Chapter One

Purchasing and Supply Management

Chapter Outline

Key Questions for the Supply Decision Maker

Should we

- Rethink how supply can contribute more effectively to organizational goals and strategies?
- Try to find out what the organization's total spend with suppliers really is?
- Indentify opportunities for meaningful involvement in major corporate activities?

How can we

- Align our supply strategy with the organization's strategy?
- Get others to recognize the profit-leverage effect of purchasing/supply management?
- Show how supply can affect our firm's competitive position?

Every organization needs suppliers. No organization can exist without suppliers. Therefore, the organization's approach to suppliers, its acquisition processes and policies, and its relationships with suppliers will impact not only the performance of the suppliers, but also the organization's own performance. No organization can be successful without the support of its supplier base, operationally and strategically, short- and long-term.

Supply management is focused on the acquisition process recognizing the supply chain and organizational contexts. Special emphasis is on decision making that aligns the supplier network and the acquisition process with organizational goals and strategies and ensures short- and long-term value for funds spent.

There is no one best way of organizing the supply function, conducting its activities, and integrating suppliers effectively. This is both interesting and challenging. It is interesting because the acquisition of organizational requirements covers a very wide and complex set of approaches with different needs and different suppliers. It is challenging because of the complexity and because the process is dynamic, not static. Moreover, some of the brightest minds in this world have been hired as marketing and sales experts to persuade supply managers to choose their companies as suppliers. It is also challenging because every supply decision depends on a large variety of factors, the combination of which may well be unique to a particular organization.

For more than 75 years, this text and its predecessors have presented the supply function and suppliers as critical to an organization's success, competitive advantage, and customer satisfaction. Whereas in the 1930s this was a novel idea, over the past few decades there has been growing interest at the executive level in the supply chain management and its impact on strategic goals and objectives.

To increase long-term shareholder value, the company must increase revenue, decrease costs, or both. Supply's contribution should not be perceived as only focused on cost. Supply can and should also be concerned with revenue enhancement. What can supply and suppliers do to help the organization increase revenues or decrease costs? should be a standard question for any supply manager.

The supply function continues to evolve as technology and the worldwide competitive environment require innovative approaches. The traditionally held view that multiple sourcing increases supply security has been challenged by a trend toward single sourcing. Results from closer supplier relations and cooperation with suppliers question the wisdom of the traditional arm's-length dealings between purchaser and supplier. Negotiation is receiving increasing emphasis as opposed to competitive bidding, and longer-term contracts are replacing short-term buying techniques. E-commerce tools permit faster and lower-cost solutions, not only on the transaction side of supply but also in management decision support. Organizations are continually evaluating the risks and opportunities of global sourcing. All of these trends are a logical outcome of increased managerial concern with value and increasing procurement aggressiveness in developing suppliers to meet specific supply objectives of quality, quantity, delivery, price, service, and continuous improvement.

Effective purchasing and supply management contributes significantly to organizational success. This text explores the nature of this contribution and the management requirements for effective and efficient performance. The acquisition of materials, services, and equipment—of the right qualities, in the right quantities, at the right prices, at the right time, with the right quality, and on a continuing basis—long has occupied the attention of managers in both the public and private sectors.

Today, the emphasis is on the total supply management process in the context of organizational goals and management of supply chains. The rapidly changing supply scene, with cycles of abundance and shortages, varying prices, lead times, and availability, provides a continuing challenge to those organizations wishing to obtain a maximum contribution from this area. Furthermore, environmental, security, and financial regulatory requirements have added considerable complexity to the task of ensuring that supply and suppliers provide competitive advantage.

PURCHASING AND SUPPLY MANAGEMENT

Although some people may view interest in the performance of the supply function as a recent phenomenon, it was recognized as an independent and important function by many of the nation's railroad organizations well before 1900.

Yet, traditionally, most firms regarded the supply function primarily as a clerical activity. However, during World War I and World War II, the success of a firm was not dependent on what it could sell, since the market was almost unlimited. Instead, the ability to obtain from suppliers the raw materials, supplies, and services needed to keep the factories and mines operating was the key determinant of organizational success. Consequently, attention was given to the organization, policies, and procedures of the supply function, and it emerged as a recognized managerial activity.

During the 1950s and 1960s, supply management continued to gain stature as the number of people trained and competent to make sound supply decisions increased. Many companies elevated the chief purchasing officer to top management status, with titles such as vice president of purchasing, director of materials, or vice president of purchasing and supply.

As the decade of the 1970s opened, organizations faced two vexing problems: an international shortage of almost all the basic raw materials needed to support operations

and a rate of price increases far above the norm since the end of World War II. The Middle East oil embargo during the summer of 1973 intensified both the shortages and the price escalation. These developments put the spotlight directly on supply, for their performance in obtaining needed items from suppliers at realistic prices spelled the difference between success and failure. This emphasized again the crucial role played by supply and suppliers.

As the decade of the 1990s unfolded, it became clear that organizations must have an efficient and effective supply function if they were to compete successfully in the global marketplace. The early 21st century has brought new challenges in the areas of sustainability, supply chain security, and risk management.

In large supply organizations, supply professionals often are divided into two categories: the tacticians who handle day-to-day requirements and the strategic thinkers who possess strong analytical and planning skills and are involved in activities such as strategic sourcing. The extent to which the structure, processes, and people in a specific organization will match these trends varies from organization to organization, and from industry to industry.

The future will see a gradual shift from predominantly defensive strategies, resulting from the need to change in order to remain competitive, to aggressive strategies, in which firms take an imaginative approach to achieving supply objectives to satisfy short-term and long-term organizational goals. The focus on strategy now includes an emphasis on process and knowledge management. This text discusses what organizations should do today to remain competitive as well as what strategic, integrated purchasing and supply management will focus on tomorrow.

Growing management interest through necessity and improved insight into the opportunities in the supply area has resulted in a variety of organizational concepts. Terms such as *purchasing, procurement, materiel, materials management, logistics, sourcing, supply management,* and *supply chain management* are used almost interchangeably. No agreement exists on the definition of each of these terms, and managers in public and private institutions may have identical responsibilities but substantially different titles. The following definitions may be helpful in sorting out the more common understanding of the various terms.

Supply Management Terminology

Some academics and practitioners limit the term *purchasing* to the process of buying: learning of the need, locating and selecting a supplier, negotiating price and other pertinent terms, and following up to ensure delivery and payment. This is not the perspective taken in this text. *Purchasing, supply management,* and *procurement* are used interchangeably to refer to the integration of related functions to provide effective and efficient materials and services to the organization. Thus, purchasing or supply management is not only concerned with the standard steps in the procurement process: (1) the recognition of need, (2) the translation of that need into a commercially equivalent description, (3) the search for potential suppliers, (4) the selection of a suitable source, (5) the agreement on order or contract details, (6) the delivery of the products or services, and (7) the payment of suppliers.

Further responsibilities of supply may include receiving, inspection, warehousing, inventory control, materials handling, packaging scheduling, in- and outbound transportation/

traffic, and disposal. Supply also may have responsibility for other components of the supply chain, such as the organization's customers and their customers and their suppliers' suppliers. This extension represents the term *supply chain management,* where the focus is on minimizing costs and lead times across tiers in the supply chain to the benefit of the final customer. The idea that competition may change from the firm level to the supply chain level has been advanced as the next stage of competitive evolution.

In addition to the *operational responsibilities* that are part of the day-to-day activities of the supply organization, there are *strategic responsibilities*. *Strategic sourcing* focuses on long-term supplier relation and commodity plans with the objectives of identifying opportunities in areas such as cost reductions, new technology advancements, and supply market trends. The Sabor case in Chapter 2 provides an excellent example of the need to take a strategic perspective when planning long-term supply needs.

