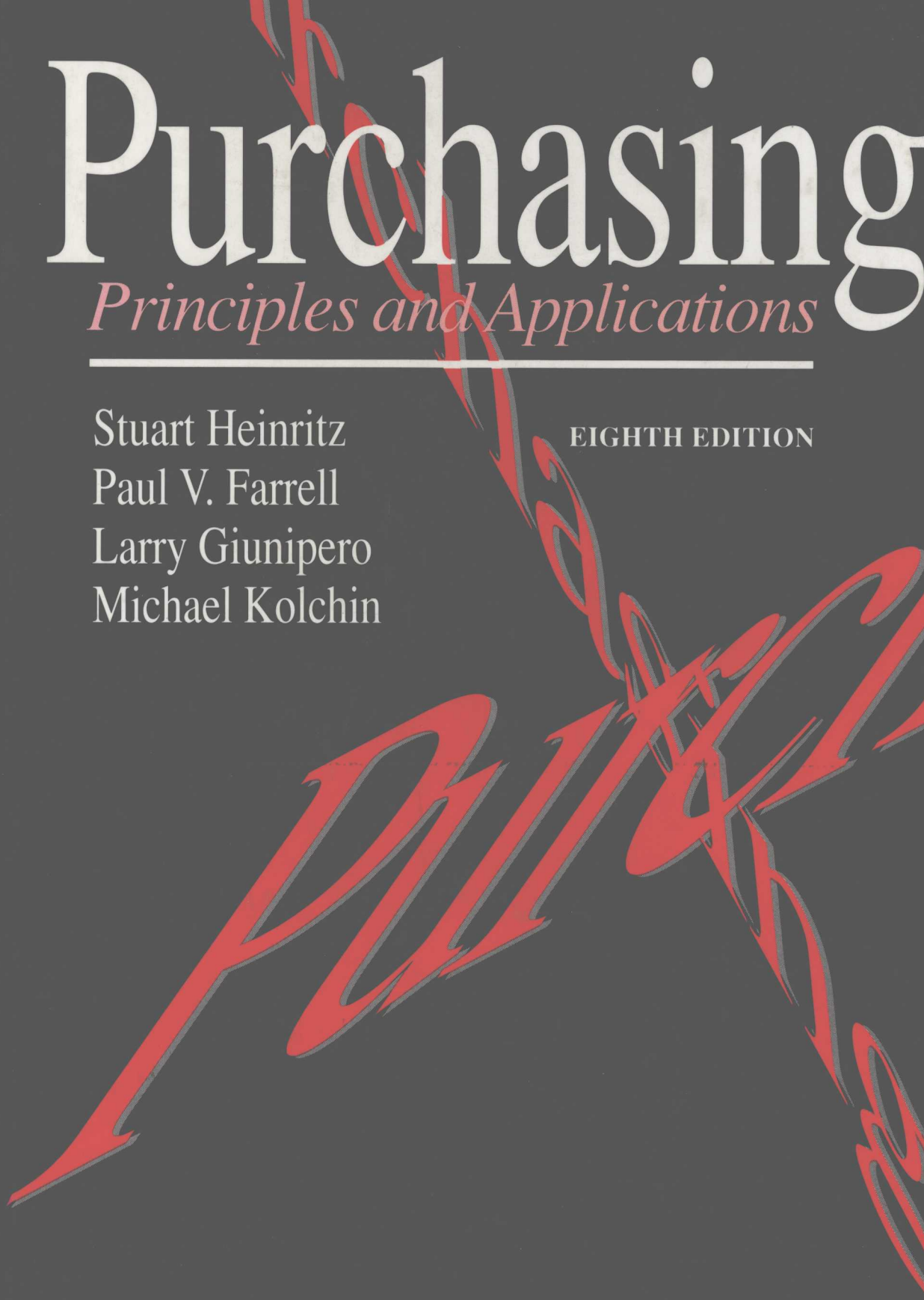


Purchasing

Principles and Applications

Stuart Heinritz
Paul V. Farrell
Larry Giunipero
Michael Kolchin

EIGHTH EDITION



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PURCHASING

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Preface

The purchasing function should reach new heights of respect, professionalism, and organizational recognition in the 1990s. During the mid-1970s top management finally realized that purchasing did something besides place orders. Its ability to keep operations running through the acquisition of key material during a material shortage era was vital. The computer focused attention on inventory and materials management became a buzzword.

During the 1980s the purchasing function's major challenge was keeping the firm profitable in an increasingly competitive environment where prices and sales would not automatically rise unless a product quality rose. Thus, the 1980s will be known as a decade of increased quality, supplier base reductions, international sourcing, and just-in-time inventories.

The 1990s will bring purchasing even greater responsibilities and challenges in several areas.

