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A STUDY OF THE ROLE OF THE PURCHASING EXECUTIVE AND HIS  
FUNCTION IN MATERIALS MANAGEMENT IN MANUFACTURING FIRMS

*Indiana University, Graduate School of Business*

D.B.A. 1958

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A STUDY OF THE ROLE OF THE PURCHASING EXECUTIVE  
AND HIS FUNCTION IN MATERIALS MANAGEMENT  
IN MANUFACTURING FIRMS

By

BRUCE D. McSPARRIN, JR.

A Dissertation Submitted in Partial Fulfillment of  
the Requirements for the Degree of Doctor of  
Business Administration in the School of  
Business of Indiana University

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INDIANA UNIVERSITY  
SCHOOL OF BUSINESS

1958

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ACCEPTANCE

This Dissertation has been accepted in partial fulfillment of the requirements for the Degree of Doctor of Business Administration in the School of Business of Indiana University

Date May 26, 1958

Dean, School of Business

Chairman

Member

Member



## PREFACE

This study was undertaken in order that a better understanding of the role of the purchasing executive and his function in materials management might be obtained. My interest in this study stems from the challenge of applying an integrated program approach to a course in purchasing and materials control at Indiana University.

In preparing early drafts and the final manuscript, Dr. Howard Timms, as dissertation committee chairman, was a constant source of help, encouragement, and constructive criticism. Suggestions for company visits and interviews were made by the officers of the Purchasing Agents Association of Indianapolis. A special acknowledgement is due to the many members of management in the eight companies visited who contributed freely of their time and experience, but who must necessarily remain anonymous here. Dr. Wallace O. Yoder and Professor John F. Mee, members of the dissertation committee contributed many helpful suggestions. To all of these people, I wish to express gratitude for their contribution to this study.

I also wish to acknowledge the help and cooperation of Mrs. Janet Fluck who typed the manuscript. Deep gratitude is extended to my wife, Pauline, whose aid, encouragement, and patience made this study possible.

Bruce D. McSparrin, Jr.

Bloomington, Indiana

May, 1958

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## CHAPTER 1

### INTRODUCTION

Interest in the development of a philosophy of management, as applied to the field of materials supply, has increased greatly in the last ten years. A sound philosophy of management provides a guide for solving business problems and the problem of materials supply is one of the most important problems of management. Materials rank among the four principal "M's" of an industrial enterprise, i.e., men, money, machines, and materials. Therefore, it is not surprising that they demand a sizeable share of management attention.

Published statements in the annual reports of industrial companies consistently show that materials usually represent the largest single factor of production costs. An analysis of more than a thousand plant operations, made by Heinritz, shows the cost of purchased materials, on the average, amounting to 46 per cent of total manufacturing cost.<sup>1</sup>

An important task of management is to bring about co-ordination of effort in achieving objectives. In 1928, Gushee and Boffey emphasized that satisfactory performance of the supply function requires purchasing to be co-ordinated with related functions.<sup>2</sup>

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<sup>1</sup>Stuart F. Heinritz, Purchasing (New York: Prentice-Hall, Inc., 1951), p. 4.

<sup>2</sup>Edward Gushee and L. F. Boffey, Scientific Purchasing (New York: McGraw-Hill Book Co., 1928), p. 26.

Although there appears to be an organizational trend toward consolidating the elements of supply into one executive department under some such title as materials management, there is still much confusion in the minds of many executives as to the true nature of this function.

A supply department is generally regarded as a staff organization. In a study of thirty-one leading industrial corporations, Holden, Fish, and Smith conclude that there is a need for research in this area:

As a rule, organization of the primary functions, such as manufacturing and marketing, is reasonably definite and well understood. With the staff departments, however, this is not the case, and analysis of most of the companies surveyed testifies to the need of better understanding and further clarification in order to make this important part of the management machinery fully effective.<sup>3</sup>

#### Statement of the Problem

Purpose of the study. The purpose of this study is to investigate the role of the top purchasing executive and his function in materials management in selected industrial companies. This will necessarily involve analysis of the purchasing department as a whole. The objectives of the study are to obtain empirical data on the role played by the purchasing executive and the purchasing function in materials management in industrial companies of different sizes, types, and industries; to evaluate purchasing in these companies on the basis of objectives, principles, and points of view of higher management, of related department heads, and of the top purchasing

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<sup>3</sup>Paul Holden, L. Fish, and H. Smith, Top-Management Organization and Control (Stanford: Stanford University Press, 1941), p. 36.

executive; and to draw conclusions and make recommendations based on the data secured in this study.

Nature of the data. Analysis of the purchasing executive and the purchasing function required the following objective information:

1. The company. Information was obtained on the products manufactured, type of operations, financial data, and purchases data.
2. Formal organization of the company. The company's organization structure was studied for rank and positions of the executives in the company.
3. Top purchasing executive. Data were secured on functions of purchasing executives and percentage time distribution, titles for top purchasing positions, ages of executives, purchasing experience, experience channels, education, membership in professional associations, publications read, familiarity with business problems beyond those directly related to purchasing, participation in the formulation of top management decisions and other decision areas, and reports for the benefit of higher management.
4. Organization of purchasing department. The scope and responsibility of the department was studied. Information was obtained on the number of individuals performing functions under the direction of the head of the purchasing department, techniques and organizational devices developed to blend points of view of purchasing personnel and others, job descriptions of purchasing jobs, and training of personnel.

In addition to securing objective data, the following subjective opinions of purchasing executives, related department heads, and higher management were obtained through interviews:

1. Purchasing executives' opinions. The top purchasing executives were interviewed to determine what they expected from higher management, what they felt higher management expected from them and their department, adequacy of authority and responsibility, adequacy of purchasing staff, additional functions that should be under their supervision, role of purchasing in materials management, and major problems encountered in performance of the purchasing function.
2. Opinions of related department heads. Heads of departments having a role in materials management were interviewed to determine their attitudes toward the purchasing department and their feeling concerning its efficiency.
3. Opinions of higher management. Managers to whom purchasing executives report were interviewed to determine the benefits they expect from purchasing and how they judge the efficiency of the purchasing department.

More intensive interviews were used to discover reasons underlying significant differences in the roles of purchasing executives and purchasing departments in materials management.



### Scope and Limitations of the Study

Any study that requires personal interviews and deals with opinions of respondents is limited by difficulties of obtaining valid information. These difficulties do not necessarily invalidate the conclusions. However, intelligent use of the information requires recognition of the limitations.

The companies included in this study were selected to provide as wide a variety of experience as possible within the limitations of the project. They covered a wide range of sizes in terms of sales volume, total dollar volume of purchases, and number of employees. They also represented different industries, and different types of operations.

Only industrial manufacturing companies are included in this study and the study is limited to raw materials and purchased parts used in the production of a product. This limitation excludes supplies and equipment items. A further limitation is that the study is concerned primarily with internal considerations. The buying functions, buyer-supplier relations, and intra-departmental relations are considered only when necessary to clarify the role of purchasing in internal aspects of materials management.

Intensive case study research imposed some limitations on the project. The companies were not selected on the basis of a representative sample. Although contributing to business knowledge, conclusions cannot be claimed to apply to industry in general.

The companies in this study were selected from the state of Indiana. This was largely a matter of necessity due to time and money availability. Furthermore, the variety of industrial activity

in Indiana made it possible to obtain the desired number and types of companies from this area.

### Method of the Study

Primary sources of information were company organization charts, manuals, and personal interviews with top purchasing executives and other members of management such as production managers, production control managers, quality control managers, material control managers, executive vice presidents, and presidents.

The first step in the study within any company was to obtain the information for the Organization Data Schedule (Appendix A). Then, information needed for the Financial Data Schedule (Appendix B), and Purchases Data Schedule (Appendix C) was obtained.

Table I shows the personnel interviewed in the eight companies. Interview guides were prepared for interviews with all interviewees (Appendix D). Within any company, the initial interview was usually with the top purchasing executive. Department heads of departments having close relationships with the purchasing department were the next to be interviewed. Then, higher managers to whom purchasing executives reported were interviewed. Finally, purchasing executives were briefly interviewed again to determine if they had anything else to explain concerning their role in materials management.

At the beginning of all interviews, the interviewer briefly sketched the nature and purpose of this project. In order to encourage complete and accurate responses, respondents were assured that identification of the participating companies, and names of interviewees within each company would be kept confidential.

TABLE I  
PERSONNEL INTERVIEWED IN EIGHT COMPANIES

Company Code Letter	Titles of Interviewees*
A	Purchasing agent Material control supervisor Shop superintendent Production manager Quality control manager President
B	Purchasing agent Material control manager Quality control manager Chief inspector Production manager
C	Director of purchasing Purchasing agent Chief inspector Engineering manager Factory manager Executive vice president
D	Purchasing agent Plant manager Vice president of production President
E	Purchasing agent Production scheduler Engineer and cost manager New product engineer Plant manager
F	Purchasing agent Assistant purchasing agent Assistant to purchasing agent Materials handling, stores and receiving supervisor Production superintendent Production control manager Director of technical development Quality control manager Finance manager President

TABLE I (Continued)

Company Code Letter	Titles of Interviewees*
G	Vice president of purchases Director of purchasing Chief engineer Director of engineering Vice president and general manager
H	Director of purchasing Raw material manager Production planning manager Director of product development Director of control Executive vice president

\*Titles are not necessarily exact titles.

The personal interview method for securing information was considered the best method for obtaining correct results.<sup>4</sup> Merten, Fiske, and Kendall consider the interview a necessary technique for exploring opinions. They state:

One of the principal reasons for the use of interviews rather than questionnaires is to uncover a diversity of relevant responses, whether or not these have been anticipated by the inquirer. There would be little point in using the interview at all if it simply resolved itself into a fixed list of stock questions put by the interviewer. For this would abandon a distinctive merit of the interview in comparison with the questionnaire: the give-and-take which helps the interviewee decode and report the meanings which a situation held for him.<sup>5</sup>

"Open-end" questions were considered more suitable for this study. The primary method of interviewing consisted of planned interviews. However, deviations were made occasionally in favor of nondirective interviewing. In addition, books, articles, and research reports on the role of the purchasing executive in industry, the supply functions, and the materials management concept provided the secondary sources of information for this study.

Limitations of the Method

Much of the ineffectiveness of interviewing is the fault of the interviewer. This interviewer does not represent himself as highly trained in the art. However, the knowledge of purchasing, gained by

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<sup>4</sup>Evaluation of the personal interview method is discussed in Mildred B. Parten, Surveys, Polls, and Samples (New York: Harper & Brothers, 1950), pp. 79-80.

<sup>5</sup>Robert K. Merten, Marjorie Fiske, and Patricia Kendall, The Focused Interview (Glencoe, Illinois: The Free Press, 1956), p. 12.

TABLE II  
DESCRIPTIVE DATA ON THE EIGHT COMPANIES IN THE STUDY

Company Code Letter	Approximate Number of Employees in Company	Sales Volume	Total Dollar Volume of Purchases	Dollar Volume of Production Materials and Component Parts	Material Cost Percentage of Total Manufacturing Costs	Industry Served by the Company	Main Production Operations in the Company
A	450	\$ 10,000,000	\$ 6,000,000	\$ 5,400,000	60%	Industrial and Municipal	Machining and Assembly
B	700	\$ 17,000,000	\$ 7,500,000	\$ 2,500,000	50%	Construction	Assembly
C	1,400	\$ 18,000,000	\$ 6,000,000	\$ 4,200,000		Equipment and Small Appliances	Blanking and Machining
D		\$ 20,000,000	\$10,000,000	\$ 2,000,000		Chemical, Rubber, Pharmaceutical, Petroleum	Processing
E	1,000	\$ 20,600,000	\$ 9,500,000	\$ 8,500,000	42%	Furniture	Metal Forming and Assembly
F	3,000	\$ 52,850,000	\$19,700,000	\$10,000,000	50%	Chemical, Petroleum, Aircraft	Casting, Molding, and Finishing
G	4,200	\$ 65,000,000	\$35,000,000	\$30,000,000	50%	Automotive, Electrical, Appliance, Furniture	Metal Fabrication Stamping and Assembly
G(one division)		\$ 14,500,000	\$ 8,000,000	\$ 8,000,000	60%	Electrical Appliance	Stamping and Assembly
H	6,000	\$180,000,000	\$45,000,000	\$55,000,000	53%	Pharmaceuticals	Processing

teaching in this area for four years, and recognition of certain rules of interviewing have helped to make the interview method effective.

Wherever possible, information from interviews was cross-checked for accuracy and completeness with other interview records. In most cases, the interviewee was ready and willing to devote his time and attention to the interview. Interviews with purchasing executives averaged eight hours. Other interviews typically lasted for one hour.

#### Companies Studied

Table II lists the companies covered in the study by code letter, and for each company gives information on the approximate number of employees, sales volume, total dollar volume of purchases, dollar volume of production materials and component parts, material cost percentage of total manufacturing costs, and a general identification of the industry served by the company and of the main type of production operations in the company. The companies are coded by letters "A" to "H" in order of size as measured by company sales volume.

#### Organization of the Study

In this first chapter, the problem, the plan of attack, and scope and limitations of the study are presented. Chapter 2 is devoted to the background and development of materials management. The next four chapters present and analyze the data secured in the case studies. Chapter 3 presents an appraisal of the top purchasing executives. Chapter 4 is concerned with the quality factor.

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Chapter 5 relates to the inventory factor and Chapter 6 considers the price factor.

In the final chapter, general conclusions are drawn and recommendations made. Case study data on the role of the purchasing executive and the purchasing function in eight industrial companies are presented in the appendices.



## CHAPTER 2

### MATERIALS MANAGEMENT

#### Introduction

A business problem usually develops because of failure to properly achieve some business objective. One of the basic objectives of a manufacturing organization is service to customers by the provision of desired economic values in the form of a product. The utility of the finished product is dependent, in part, upon the attributes of the material from which the product is made. The materials supply function contributes directly to the service, profit, and social objectives of business.

It is now pertinent to inquire into the nature of materials management. This is done to provide a framework for discussion and analysis of the role of the purchasing executive and his function in materials management.

Definitions. Materials management is subdivided into management functions and the supply function. The purchasing function is a more narrow activity. The following definitions were adopted for the purpose of this study:

1. Purchasing Executive: The full-time senior executive who is charged with the responsibility for the planning, organizing, motivating, and controlling necessary for proper performance of the purchasing function.
2. Purchasing function: The process of buying.
3. Procurement: This function includes purchasing and control of purchased inventory, i.e., purchased materials and

component parts to be consumed in production.

4. Supply function: In addition to procurement, this function includes the following: (1) materials research and standardization, (2) movement of incoming materials, (3) storage of purchased materials, and (4) disposition of excess, waste, scrap, and obsolete material.

5. Materials management: The planning, organizing, motivating, and controlling required for initiation and execution of all those activities concerned with the supply function.

Materials management, in this study, is concerned only with materials up to the point of issuance to production.

Historical perspective. During the past thirty years, much thought, attention, and research have been focused on the function of purchasing. In general usage, the term "procurement" has been used to emphasize a broader meaning of purchasing. In the last ten years, emphasis has been shifting from procurement to materials management. The Thirty-Fourth Annual International Convention of the National Association of Purchasing Agents, held in Chicago during the summer of 1949, devoted considerable attention to materials management. Some of the topics discussed were: "Importance of the Coordination of all Factors in Materials; Materials Management Organization; Materials Management Policy Determination; Materials Management Procedure; and Materials Management Cost Factors to Consider."<sup>1</sup>

In a study of companies in various industries, Stanley Bryan draws the following conclusions on materials management:

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<sup>1</sup>The National Association of Purchasing Agents Bulletin, XX, No. 21 (May 25, 1949), p. 2.