Lean purchasing or *lean supply management* refers primarily to a manufacturing context and the implementation of just-in-time (JIT) tools and techniques to ensure every step in the supply process adds value, that inventories are kept at a minimum level, and that distances and delays between process steps are kept as short as possible. Instant communication of job status is essential and shared.

Supply and Logistics

The large number of physical moves associated with any purchasing or supply chain activity has focused attention on the role of logistics. According to the Council of Supply Chain Management Professionals, "Logistics management is that part of supply chain management that plans, implements, and controls the efficient, effective forward and reverse flow and storage of goods, services, and related information between the point of origin and the point of consumption in order to meet customers' requirements."[1] This definition includes inbound, outbound, internal, and external movements. Logistics is not confined to manufacturing organizations. It is relevant to service organizations and to both private- and public-sector firms.

The attraction of the logistics concept is that it looks at the material flow process as a complete system, from initial need for materials to delivery of finished product or service to the customer. It attempts to provide the communication, coordination, and control needed to avoid the potential conflicts between the physical distribution and the materials management functions.

Supply influences a number of logistics-related activities, such as how much to buy and inbound transportation. With an increased emphasis on controlling materials flows, the supply function must be concerned with decisions beyond supplier selection and price. The Qmont Mining case at the end of this chapter illustrates the logistics considerations of supplying multiple locations.

Some companies, such as Procter & Gamble and Goodyear, are combining supply and logistics into a single organization. For example P&G appointed a new director of logistics purchases in 2006 as part of a broader centralization project at the consumer products company. Global sourcing leader positions were created for transportation, warehousing, pallets, cross border, and inbound logistics. The sourcing leaders worked closely with regional

[1] Council of Supply Chain Management Professionals, *Glossary of Terms*, http://www.cscmp.org (accessed January 10, 2010).

operations and logistics teams to develop strategies and action plans to improve supply chain effectiveness and reduce costs.[2]

Supply chain management is a systems approach to managing the entire flow of information, materials, and services from raw materials suppliers through factories and warehouses to the end customer. The Institute for Supply Management (ISM) glossary defines *supply chain management* as "the design and management of seamless, value-added processes across organizational boundaries to meet the real needs of the end customer. The development and integration of people and technological resources are critical to successful supply chain integration."[3]

The term *value chain* has been used to trace a product or service through its various moves and transformations, identifying the costs added at each successive stage.

Some academics and practitioners believe the term *chain* does not properly convey what really happens in a supply or value chain and they prefer to use the term *supply network* or *supply web*.

The use of the concepts of purchasing, procurement, supply, and supply chain management will vary from organization to organization. It will depend on (1) their stage of development and/or sophistication, (2) the industry in which they operate, and (3) their competitive position.

The relative importance of the supply area compared to the other prime functions of the organization will be a major determinant of the management attention it will receive. How to assess the materials and services needs of a particular organization in context is one of the purposes of this book. More than 40 cases are provided to provide insight into a variety of situations and to give practice in resolving managerial problems.

THE SIZE OF THE ORGANIZATION'S SPEND AND FINANCIAL SIGNIFICANCE

The amount of money organizations spend with suppliers is staggering. Collectively, private and public organizations in North America spend about 1.5 times the GDPs of the United States, Canada, and Mexico combined, totaling at least 26 trillion U.S. dollars spent with suppliers as a percentage of total revenue are a good indicator of supply's financial impact.

Obviously, the percentage of revenue that is paid out to suppliers varies from industry to industry and organization to organization, and increased outsourcing over the last decade has increased the percentage of spend significantly. In almost all manufacturing organizations, the supply area represents by far the largest single category of spend, ranging from 50 to 80 percent of revenue. Wages, by comparison, typically amount to about 10 to 20 percent. In comparison, the total dollars spent on outside suppliers typically ranges from 25 to 35 percent of revenues. The Delphi Corporation case in Chapter 15 is a good illustration of the significance of spend in a manufacturing organization. Total purchases were $17 billion compared to revenues of $28 billion.

The financial impact of the corporate spend is often illustrated by the profit-leverage effect and the return-on-assets effect.

[2] D. Hannon, "Purchasing Drives Deeper into Logistics," *Purchasing* 138, no. 7 (2009), p. 76.

[3] Institute for Supply Management, "Glossary of Key Supply Management Terms," http://www.ism.ws.

Profit-Leverage Effect

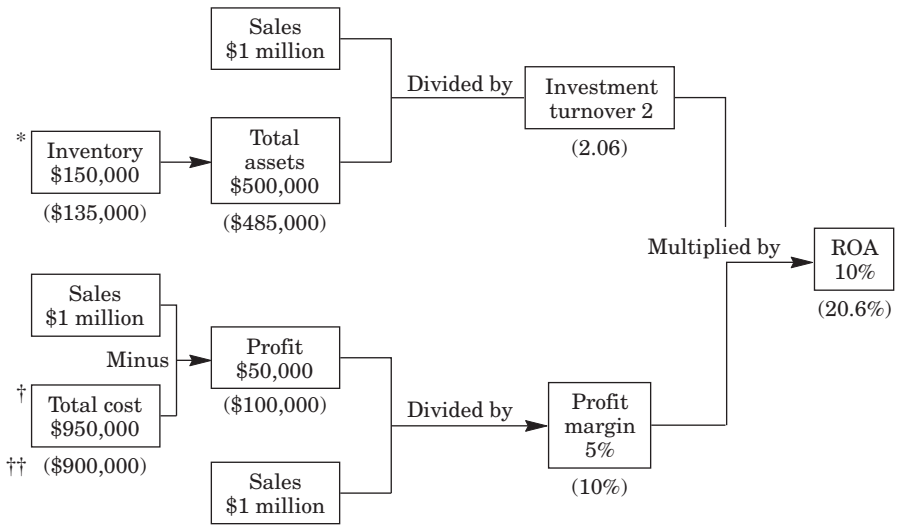
The profit-leverage effect of supply savings is measured by the increase in profit obtained by a decrease in purchase spend. For example, for an organization with revenue of $100 million, purchases of $60 million, and profit of $8 million before tax, a 10 percent reduction in purchase spend would result in an increase in profit of 75 percent, giving a leverage of 7.5. To achieve a $6,000,000 increase in profit by increasing sales, assuming the same percentage hold, might well require an increase of $75 million in sales, or 75 percent! Which of these two options—an increase in sales of 75 percent or a decrease in purchase spend of 10 percent—is more likely to be achieved?

This is not to suggest that it would be easy to reduce overall purchase costs by 10 percent. In a firm that has given major attention to the supply function over the years, it would be difficult, and perhaps impossible, to do. But, in a firm that has neglected supply, it would be a realistic objective. Because of the profit-leverage effect of supply, large savings are possible relative to the effort that would be needed to increase sales by the much-larger percentage necessary to generate the same effect on the profit and loss (P&L) statement. Since, in many firms, sales already has received much more attention, supply may be the last untapped "profit producer."

Return-on-Assets Effect

Financial experts are increasingly interested in return on assets (ROA) as a measure of corporate performance. Figure 1–1 shows the standard ROA model, using the same ratio of figures as in the previous example, and assuming that inventory accounts for 30 percent of total assets. If purchase costs were reduced by 10 percent, that would cause an extra benefit of a 10 percent reduction in the inventory asset base. The numbers in the boxes show the initial figures used in arriving at the 16 percent ROA performance.

FIGURE 1–1
Return-on-Assets Factors



*Inventory is approximately 30 percent of total assets.
†Purchases account for half of total sales, or $500,000.
††Figures in parentheses assume a 10 percent reduction in purchase costs.

The numbers below each box are the figures resulting from a 10 percent overall purchase price reduction, and the end product is a new ROA of 28.9 percent or about an 80 percent increase in return on assets.

