores the need for urgency in the case of emergencies or critical outages.

(ii) Priority System. Using a *priority system* method, priorities are established within the department to address specific needs. For example, conditions that could create a work stoppage in a manufacturing operation or situations that may immediately jeopardize employee health require immediate attention, and buyers are required to put other work aside to address them. Separate priority is often assigned to orders with specific lead times so that user needs can be uniformly accommodated. Items with the longest lead time may be placed soonest.

(iii) Cycle Time. In some organizations, buyers' performance metrics include the *cycle time* for orders based on the date and time received and the date and time placed with the supplier. Buyers are measured on how long it takes, on average, for a particular buyer to place orders during a specific time period. Obviously, if this becomes the key consideration, it will provide incentives to the buyers to place the easy orders first—the ones requiring the least amount of sourcing or negotiation—to reduce the average turnaround time in the queue. However, as a measure of internal service, cycle time and customer satisfaction with the procurement process go hand-in-glove.

1.8 MASTERING PROCUREMENT AND BUSINESS TACTICS

Procurement tactics naturally follow the course established by organizational and departmental strategies. Indeed, you might well consider that tactics are the methods and processes through which we implement effective strategies. A buyer may develop the most appropriate and innovative strategies, but unless they can be effectively executed through practical measures, the organization may never realize their benefits.

In this section, we explore how business and procurement strategies are generally applied.

1.9 BUDGETS AND EXPENSE ALLOCATION

Most organizations implement critical strategies through some form of spending. Typically, this spending comes in the form of the purchase of capital equipment or the hiring of additional staff and their accompanying support materials and services. It may also be reflected in larger spending on new product development or through additional marketing and advertising. All of these are strategic efforts that are usually implemented through Procurement.

A budget can be viewed as an organization's spending plan. Usually, budgets get allocated (or funded) to specific departments or functional areas, cost centers, or projects, and incoming goods and services are charged against those accounts. To a large extent, an approved budget may be the final authorization to proceed with expenditures.

Because adherence to an established budget can mean the difference between profit and loss in a business organization or the continuation of operations in a nonprofit, management takes the budget seriously and pays close attention to individual areas of conformance. This may explain the sensitivity that internal users often manifest when ensuring that expenses are charged to the correct cost code.

The Finance Department usually manages the control and allocation of expenses and is responsible for categorizing and reporting actual expenditures. Finance is also responsible for paying suppliers and requires that specific criteria are met prior to disbursing the organization's funds. For materials, accounting practice typically requires that a duly authorized PO and a Receiving Document,

along with the supplier's invoice, are in place prior to payment. (In the case of services, usually a sign-off on the supplier's invoice by the budgeting manager or department head indicating satisfactory completion of the service is required in lieu of a receiving document.) This is commonly referred to as a *three-way match*.

Finance, along with internal and external auditors, verifies that purchases are made in accordance with approved policies and procedures. To the extent that Procurement implements (or at least touches in some significant manner) most of these procedures in its dealing with suppliers, it becomes an instrument of the organization's financial apparatus and undergoes periodic audits to ensure proper conformance. Public companies must meet regulatory audit requirements under the *Sarbanes-Oxley Act of 2002 (SOX)*. SOX determines that corporate management is responsible for establishing and maintaining adequate controls and procedures for financial reporting. Maintenance of procurement policies, procedures, and records is included among these responsibilities.

SOX was passed to ensure that senior corporate executives would be held responsible for any financial misconduct within the organization. It also requires that organizations develop and implement reporting processes that safeguard financial integrity. A summary of the act can be found at www.aicpa.org/info/sarbanes_oxley_summary.htm.

1.10 INTERNAL CONTROL SYSTEMS

An effective internal control system enables you to manage significant risks and monitor the reliability and integrity of financial and operating information. It also ensures that the audit committee acts as a powerful and proactive agent for corporate self-regulation. The Committee of Sponsoring Organizations of the Treadway Commission (COSO, www.coso.org) developed a list of internal control questions to help senior executives and directors gain a better understanding of their organizations' control systems.

The COSO framework is summarized as follows:

> In an "effective" internal control system, the following five components work to support the achievement of an entity's mission, strategies and related business objectives.