1. There is a growing recognition of the various functions that make up materials management. The functions are recognized as departments. However, conditions conducive to combining departments into a larger independent unit vary among companies and industries. The conditions conducive to the development of a distinct materials department are most prevalent in the 'newer' mass production assembly type industries using relatively costly materials.
2. There is a combining of materials functions and placing them under the direction of a coordinating executive. This executive is a materials manager in fact, even though his title does not indicate his general responsibility for all phases of activities associated with materials supply.
3. There is no specific agreement among executives as to which materials functions are to be combined. However, the materials functions are generally recognized as (1) purchasing, (2) materials control, (3) traffic, (4) handling, (5) storage, (6) salvage, (7) surplus disposal, (8) conservation, and (9) the necessary administrative functions to direct and coordinate these functions.
4. There is acceptance by executives of materials management in name as well as fact. There are 'materials directors' and 'materials managers' who provide the executive leadership for materials departments or divisions.
5. The term materials management is used even among executives in the 'older' industries, such as the steel industry. The older industries, however, are often not as conducive to development of a combined materials department.
6. Purchasing officers, who are materials managers in fact in many companies, are aware of the problems of materials management relating to organization and coordination of the materials functions.<sup>2</sup>

The role of materials manager is one that some purchasing agents are striving to develop in their companies. Although this involves a

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<sup>2</sup>Stanley E. Bryan, "A Program Approach to Materials Management," (unpublished D.C.S. dissertation, School of Business, Indiana University, 1950), pp. 53-54.

large "package" of responsibilities, Paul Farrell, editor of Purchasing magazine, emphasizes that purchasing has actually begun to move into this area and make important contributions. He states: "Some purchasing agents are actually having it thrust upon them. Others are being replaced or superseded because they are unable or unwilling to meet the demands of the post."<sup>3</sup>

The impact of increasing executive development, of increasing development and use of electronic data processing, of increasing automation, and of increasing development and use of such techniques as operation research, and others, will surely have an influence on the materials management function. Lewis and England State:

If the procurement executive is an able administrator, he will see in these new techniques new tools which, when properly used, will aid him in the more competent performance of the materials management function.<sup>4</sup>

#### Content of a Materials Management Program

Effective materials management does not just happen. It results from a carefully planned and organized program. A program is a course of planned action to accomplish certain desired objectives. Programming materials is a recognition of the fact that all parts of materials work are interrelated. What happens in one phase of materials work sooner or later has an effect upon other phases.

Objectives. The specific objectives of materials management are briefly as follows:

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<sup>3</sup>Paul V. Farrell, "The Purchasing Agent of the Future," Purchasing, XLII (October, 1957), p. 129.

<sup>4</sup>Howard T. Lewis and W. England, Procurement (Homewood, Illinois: Richard D. Irwin, Inc., 1957), p. 2.

1. To provide the quality of production materials which best suit them to their intended purposes.
2. To provide "optimum" quantities of the "optimum" kinds of materials, when and where they are needed.
3. To provide for minimum materials purchase, storage, and transportation costs.
4. To provide for minimum loss from deterioration, obsolescence, or theft of materials.
5. To provide for optimum turnover of purchased inventories.
6. To provide information and service to interested departments on materials matters.
7. To provide for minimum interruptions of operations due to supply failures.
8. To provide top management with necessary information concerning effective materials management.
9. To contribute to the public relations program of the business.

In general, the objectives of materials management are concerned with optimizing solutions to problems involving the materials factors of quality, quantity, time, place, and cost.

Quality factor. The ability of a product to satisfy a need is basically affected by the quality of the material used in the product. This emphasis on need leads to the belief that quality considerations cannot be divorced from intended use. "Quality" has been defined as that combination of characteristics which fits a product or material to a given use. From an engineering viewpoint, typically, these characteristics are viewed as technical characteristics such as,

dimension, chemical or physical properties, and the like. A more inclusive concept, often referred to as "economic" quality, assumes a certain minimum measure of suitability, but considers cost and procurability as well. A "proper" decision on quality of materials requires that the engineer or production man and the purchasing officer work closely together. John A. Hill sums up the fact that the "real" purchasing job starts before the specifications or requisitions are written. He states:

The new purchasing department is not satisfied just to be the errand boy who goes out and buys things. It wants to get in on problems of product or machinery design. It wants an opportunity to use its specialized knowledge of materials, markets and manufacturing processes to cut costs and increase profits. If specifications are already frozen when they reach the purchasing department, that department's hands are tied.<sup>5</sup>

Although the responsibility for quality should be definitely placed and carefully defined, it does not preclude the possibility that there might be relative responsibilities of the engineer, the production man, and the purchasing officer. It is not sufficient to know what quality is desired; that quality must be capable of reasonably accurate description. Proper quality control requires materials to be standardized within the limits of acceptable quality. These standards make it possible to have effective receiving inspection. When purchased materials are received, they must be moved to a storeroom or to production. Subsequently, they must be moved to the

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<sup>5</sup>John A. Hill, "The Purchasing Revolution," Paper read before the 38th Annual International Convention, National Association of Purchasing Agents, Los Angeles, California, May 25, 1953.

point of use. Proper handling guards against the deterioration of quality.

Regardless of the care given to materials, there will be some scrap and waste. Segregation of scrap and waste is important to preclude their issuance to production and for proper disposition of these materials.

Quantity factor. "Inventory" is the term most frequently used when discussing the material quantity factor. Three types of inventory are: (1) materials up to the point where they enter production; (2) materials from the point where they enter the production process up to the emergence of finished products; and (3) finished products. Materials management, as defined in this project, is concerned with materials up to the point where they enter production.

Once the quality of materials has been determined and a tentative production schedule has fixed the time and rate at which the materials will be consumed in production, it becomes necessary to make a continuing series of decisions on how much should be purchased and received at any one time. The problem of establishing and maintaining an optimum level of purchased inventory is almost universal in business. There should be adequate assurance that there will be a minimum of interferences with production operations due to supply failures. Wise inventory decisions require the balancing of conflicting objectives and costs of acquiring and carrying inventories.

Time, place, and cost factors. Materials must be available when and where needed and at the least ultimate cost. In the final analysis, the "right" material involves an optimizing combination of the basic elements of quality, quantity, price, place, and time.

The common denominator of the "production cycle," which means from receipt of customer order or recognition of customer needs or desires to actual shipment of products to customers, is time. From the point of view of planning, there is need for a forecast of the demand that customers will place on manufacturing and purchasing activities. The forecast of demand necessarily covers a time span. There is a constant and complex movement of materials between warehouses and storerooms to the plants and departments that use them. Uninterrupted production requires that materials be available where needed. The time and place factors are necessarily considered in conjunction with the quantity factor in inventory decision-making.

Materials must be provided at the least ultimate cost. The cost of materials can be classified into external and internal types. External costs would, then, refer to the purchase price plus any costs incurred in the transfer of materials to the premises of the company planning to use them. The costs of carrying inventory and of handling the materials within the premises up to the point of first operations in production comprise the internal costs. Since emphasis is upon low ultimate cost, it is obvious that price is rarely considered alone but in connection with other factors.

Operative functions. Although details of actual practice vary considerably, the following functions generally appear to be the principal operative work of the supply function:

1. The Materials Research and Standards Function. The objective of this function is to obtain facts and information concerning all matters pertaining to materials and to develop standards and techniques for greater economy and effectiveness in all



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phases of materials work. It includes such areas as:

- a. Market studies
- b. Materials analysis
- c. Value analysis
- d. Materials specification
- e. Materials standardization
- f. Evaluation of suppliers
- g. Design of forms
- h. Preparation of operating manuals
- i. Preparation of statistical reports
- j. Materials requirements
- k. The materials supply audit.

2. The Purchasing Function. The objective of this function is to purchase the materials for the organization. It involves:

- a. Checking requisitions
- b. Securing and analyzing quotations
- c. Scheduling purchases and deliveries
- d. Interviewing salesmen
- e. Negotiating contracts
- f. Issuing purchase orders
- g. Purchase, price, vendor, et. al. records.

3. Traffic and Materials Handling. The objective of this function is to provide for proper movement of incoming materials. It includes:

- a. Choosing the carrier
- b. Routing

- c. Tracing
  - d. Expediting
  - e. Transportation cost control
  - f. Movement of material until it is started in production.
4. Stores function. The objective of this function is to provide facilitative service and insure safety of material until it is started in production. It includes:
- a. Receiving
  - b. Visual inspection
  - c. Stowing materials.
5. Salvage function. The objective of this function is to properly dispose of scrap and waste. It involves:
- a. Collecting
  - b. Reclaiming
  - c. Disposing.
6. Vendor Relations. The objective of this function is to create and develop the highest possible cooperation, through integrating supplier and buyer interests. This function is related to other supply functions and involves:
- a. Visits to suppliers' plants
  - b. Contractual relations
  - c. Adjustments
  - d. Information services to suppliers as basis of mutual understanding.

Executive leadership. The objectives of even the best planned and organized materials program are dependent upon the availability and capacity of the executive leadership in the organization.

Over a period of time, no organization is likely to perform better than its leadership.

The responsibilities involved in the materials management function make it apparent that the materials executive must be an able administrator. He must be someone who can accomplish predetermined objectives through the efforts of many people.

Running parallel with the increasing emphasis upon materials management has been increasing emphasis upon the purchasing executive and his function. This study is focused upon the role of the purchasing executive and his function in materials management.

#### Responsibility for a Materials Management Program

The responsibility for successful materials management necessarily cuts across functional lines. Thus, materials management embraces functions that are in part engineering, sales, production planning, production control, purchasing, cost control, quality control and other related functions. In the final analysis, materials management is frequently viewed as a phase of work of many members of management. This is usually the case before a function is recognized as a specialized function of the business. Activities are scattered among various groups and executives.

The coordination of human effort is the essence of all group activities. Part of the problem of coordination involves the question of where in the organization given activities should be integrated. In a large company, it is obvious that everyone cannot report directly to the president. The principal activities of the supply function often operate at the plant level under the general direction of a

plant procurement and supply manager. This executive may also be called the general purchasing agent in some plants.

Just as production control coordinates the actions of all those participating in internal production activities, purchasing can coordinate the actions of those participating in materials management. Although there are many who believe that materials management functions can best be handled under purchasing, there are others who believe that the purchasing department should stick to its prime function of purchasing and advocate that the remaining materials management functions be the responsibilities of other departments.<sup>6</sup> Regardless of who has the over-all responsibilities for materials management, it is apparent that purchasing plays a key role in any such program. To play its part effectively, purchasing must fully understand its own role and coordinate its efforts with those of other departments.

#### Assumptions and Hypotheses for this Study

In designing this study, it was assumed that there is a need for reasonable coordination of the various activities of the materials supply function; that there will be varying degrees of recognition of this need; that materials management considerations pervade many functions in the company; and that purchasing plays a key role in materials management. On the basis of these assumptions, the following hypotheses are established as guides to this study:

1. The role of the purchasing executive and the purchasing function in materials management varies in companies of different size, type, and industry.

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<sup>6</sup>The latter viewpoint is expressed in the article, "Is Purchasing Doing the Other Fellow's Job?" Purchasing, XLIII (March, 1957), pp. 94-96.

2. Reasons for variations in the role of purchasing may be found in the technical environment, the capabilities of purchasing executives, and the philosophies of higher management.
3. The objectives of purchasing, as conceived by purchasing executives, are influenced by their opinions of what higher management expects from purchasing.
4. Purchasing executives' opinions on the effectiveness of their activities do not generally correspond to the attitudes of other departments of the company toward the purchasing department.

## CHAPTER 3

## THE PURCHASING EXECUTIVE

This chapter is the first of four in which the findings of this study of the purchasing executive and his function in materials management are analyzed. Data obtained by interviews are included as case reports in Appendix E.

The discussion in Chapter 2 on materials management points up the fact that to meet the challenges and responsibilities inherent in the competent performance of the materials management function, the executive must be an able leader who can obtain constructive results through people. Lewis and England emphasize the fact that unless purchasing executives recognize the need for and develop administrative skills, top management will look elsewhere for the performance of tasks which the materials management function claims as its responsibility.<sup>1</sup> As the managements of companies become aware of the contribution which a properly organized and executed materials management function can make, increased organizational stature and responsibility are vested in the function. The full realization of the potential values which are available in the enlarged area of responsibility depends, to a great extent, upon the ability of purchasing executives. Also, leadership or executive action is always relative to the environment in which it operates.

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<sup>1</sup>Howard T. Lewis and Wilbur B. England, Procurement (Homewood, Illinois: Richard D. Irwin, Inc., 1957), p. 856.

Environment in which the Purchasing Executive Works

The immediate environment is the formal and informal organization in which the executive works. Formal organization is determined by management. Informal organization is not established or required by management. There are as many causes for this development as there are situations. Sometimes the informal organization takes over because there is no formal structure, or if there is one, it is ignored.

An executive may argue that he has no organization chart and does not want one because it inhibits his operation. In Company D, the president said:

We don't have organization charts. We're not too rigid regarding authority and such. We operate more or less on the 'feel' of things. If the purchasing agent has any difficulty, he'll discuss it with me. If I'm not here, someone will go ahead and do what has to be done.

This informal arrangement seems to work quite well because the organization is small and the purchasing agent and the president have worked together for over twenty years. The informal pattern has almost become an unwritten formal one. However, if this organization grows, it is likely that there will be serious difficulties when new persons are added.

Companies B and E, also, seem to work quite well with "unwritten formal" arrangements. All other companies in this study have organization charts. This does not mean that these companies do not have informal organizations also. The informal organization does not arise merely because there are no formal organization charts.<sup>2</sup>

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<sup>2</sup>On the causes of informal organizations, see Keith Davis, Human Relations in Business (New York: McGraw-Hill Book Co., 1957), pp. 98-120.

In the companies that have organization charts, there does not appear to be any more clarity in the minds of executives concerning the meaning and status of the various organization units than in the companies that do not have organization charts.

The Purchasing Executive's Concept of the Objectives of the Purchasing Department

The primary determinant of the organization structure is the objective. Objectives should be important to executives because their performance may be judged in terms of how well the objectives of their department are attained.

It is not always easy to determine the objectives of an organization unit for a number of reasons. A purchasing executive may find himself in a conflicting situation if his ideas are at variance with those who are influential in making contributions to the purchasing program.

Comparison of the objectives of purchasing departments in the eight companies in this study indicates that there are many objectives that managers employ. Out of the thirty objectives given, three were found to be common to all purchasing departments in the study. These common objectives are as follows:

1. To obtain the quality of materials that is needed.
2. To obtain the quantities of materials necessary for production.
3. To obtain materials at the most reasonable price.

In order to provide an idea of the diversity of objectives enumerated by the purchasing executives studied, the following are listed:



1. To provide for proper organization of the purchasing department.
2. To keep the investment in inventory at the lowest point possible.
3. To make available to other departments "pertinent" information received from suppliers.
4. To properly evaluate products and materials.
5. To provide top management with the kind of information they need.
6. To endeavor to coordinate activities which are related to purchasing.

All purchasing executives in this study state that they establish the objectives for their departments. The executive vice president to whom the purchasing executive reports in Company C stated:

I do not set specific goals for purchasing. Turnover is so low that people get to know what is expected of them. I think they know what their objectives are. There is no use setting specific objectives each year. They are always the same. It's ridiculous to repeat.

Written statements of the objectives of purchasing departments could not be found in any of the participating companies. The objectives that were mentioned by purchasing executives are very general.

Disagreement appears to stem from interpretation of the phrase, "to obtain." All purchasing executives believe that their role, as stated in the objectives, goes much beyond the act of buying and includes activities such as assisting in the determination of specific standards for materials. The majority of production people in the

study believe that the primary objective of purchasing is to buy the "right" quality, and the "right" quantity of materials at the "right" time, and at the "right" price.

Although the general objectives of the purchasing department are established by the purchasing executive, specific performance standards frequently are not set at the discretion of purchasing. The terms quality, quantity, and cost must be expressed in measurable units.

It was hypothesized in Chapter 2 that the objectives of purchasing, as conceived by purchasing executives, are influenced by their opinions of what higher management expects from purchasing. Comparison of data in the companies studied indicates a very close similarity between the purchasing executive's concept of objectives of the purchasing department and what the purchasing executive thinks higher management expects of purchasing. Company B is the only case in which there is some doubt concerning this similarity. The purchasing executive's response to the question, "What do you think higher management expects from purchasing?" was, "This is hard to visualize. We are involved in so much that it is hard to differentiate. To do a good job under the policies laid down."

The executives to whom the purchasing executives reported in this study were asked, "What do you expect from purchasing?" The replies, although stated differently, are practically "carbon copies" of what purchasing executives thought higher management expected. This seems to lead to the inference that the purchasing executive is well informed as to what is expected of him and his department and that the objectives of the purchasing department reflect these expectations. In the cases studied, however, it was difficult to determine if the coincidence of expectations and objectives was primarily due to the influence of higher

management or the purchasing executive's influence on higher management through providing top management with the proper point of view of purchasing.

The general nature of stated purchasing objectives leads to general agreement on them. However, in particular areas such as quality and quantity, there is some confusion and disagreement because of different interpretations placed on them by different members of the organization.

#### What the Purchasing Executive Expects from Higher Management

It is reasonable to assume that an executive's needs and expectations will affect his job performance. Commonly found expectations and aspirations of the purchasing executives in the study are:

1. Support or backing. The purchasing executive expects higher management to back up the actions taken by the purchasing department. This expectation derives from a need for understanding of line and staff relationships. This study disclosed a lack of understanding of the distinction between line and staff functions on the part of the purchasing executives.