Reduction in Inventory Investment

Charles Dehelly, senior executive vice president at Thomson Multimedia, headquartered in Paris, France, said: "It came as quite a surprise to some supply people that I expected them to worry about the balance sheet by insisting on measuring their return on capital employed performance."[4] Mr. Dehelly was pushing for reductions in inventory investment, not only by lowering purchase price, as shown in the example in Figure 1–1, but also by getting suppliers to take over inventory responsibility and ownership, thereby removing asset dollars in the ROA calculations, but also taking on the risk of obsolescence and inventory carrying and disposal costs. Since accountants value inventory items at the purchaser at purchased cost, including transportation, but inventory at the supplier at manufacturing cost, the same items stored at the supplier typically have a lower inventory investment and carrying cost.

Thus, it is a prime responsibility of supply to manage the supply process with the lowest reasonable levels of inventory attainable. Inventory turnover and level are two major measures of supply chain performance.

Evidently, the financial impact of supply is on the balance sheet and the income statement, the two key indicators of corporate financial health used by managers, analysts, financial institutions, and investors. While the financial impact of the supply spend is obviously significant, it is by no means the only impact of supply on an organization's ability to compete and be successful.

SUPPLY CONTRIBUTION

Although supply's financial impact is major, supply contributes to organizational goals and strategies in a variety of other ways. The three major perspectives on supply are shown in Figure 1–2:

1. Operational versus strategic.
2. Direct and indirect.
3. Negative, neutral, and positive.

The Operational versus Strategic Contribution of Supply

First, supply can be viewed in two contexts: operational, which is characterized as *trouble avoidance,* and strategic, which is characterized as *opportunistic*.

The operational context is the most familiar. Many people inside the organization are inconvenienced to varying degrees when supply does not meet minimum expectations. Improper quality, wrong quantities, and late delivery may make life miserable for the ultimate user of the product or service. This is so basic and apparent that "no complaints" is

[4] M. R. Leenders and P. F. Johnson, *Major Changes in Supply Chain Responsibilities* (Tempe, AZ: CAPS Research, March 2002), p. 104.

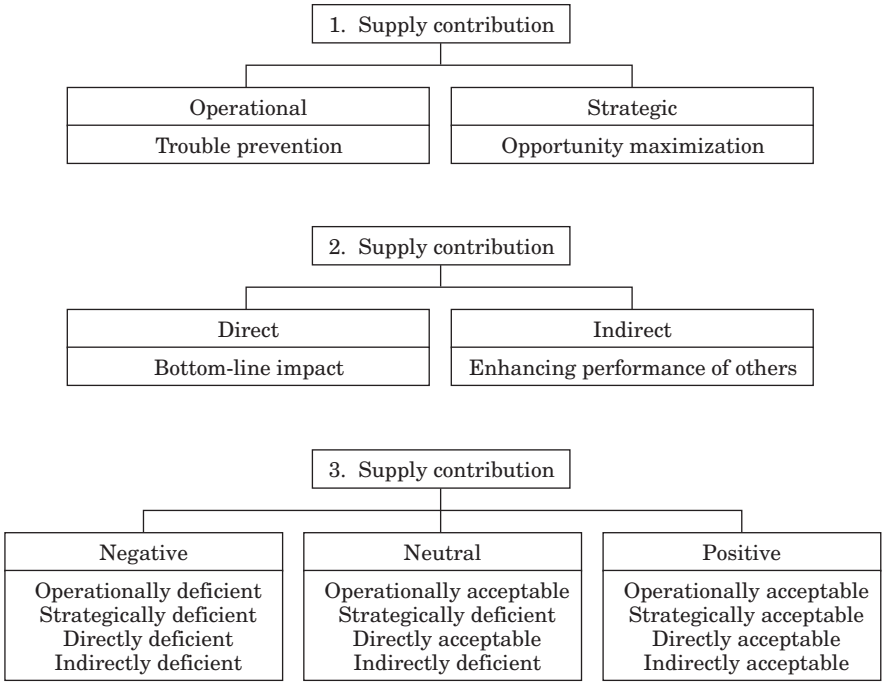


FIGURE 1–2
Purchasing's Operational and Strategic Contributions

Source: Michiel R. Leenders and Anna E. Flynn, *Value-Driven Purchasing: Managing the Key Steps in the Acquisition Process* (Burr Ridge, IL: Richard D. Irwin, 1995), p. 7.

assumed to be an indicator of good supply performance. The difficulty is that many users never expect anything more and hence may not receive anything more.

The operational side of supply concerns itself with the transactional, day-to-day operations traditionally associated with purchasing. The operational side can be streamlined and organized in ways designed to routinize and automate many of the transactions, thus freeing up time for the supply manager to focus on the strategic contribution.

The strategic side of supply is future oriented and searches for opportunities to provide competitive advantage. Whereas on the operational side the focus is on executing current tasks as designed, the strategic side focuses on new and better solutions to organizational and supply challenges. (Chapter 2 discusses the strategic side in detail.)

The Direct and Indirect Contribution of Supply

The second perspective is that of supply's potential direct or indirect contribution to organizational objectives.

Supply savings, the profit-leverage effect, and the return-on-assets effect demonstrate the direct contribution supply can make to the company's financial statements. Although the argument that supply savings flow directly to the bottom line appears self-evident, experience shows that savings do not always get that far. Budget heads, when presented with savings, may choose to spend this unexpected windfall on other requirements.

To combat this phenomenon, some supply organizations have hired financial controllers to assure that supply savings do reach the bottom line. Such was the case at Praxair, a global supplier of specialty gases and technologies. The chief supply officer and the

CFO agreed that a financial controller position was needed in the supply organization to support financial analysis and budgeting. Validating cost savings and linking cost savings to the business unit operating budgets were an important part of this person's responsibilities.[5]

The appeal of the direct contribution of supply is that both inventory reduction and purchasing savings are measurable and tangible evidence of supply contribution.

The supply function also contributes indirectly by enhancing the performance of other departments or individuals in the organization. This perspective puts supply on the management team of the organization. Just as in sports, the team's objective is to win. Who scores is less important than the total team's performance. For example, better quality may reduce rework, lower warranty costs, increase customer satisfaction, and/or increase the ability to sell more or at a higher price. Ideas from suppliers may result in improved design, lower manufacturing costs, and/or a faster idea-to-design-to-product-completion-to-customer-delivery cycle. Each would improve the organization's competitiveness.

Indirect contributions come from supply's role as an information source; its effect on efficiency, competitive position, risk, and company image; the management training provided by assignments in the supply area; and its role in developing management strategy and social policy. The benefits of the indirect contribution may outweigh the direct contribution, but measuring the indirect benefits is difficult since it involves many "soft" or intangible contributions that are difficult to quantify.

Information Source

The contacts of the supply function in the marketplace provide a useful source of information for various functions within the organization. Primary examples include information about prices, availability of goods, new sources of supply, new products, and new technology, all of interest to many other parts of the organization. New marketing techniques and distribution systems used by suppliers may be of interest to the marketing group. News about major investments, mergers, acquisition candidates, international political and economic developments, pending bankruptcies, major promotions and appointments, and current and potential customers may be relevant to marketing, finance, research, and top management. Supply's unique position vis-à-vis the marketplace should provide a comprehensive listening post.

Effect on Efficiency

The efficiency with which supply processes are performed will show up in other operating results. While the firm's accounting system may not be sophisticated enough to identify poor efficiency as having been caused by poor purchase decisions, that could be the case. If supply selects a supplier who fails to deliver raw materials or parts that measure up to the agreed-on quality standards, this may result in a higher scrap rate or costly rework, requiring excessive direct labor expenditures. If the supplier does not meet the agreed-on delivery schedule, this may require a costly rescheduling of production, decreasing overall production efficiency, or, in the worst case, a shutdown of the production line—and fixed costs continue even though there is no output. Many supply managers refer to user departments

[5] Leenders and Johnson, *Major Changes in Supply Chain Responsibilities*, p. 89.

as internal customers or clients and focus on improving the efficiency and effectiveness of the function with a goal of providing outstanding internal customer service.