1. Purchasing will become more involved and have more input into strategic planning, while making sound business decisions which meet ethical and environmental concerns.
2. Competitive pressures and technological changes will continue to require selective, long term partnerships. This is vital to keep product quality high and stay current with technology. In many cases supplier selection will be based on technology transfer.
3. Product cost competitiveness will require achievement of high quality without higher material costs and delivery systems.
4. Worldwide economic changes in the communist bloc and Far East will result in increased world trade and more worldwide sourcing opportunities and requirements.
5. Electronic/computer ordering will replace the traditional purchase order as the means of transferring information between buyers and sellers.
6. Limited funding, taxpayer resistance, and cost containment will characterize the non-profit sector, all levels of government buying, and hospital/institutional buying.

This revised edition updates and relates basic principles and procedures that enable purchasing and materials managers and their staffs to meet the challenges and responsibilities of the new decade. To accomplish these goals, the eighth edition has expanded coverage on

- purchasing strategy and planning
- ethical practices in purchasing
- supplier selection, development, and evaluation
- materials management principles and practices
- retail purchasing
- public sector and institutional purchasing
- technology management

The book is designed as a text that business students at all levels can use, whether they have a particular interest in purchasing as a career, or require knowledge of the function as a part of their overall education. It will serve equally well in training programs for practicing purchasing personnel.

For practitioners it will prove quite useful as a guide to studying for the Certified Purchasing Manager's Examination. It also can continue to serve as a current general reference on purchasing and materials management operations. The text is written to be used in a variety of academic settings, including: community college level, four-year institutions, and Masters programs in either Business, Public Administration, or Retailing departments.

Textbook authors must necessarily be somewhat arbitrary in the presentation of their material. Users, on the other hand, may have varying ideas on the order in which different phases of the subject should be considered. Some instructors, for example, believe that students of purchasing should be introduced early to some of the more dramatic aspects of purchasing, such as negotiation and value analysis; others think that a grounding in fundamental principles and systems should come first. To aid those teachers and students who prefer a flexible approach to the study of purchasing concepts, we have grouped the twenty-six chapters of the book under six major section headings that deal, respectively, with: (1) the purchasing department's overall position and responsibility; (2) the strategies of organizations and systems in purchasing; (3) basic purchasing decisions; (4) managing material flows; (5) specialized purchasing techniques; and (6) retail, institutional, and government purchasing.

The last section, section six, develops purchasing practices in the nonmanufacturing sector and was completely rewritten or in the case of retail purchasing, specifically added for the eighth edition in response to the increasing attention being paid to purchasing in these important sectors of our economy. The work included in chapters 24, 25, and 26 is part of a larger study conducted by one of the authors for the Center for Advanced Purchasing Studies in Tempe, Arizona.

Case studies are grouped together in the appendix rather than placed singly at the end of individual chapters. This has been done to make it easier for instructors to make maximum use of those cases that involve principles covered in more than one chapter.

We have been helped enormously, both directly and indirectly, by a large number of purchasing professionals, educators, and journalists. We are grateful for their generous assistance. We want to thank particularly the reviewers for their suggestions for improving this edition. We wish to thank our families their support and endurance.

Paul V. Farrell
Larry C. Giunipero
Michael G. Kolchin

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The Basis of Purchasing's Authority

The Scope of Purchasing's Authority

Responsibility for Analyzing Requirements

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Purchasing and Engineering

Purchasing and Marketing

Purchasing and Stores

Purchasing and Inventory Control

Purchasing and Traffic

Purchasing and Quality Assurance

Purchasing and Finance

PURCHASING ARRIVES AS A DYNAMIC BUSINESS FUNCTION

With many manufacturing firms spending up to 65 percent of their sales revenues on purchased goods and services, the role of the purchasing function is becoming an increasingly important one. This transition can be clearly seen in the evolution of purchasing from its roots as a purely clerical function in the early part of this century, to its more traditional role of expense control through most of the century, and now to its role as manager of outside manufacturing. As the nature of the function has changed, so have the requirements for purchasing professionals.

Why the change? That is, why the greater recognition of the importance of the purchasing function and of the need for more professionally trained purchasing personnel? Perhaps the reason can be seen by tracing the development of the purchasing function over the past century.

Evolution of the Purchasing Function

Although good buying has always been an important part of any successful business—"a product well bought is half sold"¹—purchasing is most likely to come to management's attention during periods of raw-material scarcity. A good example was the time just after the Second World War when many purchasing departments were able to demonstrate their value to their companies. Pent-up demand by war-weary Americans, caused by years of emphasis on war production, put a serious strain on the ability of many companies to produce sufficient consumer goods. Every manufacturer needed raw materials, presenting an opportunity for purchasing departments to serve their corporations by finding these scarce items. Successfully responding to this challenge enabled alert purchasing departments to gain recognition.

The oil crises of the 1970s presented another challenge for proactive purchasing departments. Petroleum products and their derivatives became very scarce during this period. Not only were fuel oil and gasoline difficult to come by, but so were various types of plastics and petrochemicals. Again, innovative and proactive purchasing was required. Successful purchasing departments responded and allowed their companies to compete successfully in a very tight market.