CONTROL ENVIRONMENT

- Integrity and Ethical Values
- Commitment to Competence
- Board of Directors and Audit Committee
- Management's Philosophy and Operating Style
- Organizational Structure
- Assignment of Authority and Responsibility
- Human Resource Policies and Procedures

RISK ASSESSMENT
- Company-wide Objectives
- Process-Level Objectives
- Risk Identification and Analysis
- Managing Change

CONTROL ACTIVITIES
- Policies and Procedures
- Security (Application and Network)
- Application Change Management
- Business Continuity/Backups
- Outsourcing

INFORMATION AND COMMUNICATION
- Quality of Information
- Effectiveness of Communication

MONITORING
- Ongoing Monitoring
- Separate Evaluations
- Reporting Deficiencies

Source: www.knowledgeleader.com/iafreewebsite.nsf/content/COSOFrameworkDescription!OpenDocument

1.11 ESTABLISHING PROCUREMENT METHODS

Many systematized processes exist for placing POs, as outlined earlier in this chapter. But far more important than simply determining the appropriate document or format for a particular purchase, the Procurement Department also has responsibility for actually driving the deal. By this we mean that the procurement professional has a fiduciary obligation to ensure that goods and services are acquired in accordance with the best interests of the organization. This can be accomplished either through negotiations (bargaining) or through some form of competitive bidding process.

(a) PROCUREMENT NEGOTIATIONS. Negotiation, in its simplest form, can be a way of striking a deal through a process of give and take. Buyer and seller each have specific objectives in developing the bargain, and generally accepted best practice indicates that, in a successful negotiation, each party achieves an equal measure of satisfaction. Techniques and methods for accomplishing this, so critical to maintaining a competitive, motivated supply base, will be discussed in Chapter 6.

(b) COMPETITIVE BIDDING. Another common way to strike a procurement agreement with a supplier is through the competitive bidding process. The typical objective of competitive bidding is to ensure that the buying organization receives

the lowest market pricing for a given purchase, with all other terms and conditions remaining equal. To do this, the buyer needs to ensure that a number of conditions are present:

- **Competition.** The marketplace contains a reasonable number of qualified or qualifiable suppliers who are willing to compete. The more suppliers available (within manageable degrees), the greater the competition will be. Competition is the buyer's best friend.
- **Value.** The goods or services have significant enough value to make the bidding process worthwhile.
- **Savings.** The bidding has the potential to result in lower prices.
- **Requirements.** A clear specification or SOW (or industry standard) is available to all bidders.
- **Contract.** The suppliers have the capability and are willing to commit to furnishing the goods or services at the price bid and under.
- **Time.** There is sufficient time to conduct a fair and impartial process.
- **Corrections and clarifications.** A process exists to provide suppliers with answers to questions or corrections to specifications. Answers to questions asked by one supplier must be shared with all others.

TIPS AND TECHNIQUES

Unscrupulous suppliers have developed an onerous repertoire of dirty tricks to circumvent the competitive bidding process. We refer to these as traps.

One competitive bidding trap occurs when a supplier intentionally bids for a new product without including associated tooling or startup costs, thus providing a price that the more forthright competition cannot possibly meet. However, the price offered is usually somewhat above the normal cost associated with production. In this way, the supplier can gradually recover the tooling costs over a period of several years, while at the same time always excluding competitors who will be unable to match the price without absorbing the tooling or startup costs that are continually rising due to inflation. As the years go on, the supplier not only recovers the full cost of the tooling, but can also charge a significantly higher price for the materials as long as it stays just below the next lowest bid (which includes tooling).

Another competitive bidding trap occurs when the supplier realizes that the specifications will require further change after the bid is awarded. This is often the result of improperly designed products or an ill-conceived SOW, although it sometimes results from a simple mistake made by the buyer. The supplier makes the original quote at below cost and reasonable market prices. However, the inevitable changes are then quoted on a substantially higher basis than would ordinarily be justified (since there will be no other bidders at that point) and thus the supplier can recover the difference and earn a handsome premium as well.

NOTE

We'll discuss competitive bidding in more detail in Chapter 2.

(c) REVERSE AUCTION. A recently popularized automated process known as the *reverse auction (RA)* has enabled the acceleration of bidding from what formerly took months to a mere few days. It is called a "reverse" auction because the roles of buyer and seller are reversed, requiring the *suppliers* to bid down the price, and the *lowest* price, rather than the highest price, wins the bid. (In a more typical auction, the seller puts an item up for sale, multiple buyers bid for the item, and depending on the nature of the auction—English or Dutch—one or more of the highest bidders buy the goods at a price determined by the bidding.)