Effect on Competitive Position/Customer Satisfaction

A firm cannot be competitive unless it can deliver end products or services to its customers when they are wanted, of the quality desired, and at a price the customer feels is fair. If supply doesn't do its job, the firm will not have the required materials or services when needed, of desired quality, and at a price that will keep end-product costs competitive and under control.

The ability of the supply organization to secure requirements of better quality, faster at a better price than competitors, will not only improve the organization's competitive position, but also improve customer satisfaction. The same can be said for greater flexibility to adjust to customers' changing needs. Thus, a demonstrably better-performing supply organization is a major asset on any corporate team.

A major chemical producer was able to develop a significantly lower-cost option for a key raw material that proved to be environmentally superior as well as better quality. By selling its better end product at somewhat lower prices, the chemical producer was able to double its market share, significantly improving its financial health and competitive position as well as the satisfaction of its customers.

Effect on Organizational Risk

Risk management is becoming an ever-increasing concern. The supply function clearly impacts the risk level for the organization in terms of operational, financial, and reputation risk. Supply disruptions in terms of energy, service, or direct or indirect requirements can impact the ability of the organization to operate as planned and as expected by its customers, creating operational risks.

Given that commodity and financial markets establish prices that may go up or down beyond the control of the individual purchaser, and that long-term supply agreements require price provisions, the supply area may represent a significant level of financial risk. Furthermore, unethical or questionable supply practices and suppliers may expose the organization to significant reputation risk.

Effect on Image

The actions of supply personnel influence directly the public relations and image of a company. If actual and potential suppliers are not treated in a businesslike manner, they will form a poor opinion of the entire organization and will communicate this to other firms. This poor image will adversely affect the purchaser's ability to get new business and to find new and better suppliers. Public confidence can be boosted by evidence of sound and ethical policies and fair implementation of them.

The large spend of any organization draws attention in terms of supplier chosen, the process used to choose suppliers, the ethics surrounding the supply process, and conformance to regulatory requirements. Are the suppliers chosen "clean" in terms of child labor, environmental behavior, and reputation? Is the acquisition process transparent and legally, ethically, strategically, and operationally defensible as sound practice? Do supply's actions take fully into account environmental, financial, and other regulatory requirements such as national security?

Maintaining a proper corporate image is the responsibility of every team member and supply is no exception.

Training Ground

The supply area also is an excellent training ground for new managers. The needs of the organization may be quickly grasped. Exposure to the pressure of decision making under uncertainty with potentially serious consequences allows for evaluation of the individual's ability and willingness to make sound decisions and assume responsibility. Contacts with many people at various levels and a variety of functions may assist the individual in learning about how the organization works. Many organizations find it useful to include the supply area as part of a formal job rotation system for high-potential employees.

Examples of senior corporate executives with significant supply experience include Thomas T. Stallkamp, vice chairman and CEO of MSX International, Inc., and former Chrysler president; Willie A. Deese, executive vice president and president, Merck Manufacturing Division; Richard B. Jacobs, general manager of Eaton Corporation's Fluid Power Group's Filtration Division.

Management Strategy and Social Policy

Supply also can be used as a tool of management strategy and social policy. Does management wish to introduce and stimulate competition? Does it favor geographical representation, minority interest, and environmental and social concerns? For example, are domestic sources preferred? Will resources be spent on assisting minority suppliers? As part of an overall organization strategy, the supply function can contribute a great deal. Assurance of supply of vital materials or services in a time of general shortages can be a major competitive advantage. Similarly, access to a better-quality or a lower-priced product or service may represent a substantial gain. These strategic positions in the marketplace may be gained through active exploration of international and domestic markets, technology, innovative management systems, and the imaginative use of corporate resources. Vertical integration and its companion decisions of make or buy (insource or outsource) are ever-present considerations in the management of supply.

The potential contribution of supply to strategy is obvious. Achievement depends on both top executive awareness of this potential and the ability to marshal corporate resources to this end. At the same time, it is the responsibility of those charged with the management of the supply function to seek strategic opportunities in the environment and to draw top executive attention to them. This requires a thorough familiarity with organizational objectives, strategy, and long-term plans and the ability to influence these in the light of new information. Chapter 2 discusses both potential supply contributions to business strategy *and* the major strategy areas within the supply function.

Progressive managers have recognized the potential contributions of the supply management area and have taken the necessary steps to ensure results. One important step in successful organizations has been the elevation to top executive status of the supply manager. Although titles are not always consistent with status and value in an organization, they still make a statement within and outside of most organizations. Currently, the most common title of the chief supply officer is vice president, followed by director and manager.

The elevation of the chief supply officer to executive status, coupled with high-caliber staff and the appropriate authority and responsibility, has resulted in an exciting and fruitful realization of the potential of the supply function in many companies.

THE NATURE OF THE ORGANIZATION

The nature of the organization will determine how it will structure and manage its supply function. Whether the organization is public or private and produces goods or services or both, its mission, vision, and strategies, its size, number of sites, location, financial strength, and reputation will all be factors influencing its supply options and decisions. These will be addressed broadly in this first chapter and will be added to subsequently in this text.

Public or Private Organization

Public institutions, including all levels of government from municipal to state or provincial to federal, tend to be service providers but are not exclusively so, and are subject to strict regulatory requirements regarding acquisition processes and policies that must be adhered to. The public sector in many countries also includes education, health, utilities, and a host of agencies, boards, institutes, and so forth. The Southeastern University case at the end of this chapter provides an example of supply in a public-sector context at a state university. This case illustrates how many purchases in the public sector can be for capital and indirect supplies, which creates challenges for supply to influence purchasing decisions that ensure best value.

A large segment of the acquisition needs of public institutions is concerned with the support of the organization's mission and maintenance of facilities and offices. Concerns over public spending deal with transparency and fairness of access to all eligible suppliers, social aims such as support of minority and disadvantaged groups, and national security. Need definition and specification are often part of the supply manager's responsibilities and are often geared to allow for multiple bidders.

That not all public organizations are alike is evident from Figure 1–3 which shows just some of the differences among public bodies.

Nongovernmental organizations (NGOs) and other nonprofit organizations would have a breakdown similar to those listed for public organizations, but might also operate internationally.

Private Organizations

Private organizations, which include companies with publicly traded stocks, tend to have fewer constraints on need definition, specification, and supplier selection. The laws of the

FIGURE 1–3
Differentiations for Supply Management in Public Organizations

Level:	Municipal	State or Provincial	Federal
Mission:	Social Aims	Other or Combination	Economic
Revenue Generation:	Limited	Combination	Substantial
Size:	Small	Medium	Large
Number of Sites:	Single	Few	Many

FIGURE 1–4 Differentiations for Supply Management in Private Organizations

Goods or Services:	Manufacturer	Combination	Services
Strategy:	Low cost	Combination	Differentiation
Size:	Small	Medium	Large
Number of Sites:	Single	Few	Many
Location:	Domestic	Few International	Many International
Financial Strength:	Weak	Medium	Strong
Reputation:	Poor	Medium	Outstanding

land (covered in Chapter 14) will establish the main ground rules for commerce. Transparency of commitments with suppliers has recently become more relevant to ensure that long-term commitments are properly disclosed in the company's financial statements. Whereas in public institutions standardization is seen as a means of fairness to suppliers, in private companies, custom specifications are seen as a means of securing competitive advantage.

Figure 1–4 shows some of the influencers that will affect supply management in private organizations. It is clear that for both public and private organizations these differences will affect supply significantly and some generalizations on supply impact follow.