In each of the companies, the purchasing staff provides advice and assistance as well as service to the line organization. These activities require purchasing executives to make decisions. Friction between line and staff executives was frequently apparent because of the decision-making authority of the purchasing executive. There is a common viewpoint that staff specialists should not make decisions, but merely recommend alternatives. This is the viewpoint of some of the purchasing executives in this study as well as many of the line

executives. On the other hand, most purchasing executives in the companies studied emphasized that purchasing is not merely a service function; that it is a profit-making activity, since it contributes directly to cost reduction. However, this can be true of both line and staff functions, a fact which did not appear clear to these executives. Furthermore, six of the eight purchasing executives in the study are on the same organization level as the top line executives. Nevertheless, profit-making ability and elevation to the top management level do not change the nature of a function from staff to line. Generally, purchasing executives are sensitive to the fact that their function is a service function.

Much of this conflict between staff and line can be minimized by an understanding that when a staff executive makes a decision, it is made in support of the line and does not mean that the staff has usurped full authority from the line. Purchasing decision-making is necessary in matters where the line does not have the specialized knowledge, skill or objectivity to make the decision itself. For example, in most of the companies in this study, the purchasing department has the authority to decide for the line where materials can be best procured, as to price, quality, and availability, and the purchasing department actually makes the purchase. In some instances, it appears that the purchasing executive makes a decision whereas he is only repeating or interpreting a decision

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already made and embodied in a policy. Another point of confusion is a lack of understanding that authority to provide advice and service does not constitute authority to make a final decision. An example of this is reported in Chapter 4 in the quality area.

Staff advice is often confused with an order because of the way it is offered. When line executives depend too much upon staff executives to make their decisions, there develops a feeling that the staff has more authority than is actually the case.

From a practical viewpoint, there is rarely a "pure" staff or a "pure" line function.<sup>3</sup> This might explain the lack of understanding of the distinction between line and staff functions on the part of purchasing executives in the present study.

2. Information. This involves company objectives, understanding of top management philosophies, definite policies, and other information needed for making proper purchasing decisions.
3. Higher management understanding of the purchasing function. This is necessary for satisfaction of all other expectations. It involves the scope, the potential, and the problems of the purchasing executive and his department.
4. Freedom. The purchasing executive wants relative independence and opportunity in the conduct of purchasing functions. All

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<sup>3</sup>For a discussion on the distinction between line and staff functions, see "Improving Staff and Line Relationships," Studies in Personnel Policy, No. 153 (New York: National Industrial Conference Board, Inc., 1956), p. 12.

of the purchasing executives mentioned their dislike for various restrictions under which they work. In Company A, the purchasing executive described one restriction as follows:

Purchasing has the responsibility for buying materials at the best price. Quantity has a bearing on the price. Yet purchasing doesn't have the say on quantity. Basically, the material control section determines the quantity that will be bought.

Another case in point is seen in the quality area. In Company B, the purchasing executive stated:

The objective of purchasing in this area [quality] is to buy the quality required. All purchasing can do is recommend. The main problems regarding quality are due to differences in opinion between purchasing, engineering, and production. The quality that is needed is not definite and we in purchasing are in the middle of it all.

- 5. Adequate personnel. This usually refers to adequacy in competency and numbers to enable the purchasing department to attain what is expected of it. In companies G and D, the purchasing executive mentioned the expectation of adequate staff. In Company G, the expectation refers to cooperation by higher management in maintaining the capability of the members of the department. In Company D, the staff consists of only the purchasing executive and a secretary. This was considered inadequate.
- 6. Desire for additional functions. Some of the purchasing executives in the study expressed the desire for additional functions. It is the opinion of the purchasing executive in Company A that material control and purchasing be combined

for more efficient operation. The chief engineer could also see advantages to the combination of these two functions in this firm.

Operational relationships between purchasing and material control are discussed at length in a later chapter. From an organizational viewpoint, a pertinent finding is that the material control supervisor thinks that purchasing and material control should be separate. His reasons are twofold. First, he thinks that the purchasing executive has enough to do in the discharge of his responsibilities for purchasing. Secondly, he believes that inventory would be higher if material control were under purchasing. The reasoning behind this second point is that to obtain quantity discounts, purchasing might buy more than is "proper"--taking such factors as storage costs into consideration. The shop superintendent and the president concur in the viewpoint that purchasing and material control should be separate because the problems involved are too large a task for one supervisor. There was an implication that separation of the two functions provides a sort of internal "check and balance" feature which is in some way desirable.

The functions of material control and purchasing involve similar problems whose proper solution requires personnel having similar characteristics and abilities. In this company, the predominate reason for the purchasing department including only the buying function was the lack of confidence of higher

management in the ability of the purchasing executive to perform additional functions.

It is the opinion of the purchasing executive in Company H that the purchased inventory responsibility be assigned to the purchasing department. He believes that this arrangement would speed up decisions and reduce purchased inventory.

Inventory problems are discussed at length in Chapter 4.

#### The Place of the Purchasing Department in the Over-all Company Structure

The majority of purchasing executives in this study report to either the president or executive vice president. The purchasing executives report as follows:

Purchasing Executive of:	Reports to:
Company A	Production Manager
Company B	President
Company C	Executive Vice President
Company D	President
Company E	Executive Vice President
Company F	Treasurer
Company G	President
Company H	Executive Vice President

Other studies indicate somewhat the same pattern. In a study made under the direction of Westing and Fine,<sup>4</sup> 52 per cent of the purchasing executives were responsible to the president. Healey,<sup>5</sup>

<sup>4</sup>J. H. Westing and I. V. Fine, Industrial Purchasing (New York: John Wiley and Sons, Inc., 1955), p. 28.

<sup>5</sup>James H. Healey, Executive Coordination and Control (Columbus, Ohio: Bureau of Business Research, College of Business Administration, The Ohio State University, 1956), p. 82.



in a study of 409 companies, reports that 39.6 per cent of the purchasing executives report to the president or executive vice president. He further reports that, "about the same tendency appears for the purchasing function to report directly to the president in the smallest firms as in the largest firms."<sup>6</sup>

This status of the purchasing executive indicates in considerable degree the importance that top management attaches to the purchasing function. There is an implication in this study that, with the exception of companies A and F, higher management does not intend that production and other departments shall dominate or overly influence purchasing policies and decisions.

In Company A, the purchasing executive has always reported to the production manager. The purchasing executive believes that, since material costs constitute a large percentage of total manufacturing costs, he should report to the president. However, both the production manager and the shop superintendent believe that purchasing should be under the production manager. The shop superintendent said:

Disagreements will usually arise. If purchasing and production are on a coordinate level then there will be a lot of bickering and a decision will have to be made by the president. As many decisions, as can, should be made at a lower level. Under the present situation, the production manager can make the decision. This is the way it should be but there is a qualification needed and that is that the production manager must be broadminded.

To this, the writer would add, "and be qualified to make the decisions." An analysis of the viewpoint of the shop superintendent indicates an

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<sup>6</sup>Ibid., p. 85.

assumption that the purchasing executive and the production manager cannot come to an agreement on solutions that will serve the best interests of the company. It further indicates the viewpoint that, in order to secure close coordination of purchasing with the interests of using departments, supervisory responsibility over purchasing should be in the hands of the head of production. This type of arrangement tends to result in purchasing activities being too greatly influenced by production interests. In Company A, the president apparently believes that the production manager is better qualified to make the decisions. Further analysis of influences on purchasing performance will be made in the chapters on quality and inventory.

Where the supervisory responsibility is assigned to the treasurer or some other finance officer, the assignment is usually justified on the basis of the need for close financial control over purchasing since it is empowered to commit the company to large expenditures and investment in inventories. This justification is usually made when a company operates under a fixed purchasing budget. A study made by Purchasing magazine indicates that less than 21 per cent of purchasing departments in the manufacturing industry operate on a budget for purchased materials.<sup>7</sup> Heinritz states:

The attitude most generally held is that purchases must necessarily be made as required to support the manufacturing program, and that a theoretical budgeted quantity will always give way to actual requirements in order to keep production moving. Therefore, this theory concludes, the manufacturing schedule will govern, and a purchasing budget becomes meaningless.

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<sup>7</sup>"How Well do Purchasing Budgets Work?" Purchasing, XL (March, 1956), p. 81.

This writer does not necessarily agree with the above attitude. Budgets have been widely accepted among larger companies as sound tools of management. The manufacturing program in itself sets up a budget.

In Company F, the purchasing executive reports to the financial officer. The financial officer states his reason as more effective financial control. The president disagrees with this justification and states that the basic reason is a historical one. It has always been in this position. For personal reasons, the purchasing executive is satisfied with this arrangement. Beyond this, there does not appear to be any logically and operationally sound reason in this company for purchasing to be under the financial officer.

Historically, it is probably true that purchasing has been organized most frequently as a subordinate activity of the production department. Although there is substantial variation in practice among industrial companies, the trend appears to be toward having the purchasing executive report to some top executive who is responsible for coordinating all of the company operations.<sup>8</sup> This does not imply any basic divergence of interest between production and purchasing. The production program must be satisfied. Usually, the correct solution to a materials problem involves the balancing of a purchasing advantage against a production or a financial advantage, or both. Frequently, conflict with production is involved, e.g., the case of unnecessarily high quality for the intended purpose. An example of conflict with financial considerations is the case of quantity buying, i.e., carrying

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<sup>8</sup>Lewis and England, op. cit., p. 46.

costs versus lower price per unit. An optimum solution is more likely to be found where purchasing is on the same level, organizationally, as production and finance.

#### Purchasing Department Organization

In addition to the place of the purchasing department in the overall company structure, a second problem in organizing the purchasing function is the internal organization of the purchasing department. As would be expected, the buying function is found in all purchasing departments in this study. This is the only function that is common to all purchasing departments. The usual procedure is to assign a specific commodity or group of commodities to a buyer.

Company A. The purchasing department in Company A consists of two clerks and four buyers. The negotiation of purchase contracts for electric motors is handled by the president because this item constitutes a large percentage of the volume of purchases. It is obvious that the president does not have sufficient confidence that the purchasing department can do this work effectively. This arrangement emphasizes the fact that organization of the purchasing department is not necessarily the same thing as organization for purchasing since some purchases, such as electric motors in this company or the most important raw material, are made by persons outside the purchasing department.

In Company A, the traffic manager reports to the financial officer. It is believed that more adequate control over transportation expenditures may be maintained by having the traffic manager report to

the executive who ultimately pays the freight bills. The material control supervisor is on the same level as purchasing and reports to the production manager.

Company B. In addition to the buying function, the purchasing department is organized to include the functions of receiving, shipping, stores, inventory control, and production scheduling. The volume of purchases, size of the organization, nature of production, and background and experience of the purchasing executive are quite similar in companies A and B. Yet one purchasing department is primarily a buying department and the other might be referred to as a materials department. The only observed differences in these two companies, which could explain the differences in the purchasing functions, were the attitude of higher management toward the purchasing executives and the capability of the production managers. The production manager in Company A appeared to be a more capable administrator than the production manager in Company B. This point is particularly pertinent because the additional purchasing functions in Company B were originally in the production department.

Company C. This purchasing department is organized as a materials department. The functions are: buying, materials handling, material control, warehousing, packing, and storage. These functions are included in the purchasing department because of their similarity and the confidence higher management has in the purchasing executive.

Company D. The purchasing department is organized around the buying function. Even the buying function is not centralized in this department. Since tar is the major material in this business and requires long-term purchase contracts, the executive committee, consisting

of the president, vice president of production, and vice president of sales, with the advice of the purchasing executive, makes the decisions on purchase contracts for tar. There is a timber buyer who is under the vice president of production. The arrangement for tar purchasing is sound because of the large financial commitment. There is no apparent logic for the timber buyer reporting to the vice president of production. The purchasing executive has been with the company for 24 years and is satisfied with the present organizational arrangement. He does not want any more functions assigned to the purchasing department.

Company E. In addition to the buying function, stores and production scheduling are included in this purchasing department. The reason for the inclusion of scheduling in the purchasing organization is that prior to working in the purchasing department, the purchasing executive was in charge of scheduling. This function merely remained one of his responsibilities. Further analysis of the data in this company indicates the viewpoint that if scheduling is under production, they will produce to suit themselves. The plant manager said that, although master scheduling is under purchasing, production still determines its own shop order schedules. Because of the cooperation between production and purchasing, this arrangement appears to be satisfactory. It is obvious that production cannot produce until materials are available.

Company F. Buying and value analysis<sup>9</sup> of abrasive wheels constitute the functions around which the purchasing department in this company is organized.

Company G. The purchasing department in this company is organized around the buying function. This is the only function specifically assigned to the purchasing staff.

Company H. Buying and salvage are the recognized functions of purchasing in this company.

Analysis of the purchasing departments of the companies in this study shows that in no case are the supply functions completely integrated in a materials department. The major supply function is purchasing. The purchasing departments of companies A, D, and G include only the buying function. All other purchasing departments include additional supply functions. Companies B, C, and E, have the most fully developed purchasing departments in regard to inclusion of supply functions.

The size of the business organization did not appear to be a prime factor influencing the organizational form of the purchasing departments in the companies studied. However, it may be inferred that organization growth affects in general the emergence and growth of supply functions. Staff functionalization is not always logical since there may be a lack of long-range organizational planning.

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<sup>9</sup>Value analysis is defined as the investigation of the usefulness and cost of materials and component parts so as to obtain adequate quality at the lowest ultimate cost. This analysis will be treated at length in Chapter 6. For a survey of case histories in value analysis, see Purchasing, XLII (May, 1957).

An understanding of the organization of a staff department requires an understanding of the factors and forces that govern staff evolution and growth. These factors and forces are peculiar to each particular business situation. To understand business organization, it must be realized that organization structure is concerned with functions. The logical grouping of functions in organization structure is on the basis of work similarities. With the growth of the business, increasing complexity and the degree of dissimilarity between a supply function and the line function with which it is grouped, some of the supply functions tend to evolve from line organizations and acquire staff status. With continued growth, there is a tendency to integrate these staff functions into a supply department, or materials department. Since there are various stages through which staff functions evolve, proper analysis of a staff department, such as purchasing, is dependent upon recognition of the current stage of evolution. This diagnosis is extremely difficult since every staff does not pass through all stages, or even the same stages.

In regard to the supply functions, purchasing tends to evolve as a staff function sooner than others. Then, with the succeeding evolution of the other supply functions, it is probable that they will eventually be brought together into one department. This staff evolution does not end here but may continue until there is complete staff separation and even, in some cases, a complete break in the form of setting up a separate (corporation) buying subsidiary.

In the companies studied, the primary factors influencing the staff emergence of various supply functions appear to be the general background, training and experience of line and staff executives,



and the attitude of higher management toward the importance of various supply functions. The primary factors influencing the integration of supply functions in the purchasing department seem to be the ability and desire of purchasing executives and the attitude of higher management toward the purchasing executive. The desire of purchasing executives is indicated by the fact that four of the purchasing executives, some of which had only buying in their department, did not want any more functions included in their departments.

Since the background, training, and experience of purchasing executives influence not only their performance but the development of the purchasing department, these factors are analyzed in some detail in this study. However, previous to this analysis, the presentation of data and analysis of purchasing manuals is discussed.

#### Purchasing Manual

A purchasing manual is written material explaining a purchasing program. In Chapter 2, a materials program was discussed. The same concept can be applied to the function of purchasing. This places emphasis upon the integration of the various phases of purchasing work. Not only internal integration but the interrelationships of purchasing functions with other functions are stressed in sound purchasing manuals. A purchasing manual assists in reducing contradictions between objectives and policies, gaps in functions, and incorrectly staffed functions.

Only one company in this study has a purchasing manual. All other companies, with the exception of companies C and E, recognize the need for a manual and are presently planning for or developing one.

The purchasing executive of Company G, which has a purchasing manual, explains his philosophy on manuals as follows:

Preparation of a manual is more often considered a job for the top administrative members of a purchasing department. In giving this job to the younger people, we have provided them with more than the usual opportunities to learn purchasing's important role in company activities. Our manual is being written by and for the people who will make the greatest use of the information and guidance it will provide. Instead of a compendium of rules and regulations imposed on the purchasing department from above, this manual will be a self-developed guidebook.

Although a manual is almost an essential for a well developed training program for junior members of a purchasing department, it can also be distributed to groups such as engineering and production personnel, whose operations are directly affected by purchasing operations. It can thus serve as a basis for coordination and cooperation.

#### Purchasing Executives in this Study

The problem of executive leadership in purchasing and materials management is one of vital importance. In the companies studied, the purchasing executive establishes the objectives of the purchasing department. An executive must also lead the group for which he is responsible to the successful achievement of its objectives. As previously stated, leadership performance is limited by such factors as executive background, attitudes and abilities of other members of the organization, and the factors and forces in different situations. One of these factors is the requirements of the purchasing executive's position. Sound management requires that these be adequately defined.

Required performance. In the majority of the companies in this study, there are no specific written job requirements for purchasing

positions. The majority of the purchasing executives did not voice an opinion for or against written duties. Duties are frequently conveyed orally. These are usually short-term assignments to correct an immediate problem. As the problems differ, there is a tendency for some change in the duties. In some of the companies studied, where working relationships have developed over a period of years, the duties are known and operations run smoothly. This situation is evident in Company C. The purchasing executive in this company is against written duties because, "There is a job to be done regardless of any description. If there were written descriptions, purchasing people could use the excuse that certain tasks were not included in the job description and therefore shouldn't be done by them."