NOTE

Auction types are described in Appendix D.

The RA provides an electronic marketplace where prequalified suppliers can bid on a buyer's requirements in real time instead of through a delayed process and, most importantly, can determine their position in the overall bidding process so that they can improve their bids as they deem appropriate. An auction serves the additional benefit of ensuring to the buyer that a fair and reasonable price has been established.

1.12 INTERNAL COST-RELATED ANALYSIS TOOLS

A number of tools and methods are used internally to track the performance of the Procurement Department relative to the nature of the organization's *costs*. For the procurement professional to effectively manage this critical area requires a detailed knowledge of the various aspects of costs and how they are calculated.

Costs are categorized and defined both in terms of their method of calculation and their relationship to the organization's balance sheet. Following are some of the more common ways accountants characterize them.

(a) DIRECT COSTS. *Direct costs* are those expenditures directly incorporated into the product or service being delivered to the end customer. Typically, these costs are generated only when there is a product or service being sold, or when *finished goods* inventory is being built in the anticipation of future demand. This implies that without sales there will be no direct costs.

In most manufacturing operations, it is common to account for and distribute the total company *overhead* (see the next section) as a percentage *burden* added to each separate product or product line. That way, the total cost of producing a specific product can be calculated on a stand-alone basis.

(b) INDIRECT COSTS. The elements of cost that are associated with the organization's operation but not directly with a specific product or service are classified as *indirect costs*. These costs can be further subdivided into three other categories: fixed, variable, and semivariable.

(i) Fixed Costs. Costs that remain relatively constant within a specific range of operations, regardless of changes in production or service volumes, are considered *fixed costs*. When calculated on a per-unit-produced basis, they increase and decrease with corresponding variations in volumes. Examples of such expenses include rent, facilities maintenance, nonproduction-related service contracts, and administrative support from information technology providers. They are usually expenses committed by management as part of the general planning process and are often reallocated to various departments based on a standard financial formula.

(ii) Variable Costs. *Variable costs* are costs that increase or decrease in relation to production or service volumes. When calculated on a per-unit-produced basis they remain relatively constant regardless of the organization's output. Examples of these expenses include consumable materials and spare parts used in manufacturing. Variable costs are typically incurred in relation to some specific reaction to a change in demand and so are accountable at the consuming departmental level.

(iii) Semivariable Costs. *Semivariable costs* are costs that change in response to changes in operational levels but not necessarily on a uniform basis. They exhibit qualities of both fixed and variable costs, having elements of both. Managerial bonuses might be considered an example.

(c) OVERHEAD. *Overhead costs*, usually called *general and administrative expenses (G&A)* on the *profit-and-loss statement (P&L)*, are those costs generally connected with the operation of the organization as a whole and cannot be directly connected with any specific operational activity. Examples include equipment depreciation, utilities, interest expense, outside auditing, and legal fees. Commonly, overhead and indirect costs are kept separate.

Overhead expenses are usually allocated back to the various operational units or product lines on a percentage basis. Some organizations use direct labor for the method of calculation, while others may use direct materials or even machine hours.

(d) TOTAL COST OF OWNERSHIP. The total cost of acquiring and using a material or service is sometimes called the *total cost of ownership (TCO)*. Total cost methods typically track all the additional costs beyond the purchase price that are associated with the life cycle of the materials or services purchased by an organization. This can include the cost of transportation and customs duties—called the *landed price*—to acquire the product; installation and maintenance (in the case of equipment); training; rework; inventory carrying and storage costs; handling; and, finally, disposal at the end of life, as illustrated in Figure 1.2. As you might surmise, the typical life-cycle costs far outweigh the simple purchase price. Figure 1.2 illustrates what a typical breakdown might look like for capital