The high inflationary periods of the 1970s and early 1980s also brought recognition to the importance of having a good purchasing department. Sharply rising price levels caused the costs of raw materials to skyrocket, forcing many companies to search for less expensive substitutes. Once again, proactive purchasing departments were given an opportunity to demonstrate their value.

The government's actions to restrain inflation's effects further exacerbated the materials situation. The price controls imposed by the government not only failed to solve the problem of inflation but actually made it worse. Now products were expensive and also difficult to obtain, as domestic firms turned offshore

¹H.N. Broom and J. G. Longenecker, *Small Business Management* (Cincinnati, Ohio: Southwestern Publishing Co., 1961) p. 555.

to escape price controls. One of the best examples of this situation was the case of the paper industry: Domestic mills could obtain up to four times as much for their products in foreign markets. During this period finding sources of supply for paper products for U.S. firms was a purchasing challenge that successful purchasing departments were able to meet. These departments were rewarded with increased respect.

The inflationary spiral of this period created still another problem for modern purchasing departments. Rapidly increasing raw-materials costs meant soaring inventory costs as well. Reducing inventory costs became a major purchasing challenge in the late 1970s and early 1980s, and the best purchasing departments were able to develop more effective purchasing procedures that resulted in reduced raw-materials inventories.

These examples illustrate the increasing role purchasing plays in making today's companies more profitable. While it has been recognized for some time that net purchasing savings result in a direct contribution to the bottom line, the examples show that not all purchasing savings come from reduced prices of purchased goods and services. The benefits companies derived from effective purchasing in the situations described above came about as a result of purchasing efforts in areas other than price reductions. They resulted from finding new sources of supply, finding substitute products, making recommendations for specification changes that allowed for the use of less costly and scarce materials, and making changes in ordering and delivery patterns that resulted in lower levels of inventory. All of these actions allowed purchasing to fulfill their role as the expense controller for the corporation and increased regard for the purchasing department as a contributor to profits.

Purchasing in Nonprofit Organizations and Government

These concerns relate as well to purchasing in nonprofit organizations, such as governmental agencies and various types of institutions. Pressed by shortages of funds and rising costs, these organizations are also trying to operate at maximum efficiency and at minimum cost. Good purchasing is a critical element in these efforts.

The same principles apply to purchasing in fields other than manufacturing. In a public-utility company for example, the first point would be to support the service, operating, and construction schedule rather than the manufacturing schedule; in purchasing for a municipal government, it would be to support the various services, such as police and fire protection; maintenance of streets, parks, and public buildings; garbage collection and disposal; and all other activities essential to a complete civic administration. In buying for a hospital, a university, or a governmental unit, where the profit motive and competitive factors are absent, getting maximum value for the expenditure of a fixed budget appropriation for materials is a prime goal. Taking a word from the slogan of one eminently successful municipal purchasing department, good government purchasing means getting additional "mileage" out of the tax dollar.

In government units and institutions purchases for a particular department or account are usually strictly limited by the annual budget or the unexpended portion thereof. Specialized procedures and policies employed in buying for government and for nonprofit institutions are discussed in Chapters 25 and 26.

Purchasing is done to implement other phases of a company's, a government agency's, or an institution's operations. It starts in every case with a need that is established due to operating requirements.

Finally, organizations of all sizes need effective purchasing. One of the authors of this book conducted a study of small businesses (in the Lehigh Valley, Pennsylvania) and found a very strong correlation between purchasing effectiveness and financial performance.² Additionally, statistics show the majority of members of the National Association of Purchasing Management come from firms with purchasing departments containing ten or fewer members.

IMPORTANCE OF PURCHASING

Purchasing's Share of the Sales Dollar

Recent Bureau of Census data indicate that on the average, more than half of every dollar taken in as income from sales of manufactured products is spent for the purchase of materials, supplies, and equipment needed to produce those goods. Perhaps the most significant indicators of the scope and importance of purchasing in relation to sales, however, are corporations' annual reports (see Figure 1-1).

Following are the percentages of sales spent on purchased goods and services in a representative group of companies

- Apple Computer, 65 percent
- Bethlehem Steel, 55 percent
- Ford Motor Company, 60 percent
- General Electric, 46 percent
- Texas Instruments, 50 percent³

In the majority of manufacturing companies, materials costs are found to be reasonably close to the average, from 40 to 60 percent of total product cost. But in special cases purchases may range widely beyond these limits, according to the type of business and the kinds of materials used. Purchase expenditures in nonprofit organizations generally represent a lower percentage of income.

In the basic processing of a single raw material that makes up the bulk of the finished product, the purchase cost of material is generally a high proportion of finished product cost—up to 85 percent or more. Examples are found in those industries producing fabrics, shoes, food, and similar products. A high degree of mechanization, which reduces labor cost per unit of product, also tends to make

²M. J. Dollinger and M. G. Kolchin, "Purchasing and the Small Firm," *American Journal of Small Business*, Winter 1986, pp. 33–45.

³"Top 100 1989," *Purchasing*, November 23, 1989, pp. 51–72.