Goods or Service Producers

Another major supply influence is whether the organization produces goods or services or both. Goods producers, often called manufacturers, may produce a wide range of products, both in the industrial goods category and in consumer goods. For goods producers, normally the largest percentage of total spend of the organization is on materials, purchased parts, packaging, and transportation for the goods produced. For service providers (and the range of possible services is huge), normally the largest percent of spend is focused on services and the process enabling the delivery of the services. The Erica Carson case in this chapter describes a supply decision in a large services organization, a financial institution. This case illustrates the opportunities for supply to contribute to the customer value proposition.

The following table identifies what the impact on organizational requirements is likely to be depending on whether the organization is primarily focused on manufacturing or providing a service:

Manufacturer	Service Provider
• The largest portion of needs is generated by customer needs. • The largest portion of spend with suppliers will be on direct requirements which comprise products sold to customers.	• The largest portion of needs is generated by capital, services, and other requirements enabling employees to provide the service. • In retailing the largest spend is focused on resale requirements.

Very few organizations are pure manufacturers or service providers. Most represent a mixture of both. A restaurant provides meals and drinks as well as service and a place to eat.

An insurance company provides insurance policies and claim service as well as peace of mind. An R&D organization performs research, as well as research reports, models, and prototypes. A manufacturer may supply capital goods as well as repair service and availability of replacement parts.

Wholesalers, distributors and retailers provide resale products in smaller quantities and in more convenient locations at more convenient times than the manufacturers can provide. For these resellers the ability to buy well is critical for success.

Resource and mining organizations explore for natural resources and find ways and means of bringing these to commodity markets. Educational institutions attempt to transform students into educated persons, frequently providing them with meals, residences, classrooms, parking facilities, and, hopefully, diplomas or degrees. Health organizations provide diagnostic and repair services using a very large variety of professionals, equipment, facilities, medicines, and parts to keep their clients healthy and functioning.

It is no surprise that the nature of the organization in terms of the goods and services it provides will significantly affect the requirements of its supply chain.

The Mission, Vision, and Strategy of the Organization

Supply strategy has to be congruent with organizational strategy. Therefore, the mission, vision, and strategy of the organization are the key drivers for how the supply function will be managed and how supply decisions are made and executed. A nonprofit organization with social aims may acquire its office needs totally differently from one that competes on cost in a tough commercial or consumer marketplace. An innovation focused organization may define flexibility quite differently from one that depends largely on the acquisition and transformation or distribution of commodities.

In the past, the supply manager was largely focused on the traditional value determinants of quality, quantity, delivery, price, and service as the five key drivers of sound supply decisions. Today's supply managers face a host of additional concerns, as corporate mission, vision, and strategies require concerns over risk, the environment, social responsibility, transparency, regulation, and innovation as well. Thus, the old adage of value for money, a guiding principle for supply managers for centuries, has become a lot tougher over the last few decades and continues to evolve. The text and cases in this book are focused on major supply decisions appropriate for the unique organization in which the supply professional is employed.

The Size of the Organization

The larger the organization, the greater the absolute amount of spend with suppliers. And the amount of the spend will be a major determinant of how many resources can be allocated to the acquisition process. Given a cost of acquisition of 1 to 2 percent of what is acquired, for a $100,000 purchase, up to $2,000 can be spent on acquisition. However, a $100 million acquisition can afford up to $2 million and a $1 billion spend up to $20 million.

Therefore, the larger the amount of spend, the greater the time and care that can and should be allocated to acquisition. Therefore, in very small organizations, the responsibility for acquisition may be a part-time allocation to one or more individuals who probably wear multiple hats. In very large organizations, supply professionals may be completely dedicated to one category of requirements on a full-time basis. And a supply group may count hundreds of professionals. Military acquisition in the United States occupies over 40,000 people, a very large supply chain operation.

Single or Multiple Sites

An additional influence is whether the organization operates out of a single or multiple sites. The simplest situation is the single site. The supply situation becomes more complex as the number of sites increases. Transportation and storage issues multiply with multiple sites along with communication and control challenges. This is especially true for multinationals supplying multiple sites in a large variety of countries.

Financial Strength

Supply management stripped to its bare essentials deals with the exchange of money for goods and services. With the acquiring company responsible for the money and the supplier for the goods and services, the ability of the buying organization to pay will be a very important issue in the supplier's eyes. And the ability to pay and flexibility on when to pay depend on the financial strength of the organization. The stronger the buying organization is financially, the more attractive it becomes as a potential customer. A supplier will be more anxious to offer an exceptionally good value proposition to an attractive customer. And the ability and willingness to pay quickly after receipt of goods or services add valuable bargaining chips to any purchaser.

Reputation

Corporate reputation in the trade is another important factor in building a positive corporate image both for suppliers and purchasers. If supply management is defined as the fight for superior suppliers, then a strong corporate image and reputation are valuable contributors. Superior suppliers can pick and choose their customers. Superior suppliers prefer to deal with superior customers. Superior customers enhance a superior supplier's reputation. "You are known by the company you keep" applies in the corporate world just like it does in personal life. And supply managers can significantly affect their company's image by their actions and relations with suppliers.

For a long time the reputation of Fisher & Paykel (FP) in New Zealand and Australia was such that any F&P supplier could use this as a persuasive argument for gaining additional customers in that area of the world. "If you are good enough to supply F&P, you are good enough for us" was the implication. A good buyer–supplier relationship is built on the rock of impeccable performance to contract agreements. Pay the right amount on time without hassle and deliver the right quality and quantity of goods or services on time and charge the correct price without hassle. These commitments are not as simple as they sound. Moreover, superior customers and superior suppliers add ethical treatment; advance communications on future developments in technology, markets, and opportunities for improvements as additional expectations; and are continually striving to do better.

Corporate reputations are built on actions and results, not on noble intentions. It takes time to build a superior reputation, but not much time to harm a reputation.

SUPPLY QUALIFICATIONS AND ASSOCIATIONS

In recognition that the talent in supply has to match the challenges of the profession, public and private organizations as well as supply associations have taken the initiative to ensure well-qualified supply professionals are available to staff the function.

Education

Although there are no universal educational requirements for entry-level supply jobs, most large organizations require a college degree in business administration or management. Several major educational institutions, such as Arizona State University, Bowling Green State University, George Washington University, Miami University, Michigan State University, and Western Michigan University, now offer an undergraduate degree major in Purchasing/Supply/Supply Chain/Logistics Management as part of the bachelor in business administration degree. In addition, many schools offer certificate programs or some courses in supply, for either full- or part-time students. A number of schools, including Arizona State, Michigan State, and Howard University, also offer a specialization in supply chain management as part of a master of business administration degree program.

In Canada, the Richard Ivey School of Business has offered for over 60 years a purchasing and supply course as part of its undergraduate and graduate degree offerings. Other universities such as HEC, Laval, York, Queens, University of British Columbia, and Victoria have followed suit; and academic interest in supply chain management is at an all-time high.

While, obviously, a university degree is not a guarantee of individual performance and success, the supply professional with one or more degrees is perceived on an educational par with professionals in other disciplines such as engineering, accounting, marketing, information technology (IT), human resources (HR), or finance. That perception is important in the role that supply professionals are invited to play on the organizational team.

Professional Associations

As any profession matures, its professional associations emerge as focal points for efforts to advance professional practice and conduct. In the United States, the major professional association is the Institute for Supply Management (ISM), founded in 1915 as the National Association of Purchasing Agents. The ISM is an educational and research association with over 40,000 members who belong to ISM through its network of domestic and international affiliated associations.