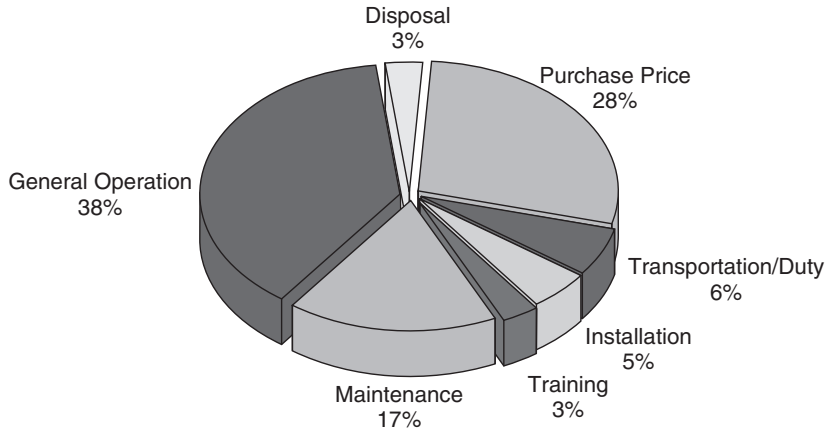

FIGURE 1.2 TOTAL COST OF OWNERSHIP BUILD-UP

equipment. Notice that the actual purchase price accounts for just over one-fourth of the total life-cycle costs.

The TCO calculation can be used to assess direct and indirect costs as well as benefits related to a particular purchase covering not only the cost of the initial purchase, but all aspects in the further use and maintenance of the equipment. Typically, this includes installation, ongoing maintenance, and training of support personnel and the users of the system, as well as end-of-life disposal.

TCO can be a useful tool when evaluating various alternative solutions to a particular acquisition requirement and when demonstrating or comparing return-on-investment alternatives. Figure 1.2 illustrates how the TCO build-up takes place.

Standard costs are the planned costs to manufacture specific products or to provide a unit of service, as defined for a specific time, either at the present time or for some specific date in the future. In the case of a newly introduced product or service, they are often based on engineering estimates. Standard costs typically determine the selling price of an item or operating budgets and projected cash flow. They are also used as benchmarks and to set goals for cost reduction efforts.

The *purchase price variance (PPV)* is the reported difference between the actual price paid by the organization and the standard cost shown in the Bill of Materials. Despite the fact that it is widely used to measure procurement performance, there are numerous, often indeterminate reasons for a typical PPV, many of which are the result of market conditions or engineering changes that are beyond the control of the procurement professional.

(e) HARD AND SOFT COSTS. Internal savings are frequently calculated on the basis of reduced labor requirements or the elimination of certain building

space. Unless these savings actually result in the elimination of cost—that is, reduced head count or lower rent—they are considered *soft costs*. Soft costs may or may not result in a benefit to the organization. Savings that are actually reflected in a lower price paid for an item or the elimination of specific head count are considered *hard costs*. In the calculation of a savings contribution to the organization, the procurement professional must consider the relevancy of the cost.

(f) ACCOUNTING SYSTEMS. Virtually all organizations use an accounting system to maintain their financial records. The system usually incorporates a *chart of accounts* to classify expenditures and determine how to allocate individual purchases. The chart of accounts simply lists the names and numerical designations of the various expense codes such as office supplies, telephone, travel, or equipment. When combined with a specific *cost center* (the designation for a section or department within the organization), the expenses can be clearly categorized and allocated to a specific department or individual.

Budgets are ordinarily created along these lines and so actual expenses can be rolled up into the same categories for comparison. Individual accounts are then rolled up into the P&L statement on the same basis. This method enables organizations to control spending and to evaluate performance to original budgets.

One method for allocation in common use today is *activity-based costing (ABC)*. This method allocates expenses from a company-wide cost center—Utilities, for example—to the actual project or operation using it. Often, these allocations are based on a business unit so that management can determine the profitability of one unit compared to another.

(g) UTILIZING FINANCIAL TOOLS. When we refer to financial tools, we typically mean the methods used to analyze the financial performance of the organization or a particular activity within the organization. These methods are often expressed in terms of a specific ratio. Here are some common examples you should understand:

(i) Return on Investment (ROI). *Return on investment (ROI)* describes the effectiveness of a particular investment in terms of how long it takes to recover (or earn back) the initial funding. ROI can be calculated as the *net present value (NPV)* of the revenue created divided by the initial investment:

$$\text{ROI} = (\text{Savings} \times \text{Time}) - (\text{Discount Rate} \times \text{Time})$$

(ii) Return on Total Assets (ROTA)/Return on Net Assets (RONA). *Return on total assets (ROTA)* and *return on net assets (RONA)* are measures used to determine how effectively capital is deployed within the organization. Here, net income (that is, revenue less expenses) is divided by the value of assets in operation to

determine effectiveness:

$$\text{ROTA} = \text{Net Income}/\text{Total Assets}$$

(iii) Net Operating Margin (NOM). *Net operating margin* (NOM) reflects the profitability of the organization by calculating the percentage of its *total operating income* (sales less direct costs) to its overall sales:

$$\text{NOM} = \text{Net Operating Income}/\text{Revenue}$$

(iv) Current Ratio. The current ratio is calculated by dividing current assets by current liabilities and is used to measure a company's liquidity. A higher current ratio indicates a greater cushion between current obligations and a company's ability to pay them.