The purchasing executive in Company E states that there is no job description for his position. He said, "I am liable to get into anything." In regard to his staff, "we have an understanding."

Definite placement of responsibility is dependent upon the determination and specification of required duties which cannot be made intelligently until sufficient facts have been obtained concerning the objectives and personnel. An earlier analysis has shown that the objectives of purchasing in the companies included in this study are very general. It follows logically that the assigned duties and responsibilities will also be general. Most of the purchasing executives receive more specific responsibility in weekly meetings with their superiors and other department heads. This implies that definite duties may change frequently.

Work performance. Discussion of duties and responsibilities has been limited primarily to officially prescribed behavior. Actual

performance may vary from prescribed behavior. In this study, very little data were available regarding official requirements.

Analysis of the data obtained resulted in a list of activities which seems to cover the range of performance of the purchasing executives involved. The activities are as follows:

1. Directing the operations of the purchasing department, including planning and scheduling the work, assigning functions to the personnel, and selecting and developing purchasing personnel.
2. Securing coordination of activities relating to purchasing functions through discussions with related department heads and top management.
3. Giving advice and specialized assistance to the line organization and concerned staff departments.
4. Investigating and researching for improvement in the quality, quantity, time, and price factors of materials supply.
5. Visiting and evaluating supplying companies.
6. Developing good relations with vendors.
7. Negotiating for possible sources of supply.
8. Studying the needs of the company so far as his specialty is concerned and recommending appropriate policy to higher management.

On the basis of the opinions of the purchasing executives in this study, administrative work requires, on the average, 75 per cent of their time. Actual purchasing requires 25 per cent of their time.

The analysis thus far suggests that much of the performance of the purchasing executives studied can be ascribed to the man as well as to the demands of the particular job. Personnel, whether executive or operative, must have the intelligence, background, training, and experience that will enable them to accomplish the objectives of their group.

Purchasing experience. The average experience in purchasing work of the eight top purchasing executives in the study is 14 years. The purchasing executive in Company D, with 24 years experience, does not appear to be any more effective in his position than the purchasing executive in Company E, with 6 years experience in purchasing work. In a discussion on the development of management ability, Planty and Freeston state:

. . . Unguided experience is costly and can be completely fruitless in improving men or operations. This is because individuals don't automatically and inevitably learn better ways from experience. They must be guided and assisted in choosing, utilizing, and evaluating their experiences. Unguided experience is as likely to teach bad habits as good ones. After a few years of experience, it may cease to teach anything at all.<sup>9</sup>

Nature of first job assignments in purchasing. Predominantly, the first assignment in purchasing of the purchasing executives studied was buying. The two exceptions were found in companies A and E. The purchasing executive in Company A received his first assignment in stores. The purchasing executive in Company E entered purchasing work as the head of the department. Since buying is the primary function

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<sup>9</sup>Earl G. Planty and J. Thomas Freeston, Developing Management Ability (New York: The Ronald Press Company, 1954), p. 8.

of the purchasing staff, it is understandable that it constitutes the typical first assignment in purchasing work.

Experience channels that lead to purchasing. Past experience is one of the qualifications established in the companies studied as the basis for selecting purchasing people. The nature of prior work experience indicates the channels the executives followed in securing their present positions. These were: management of retail store (A), sales (B), accounting (C), engineering (D), office management (E), engineering (F), sales (G), and production (H). The only conclusion that can be made in this study is that all of the participating purchasing executives had prior work experience before entering purchasing work.

Education and training. In considering the problem of education for purchasing executives, other studies have been analyzed as well as the recommendations and education of the purchasing executives in this study. As to the qualifications most likely to lead to success as a purchasing executive in a manufacturing firm, Heinritz recommends the following:

1. College education: preferably a graduate engineer, with additional training in economics and business administration.
2. Practical training in the production, stores, accounting, and engineering departments.
3. Practical training in all sections of the purchasing department; experience in, or familiarity with clerical positions, and service as buyer and assistant purchasing agent.<sup>10</sup>

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<sup>10</sup>Stuart F. Heinritz, Purchasing (New York: Prentice-Hall, Inc., 1951), p. 547.

In a study conducted under the direction of Westing and Fine, the kinds of college education desirable in purchasing were: business and engineering, business, engineering, engineering and law, and business and law.<sup>11</sup> Only two of the eight purchasing executives in the present study mentioned college education as a desired qualification for the position of purchasing executive. It is possible that their own education influenced their opinions. Seven of the eight purchasing executives had some college background. Three had earned college degrees.

The qualifications most mentioned by the purchasing executives in this study are: engineering background, production experience, knowledge in accounting, creative ability, and initiative. The need for an engineering background stems from the fact that purchasing in the manufacturing firms studied have many working relationships with engineers. Thus, there is a need for the ability to understand the "language" of engineering. In order to satisfy the needs of production departments, these needs must be understood by the purchasing staff. Knowledge of accounting is helpful in checking invoices. Creative ability is desirable in most managerial positions. There are many areas where initiative is important.

Magazines read. One of the best ways to maintain competency and add to one's basic knowledge is regular reading. By way of comparison, it was found that the purchasing executives in this study read regularly an average of approximately six publications. The most mentioned publications are: The Bulletin of the National Association of Purchasing

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<sup>11</sup>J. H. Westing and I. V. Fine, Industrial Purchasing (New York: John Wiley & Sons, Inc., 1955), p. 230.

Agents, Purchasing, Hoosier Purchaser, The Wall Street Journal, Iron Age, Steel, and Business Week.

Training for purchasing personnel. A main source for purchasing executives is promotion from within the purchasing department's present staff. All purchasing executives in this study mentioned the use of on-the-job training for their personnel. It is obvious that most executives must eventually learn how to do their work while working. A method of job rotation was used in Company F. Rotation was confined to changes in commodity assignments. All purchasing executives studied use staff meetings for development of their staff. Although most meetings are primarily designed for communication, and for obtaining sound decisions by group analysis and discussion of operating problems, they do impart information and develop attitudes and skills. In the purchasing departments of the companies in this study, these methods are very narrow because they are restricted to purchasing work.

#### Evaluating the Performance of the Purchasing Department

The subject of measuring purchasing performance could well constitute an area worthy of a series of research projects. Westing and Fine consider the fundamental reasons for evaluating the purchasing department to be as follows:

1. To provide a basis for improved performance.
2. To establish a basis on which to judge the abilities and capacities of the personnel assigned to the purchasing function.
3. To aid in internal reorganization and the assignment of functions among departments within the company.<sup>12</sup>

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<sup>12</sup>Westing and Fine, op. cit., pp. 262-263.



Purchasing executives and members of higher management in the eight companies in this study indicate little understanding of objective measurement of purchasing performance. Members of higher management, to whom purchasing executives report, are in agreement that one approach is to evaluate the department in terms of the head of the department. As an example, the executive vice president of Company A states that one factor in evaluating performance is "the ability of the purchasing agent to answer questions about their work without looking in the records."

The other factors most frequently mentioned as a basis for evaluation are: the kind of relations that exist between the purchasing department and other departments; satisfaction or dissatisfaction of using departments in services provided by purchasing; and price reductions made possible by the purchasing department. An interesting observation made by the materials manager at General Electric's Home Laundry Department in Louisville is indicated as follows:

With the usual type of purchasing organization, it's possible to objectively measure the buyer's performance in just one area: price. When the buyer shares responsibility with others for quality, delivery, and inventory as he does in most companies, he can't logically be made fully accountable for results.<sup>13</sup>

It is probable that any acceptable performance standard must ultimately be based on specific objectives. The objectives of purchasing in the companies studied are so broad that meaningful measurement and evaluation of purchasing activities is difficult if not impossible.

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<sup>13</sup>"Every Buyer A Manager," Purchasing, XLIII (March, 1957), p. 83.

## CHAPTER 4

### QUALITY FACTOR

In the previous chapter, the purchasing executive and his function were analyzed in the environment in which he performs. This chapter and the next two chapters deal with the purchasing executive's activity in the areas of quality, inventory, and price of purchased materials. Frequently, the problems involved in these areas are interrelated, requiring a balancing of factors to arrive at optimizing solutions. An understanding of solutions to these problems requires an analysis of each of the factors involved. The role of purchasing in the area of quality is presented and analyzed in this chapter.

#### Objectives of Purchasing in the Quality Area

In the eight companies included in this study, the prime objective of purchasing, as stated by purchasing executives, is "to buy what is needed or required." At first glance and to the uninformed, this objective might be interpreted narrowly to mean passive acceptance of quality requests by using departments and placement of a purchase order. This narrow concept is not espoused by the companies in this study. However, in all of the companies studied, executives can be found who believe that the purchasing function consists of merely placing purchase orders. For example, in Company F, a production superintendent states:

The purchasing department's job is 'cut and dry.' We in production tell them what to do. They just place the order. Price determination and buying is their only true role. They should buy what production wants.

Also in Company F, a quality control supervisor feels that, "the purchasing function is primarily a letter writing function." Viewpoints such as these are usually caused by a lack of understanding of the purchasing function, personality clashes, inability of purchasing personnel to perform their duties properly, or the absence of definite objectives.

As indicated in Chapter 3, all purchasing executives studied establish the objectives for their departments. However, the objectives are very general. Most of the purchasing executives do not set specific goals for their departments in the area of quality other than to buy the quality of materials that is needed.

The primary function of purchasing is buying. As a foundation for proficient buying, purchasing personnel should be well informed concerning the quality requirements of materials. The determination of quality requirements, ideally, should be a group decision. Purchasing can contribute to this group decision. Although most of the purchasing executives studied want to participate in more decisions, they vigorously maintain the exclusive prerogative of buying. As long as this prerogative is maintained, purchasing executives are in a position to contribute to related decision areas such as quality.

Although it is desirable that prerogatives of different departments be understood and respected throughout an organization, the desirability of coordination between related functions also must be recognized. The functions with which purchasing has the closest relationships in regard to quality of raw materials and component parts are product design and quality control. The absence of clearly stated objectives and of clearly assigned authority may result in these departments working at

cross-purposes. Coordination of purchasing and product design engineering is a requirement for sound decisions regarding the determination of what is needed and the quality of the material required.

#### Determination of Quality

In Chapter 2, a distinction was made between "technical quality" and "economic quality." Both terms refer to suitability for a given use. "Technical" suitability is a matter of dimension, design, chemical or physical properties, and the like. "Economic" suitability is more inclusive. It assumes a minimum required technical suitability, but considers cost and procurability as well. The "right" quality, which constitutes the best buy, therefore, involves more than technical considerations. The decision as to what constitutes the right quality is heavily conditioned by purchasing considerations.

Responsibility for determination of quality. In all of the companies studied, the purchasing department contributes to the determination of the quality of purchased materials, but in none of these companies does purchasing have the final responsibility and authority for quality specification. The product design or control department has the authority to decide upon technical suitability. However, this does not mean that this department acts independently without advice and suggestions or with freedom from challenge on its decision.

The concept of joint responsibilities of product design engineering and purchasing prevails in the eight companies in this study. Exclusive determination of technical quality by design engineers is usually an unsatisfactory arrangement since costs would already be "frozen" into drawings before purchasing could contribute its knowledge concerning materials.

Role of purchasing in quality determination. Since quality refers to suitability for an intended use, it is obvious that a use must be specified before quality requirement can be established. Through the knowledge gained from daily contacts with salesmen, the purchasing department frequently recognizes a potential use and suggests new developments in materials. An example of this is seen in Company F where purchasing is constantly reviewing new products, processes, and relative prices for consideration by design engineers. In other companies, such as Company A, purchasing seldom recommends new materials until a problem arises and a definite need is expressed. This situation in Company A stems from the fact that only recently has purchasing been asked to participate in specification development.

The nature of the product affects the capability of purchasing in making recommendations. In Company D, the purchasing executive states, "quality is hard to define in the chemical industry." Purchasing personnel in this company usually are not familiar enough with materials to suggest modifications or changes. The research laboratory determines the quality requirements of materials. In Company H, purchasing frequently obtains samples to be tested by the control department. Purchasing emphasizes definite needs versus the wishes of department heads that are not based upon needs.

Although purchasing does not have authority to deviate from specifications without the knowledge and sanction of the product design department, it must be realized that material quality requirements, although satisfactory today may change tomorrow. Also, quality specification is always subject to change if and when a more suitable material becomes available. This suggests the need for purchasing to make long

range research studies on possibilities of substitution, material availability, and price trends. Higher management executives, in most of the companies studied, expect purchasing to continually make such studies and to keep them, as well as other departments, informed regarding new developments such as possible substitutes and trends in material costs. Suppliers can contribute much to these studies. In Company G, the vice president and general manager expects purchasing to inform suppliers of long-range plans in order to receive the greatest cooperation. In addition to stimulating suppliers to do research on better materials and reduction of costs, purchasing also stimulates other departments to do research on savings. The philosophy of the purchasing executive in Company F is that better cooperation is gained when the department that has final authority for quality specification recognizes the need for change. He states: "Otherwise, there is a feeling that purchasing is trying to 'ram-rod' their ideas through."

Since purchasing personnel are in daily contact with salesmen, they are in an enviable position to obtain information on new developments outside of the company. In addition to seeking substitute materials, purchasing must determine the ability of suppliers to satisfy the quality specifications. Therefore, the burden of responsibility is on purchasing to locate and deal with companies which are capable of satisfying these requirements. This task should be performed before a final decision is made on quality specification. As the quality control supervisor of Company F stated, "there is no sense in setting specifications if you can't get a supplier to supply the needs."

A typical relationship of purchasing with the product design department can be seen in the following example. In Company G, the design

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of a product is determined, then material specifications are determined and put on drawings. Before there is a release of model prints of components, the drawings go to purchasing. A decision may not be made until quotations are received by purchasing.

Although purchasing generally determines the suppliers, in Company C the engineering department must approve the source and material to assure maintenance of quality. Nevertheless, contact with suppliers is made by purchasing. This does not mean that purchasing has the only contact with salesmen. In the majority of the companies studied, purchasing "screens" salesmen and those capable of assisting the company in determining needs as well as satisfying those needs, are referred to the product design department. This is an important role of purchasing. Not only can purchasing prevent wasted time on the part of engineers in talking with salesmen who have little to offer, but in addition, purchasing can impress engineering with their knowledge of good potential ideas. As the purchasing executive in Company G stated, "a major problem is the lack of knowledge on the part of vendor representatives concerning their products." The chief engineer in Company B states, "engineering doesn't have time to check on suppliers. It is assumed that purchasing will do a good job." In this same company, the purchasing department tried to keep away from specifying what should be bought. As the purchasing executive put it, "If we specify, the burden is on us. If a buyer comes up with a substitute which he feels offers better quality, he will present this information to product designers to get their opinions whether the substitute should be used."

If quality is specified to meet particular requirements of an individual company, it may require a supplier to vary his production

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to meet these "tailored quality specifications." Since this usually results in higher prices, all of the purchasing executives studied recommend the use of standard specifications. Emphasizing the benefits of standard specifications and suggesting revisions to meet them was considered one of purchasing's more important contributions to quality determination in the companies studied.

Description of quality. Quality requirements must be accurately described. This is necessary to assure the purchase of exactly what is needed. In all companies in this study, the final authority for defining the quality requirement rests with the product design department.

The primary responsibility of purchasing at this stage was found to be that of checking and insisting that the quality description be sufficiently definite and clear so that there is little difficulty in communicating the requirements to the suppliers. In addition, purchasing emphasizes the necessity of a basis for testing deliveries for conformance with the specification. In Company H, the director of control who has the responsibility for writing quality descriptions states: "Some suppliers, for example, do not want to be pinned down on certain specifications and purchasing can question these aspects during the time of developing the specifications." All purchasing personnel studied stress the importance of avoiding nonessential quality restrictions that add to the cost of purchased materials.

#### Control of Quality

Quality requirements and specifications are useless unless they are met. The final role in quality of purchased materials is therefore performed by suppliers and in all of the companies studied, purchasing



has much to say regarding selection of suppliers. Thus, purchasing plays a part in the control of quality. As stated in the previous section of this chapter, purchasing insists that the required quality be clearly and definitely expressed by product designers. The reason for this is that purchasing has a responsibility for communication of clear and definite specifications to vendors. Communication involves more than transmission of the specification to suppliers. Purchasing must make sure that vendors understand the quality requirements. Before this can be done, the quality requirements must be fully understood by the company buying the material. In companies B and H, one of the problem areas, as viewed by the purchasing executive, is incomplete specifications and misunderstanding of requirements. The purchasing executive in Company B states:

The main problems regarding quality are due to differences in opinions between purchasing, engineering, and production. Quality that is needed is not definite and we in purchasing are in the middle of it all. [Because purchasing must satisfy the need.]