In addition to regional and national conferences, ISM sponsors seminars for supply people. It publishes a variety of books and monographs and the leading scholarly journal in the field, *The Journal of Supply Chain Management,* which it began in 1965. Additionally, ISM and its Canadian counterpart, the Purchasing Management Association of Canada (PMAC), work with colleges and universities to encourage and support the teaching of purchasing and supply management and related subjects and provide financial grants to support doctoral student research.

ISM launched the Certified Professional in Supply Management (CPSM) program in May 2008. The CPSM program focuses skill development in areas such as supplier relationship management, commodity management, risk and compliance issues, and social responsibility.

Since the early 1930s, ISM has conducted the monthly "ISM Report on Business," which is one of the best-recognized current barometers of business activity in the manufacturing sector. In 1998, the association initiated the Nonmanufacturing ISM Report on Business. The survey results are normally released on the second business day of each month. The Ivey Purchasing Managers Index (Ivey PMI), jointly sponsored by PMAC and the Richard Ivey School of Business, is the Canadian equivalent of ISM's Report on Business, but covers the complete Canadian economy.

In 1986, CAPS Research (formally the Center for Advanced Purchasing Studies) was established as a national affiliation agreement between ISM and the College of Business at Arizona State University. CAPS is dedicated to the discovery and dissemination of strategic supply management knowledge and best practices. It conducts industry wide purchasing benchmarking studies, publishes a good practices publication called *Practix,* runs the annual Purchasing Executives' Roundtables, and conducts and publishes focused purchasing research in areas of interest to industry.

In Canada, the professional association is the PMAC, formed in 1919. Its membership of approximately 6,000 is organized in 10 provincial and territorial institutes from coast to coast. Its primary objective is education, and in addition to sponsoring national conferences and publishing a magazine, it offers an accreditation program leading to the CPP (Certified Professional Purchaser) designation. PMAC's accreditation program was started in 1963.

In addition to ISM and PMAC, there are other professional purchasing associations, such as the National Institute of Governmental Purchasing (NIGP), the National Association of State Purchasing Officials (NASPO), the National Association of Educational Buyers (NAEB), and the American Society for Health Care Materials Management.

Several of these associations offer their own certification programs. Most industrialized countries have their own professional purchasing associations: for example, Institute of Purchasing and Supply Management (Australia), Chartered Institute of Purchasing and Supply (Great Britain), Indian Institute of Materials Management, and Japan Materials Management Association. These national associations are loosely organized into the International Federation of Purchasing and Supply Management (IFPSM), which has as its objective the fostering of cooperation, education, and research in purchasing on a worldwide basis among the more than 40 member national associations representing approximately 200,000 supply professionals.

CHALLENGES AHEAD

There are at least six major challenges facing the supply profession over the next decade: supply chain management, measurement, risk management, sustainability, growth and influence, and effective contribution to corporate success.

Supply Chain Management

The success of firms like Walmart and Zara in exploiting supply chain opportunities has helped popularize the whole field of supply chain management. Nevertheless, significant challenges remain: While the giant firms in automotive, electronics, and retailing can force the various members of the supply chain to do their bidding, smaller companies do not have that luxury. Thus, each organization has to determine for itself how far it can extend its sphere of influence within the supply chain and how to respond to supply chain initiatives by others. Clearly, opportunities to reduce inventories, shorten lead times and distances, plan operations better, remove uncertainties, and squeeze waste out of the supply chain are still abundant. Thus, the search for extra value in the supply chain will continue for a considerable period of time.

Measurement

There is significant interest in better measurement of supply not only to provide senior management with better information regarding supply's contribution, but also to be able to assess the benefits of various supply experiments. No one set of measurements is likely to suffice for all supply organizations. Therefore, finding the set of measures most appropriate for a particular organization's circumstances is part of the measurement challenge.

Risk Management

A recent study at Michigan State University found that supply chain disruptions and supply chain risk are among the most critical issues facing supply chain managers.[6] Supply chains have become increasingly global and, therefore, face risks of supply interruptions, financial and exchange rate fluctuations, lead time variability, and security and protection of intellectual property rights, to name only a few. The trend to single sourcing has also created the increased risks for supply disruptions.

Supply managers need to continually assess risks in the supply chain and balance risk/reward opportunities when making supply decisions. For example, the attraction of lower prices from an offshore supplier may create longer-term high costs as a result of the need to carry additional safety stock inventories or lost sales from stock-outs. The Russel Wisselink case in Chapter 12 describes how one organization ran into problems in a low cost country sourcing program. Risk management will be covered in more detail in Chapter 2.

Sustainability

Responsibility for reverse logistics and disposal has traditionally fallen under the supply organization umbrella (see Chapters 16 and 17). These activities include the effective and efficient capture and disposition of downstream products from customers. More recently, however, pressures from government and consumer groups are motivating organizations to reduce the impact of their supply chains on the natural environment. For example, the European Union (EU) has set aggressive targets for greenhouse gas reductions and cuts to overall energy consumption, and has implemented new legislation as a result. Supply will be at the forefront of sustainability initiatives. Senior management will expect supply to work with suppliers to identify solutions for the environmental and sustainability challenges they face.

Growth and Influence

Growth and influence in terms of the role of supply and its responsibilities inside an organization can be represented in four areas as identified in a recent CAPS study.[7] In the first place, supply can grow in the percentage of the organization's total spend for which it is meaningfully involved. Thus, categories of spend traditionally not involving purchasing, such as real estate, insurance, energy, benefit programs, part-time help, relocation services, consulting, marketing spend with advertising and media agencies, travel and facilities management, IT, and telecommunications and logistics, have become part of procurement's responsibility in more progressive corporations.

[6] S. A. Melnyk et al., *Supply Chain Management 2010 and Beyond: Mapping the Future of the Strategic Supply Chain* (The Eli Broad College of Business at Michigan State University, 2006).

[7] Leenders and Johnson, *Major Changes in Supply Chain Responsibilities.*

Second, the growth of supply responsibilities can be seen in the span of supply chain activities under purchasing or supply leadership. Recent additions include accounts payable, legal, training and recruiting, programs and customer bid support, and involvement with new business development.

Third, growth can occur in the type of involvement of supply in what is acquired and supply chain responsibilities. Clearly, on the lowest level, there is no supply involvement at all. The next step up is a transactionary or documentary role. Next, professional involvement implies that supply personnel have the opportunity to exercise their expertise in important acquisition process stages. At the highest level, meaningful involvement, a term first coined by Dr. Ian Stuart, represents true team member status for supply at the executive table. Thus, in any major decision taken in the organization, the question "What are the supply implications of this decision?" is as natural and standard as "What are the financial implications of this decision?"

Fourth, supply can grow by its involvement in corporate activities from which it might have been previously excluded. While involvement in make-or-buy decisions, economic forecasts, countertrade, in- and outsourcing, and supplier conferences might be expected, other activities such as strategic planning, mergers and acquisitions, visionary task forces, and initial project planning might be good examples of broader corporate strategic integration.

Each of these four areas of opportunity for growth allows for supply to spread its wings and influence creation in organization and increase the value of its contributions.

Effective Contribution to Organizational Success

Ultimately, supply's measure of its contribution needs to be seen in the success of the organization as a whole. Contributing operationally and strategically, directly and indirectly, and in a positive mode, the challenge for supply is to be an effective team member. Meaningful involvement of supply can be demonstrated by the recognition accorded supply by all members of the organization.

How happy are other corporate team members to have supply on their team? Do they see supply's role as critical to the team's success? Thus, to gain not only senior management recognition but also the proper appreciation of peer managers in other functions is a continuing challenge for both supply professionals and academics.