(v) Quick Ratio. The quick ratio is a measure of a company's financial strength (or weakness); it is also known as the "acid test." It is calculated by taking liquid assets (which are current assets less inventories), divided by current liabilities. By excluding inventory, this key liquidity ratio focuses on the company's more liquid assets and indicates the firm's ability to pay off short-term obligations without relying on sale of inventories. This ratio is also used to determine creditworthiness.

The procurement professional uses these measures both internally for gauging the organization's performance and externally for assessing the performance of suppliers. Often, these measures help select or qualify suppliers on the basis of their financial strength and leverage.

NOTE

A description of commonly used ratios can be found in Appendix E.

1.13 KEEPING SUPPLIER INFORMATION

One of the key responsibilities of the Procurement Department is the maintenance of ethical and sound business relationships with the organization's suppliers. In this pursuit, it is especially important to note the adage that "perception is everything." In ordinary dealings with suppliers, the procurement professional must always ensure that there is not the least compromise of integrity or even the perception of impropriety. (We cover this topic more in the section covering ethical principles in Chapter 3.)

(a) CONFIDENTIALITY. Confidentiality is a mutual responsibility and a critical obligation, both legal and ethical, that buyer and supplier owe one another. Maintaining confidentiality becomes especially important when the information

one has received or is divulging can affect the organization's competitive position and result in financial loss. Typically, organizations sign a contractual document—called a *nondisclosure agreement (NDA)*—legally binding them to maintaining one another's intellectual property.

The procurement professional must ensure that no one in the organization discloses information about one supplier to another, such as bids, pricing, manufacturing methods, designs, plans, formulas, nonpublic measures of performance, or any other form of intellectual property. Both Procurement and Legal have an obligation to instruct and inform all personnel in the organization who come into contact with suppliers or the general public about these obligations and to conscientiously protect supplier information from compromise through special care and diligence.

(b) BUSINESS REPORTS. The Procurement Department maintains a variety of reports covering supplier performance, such as cost profiles, quality records, and on-time delivery performance. It is important that the department uses this information properly and confidentially. Internal users with access to this information should be similarly informed.

(c) SAMPLES AND RETURNS. Samples should be accepted from suppliers only when there is a specific need for evaluation, and following evaluation, they should be returned. If there is no immediate need or internal request for the particular sample, it should not be accepted in the first place. The organization should pay for any samples that it keeps.

It is also good business practice and the Procurement Department's responsibility to ensure that rejected or excess goods for which credits have been issued by the supplier are properly returned. Many times credits are taken by Procurement and sent to Accounts Payable before the supplier has authorized returns. This practice simply messes up the books of the respective organizations and creates a great deal of ill will. For continued good business relations, it is important that organizations keep their financial accounts in proper order.

1.14 SUMMARY

In procurement, best practices generally cover the creation of strategic and tactical plans for the acquisition of goods and services that align with the organization's mission, as well as implementing those plans in a manner that provides added value. Best practices in procurement also cover the processing of user requests to purchase goods and services.

In order to meet their responsibilities effectively, the procurement professional must be an enabler capable of matching the needs of internal customers with what is available to purchase in the marketplace. The Procurement Department requires effective and efficient operation through its interface with suppliers, to ensure that critical requirements are conveyed properly and in a timely manner.

The procurement professional should also demonstrate the ability to use the tools available to obtain the best value for organizations in dealings with suppliers. These tools include methods for financial analysis and determining total cost of ownership, as well as processes to develop competition that results in greater purchased value to the organization. The procurement professional also needs to have a strong understanding of accounting methods and techniques so as to add further value to internal customers and to make sound judgments in the application of fiduciary responsibilities.

In addition, the procurement professional must ensure that all personnel in the organization honor the dictates of good ethical practices and that information furnished by suppliers is maintained in confidence.