An understanding of material specifications by suppliers is not the only requirement. The suppliers selected must be able to produce in accordance with the specifications. The responsibility for selection of proper sources of supply is probably the most important obligation of purchasing executives. However, authority and responsibility are often divided since approval of major supplier selection must be given by higher management or by production management in the majority of the companies studied. A study conducted by U. S. News and World Report indicates the same pattern. In 94.8 per cent of the corporations studied, one or more persons in top management must give

written or oral approval for changes or additions in major suppliers.<sup>1</sup> Actually, of course, most vendor contacts in the companies studied are made by purchasing.

One source of information about suppliers is personal visits to suppliers' plants. Although all purchasing executives in this study make some visits to the plants of suppliers, this practice is not too extensive. The basic reason given is that there are too many suppliers and not enough time. The purchasing executive in Company H stated that his personnel didn't have the time to go out in their own plant to acquaint themselves with the difficulties where they occur. In Company F, when anyone from the plant wants to visit the plant of a supplier, the purchasing executive insists on sending someone along from purchasing. This is done because purchasing wants to be informed of any quality decisions made with suppliers.

The purchasing executive in Company C pointed out that storage is a factor in assuring that the original quality of the material is maintained. Physical deterioration, presence of dust, and improper conditions of temperature and moisture should be prevented. The stores function, which is the responsibility of purchasing in companies B, E, and C, is concerned with the safety and care of purchased materials.

In all companies studied, purchasing is responsible for adjustments and returns of purchased materials made necessary by rejections. In Company C, purchasing initiates a material test record for the recording

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<sup>1</sup>U. S. News and World Report, How Business Buys (Princeton, New Jersey: United States News Publishing Corporation, 1957), p. 128.

of inspection results. The receiving inspection function is not a subfunction of the purchasing department in the companies studied. However, even in these cases, the quality role of purchasing could be recognized and facilitated by the submission to purchasing of receiving inspection reports.

A very important area in which purchasing can contribute has to do with make-or-buy decisions. One of the reasons for manufacture rather than purchase is to secure the desired quality. Although the decision is one for higher management, all purchasing executives in this study contribute to the final decision. The exact role of purchasing in this area is not clearly defined in the companies studied. Most of the companies do not have a consciously expressed policy covering this area. In Company F, purchasing frequently initiates investigation of make-or-buy problems and serves as a coordinative agent for the study. As the purchasing executive in Company B explains it: "We advise from this side of the fence-- purchasing viewpoint versus production viewpoint." Purchasing asks for a breakdown of all ingredients and a flow chart, in Company H, to determine at what place in the manufacturing sequence each is produced, so that purchasing can try to buy something less costly than manufacturing it within the firm.

#### Means of Resolving Different Points of View

All companies in this study except companies C, D, and F have regularly scheduled meetings to resolve conflicting points of view of different departments. These meetings are basically problem meetings and therefore are concerned with more than the quality of purchased materials.

In companies E and G, meetings are used specifically for quality decisions. In Company E, the participants are from such departments as material cost, purchasing, scheduling, and product design. These participants make recommendations to be considered at a managers' meeting consisting of the president, executive vice president, treasurer, director of sales, plant manager, and purchasing. Recommendations are discussed and a decision is made by a majority vote of these managers. The development of quality specifications involves both product design and purchasing departments in Company G. Although the product design engineer has the final authority for establishing quality specifications, he is required to consult with the purchasing executive before rendering a final decision.

With the exception of companies E and G, where the use of purchasing advice is compulsory, the solicitation of advice and the acceptance of suggestions from purchasing is usually at the option of the product design engineer. Nevertheless, the purchasing staff, in all of the companies studied, is responsible for providing advice to product designers when requested to do so. In addition, purchasing has the responsibility of offering advice and service regarding quality matters where it believes it is needed, whether or not it has been requested.

#### Attitudes of Product Designers Toward Participation of Purchasing in the Quality Area

Although the opinions of product designers regarding the participation of purchasing in quality decisions vary among the companies studied, it is evident that the product design engineers realize the value of the contributions of purchasing and welcome their participation.

It is also noted that they expect this participation in the nature of advice and suggestions. However, they resent a dominating attitude on the part of purchasing. In general, product designers in the companies studied expect more and better advice from purchasing than they now receive.

Dissatisfaction with purchasing's role in the quality area and the desire for more participation is expressed in the following statement made by the chief engineer in Company A:

Purchasing people blow hot and cold. Many times, purchasing is so busy and take so long in buying that engineering will do things on their own. There is a lack of confidence many times in purchasing. Sometimes purchasing says that something is not available. The engineering department, on its own, finds out that it is available. Purchasing should have a better feel of availability of materials. . . . There is more that purchasing can do. They have to constantly prove the values they can contribute.

Further analysis in this company might very well lead to substantiation of the purchasing executive's opinion that many of the difficulties are caused by an understaffed purchasing department. Even in light of this situation, engineering wants more and better suggestions from purchasing.

In discussing the role of purchasing in Company B, the chief engineer stated:

You might say that purchasing serves as a 'watch-dog' on finding equal or better buys. Purchasing personnel know enough about materials and products to suggest modifications. They are in a very enviable position because they meet salesmen who give them good ideas, and they also know what is going on in the company.

Recognition of the interrelatedness of quality and price is seen in a statement made by the head of the engineering department in Company C. He stated:

A major part of the development of quality needs is in the nature of engineering needs. Purchasing has very little to do with these needs. However, many times there are many refinements and since these add to costs, purchasing is constantly checking specifications.

Expectations of more assistance from purchasing is indicated by the plant manager in Company D. He states, "Purchasing is primarily a buying function but I believe that they could do more. Anyone can buy but to make the best buy is something else."

In Company E, the new product engineer states that he wants purchasing to make suggestions regarding substitutes. Purchasing and engineering get together about twice a week to work on cost reductions. The new product engineer states, "Although final say on 'specs' rests with engineering, the director of purchasing has 'strong power' to suggest changes."

In Company F, there are continuous contacts between purchasing and the technical development department. The director of technical development stated:

Often, our staff does not have much information regarding requirements. The purchasing department can often contribute new ideas that it gets from salesmen. Many times we have trouble with materials. We then ask purchasing if they know what else might work from an economic standpoint.

Before there is a release of model prints of components, they go to purchasing in Company G. Usually, a decision is not made until quotations are received from purchasing. The chief engineer stated:

Purchasing should advise engineering before production starts. Since purchasing is in contact with vendors daily, they are in a good position to screen salesmen before engineering talks to them. Although purchasing is adequately informed regarding materials used in production, I don't believe they have sufficient technical knowledge to suggest modifications.

In a pharmaceutical company such as Company H, quality of materials has the highest priority. The director of control emphasized the importance of purchasing as follows:

Some suppliers do not want to be pinned down on certain requirements and purchasing can question these aspects during the time of developing the specifications. Purchasing works closely with the control group and emphasizes definite needs rather than wishes.

In all companies in this study, product designers and development people actively seek the participation of purchasing in the original determination of quality. The basic reasons for seeking this participation are:

1. The realization that there is no sense in setting specifications until it is known whether suppliers are available who can meet the specifications.
2. The interrelatedness of price and quality.
3. The need for new ideas.

Although product designers seek the advice of purchasing, and purchasing should work closely with them, particularly on new designs in an effort to reduce costs as much as possible at the design stage, purchasing personnel must be capable of contributing to the quality decision. This capability can be developed by keeping abreast of technical developments and having enough technical background to recognize worthwhile items from both a cost and technical point of view.

Familiarity of Purchasing Personnel with Materials

Most of the purchasing executives in this study state that they and their staff are familiar enough with materials to suggest modifications and changes. Analysis of the data indicates that they do not have adequate technical knowledge to make "real" contributions to a decision on technical quality. Furthermore, in the companies studied, there is little emphasis on guided development of purchasing personnel. In Chapter 3, it was pointed out that purchasing executives consider an engineering background one of the qualifications for the position of the top purchasing executive as well as for purchasing personnel.

Regardless of this lack of technical knowledge, the role of purchasing personnel in quality decisions, in the companies studied, is important because of their cost consciousness and knowledge of sources of supply and prices. Much knowledge is gained from daily contacts with salesmen. This is the knowledge that product designers are seeking.



CHAPTER 5  
INVENTORY FACTOR

An analysis of the role of the purchasing executive and his function in the area of quality was presented in the preceding chapter. In addition to quality considerations, the purchasing executive is concerned with problems in the quantity area. In fact, one of the most common materials management problems existing in the companies studied concerns decisions relating to the optimum size of a purchase quantity. Inventory decision making necessarily takes into account the time and place factors along with the quantity factor.

The problem is magnified when the demand for products is subject to fluctuation from one period to the next and the amount of this fluctuation is unknown. Naturally, this affects materials requirements. Furthermore, only under ideal conditions in operations do purchased quantities of materials coincide with production requirements. Therefore, raw material inventory has to be carried. Not only inventory requirements but many additional factors affect the decision of how much to buy.

Part of the difficulty in resolving raw material inventory problems arises because each member of management does not attach the same importance to each of the factors affecting a purchase quantity decision. Wise inventory decisions require the balancing of conflicting objectives. Sound inventory policy promotes compatibility between objectives and provides a guide for day-to-day decisions.

### Inventory Policy

Materials management, as defined in this project, is concerned with materials up to the point where they enter production. Furthermore, the purchasing executive is concerned primarily with raw material inventory.

A definite inventory policy is essential to inventory control. In the companies studied, inventory policy usually refers to a relationship between present stocks and probable future production requirements. This was typically expressed in days supply of materials. An example is a policy of Company C which stipulates: "For material A, there should be enough in stock to supply production requirements, yet buy according to economic ordering quantities and attempt to maintain 90 days supply of material A." Although expression of inventory in terms of days supply is convenient, in the final analysis "proper" inventory is resolved in terms of costs.

Regardless of how inventory is measured, it is emphasized by executives in all of the companies studied that optimum inventory is a changing requirement. The purchasing executive in Company G expressed this viewpoint as follows:

Inventories are affected by general business conditions. What may be good inventory today may be inadequate or three times what is needed next week. Two things determine this inventory---availability and usage. These two change frequently. Therefore, inventories get good attention each week.

Although general business conditions affect inventory policy, the effect is not the same in all companies. This is evident when one considers the different products of companies, e.g., pharmaceutical

and biological products in Company H versus radios and heaters in Company G.

In addition to product differentiation, a company such as Company F, which has a contract with the government, may be enjoying good business while others even in the same industry may be in the doldrums. These differences will influence inventory policies of companies.

Furthermore, in the companies studied, some have different inventory policies depending upon the material considered or an inventory policy for only one or two important materials. Moreover, the purchasing executives in companies C and G were personally more concerned with the inventory policy of the major material, e.g., these purchasing executives did not delegate the authority for buying steel to subordinates.

Although emphasis in this study is upon the purchasing executive and his function, it should be realized that the ramifications of inventory decisions go beyond purchasing into finance, production, engineering, and sales. This was realized by the executive vice president of Company H who stated: "Inventory control is a joint responsibility and if inventory control were under purchasing, it might 'strangle' the business." This emphasizes that a departmental decision regarding inventory policy may result in "suboptimization," i.e., optimization from a departmental viewpoint but less than "full" optimization from a company standpoint. Therefore, it is understandable why the formulation of raw material inventory policy is considered a responsibility of top management in all of the companies studied. However, this study indicates that departmental points of view are considered when establishing inventory policies.

In all of the companies studied, the purchasing executive participates in the formulation of raw material inventory policy. In companies B, E, and G, the purchasing executive participates as a member of the executive committee. This was illustrated by the purchasing executive in Company B. He states:

There are department head meetings each Wednesday morning when they all meet on common ground to discuss problems and try to reason their differences of opinion. These meetings, more or less, result in recommended policies. The president does not attend these meetings. However, there is an executive committee which makes top level policy decisions. This committee consists of the president, production manager, executive vice president of sales, financial officer, and the purchasing executive.

Upon the advice of the participants, the president may decide, for example, that purchasing should get no more than 90 days inventory or less than 30 days inventory. The inventory policy is established every time in the executive committee.

The remaining companies in this study do not have an established executive committee. However, in these companies, the purchasing executive participates in inventory policy formulation by providing advice regarding such factors as trends of prices, suppliers' ability to deliver, and quantity discounts. The role of the purchasing executive in raw material inventory policy decisions is usually more important when he is a member of the executive committee. Otherwise, as in Company D, the purchasing executive may seldom be asked to participate in the decision. The purchasing executive in this company stated: "I don't participate very much in the formulation of inventory policy, but am consulted sometimes because of questions I ask."

Regardless of the nature of the purchasing executive's participation in inventory policy decisions, it was noted in this study that

only a few of the purchasing executives had a clear understanding of the requirements for effective action in the inventory area of materials management. This may be partially explained by the fact that in only two of the eight companies studied were inventory policies in written form. As the purchasing executive in Company F stated, "the only inventory policy we have is in the minds of those involved." Consequently, this led to friction and various departments working at cross purposes in some of the companies studied. For example, in Company A, the material control supervisor tries to maintain a minimum raw material inventory whereas the purchasing executive wants to buy larger quantities in order to obtain quantity discounts.

#### Objectives of Purchasing in the Inventory Area

Although the purchasing executives studied readily state the objectives of purchasing in the inventory area, analysis of these objectives indicates that there is not always a clear understanding of the objectives or how to accomplish them. The objectives are stated in general terms such as "to buy the quantity needed for orders with costs taken into consideration." However, deeper penetration indicates that the typical objective in the companies studied refers to buying the quantity of materials needed for production at the lowest purchasing and holding costs consistent with the availability of materials, space, and capital for investment in inventory. Such an objective involves satisfaction of a number of varied and conflicting interests.

Although stated as an objective of the purchasing department, the objective mentioned above provides direction to group effort in most of the companies studied. This is substantiated by the fact that in

most of the companies the authority to accomplish the objective is shared by several departments, e.g., production control, material control, and purchasing. The extent of shared authority is less in companies B, C, and E because material control is a function of the purchasing department.

It is quite possible that this shared authority is not intentional. However, in some of the companies studied, there is some evidence lending support to the idea that authority for inventory control is divided for the purpose of forcing related department heads to work together in solving problems. For example, the executive vice president of Company H stated that the responsibility for inventory control is a joint responsibility. This concept emanates from the idea that much of the difficulty in resolving inventory problems arises because each member of management recognizes or considers only some of the costs involved and fails to recognize costs outside of his specialized field of activity.

In some of the companies studied, the purchasing executive indicated that in some instances he desired to pool his authority with others to make a decision. This viewpoint was taken by the purchasing executive in Company G. He stated: "I always want others in on decisions. Combined judgment is always better." Actually, in the companies that have frequent executive committee meetings, the president retains the authority to make final inventory decisions although he may hope for a group decision before the executive committee meets. As indicated earlier, in companies A and E, there is a department head meeting before each executive committee meeting.

Regardless of whether shared authority can or should be avoided in the area of inventory control, the division of authority is confusing

to many of the purchasing executives in this study. For example, in Company F, the purchasing executive made the following contradictory statements:

The responsibility for quantity is not definitely placed and well defined. The president and the comptroller may make many of these decisions. . . . I feel that the purchasing department has the freedom to make the quantity decisions.

The need for consideration of many factors, and the necessity for balancing conflicting objectives complicate material quantity decisions. The role of the purchasing executive and his function in these decisions is not as clear-cut and definite as his role in quality decisions in the companies studied.

#### Role of Purchasing in Determination and Control of Inventory

As stated in the objectives of purchasing, purchases are made to meet a need. The immediate need is production requirements, i.e., materials needed for production.

Determination of materials needs. In most of the companies studied, the quantity of materials needed is established by departments other than the purchasing department. These "other" departments are material control, production control, and stores. The two exceptions are companies B and E. However, these companies are not really exceptions since the basic difference is that the material control and production scheduling function are included in the purchasing department. In regard to the material control function, Heinritz states:

In some highly organized companies there has been a recent tendency to segregate this particular phase of procurement [determination of material requirements] in a separate department known as Material Control. In most cases, however, this

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division of responsibility is unnecessary for it is essentially a part of the planning and administration of a purchasing program. Material Control may in fact be accepted as a broad description of the purchasing function. Deprived of this planning responsibility and reduced to the actual buying operation, a large share of the potential advantages of centralized scientific purchasing are forfeited. Control policies and procurement policies are so closely interrelated that they should be embodied in the person and authority of a single competent procurement officer and his department.<sup>1</sup>

In Company B, material control has been transferred from the production department to the purchasing department. The purchasing executive in Company B stated: "In the two years that purchasing has had material control, it has cut inventory at any one time in half."