THE ORGANIZATION OF THIS TEXT

In this first chapter are listed the more common influences for all organizations. In subsequent chapters, we will cover various decisions regarding organizational and supply strategies, organization supply processes, make or buy, the variety of organizational needs, and how to translate these into commercial equivalents. These will be followed by decisions on quality, quantity, delivery, price, and service—the traditional five value criteria—culminating in supplier selection. Suppliers are located domestically and internationally and their location will affect how supply should be managed. The legal and ethical framework for supply establishes the framework for the contract between these two parties. How to evaluate supplier performance and how to relate to suppliers is followed by a section on supply chain associated responsibilities which may or may not be part of the supply

manager's assignment. This text concludes with the evaluation of the supply function, its performance reporting, and current trends in the field.

Conclusion

If the chief executive officer and all members of the management team can say, "Because of the kinds of suppliers we have and the way we relate to them, we can outperform our competition and provide greater customer satisfaction," then the supply function is contributing to its full potential.

This is the ambitious goal of this text: to provide insights for those who wish to understand the supply function better, whether or not they are or will be employed in supply directly.

Questions for Review and Discussion

1. What is the profit-leverage effect of supply? Is it the same in all organizations?
2. "Supply is not profit making; instead, it is profit taking since it spends organizational resources." Do you agree?
3. What kinds of decisions does a typical supply manager make?
4. "In the long term, the success of any organization depends on its ability to create and maintain a customer." Do you agree? What does this have to do with purchasing and supply management?
5. Is purchasing a profession? If not, why not? If yes, how will the profession, and the people practicing it, change over the next decade?
6. Differentiate between purchasing, procurement, materials management, logistics, supply management, and supply chain management.
7. In what ways might e-commerce influence the role of supply managers in their own organizations? In managing supply chains or networks?
8. In the petroleum and coal products industry, the total purchase/sales ratio is 80 percent, while in the food industry it is about 60 percent. Explain what these numbers mean. Of what significance is this number for a supply manager in a company in each of these industries?
9. How does supply management affect return on assets (ROA)? In what specific ways could you improve ROA through supply management?
10. How can the expectations of supply differ for private versus pubic organizations? Services versus goods producers?

References

Cavinato, J. L.; A. E. Flynn; and R. G. Kauffman. *The Supply Management Handbook*. 7th ed. Burr Ridge, IL: McGraw-Hill/Irwin, 2007.

Lambert, D. M. *Supply Chain Management: Processes, Partnerships and Performance,* Sarasota, Florida: Supply Chain Management Institute, 2004.

Leenders, M. R., and H. E. Fearon. "Developing Purchasing's Foundation," *The Journal of Supply Chain Management* 44, no. 2 (2008), pp. 17–27.

Leenders, M. R., and A. E. Flynn. *Value-Driven Purchasing: Managing the Key Steps in the Acquisition Process.* Burr Ridge, IL: Irwin Professional Publishing, 1995.

Nelson, Dave; Patricia E. Moody; and Jonathan Stegner. *The Purchasing Machine*. New York: The Free Press, 2001.

Rozemeijer, Frank. *Creating Corporate Advantage in Purchasing*. Eindhoven, The Netherlands: Technische Universiteit Eindhoven, 2000.

Zheng, J.; L. Knight; C. Hartland; S. Humby; and K. James. "An Analysis of Research into the Future of Purchasing and Supply Management." *Journal of Purchasing and Supply Management* 13, no. 1 (2007), pp. 69–83.

Case 1–1

Qmont Mining

Alice Winter, working on a summer internship at Qmont Mining, was trying to determine how the supply systems for remote locations could be improved.

QMONT MINING

Qmont Mining, a major metals producer with headquarters in Vancouver, British Columbia, had extensive holdings all over the Canadian North. Supply management had been completely decentralized until very recently. A consulting study had recommended a move to more centralized supply management, including purchasing and logistics. The purchasing and stores manager at Qmont's largest mine in British Columbia, Harry Davidson, had been asked to pursue this idea and to make recommendations on potential improvements. Harry had hired Alice Winter, a college student in logistics, to work as a summer intern to assist him. Harry had said to Alice: "A good project for you to work on is the way we handle supply for remote locations. I suspect that we could do substantially better, but I really don't have any hard data."

REMOTE LOCATIONS

Alice found out that Qmont had 17 remote locations, ranging from three small mines that had a buyer/storekeeper on site to two mine start-ups, nine exploration sites, and three development projects with a distance of 5,000 km between the farthest ones and 300 km between the closest ones. Qmont made a distinction between exploration sites where the potential for ore was totally unproven to development sites where the possibility of mineralization had been proved, but where the extent of mineralization had to be determined. Qmont used its own drilling crews at these two types of sites, although most mining companies preferred to use contract drillers. Qmont managers believed that for security, availability, and cost reasons they needed full control and in-house crews. Typically, at both exploration and development sites an engineer or geologist would be in charge. All supplies for these sites would be flown in by bush planes on floats or by helicopters.

ACCOUNTING INFORMATION

Alice Winter decided to visit the accounting department at Vancouver headquarters first to see what she could learn about supply in remote locations. She found out that accounting paid all invoices from suppliers who claimed to have supplied a remote location even when no confirmation of orders, deliveries, or receipts was available. This occurred in about one-third of all invoices. The accountant explained: "Getting suppliers to provide odd requirements in a hurry and to get bush pilots to fly them in is a constant hassle. The last thing we want to do is lose the goodwill of these suppliers because we don't have our records straight and delay payments."

DEVELOPMENT AND EXPLORATION SITE DATA

Alice did get the chance to review the previous year's actual supplier invoices for three different sites (one development and two exploration) over a four-month

summer period. Communication between actual sites and suppliers occurred in two main ways. Since site leaders were in regular contact via satellite with head office personnel in exploration or engineering, they frequently asked the head office contacts to place specific orders for them. In addition, it was common for remote site personnel to contact suppliers directly and place orders. Moreover, when a drill needed a quick replacement part, apparently it was not unusual to place orders with several suppliers at the same time in the hope that at least one would deliver quickly. Drill and crew downtime was seen as very expensive.

The site accounting records showed that the total supply spend for these three sites totaled about $850,000. Of this total, approximately:

- $220,000 was for drilling equipment including drill bits and rods.
- $120,000 for MRO suppliers.
- $420,000 for air transport covering seven different suppliers, of which air transport of personnel in and out of sites cost about $170,000.
- $180,000 for fuel.
- $80,000 for food.

Alice uncovered 22 instances of multiple deliveries of the same item within days to the same site from different suppliers and 12 instances of multiple deliveries of the same item from the same supplier within a few days. There were 14 instances where the airfreight bill was at least 10 times higher than the value of the item transported.

NEXT STEPS

After several weeks of gathering this information, Alice wondered what her next steps should be. One option would be to gather similar information for all remote sites to get a more complete picture and to extend the time period. Another would be to get more specific about the details of each order and each supplier. She knew that she would be meeting with Harry Davidson in a few days to discuss her progress and findings to date. She also expected Harry to ask her what she believed she should do next.

Case 1–2

Erica Carson

"We will do it for 10 percent less than what you are paying right now." Erica Carson, purchasing manager at Wesbank, a large western financial institution, had agreed to meet with Art Evans, a sales representative from D.Killoran Inc., a printing supplier from which Wesbank currently was not buying anything. Art Evans's impromptu and unsolicited price quote concerned the printing and mailing of checks from Wesbank.

Wesbank, well known for its active promotional efforts to attract consumer deposits, provided standard personalized consumer checks free of charge. Despite the increasing popularity of Internet banking, the printing of free checks and mailing to customers cost Wesbank $8 million in the past year.

Erica Carson was purchasing manager in charge of all printing for Wesbank and reported directly to the vice president of supply.

It had been Erica's decision to split the printing and mailing of checks equally between two suppliers. During the last five years, both suppliers had provided quick and quality service, a vital concern of the bank. Almost all checks were mailed directly to the consumer's home or business address by the suppliers. Because of the importance of check printing, Erica had requested a special cost analysis study a year ago, with the cooperation of both suppliers. The conclusion of this study had been that both suppliers were receiving an adequate profit margin and were efficient and cost-conscious and that the price structure was fair. Each supplier was on a two-year contract. One supplier's contract had been renewed eight months ago; the other's expired in another four months.

Erica believed that Killoran was underbidding to gain part of the check-printing business. This in turn would give Killoran access to Wesbank's customers' names. Erica suspected that Killoran might then try to pursue these customers more actively than the current two suppliers to sell special "scenic checks" that customers paid for themselves.

Case 1–3

Southeastern University

Heather Sloman, buyer in the purchasing department of Southeastern University, was preparing for a meeting with her boss, Glen Meredith, for later that day. Two days earlier, on April 6, Glen had received a phone call from Walter Charbonneau, manager of the university registrar's office. Heather was surprised to learn from Glen that Walter had just bought a new piece of equipment for his department without following standard university purchasing policies. Glen asked Heather to look into the situation and get back to him with recommendations.

PURCHASING DEPARTMENT

Southeastern University was one of the largest universities in the state, with total enrolment of more than 25,000 graduate and undergraduate students and approximately 3,500 staff. There were 12 faculties at the university, over 20 continuing education diploma and certificate programs, and three affiliated colleges. Purchasing was centralized, and the purchasing director, Blake Hyatt, reported to the university's vice president of administration.

The purchasing department was responsible for negotiating with suppliers, signing contracts with suppliers, and supervising the execution of contracts. Small-value purchases, those less than $100, could be handled out of petty cash. The purchasing department had also recently introduced a purchasing card, which could be used to acquire eligible goods and services with a value of less than $1,000.

The purchasing process began when a purchase request was submitted to the purchasing department. A clerk would stamp the requisition with the date and time received and checked it for proper signing authority. In some cases, it was necessary to forward the requisition to the research accounting section in the department of finance for account approval. Other information also was added to the requisition, such as tax and duty status, product classification, and supplier status.

Although the purchase requisition form provided an opportunity for the requisitioner to identify the preferred supplier, the policy was to solicit at least two written quotations for purchases in excess of $7,500 and a minimum of three quotations for purchases in excess of $15,000. One of the buyers would prepare a request for quotation form (RFQ) and contacted approved suppliers. The RFQ form specified details, such as product or service description, quantities, FOB point, and terms of payment. Recent government legislation required that any RFQs in excess of $100,000 had to be posted on the Internet. After all bids were received and evaluated, the buyer would select the supplier and issue a purchase order.

The purchasing department maintained a list of approximately 1,200 approved suppliers, which was adjusted every three to five years. The selection criteria for becoming an approved vendor was based on the following weighted average evaluation system:

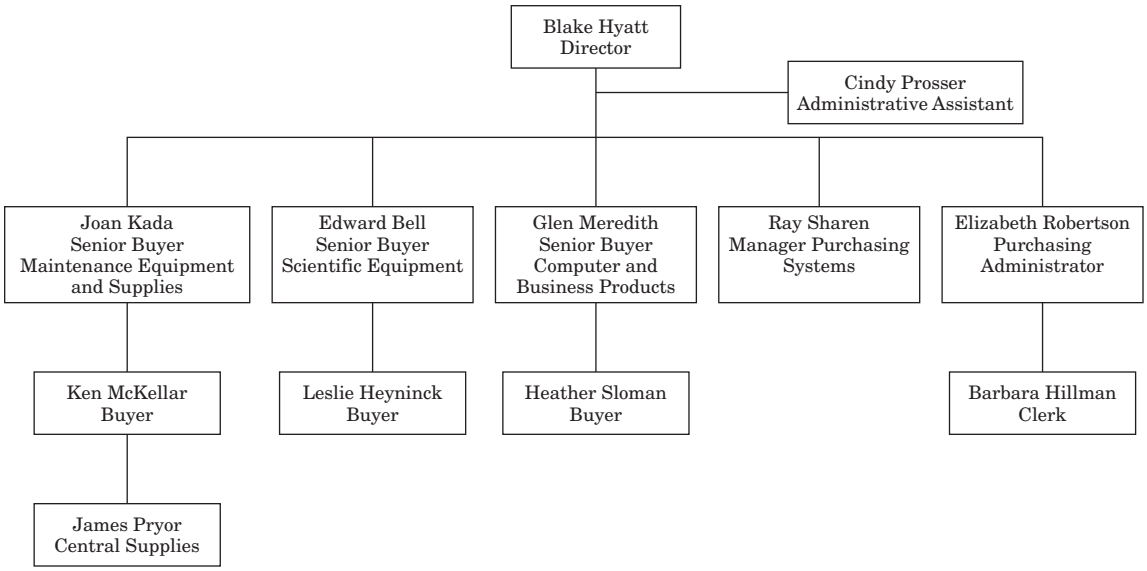
- Price, 50 percent
- Compliance with specifications, 25 percent
- Service, 20 percent
- Partnership, 5 percent

The purchasing department had three buying groups, and each group handled approximately 20 requests each day. (See Exhibit 1 for the organization chart.) In addition, approximately 250 contracts were rebid each year for ongoing purchases, such as snow removal services and photocopier supplies. The total dollar volume of purchases amounted to $75 million of goods and services each year.

According to Heather Sloman, the main objective of the purchasing department was to achieve the greatest cost savings. She commented on the role of purchasing at the university: "Our training in purchasing allows us to negotiate the best deals for the university and help avoid wasting university money."

Although it was university policy that approval from the purchasing department was required before commitments could be made to suppliers, it was not unusual that university personnel contacted suppliers directly. Every year there were about 275 cases where contracts were signed with suppliers without prior approval of purchasing. Heather described what happened in these situations: "Most of the time, the only thing we can do is to call them and ask them to provide the details of the purchase. Usually the purchase has already been made, and there isn't much else that can be done."

EXHIBIT 1 **Organization Chart of the Purchasing Department**



THE FOLDING MACHINE ISSUE

The office of registrar handled about 160,000 pieces of mail a year. There were four major peaks of mailings each year: fees, admissions, records, and scholarships. As many as 50 to 60 people could be occupied manually stuffing envelopes two days a month. A combination of full-time employees and temporary staff was used to perform this activity.

Walter Charbonneau had seen an advertisement in a flyer for an automatic folding machine, which could be used to eliminate some of the manual work in dealing with mass mailings. He later contacted a representative of the company and placed an order for the machine, at a cost of $14,000. Glen was notified shortly after the machine had arrived because Walter needed to make arrangements for payment. As far as Heather knew, the machine had arrived only in the last few days and had not been installed.

Heather found that the supplier of the folding machine was not on her approved supplier list. She then contacted three of her suppliers and received quotes of $10,000, $11,000, and $15,000 for similar equipment. The third quotation included one year of free service.

HEATHER'S OPTIONS

Heather recognized that some employees were going to ignore university policy from time to time and she had to be prepared to deal with such situations. However, if university staff failed to appreciate the benefits of sound purchasing practices, the university's centralized purchasing system would be undermined. When she spoke to Glen Meredith about the situation two days earlier, he said: "Let me know what we should do about this machine in the registrar's office. But also think about what else we can be doing to prevent these kinds of situations from happening again. These bad deals cost the university too much money each year. Besides, as a public institution, we must be extra careful to follow our procedures."

There were a number of alternatives Heather was considering regarding the equipment. One option was to simply keep the machine and pay the supplier. However, she felt the equipment could be returned, and if necessary she could negotiate a cancelation penalty with the supplier. Alternatively, Heather could go back to the supplier and use the quotations to negotiate a lower price.

Heather had about four hours before her meeting with Glen. As she sat down to prepare for the meeting, Heather thought about what she might say to Glen regarding avoiding future problems of this kind.