Regardless of the organizational arrangement, to some extent it is a responsibility of all of the purchasing executives in this study to anticipate the needs of using departments. The basic reason for this anticipation is to forecast the demand that will be placed on purchasing activities and hence on vendor activities. Anticipation is usually based on sales forecasts and records of past experiences. The more informed purchasing executives are those in companies B, E, and G where the purchasing executives participate in executive committee planning.

In Company F, the purchasing executive stated:

In regard to future needs, the raw material buyer has to go out and contact using departments. In other words, purchasing has to dig this information [future needs] out. Purchasing gets better cooperation from using departments if we go out and contact using department heads. Also past and present usage figures are gotten from the stores department.

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<sup>1</sup>Stuart F. Heinritz, Purchasing (New York: Prentice-Hall, Inc., 1951), p. 189.



The purchasing executive in Company H stated: "Only in a few instances [in Company H] does purchasing anticipate the needs of using departments. We usually wait for requisitions." Also in Company H, the director of production planning stated:

The role of purchasing is to buy, advise, and guide actions. Purchasing's role is played after schedules have been established. However, where there is no assurance of materials, purchasing comes into the picture earlier.

The latter point in this statement emphasizes that the purchasing department should provide advice on vendors' facilities, capacities, and lead time requirements before production schedules are established. However, it is typical of the companies studied for production schedules to be established before issuing a requisition to the purchasing department. Nevertheless, the production planning department has information regarding regular major suppliers from past experience. In addition, as the purchasing executive in Company H stated:

Purchasing keeps informed of suppliers' facilities and notifies other departments. Information regarding the possibility of strikes or any other factors affecting availability of materials is passed on to top management.

Production scheduling and purchasing are necessarily interrelated. This is particularly emphasized in companies B and E. In Company B, scheduling of production shop orders is done by the purchasing department. Master production schedules are established by the purchasing department in Company E.

Determination of purchase quantities. Although the purchasing department anticipates the need for materials in the companies studied, a more formal and official statement of needs is made by a purchase

requisition. More specifically, a requisition is a request for a definite quantity of materials. In companies B and E, where material control is a function of the purchasing department, final authority to decide upon the quantity of raw materials to purchase rests with the purchasing executive.

The material control supervisor controls the ordering quantity of purchased materials in Company A. Nevertheless, the purchasing department informs the material control supervisor of prices of various quantities. Then the material control department determines the quantity desired and supplies the purchasing department with a purchase requisition.

In Company C, material requirements are sent to the purchasing department by the production scheduling department. Then the purchasing department "uses its own judgment" in determining the actual quantity to purchase. The factory manager stated:

Once production rates are established, they are converted into raw material requirements and sent to the purchasing department. These requirements are for current needs and four months in the future. Purchasing has the say on purchased quantities as long as they make sure that material is available for production.

Also in Company C, the executive vice president stated:

I expect the purchasing department to keep the raw material inventory consistent with production. When production is down, purchasing should keep the inventory down. This should be done with some direction from me executive vice president.

The purchase quantity decision is made jointly by the president and purchasing executive in Company D. It was pointed out in Chapter 3 that little definite delegation of authority exists in this company.

Quantity specifications are requisitioned by production departments and the stores department in Company F. Within the limits of inventory policies, the purchasing department may revise the quantities requisitioned.

In Company G, the purchasing executive stated: "The sales forecast is the governing device and all authority stems from this." The purchasing executive has the authority to establish the quantity of materials to be purchased.

The production planning department in Company H has the final authority to establish the quantity of materials that will be purchased. However, the director of production planning stated: "Both production planning and purchasing must work together on quantity determination."

In the companies where purchase requisitions originate in departments other than the purchasing department, purchasing personnel perform a clerical but important activity of reviewing requisitions. In effect, they double check material control or production control regarding amounts requisitioned.

Scheduling of purchase orders and deliveries. Optimum size of a purchase quantity usually refers to quantity at a particular time. In the companies studied, purchase requisitions indicate time requirements. However, in most of the companies studied, the purchasing department has the authority to change the time of delivery. This is required sometimes in order to adjust purchasing schedules with the capacities and productive limitations of the vendor. Nevertheless, the purchasing department's first concern is always to meet the production requirements of its own company. In Company F, purchased quantities may be for three to six months usage. The purchasing executive stated that he schedules the delivery of these quantities, e.g., a specified quantity each month.

Follow-up of purchase orders is considered an important function of the purchasing department in all of the companies studied. The importance of this function is due to the obvious fact that production requires materials at specific times and at specific places.

One of the major problems of purchasing, as viewed by the purchasing executive in Company G, is "making vendors realize that delivery notices are to be satisfied." Even in relatively normal operations, it is inevitable that emergencies will arise which require the purchasing executive to request a change or cancellation in purchase orders or delivery times. This emphasizes the very important role of purchasing executives in developing and maintaining good relations with suppliers. Further emphasis upon sound buyer-supplier relations is made in the next chapter which deals with the price factor.

## CHAPTER 6

### PRICE FACTOR

This chapter is the last of four in which the findings in this study are analyzed. The objective of this chapter is to analyze the role of the purchasing executive and his function in regard to price of purchased materials. Although price is the last factor to be considered in this study, it is not considered a residual factor by the purchasing executives in the companies studied.

When discussing the factors of quality, inventory, and price, the purchasing executives in this study usually mention price as the last factor. Furthermore, they frequently consider quality more important than price, but they also emphasize that the purchase price of materials is as basic to the final decision on the best buy as the technical attributes of materials and component parts. Although seemingly contradicting themselves, they are merely referring to different concepts of quality, i.e., occasionally they fail to make a distinction between technical quality and economic quality. As defined in Chapter 4, economic quality assumes a minimum required technical suitability, but considers price and procurability as well. Therefore, price is seldom considered in isolation but rather in connection with other factors as a means to furnish the company with an optimum combination of quality, quantity, and price of purchased materials.

#### Objectives of Purchasing in the Area of Price

The interrelatedness of price and other factors is emphasized in the statements made by the purchasing executives in this study

concerning the objective of purchasing in the area of price. All of these purchasing executives express the objective as "buying at the 'right' or 'best' price consistent with quality and quantity requirements."

As to the meaning of the "right" price, the purchasing executive in Company B stated:

The best price is not necessarily the cheapest price. You purchasing executive know it but it is hard to state it. Quality and the ability of a supplier to produce to requirements enters into the picture more than anything else. We have to know the firm. This is the number one point. We associate price with a supplier. A name of a supplier means a certain quality. This throws the supplier into a price area.

A similar explanation of the objective of buying at the "right" price was expressed by the purchasing executive in Company A:

Price is not dollars; it's materials. We have to have the materials. Thus, selection of a reliable vendor is involved. If someone comes in and offers to sell something for fifty cents and we are paying a dollar for the same thing, this is nice; but if he can't deliver when required, ultimately we will pay more for it. For example, some time ago a salesman offered to sell a part for \$1.50. At that time we were paying \$5.00 for the same thing. An order was placed and the first order was fine. However, on the next order, he notified us, at about the time the order was due, that he couldn't meet the delivery date. Production was delayed.

"Paying no more than competitors" is the meaning given to "right" price by the purchasing executive in Company H.

The apparent meaning of "right price" to the purchasing executives in the companies studied refers to "right" supplier, i.e., a vendor who assures a continuous supply of the required technical quality of materials where and when needed at a price no higher than that of competitors.

This emphasis upon continuous supply of materials requires the purchasing executive to contemplate a continuing relationship with chosen suppliers over a period of time. Therefore, all of the purchasing executives in the companies studied emphasize future as well as day to day prices.

In addition to purchasing executives, many members of higher management also emphasize the importance of continuous relations with proven suppliers. For example, the vice president and general manager of Company G stated:

Purchasing must do more than purchase at the best price. They should develop very close relationships with vendors, particularly major suppliers, so that we know them on a first name basis. Our suppliers should be informed by purchasing concerning our long-range planning.

However, frequently day to day considerations overshadow long-run considerations. To cite an example, the president of Company A was at odds with the purchasing executive of his company regarding the price that was paid to a supplier for a particular part. The president could not understand why the purchasing executive wanted to buy from a company charging a dollar more than a competitor for the same product. Regarding this situation, the purchasing executive stated:

The part involved is a basic requirement for our product. The company offering the lowest price consists of a small shop employing four people. There is no indication that this company could meet our requirements on a continuous basis. Although the other company's price is higher, it has proven itself to be dependable.

Apparently in this instance the president was overemphasizing today's price and ignoring long-run prices and continuity of supply.

Regardless of who the supplier is or what the past relationships with the supplier have been, it is the responsibility of all purchasing executives in the companies studied to constantly obtain and analyze price information. This responsibility is basic to proper performance of the buying function which is considered the primary function of all purchasing departments.

It has been emphasized in previous chapters that, typically in the companies studied, there is divided authority and responsibility for quality specification and determination of purchase quantities. Frequently, the role of purchasing in the areas of quality and quantity is confusing to the purchasing executive as well as to other executives. However, in the area of price, the purchasing executive is considered a specialist who knows more about price than anyone else. Even the executives who believe that the purchasing job consists of merely placing purchase orders accept the knowledge of the purchasing executive on price matters. For example, in Company F, a production superintendent stated: "Price determination and buying is their [purchasing department's] only true role."

#### Obtaining Price Information

Price knowledge begins with the purchasing executive familiarizing himself with current prices of materials. The purchasing executives in the companies studied mention several sources from which price information is obtained. The source of information which is used depends upon the material. For example, the purchasing executive in Company A stated: "On special items, I ask for competitive bids. For others such as ball bearings there is a standard published price."



Commonly mentioned sources of price information are published price lists, published market data, negotiations, competitive bids, and salesmen. The frequency of use of these sources varies in different companies.

Published price lists. Price information regarding standard production items is usually obtained from manufacturers' catalogs, price lists, and discount sheets. An important point concerning price lists is that it is difficult to maintain up-to-date catalog files.

Published market data. In most of the companies studied, purchasing executives follow market reports and published quotations of raw materials. The element of time is important in regard to these prices, i.e., the trend of prices is usually more important in sensitive raw materials than standard production items.

Negotiations. Negotiations are most frequently conducted in regard to nonstandard items. For many items such as castings, purchasing executives in this study state that this is the only sound way to determine prices. As explained by the purchasing executive in Company C, "Determination of the 'right' price is a cooperative venture." Negotiation involves joint discussion between the buyer and seller.

Competitive bids. The purchasing executives in the companies studied mentioned the use of competitive bids for initial orders and a periodic check on whether a vendor's price is "out of line" with that of competitors. This latter use of competitive bids is illustrated in Company B where castings must conform to Company B's patterns. These patterns are not available to every supplier. However, the purchasing executive stated that when the regular

supplier's price "gets out of line," he asks other suppliers to submit a quotation. The purchasing executive in Company B also stated: "You are heading for a 'rock-pile' if you stress price too much." By this he means that purchase price alone should not be the governing factor in placing an order.

Salesmen. One of the best and most used sources of current prices is salesmen. This source is particularly good for securing information regarding contemplated revisions in prices.

Price Analysis

The purchasing executive's price responsibility entails more than the mere selection of price information. All of the purchasing executives in this study also analyze price quotations and price changes. As the purchasing executive in Company G stated, "This [price analysis] is where your experience is important." All purchasing executives in the companies studied have difficulty in explaining how they analyze prices.

All purchasing executives studied are wary of low prices. As the purchasing executive in Company F expresses it:

Look out for low prices. Occasionally, a supplier is not making a profit on the price he is quoting and he won't tell you for fear that he will not receive an order. As one supplier said afterwards, 'I wanted to get the first order with your company.' [An underlying assumption is that purchasing executives do not like to change suppliers frequently].

Another problem of evaluation of low prices is cited by the purchasing executive in Company B:

Regarding a casting I can buy at any price I want. We have to be very cautious though for the quality may not be the same. I have to make sure that everyone is quoting on the same quality.

The above example also applies to high prices. For example, in Company B, the purchasing executive said: "Some prices are higher because the part has some 'extras' which we don't need in our product."

All purchasing executives in the study emphasize the importance of analyzing prices of present suppliers to determine if prices are changing and why they are changing. In Company A, the purchasing executive establishes price records. Then he checks the invoices to see if there are any price changes. Also, each month the purchasing executive makes a report to the president regarding any variances from the established list of prices.

In Company B, the purchasing executive explained a method of checking prices as follows:

Twice a month I look at our commitment report. This tells me how much we are committed and to whom. I know about how much our commitment should be. I can tell if it seems unreasonable.

Past experience and a certain "feel of proper commitments" is an explanation of the above analysis.

The purchasing executive in Company E regularly attempts to determine if his department is paying over or under prices paid at different periods of time. If prices are higher, he wants to know the reason.

All of the purchasing executives in the companies studied realize that a vendor's price should bear a "reasonable" relationship to the

vendor's cost. However, none of the purchasing executives indicated much interest in the details of suppliers' costs. The purchasing executive in Company B stated: "There isn't one out of a hundred suppliers who would give you a cost breakdown."

Even if a seller's costs are known, interpretation of these costs and their proper relation to price would be a difficult task. Actually, all of the purchasing executives in this study place more emphasis upon their own company's ultimate cost rather than purchase price of individual items of materials. Nevertheless, as stated in Chapter 1, materials usually represent the largest single element of production costs. Therefore, much can be gained by analyzing the purchase price of materials.

#### Value Analysis

A prime concern of all purchasing executives studied, is to obtain the best ultimate value in materials for the money spent. This requires an analysis of value. As defined in Chapter 3, value analysis is the investigation of the usefulness and cost of materials and component parts so as to obtain adequate quality at the lowest ultimate cost. Value analysis is, in short, research on materials and component parts with emphasis on a combination of factors.

Many of the purchasing executives in the companies studied are not sure of the meaning of the terms "research" and "value analysis." For example, although all purchasing executives in this study do research in regard to standardization and substitution of materials, the purchasing executives in companies B, C, and D said that neither they nor their personnel carry on any research activities. The obvious

explanation of this confusion is that some of the purchasing executives do not dignify their research activities with the term, "research."

Similarly, in regard to value analysis, all purchasing executives studied are concerned with determining an optimum combination of values in quality, quantity, and price areas. Yet most of the purchasing executives in this study are vague as to the meaning of "value analysis." Actually, the major difficulty concerns how a value analysis program should be established.

An additional concern of the purchasing executives in the companies studied involves the role of purchasing in any such program. In Company C, "value analysis" is performed by the research and development department, the accounting department, and the production manager. The purchasing executive expressed the belief that value analysis should be a purchasing function. His reasoning was as follows:

Everyone is aware of what is available in the company and what values can be produced. Yet purchasing has more knowledge because they purchasing also know what values can be received from vendors.

The vice president and general manager in Company G emphasized that value analysis involves more than the purchasing function. He stated: "Value analysis is not just a purchasing function. It requires team effort." However, the purchasing executive in Company G stated that, "Purchasing is frequently the instigator of a value analysis project."

Cooperative effort is the essence of most purchasing activities. Also, most purchasing decisions require integration of the factors of quality, quantity, time, place, and price.

## CHAPTER 7

### SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This study is an analysis of practices and opinions of the senior purchasing executive, the scope and responsibility of the purchasing department, and the opinions of related department heads and higher management concerning the purchasing executive and his function in materials management. The evaluation is confined to supply functions relating to raw materials and purchased parts used in the manufacture of products.

The purpose of this research was to investigate the role of the purchasing executive and his function in materials management, that is, in managing activities concerned with the supply function. The case study data in Appendix E form the basis for much of the discussion in this dissertation. Although the conclusions concern only the eight manufacturing companies in the study, it is believed that they may be of importance to executives in other companies.

In planning the research for this dissertation, several assumptions were established. All of these assumptions were found valid in this study:

1. There is a need for coordination of the various activities of the materials supply function. There are varying degrees of recognition of this need by purchasing executives, related department heads, and members of higher management.
2. Materials management considerations pervade many functions in a company.

- 3. The purchasing executive and his function plays a key role in materials management.

This chapter presents the conclusions resulting from research in the participating companies. It also includes recommendations for applying the results of this research. Suggestions are made for further research.

Conclusions Concerning the Role of the Purchasing Executive and His Function in Materials Management

The role of the purchasing executive and his function in materials management is in the areas of quality, inventory, and price. This role tends to be influenced by the general background, training, and experience of the purchasing executive, and the attitudes of related department heads and members of higher management. Therefore, the conclusions are divided into six groups: (1) those with reference to materials management; (2) those which relate to the purchasing department; (3) those which refer to the quality, inventory, and price areas; (4) those concerned with the purchasing executive; (5) those with reference to related department heads and higher management; and (6) those relating to a general evaluation of the role of purchasing.

Materials management. Based upon this study of eight companies, the following conclusions are drawn concerning materials management:

- 1. There is recognition by higher management of the various operative functions of materials management. The responsibility for these functions cuts across many other functions such as engineering, sales, production planning, and purchasing. In none of the companies studied are the materials supply functions completely integrated in a "materials department."

2. The term materials management appears to be little used by either purchasing executives or members of higher management. In discussing this area with them, the term usually has to be defined to assure understanding of concepts.
3. The least recognized and practiced operative function of materials management tends to be the research function. More emphasis is placed upon routine activities.
4. There is a tendency to place more emphasis upon operative functions than upon management functions.

The purchasing department.

1. The purchasing department tends to include more supply functions than other departments. The primary factors influencing the integration of supply functions in the purchasing department appear to be the ability and desire of the purchasing executive to execute these functions and the attitude of higher management toward the purchasing executive.
2. There is no general agreement as to the functions of supply other than buying, that should logically be included in the purchasing department. Two of the companies had such functions as materials control and production scheduling included in the purchasing department. The buying function is the only function that is common to all of the purchasing departments studied.
3. Since some purchases are made by persons outside the purchasing department, it may be concluded that organization of the purchasing department is not necessarily the same as



organization for purchasing. The purchases made by other than purchasing personnel are usually major materials constituting large commitments. These are sometimes handled by higher management.

4. There is an absence of clear-cut or definite statements of the objectives of the purchasing department. Also, definitely assigned authority appears to be lacking. Therefore, the specific role of purchasing in materials management is not always understood even by some of the purchasing personnel studied. This tends to result in the purchasing department and others working at cross-purposes in some of the companies.
5. Only one of the companies has a purchasing manual emphasizing the integration of the various activities of purchasing work and the interrelatedness of purchasing functions with other functions. The purchasing executives studied recognize the need for a manual; however, the benefits of a purchasing manual in assisting to reduce contradictions between objectives and policies, gaps in functions, and incorrectly staffed functions are not fully appreciated.
6. The objectives of the purchasing department are so broad that measurement and evaluation of purchasing activities is considered a difficult task. The purchasing department is frequently evaluated by higher management in terms of the apparent personal ability of the purchasing executive. In addition, the kind of relations that exist between the purchasing department and other departments, the satisfaction

of using department heads, and price reductions are considered by higher management in evaluating the purchasing department.

Role of purchasing in the quality area.

1. Since the determination of quality requirements is often a group decision, and the purchasing department does not have the final authority and responsibility for quality specification, the role of purchasing is dependent upon such factors as knowledge of materials, desire of the purchasing executive to participate, and the attitude of those having final authority on quality specifications.
2. The lack of technical knowledge observed, although influencing the capability of purchasing personnel, does not seem to prevent purchasing participation in quality decisions. Purchasing knowledge gained from daily contacts with salesmen and continuous relations with suppliers assures, at least, a reasonable degree of technical knowledge and therefore some participation by purchasing personnel.
3. Since most of the companies studied do not have a consciously expressed policy covering make-or-buy decisions, the exact role of purchasing in this area is not clearly defined. All purchasing executives expressed the opinion that they can and should perform an important role in these decisions.

Role of purchasing in the inventory area.

1. Because of the importance of inventory decisions and the inclination of each member of management to recognize or consider only some of the costs involved, the responsibility

for inventory management tends to be a shared responsibility. In the companies studied, if the purchasing executive is a member of the executive committee, and the material control function is included in the purchasing department, the conditions are present for a dominant role by the purchasing executive in inventory decisions. Nevertheless, in all of the companies studied, the purchasing executive participates to some extent in the formulation of raw material inventory policy.

2. If inventory policies are not in written form, there tends to be a lack of understanding of the requirements for effective action in inventory management. In only two of the companies were inventory policies in written form. The purchasing executives in the other companies were not certain of the full meaning of inventory policy.
3. Since group effort is required in effectively accomplishing inventory objectives, authority is often shared by several departments. The appropriate division of authority is confusing to many purchasing executives.
4. Although actual determination of the need for materials may be expressed by other departments, most of the purchasing executives anticipate the needs of using departments. The basic reason for this anticipation is to forecast the demand on purchasing activities and hence on vendor activities.

#### Role of purchasing in the price area.

1. Because of constant contact with suppliers, the purchasing executive is considered a specialist who knows more about purchase prices than anyone else in the company. Nevertheless,

the purchasing executive tends to place more emphasis upon his company's total cost than the purchase price of materials.

2. Although the purchasing executive recognizes the importance of ultimate value in materials, he is not sure of the meaning of value analysis; nor is he sure of what his role should be in this analysis. Usually value analysis is considered to involve more than the purchasing function.

The purchasing executive.

1. A clear statement of objectives is a necessary basis for planning. Objectives stated in vague terms of variable meaning, such as "obtain the right material at the right time and at the right price" have minimum managerial value. The purchasing executive appears to have little realization of the value of definite objectives.
2. There tends to be a very close similarity between the purchasing executive's concept of the objectives of the purchasing department, what the purchasing executive thinks higher management expects of purchasing, and what higher management states is expected of the purchasing department.
3. The general nature of purchasing objectives tends to result in wide agreement on them. However, there is some disagreement because of different interpretations placed upon the objectives by different members of management.
4. There appears to be a lack of understanding of the distinction between line and staff functions by the purchasing executive. This is typically expressed by the purchasing executive in expecting more support or backing of higher

management concerning the action taken by him and his personnel. There is an indication that some purchasing executives do not realize that when they make decisions, they frequently are made for the line organization.

5. Higher management usually recognizes the importance of the purchasing executive and his function. This is indicated by the status that is given to purchasing in the organization. The majority of purchasing executives studied report to either the executive vice president or the president.

Attitudes of related department heads and higher management.

1. The executive to whom the purchasing executive reports expects the purchasing executive to establish the objectives for the purchasing department. Members of higher management state that they do not set specific goals for purchasing. They assume that the purchasing executive knows what is expected of him and that he will inform his personnel of the objectives of the purchasing department.
2. Many line executives believe that the purchasing executive should not make decisions other than those concerning the operation of the purchasing department. Friction was frequently apparent between line and purchasing executives because of supposed decision-making authority on the part of the purchasing executive. Some department heads interpret advice proffered by purchasing executives as being intended as a final decision. The way advice is offered can influence this interpretation.
3. Members of higher management show little understanding, and not much concern about objective measurement of purchasing

performance. The lack of reports submitted to higher management by purchasing executives tends to result in a vague understanding of purchasing performance. Considerable hesitation and confusion marked the statements made by higher management concerning how they measured the performance of purchasing.

4. The product design engineers in the companies studied realize the value of the contributions of purchasing and usually welcome their helpful participation in quality decisions. Engineers expect this participation in the nature of advice. In general, product designers expect more and better advice from purchasing than they now receive.

General conclusions on the role of purchasing. Buying is the most obvious and basic function of purchasing. This is realized by all members of the business organizations studied, including the purchasing executive. The only function common to all purchasing departments is buying. Predominantly, the first assignment of the purchasing executive is buying. The organization plan of most of the purchasing departments is concerned with classification of commodities and assignment of buyers. The objectives of purchasing departments also emphasize the buying function more than any other function. Although most purchasing executives want to participate in more decisions than those of buying, they vigorously attempt to maintain the exclusive prerogative of buying.

A "pure" buying function is primarily concerned with external considerations of negotiation of purchases. Furthermore, "favorable" price is the basic objective of purchasing negotiation. However, the purchasing executives in this study emphasize that the purchasing

function is concerned with an optimum combination of quality, inventory, and price of purchased materials. In fact, there is a tendency for less emphasis on price than other factors.

Already playing an important role regarding external factors concerned with suppliers, the purchasing executive is attempting to expand purchasing activities to include internal decisions essential to effective buying. The predominant areas involve materials specification, make-or-buy considerations, and inventory planning and control. At present, decisions in these areas are made largely by engineering, production planning, and material control people.

Precisely to what extent purchasing should and can participate in these decisions is a difficult question to answer. Furthermore, it is particularly difficult for purchasing to participate in these decisions without definite authority. To assure participation of purchasing in internal decisions, some of the companies provide for compulsory staff advice. This may be explained as requiring that no decision on an important problem can be rendered until all staff people who may be able to contribute to the decision have had an opportunity to do so. In the other companies, there is no provision for participation of purchasing in decisions other than buying.

Recommendations to Management

In view of the critical importance to the success of a business firm of the materials supply function, it is recommended that the role of the purchasing executive be viewed in the context of an over-all materials management program which recognizes that all parts of materials work are interrelated.

Purchasing executives should do the following:

1. Develop their ability particularly in inventory management and value analysis, either through self study, correspondence, or executive development programs.
2. Prepare a clear and complete statement of the objectives desired of the program.
3. Determine the work or materials functions necessary to achieve the objective of the program.
4. Recommend to higher management policies to guide the performance of materials functions.
5. Prepare a materials management manual outlining the program.
6. Provide top management with a proper point of view concerning effective materials management.

Top management should do the following:

1. Appraise the availability of competent executive leadership to manage the materials program successfully and select an executive for general coordination of the program.
2. Define clearly the duties to be carried out and indicate by whom for each supply function.
3. Provide for proper development of each member of the materials organization.
4. Communicate the materials management program to all parties involved.
5. Establish proper controls to assure accomplishment of the materials objectives and evaluate the effectiveness of the program.



Suggestions for Further Research

As a result of the findings in this research project, further research is suggested along the following lines:

1. The validity for industry in general of the conclusions from this study of eight companies should be tested by a statistical study of a representative sample of manufacturing companies in various industries.
2. This study of the role of the purchasing executive should be extended to include non-manufacturing companies.
3. In view of the conclusion in this dissertation that members of higher management are generally unable to measure objectively purchasing performance, further research should be conducted on the entire subject of purchasing evaluation.

APPENDIX A  
GENERAL ORGANIZATION DATA SCHEDULE

(Instructions: Complete this form for every company in the study.)

1. Name of company \_\_\_\_\_ Code No. \_\_\_\_\_

2. Home office address \_\_\_\_\_

3. Number of employees in company \_\_\_\_\_

4. General description of product line \_\_\_\_\_

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5. Manufacturing plants in the company:

<u>Name</u>	<u>Location</u>	<u>Products</u>	<u>Type of Operation</u>
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6. Industry served by company \_\_\_\_\_

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7. Organization structure of company  
(See attached organization chart)

APPENDIX B  
FINANCIAL DATA SCHEDULE

1. Name of company \_\_\_\_\_ Code No. \_\_\_\_\_
2. Total dollar volume of purchases \_\_\_\_\_
3. Dollar volume of production materials and component  
parts \_\_\_\_\_
4. Dollar volume of supplies purchases \_\_\_\_\_
5. Dollar volume of capital equipment purchases \_\_\_\_\_
6. Material cost percentage of total manufacturing costs \_\_\_\_\_
7. Proportion of working capital invested in production  
inventories \_\_\_\_\_
8. Sales volume \_\_\_\_\_

APPENDIX C  
PURCHASES DATA SCHEDULE

1. Name of company \_\_\_\_\_ Code No. \_\_\_\_\_
2. Total number of requisitions \_\_\_\_\_
3. Total number of purchase orders \_\_\_\_\_
4. Number of production materials and component parts  
requisitions \_\_\_\_\_
5. Number of production materials and component parts  
purchase orders \_\_\_\_\_
6. Number of supplies requisitions \_\_\_\_\_
7. Number of supplies purchase orders \_\_\_\_\_
8. Number of capital equipment requisitions \_\_\_\_\_
9. Number of capital equipment purchase orders \_\_\_\_\_
10. Number of materials and component parts \_\_\_\_\_
11. Number of suppliers used for purchase of  
materials and component parts \_\_\_\_\_
12. Number of materials and component parts supplied within  
company \_\_\_\_\_
13. Total number of suppliers used \_\_\_\_\_

APPENDIX D  
INTERVIEW GUIDES



A. Background Data

1. Name of company \_\_\_\_\_ Code No. \_\_\_\_\_
2. Name of purchasing executive \_\_\_\_\_
3. Age \_\_\_\_\_
4. Official title \_\_\_\_\_
5. Length of time this title has been used \_\_\_\_\_
6. Title of executive to whom purchasing executive reports \_\_\_\_\_
7. Name of executive \_\_\_\_\_
8. Number of years purchasing has reported to this executive \_\_\_\_\_
9. Number of years in purchasing work \_\_\_\_\_
10. Number of years of formal schooling \_\_\_\_\_
11. Major subjects \_\_\_\_\_
12. Job just prior to entering first purchasing job \_\_\_\_\_
13. Nature of first job assignment in purchasing \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
14. Professional and civic organization membership \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
15. Professional and technical publications read regularly \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

B. Organization Data

1. Organization chart of purchasing department  
(See attached organization chart)

- 2. Department manual  
(See attached framework on outline)
- 3. Total number of individuals performing staff functions under purchasing executive's direct or indirect supervision

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4. Selection of purchasing personnel

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5. Job description of purchasing executive's job  
(See attached job description)

6. Specific functions of purchasing executive and percentage time distribution:

<u>Functional</u>	<u>Percentage time</u>	<u>Administrative</u>	<u>Percentage Time</u>
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7. Job descriptions of purchasing jobs  
(See attached job descriptions)

- 8. Training program for purchasing personnel
  - a. Formal
  - b. Informal
  - c. Nature of program

9. Functions of purchasing department:

<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>
<hr/>	<hr/>

10. Departments, other than using departments, that the purchasing department has a relationship with

<u>Department</u>	<u>Key Members</u>	<u>Nature of Relationship</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

11. Techniques and/or organizational devices developed to blend the points of view of purchasing people and others
- a. Purchase engineers, or other technical personnel as staff advisers
  - b. Assignment of purchasing personnel to other departments to act in a liaison capacity
  - c. Committees established which are composed of representatives of interested functions

C. GENERAL OPINION SURVEY

(INSTRUCTIONS: Direct the main questions to the interviewee. Use the sub-questions as needed to encourage range, depth, and specificity in the response.)

1. What type of background and education do you feel is important in filling a position such as yours?
2. What do you expect from higher management?
3. What, in your opinion, does higher management expect from you?
4. Do you participate in the formulation of top management decisions?
  - a. Decision areas?
  - b. Nature of participation?
  - c. Has participation increased in recent years?  
Why?
5. What are the purposes (goals) of your department?
  - a. Who establishes these goals?
6. Do you have adequate authority and responsibility to achieve these goals?
7. Is purchasing department adequately staffed?
8. Are there any functions, not under their direct or indirect supervision, that should be included in your department?
  - a. What are the reasons?

D. Quality Factor Opinion Survey

1. What objectives or desired results are you seeking in regard to quality?
2. Is the responsibility for quality definitely placed and well defined?
3. What is the nature of your relationship to other departments?
  - a. Specifically, what is the purchasing department's role?
4. Who writes the specifications and descriptions?
  - a. Do you participate in original determination of specifications?

- b. Do you feel incoming inspection is adequate?
  - c. Are you familiar with inspection in vendors' plants?
  - d. Do you have responsibility for adjustments and returns?
5. What problems, other than discussed, do you have in regard to quality?
6. Is your role adequate?

E. Quantity Factor Opinion Survey

- 1. What objectives or desired results are you seeking in regard to quantity?
- 2. Is the responsibility for quantity definitely placed and well defined?
- 3. What is the nature of your relationship to other departments?
  - a. Specifically, what is the purchasing department's role?
- 4. What are the inventory policies of your company?
- 5. Do you anticipate the need of using departments?
  - a. What is the basis of anticipation?
  - b. Do you get any information from sales in regard to sales quotas and outlooks?

F. Time Factor Opinion Survey

- 1. What objectives or desired results are you seeking in regard to the time factor?
  - a. Is there only one objective, namely making sure that materials are available when needed consistent with storage space?
- 2. What is the nature of your relationships to other departments?
  - a. Specifically, what is the purchasing department's role?

G. Price Factor Opinion Survey

- 1. What objectives or desired results are you seeking in regard to prices?
- 2. Is price determination solely a matter of negotiation? If not, how is it determined?

3. Do you have a good idea what your competitors are paying for similar materials?
  - a. How do you find out?
4. What is your role regarding the price factor?

H. Miscellaneous Opinion Survey

1. Do you carry on any research activities?
2. What is the scope of research?
3. Do you summarize your activities and performance for the benefit of higher management? Other departments?
4. Is there anything else you can explain to point out your's and the department's role in this company?
5. List the major problems encountered in performance of the purchasing function.

## INTERVIEW GUIDE FOR DEPARTMENTS OTHER THAN PURCHASING

A. Background Data

1. Name of company \_\_\_\_\_ Code No. \_\_\_\_\_
2. Name of interviewee \_\_\_\_\_
3. Title and department \_\_\_\_\_
4. Type of operations under your supervision \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

B. Opinion Survey

1. What is the nature of your relationship to the purchasing department?
  - a. Specifically, what is the purchasing department's role?
2. What do you think of the role purchasing plays?
  - a. What benefits do you consider the most important benefits of this role?
  - b. What don't you like about their role?
  - c. What relationships should be strengthened or added?
  - d. What relationships should be discontinued?

## HIGHER MANAGEMENT INTERVIEW GUIDE

A. Background Data

1. Name of company \_\_\_\_\_ Code No. \_\_\_\_\_
2. Name of management official \_\_\_\_\_
3. Official title \_\_\_\_\_

B. Opinion Survey

1. What do you expect from the purchasing department?
  - a. Do you set specific goals for purchasing or do you expect purchasing to set their own goals?
2. How do you judge the efficiency of the purchasing department?
3. Who in your organization is responsible for materials management (planning, organizing, and controlling activities concerned with material and inventory requirements)?
  - a. Why aren't purchasing and inventory control combined under one executive?
4. What are the limits of purchasing authority?
  - a. How far can purchasing go in regard to materials management?
5. Why is purchasing where it is organizationally?
6. Do you anticipate any changes?



APPENDIX E

CASE STUDY REPORTS ON THE ROLE OF THE PURCHASING EXECUTIVE  
AND HIS FUNCTION IN MATERIALS MANAGEMENT

## CASE STUDY REPORT 1: COMPANY A

Company A, which is a division of a machinery and chemical corporation, manufactures a variety of miscellaneous pumps for industrial and municipal users. The basic production operations consist of machining and assembly. Approximately 450 employees are employed by Company A. There is no corporate purchasing staff.

The Purchasing Executive

The official title of the senior purchasing executive is Works Purchasing Agent. This title has been used for at least ten years in Company A. The purchasing executive has always reported to the production manager.

The purchasing executive is 42 years old and has had two years of college work with a major in economics. He has had 17 years of experience in purchasing. Just prior to entering his first job in purchasing, as a stock room clerk, he was the manager of a retail store.

In answering a question concerning background and experience, which is important in filling the position of senior purchasing executive, he states: "Engineering background (but not an engineer) is necessary because our products are engineered and we must be able to talk in the same language as engineers." In expressing the opinion that the top purchasing executive should not be an engineer, the purchasing executive is emphasizing that a broad background is necessary for the position of senior purchasing executive. He also states that a marketing and production background would be helpful.

The purchasing executive is a member of the National Association of Purchasing Agents in order to maintain professional stature and competency. He regularly reads the following publications: The Bulletin of the National Association of Purchasing Agents, Purchasing, Hoosier Purchaser, Purchasing News, and The Wall Street Journal.

The purchasing executive in this company estimates that 70 per cent of his time is devoted to administrative work involving such activities as planning, decision making, and participation in various company and departmental meetings. The remaining 30 per cent of his time is devoted to functional duties such as buying, interviewing, expediting, selection of sources of supply, and research concerning new products and vendors. There is a written position description for the purchasing executive (see position description below). The purchasing executive states that the purchasing responsibilities in Company A are very loose and that his position description doesn't mean much.

The purchasing executive states that he participates in top management decisions regarding long-term contracts and large bids, e.g., million dollar bids. Participation of the purchasing executive in top management decisions has increased because competition requires consideration of as many factors as possible. The purchasing executive states that more knowledge is needed for sound decisions and top management is beginning to realize that the purchasing executive can provide much of this information. Reports are a basic vehicle for communicating information from a subordinate to a superior; nevertheless, the only regular report submitted to higher management in Company A is in regard to variances from the established list of prices.

## POSITION DESCRIPTION

COMPANY A

Date December 1, 1954

POSITION TITLE      WORKS PURCHASING AGENT

## PURPOSE OF POSITION:

Supervises the purchasing of all materials, supplies, etc. necessary for the material (inventory) control department; may supervise production planning department; may supervise traffic department.

## REGULAR DUTIES

Plans and coordinates the activities of the department so as to assure flow of materials and supplies into plant necessary for operation.

Reviews all purchase requisitions for completeness of information and pass those of repetitive nature to buyers for placement with established vendors.

Locates best sources of supplies by securing and comparing quotations and interviewing vendor representatives.

Places purchase orders at lowest cost consistent with quality and good delivery with responsible vendors.

Obtains best prices, terms of sale and shipping route and assign to purchase orders.

In times of national emergency, establishes and maintains control of allocated materials.

Reviews repetitive items to obtain best quantity in which to procure; also, for possible new sources of supply better than present source and to have more than one source on all items.

Makes suggestions to Production, Engineering and Maintenance Departments for improvements in present materials and methods in use.

Supervises the typing of purchase orders and maintenance of records incidental to the proper receipt of materials and correct invoicing.

Supervises the follow up of all purchase orders to see that all materials, supplies, etc. ordered are received in time for requirements or in accordance with specified delivery dates.

Supervise the dissemination of information to all requisitioners of the status of delivery schedule on material ordered.

Conducts all adjustment negotiations with vendors regarding disputes as to quality, quantity, maintenance or specifications, etc. in such a manner as to receive an equitable arrangement without impairing the company's goodwill.

Arranges for return of materials for credit or replacement and follow up to assure receipt of proper credit.

Supervises monthly commitment reports as well as monthly steel receipts and motor receipt reports.

Reviews progress of purchasing personnel in their work, insure adequate training of new employees and recommend desirable changes in rates or increases or decreases of the work force to the Works Manager.

Informs the Works Manager of progress and developments by adequate frequent reports and cooperates with all departments on matters of joint interest.

Maintains up to date price file on all standard items.

#### OCCASIONAL DUTIES

Makes recommendations to management and department supervisors and arranges conferences between vendors and interested supervisors on various new items and ideas advanced by salesmen that appear beneficial to our organization.

Makes personal visits to suppliers' plants for better knowledge of vendors, their products, methods, and problems involved.

Makes reports to management when required on purchasing activities.

Disposes of surplus material from customer cancellations, etc. through sale or re-application to requisitions.

What the purchasing executive expects from higher management.

The purchasing executive in Company A expects higher management to back up the action taken by the purchasing department. The purchasing personnel work with many different departments--both line and staff-- and if the purchasing function is to be effectively performed, top management must back up the action taken by the purchasing department. An additional expectation concerns the desire of the purchasing executive that higher management understand the conditions under which purchasing works.

What the purchasing executive thinks higher management expects from purchasing. Although higher management does not establish the objectives of purchasing, the purchasing executive believes that higher management expects the purchasing executive and his department to: (1) buy at the best price available; (2) keep informed of market conditions and trends; and (3) help keep the business in a good competitive position.

Purchasing Objectives

Although there is no written statement of the objectives of purchasing in Company A, the purchasing executive states that the primary objective of purchasing is to supply the materials needed at the lowest price. In the specific areas of quality, quantity, time, and price, a more detailed, yet still general expression of purchasing objectives is given by the purchasing executive.

The objective of purchasing regarding the quality of purchased materials is to buy the quality of materials needed and stated in the specifications. Concerning the quantity of purchased materials, the

objective of purchasing is to buy the quantity needed for orders with "costs" taken into consideration. "To get materials to the company when needed for production operations" is an expression of the objective of purchasing regarding the time factor. The objective of purchasing in regard to price is to buy materials at the lowest price consistent with quality and time requirements. These objectives are established by the purchasing executive for the purchasing department in Company A.

#### Purchasing Organization

The purchasing executive in Company A does not feel that he has sufficient authority and responsibility to achieve the objectives of his department. He also believes that his department is inadequately staffed. In addition to the purchasing executive, the purchasing department consists of four buyers and two clerks. Purchasing personnel are selected by the purchasing executive. The four buyers are assigned work according to a commodity classification which consists of steel, castings, accessories, maintenance, and miscellaneous items. There are position descriptions for the buyers (see position descriptions below).

The purchasing executive was asked if any additional functions should be included in the purchasing department. He stated that the traffic function, which is presently under the financial officer, should be included in the purchasing department. An additional concern of the purchasing executive is the material control function. The material control supervisor is on the same level as the purchasing executive.

The purchasing executive said that either material control should be included in the purchasing department or the purchasing function should be part of the material control department. This combination

## POSITION DESCRIPTION

## COMPANY A

Date December 1, 1954

POSITION TITLE      BUYER - SENIOR

## PURPOSE OF POSITION:

Responsible for purchasing requisitioned items of acceptable quality at competitive prices.

## REGULAR DUTIES

Obtains bids and quotations for materials and supplies to be purchased.

Selects vendor.

Drafts purchase orders and releases according to procurement schedule.

Arranges for follow up to assure delivery according to terms of order.

Checks acknowledgements and billings for conformance to terms of order.

Interviews salesmen.

## OCCASIONAL DUTIES

Issues revisions to purchase orders.

Initiates requests for changes to material or parts specifications that might become necessary or advisable because of procurement or production problems.

Corresponds with vendors on matters pertaining to purchases to be made for anticipated or firm contracts.

Prepares commitment reports.

Keeps posted on business trends.

Advises production planning section on changes in lead time.

Investigates new sources for equipment.



## POSITION DESCRIPTION

COMPANY A

Date December 1, 1954

POSITION TITLE BUYER - JUNIOR

## PURPOSE OF POSITION:

Purchase materials and supplies of a repetitive nature under direction of Purchasing Supervisor. Follows up orders and performs paper work necessary to complete an order.

## REGULAR DUTIES

Purchases items of routine nature where vendor and price have been established by Purchasing Supervisor.

Follows up order in a routine manner for material correct invoice and any adjustments required.

Enters receiving reports and invoices on purchase order. Closes order when complete.

Notifies Purchasing Supervisor of any adjustments required and calls to his attention any cases where the vendor is failing to perform his obligation completely.

Advises Production Department and other departments status of order originating in that department.

## OCCASIONAL DUTIES

Performs special duties assigned by the Purchasing Supervisor.

of functions would result, according to the purchasing executive, in more efficient performance of both the purchasing and material control functions.

The relationships between the purchasing function and other supply functions could be explained in a purchasing manual that would be available to all related departments and could also assist in the training of newcomers to the purchasing department. There is no purchasing manual available in Company A. However, the purchasing executive is presently developing one.

Training for purchasing personnel. Within the purchasing department there are occasional meetings. These meetings are usually called by the purchasing executive when problems arise. The purchasing executive states: "Things accumulate then a meeting is called." Although these meetings are primarily concerned with methods of handling problems, they are also considered by the purchasing executive to be a vehicle for training his personnel. There is no formal training provided for the purchasing staff in Company A.

Techniques and organizational devices used to blend the points of view of purchasing personnel and others. There are group meetings every Friday. Usually, the group consists of representatives from production scheduling, production, sales, and purchasing. These meetings are aimed at correcting various problems that arise. Each participant points out the problems in his area. The purchasing executive views these meetings as an effort to discover why delivery schedules are not met. On the following Monday, there is a meeting primarily for the benefit of the president. At this meeting, the president is informed of the "pressing" problems.

Quality Factor

The purchasing executive does not feel that the authority and responsibility for quality decisions of purchased materials is definitely placed and well defined. He is not positive of his exact role in quality decisions.

Purchasing personnel frequently suggest substitute materials. Wherever possible these substitutes are standard items. Emphasis on standardization is an important contribution of purchasing. In addition to suggesting substitute materials, the purchasing department screens vendor representatives and sends the salesmen with "good ideas" to the engineering department for consultation.

Quantity Factor

The purchasing executive in Company A does not feel that the authority and responsibility for quantity decisions is definitely placed and well defined. He believes that he and his department should play a more important role in quantity decisions.

The purchasing executive was asked what the inventory policies were. Although he did not have a copy of the inventory policy, he replied that the policy is "to keep inventory down."

Anticipation of quantity needs of using departments is made by purchasing on the basis of the sales forecast. However, the purchasing executive states that only general information is received from the sales department. Primarily the purchase quantity of materials is determined by the material control department. The purchasing executive informs the material control department of prices at various quantities. The final purchase quantity decision is made by the material control

supervisor. A conflict between purchasing and material control is pointed out by the purchasing executive. Material control has the responsibility for inventory and purchasing has the responsibility for buying at the best prices.

The major problem of purchasing, according to the purchasing executive, is the lack of control of what and how much material should be purchased. Furthermore, it is frequently specified who purchasing should buy from.

#### Time Factor

The material control department in Company A determines the time of delivery of materials. However, the purchasing executive works out the details of delivery with vendors. Little information is obtainable from the purchasing executive concerning the time factor. He does express the opinion that neither he nor his staff have adequate time to do a proper job of buying.

#### Price Factor

The primary role of purchasing in the price area is to obtain and analyze price information. It is the responsibility of purchasing to buy materials at the best price. Although price is important, it is seldom considered alone but rather with other factors.

The purchasing executive in Company A believes that the selection of reliable suppliers is the primary responsibility of purchasing. Low prices are analyzed by the purchasing executive in terms of the reliability of the vendor over a period of time. The purchasing executive states that he could go through the Thomas Register and other publications but this doesn't provide much information. The

main "trick" is to select a supplier who can meet your company's needs and understand its problems. He states: "Some suppliers are good; others aren't. Some have the 'know-how,' others don't."

The purchasing executive does not request a breakdown of his suppliers' costs nor does he estimate their costs. Each material is different and is usually purchased in a different market. For some materials, purchasing requests competitive prices. In other markets, there is a standard price. Sometimes customer preference is the important factor, e.g., this is the case concerning electric motors.

The purchasing executive believes that he has a good idea what his competitors are paying for similar materials. This information is usually obtained from market prices and salesmen.

Of more concern than price is the value that is received. It is pointed out by the purchasing executive that his department carries on research concerning value analysis. However, value analysis has many aspects and no one in Company A appears to fully understand how to proceed with planned value analysis.

#### Opinions of Other Members of Management

Material control supervisor. The material control supervisor, who is primarily responsible for inventory control, believes that his authority and responsibility for inventory decisions are definite. He believes that the material control function and the purchasing function should remain in separate departments. The material control supervisor believes that the purchasing executive should devote his full time to the buying function. This is the primary function of purchasing according to the material control supervisor.

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According to the material control supervisor, raw material inventory level would be higher if purchasing had the final authority and responsibility in the inventory area because the purchasing department would have a tendency to buy larger quantities than practical in order to obtain quantity discounts. The material control supervisor assumes that the purchasing executive would not consider all of the costs involved in inventory decisions.

The material control supervisor states that higher management establishes desired inventory dollar value and inventory turnover. There are two inventory control premises according to the material control supervisor: the sales forecast and maximum-minimum formulae. Regarding the inventory policy of Company A, the material control supervisor provided some inventory plans. (See formulae below.)

Production manager. The production manager was formerly the purchasing executive in Company A. Since the formation of Company A, the purchasing executive has reported to the production manager.

Although the purchasing executive believes that better performance of purchasing would result if he reported to the president, the production manager expresses the opinion that the purchasing executive should report to him (production manager). The production manager states that disagreements will arise and if the purchasing executive is on the same level as he is, there will be a lot of "bickering" and a decision would have to be made by the president. It is the production manager's opinion that as many decisions as possible should be made at lower levels. Under the present arrangement, the production manager makes many of the major purchasing decisions.

## MAX - MIN FORMULAE

I. PURPOSE

1. To control material supply levels and dollar investment, the following formulae will be used by inventory clerks in controlling maximum-minimum controlled items.

2. PLAN A (4 Time Turnover)

Minimum -- Lead time quantity plus one month.

Maximum -- Minimum plus 3 months.

PLAN B (6 Time Turnover)

Minimum -- Lead time quantity only.

Maximum -- Minimum plus 2 months.

PLAN S (Special)

Max/Min for price break, shop run quan., special material, etc., as approved by inventory supervisor.

3. Inventory clerks will be periodically advised in writing as to which plan will be currently used.

4. Record cards will be marked with letter symbol and date established for current max/min on card.

The production manager expects the purchasing department to buy "acceptable" quality at the right time and at the right price. A primary concern of the production manager is that the purchasing department place orders which will satisfy day-to-day problems. Efficiency of purchasing is judged by the production manager in terms of the results in accomplishing the objectives of purchasing and the suggestions submitted for improvements.

Chief engineer. According to the chief engineer in Company A, many of the problems of the purchasing department in the area of quality are created because purchasing representatives have not been asked to participate in many meetings concerned with quality decisions. He states that only recently has purchasing been asked to participate in specification development.

The chief engineer believes that purchasing personnel should have an engineering background. He states: "If purchasing people do not understand engineering terminology, we in engineering have to go into great detail on specifications."

Substitute materials are frequently recommended by purchasing. However, purchasing usually waits until there are difficulties before seeking substitute materials. The chief engineer expresses the opinion that the purchasing department should suggest substitutes whether there are any difficulties or not with present materials. He further states that there is much more that purchasing can do, but they have to prove the values that they can contribute.

President. The president in Company A emphasizes five expectations which he feels that purchasing should fulfill: (1) purchasing should establish a wide source of supply to properly maintain desired quality,

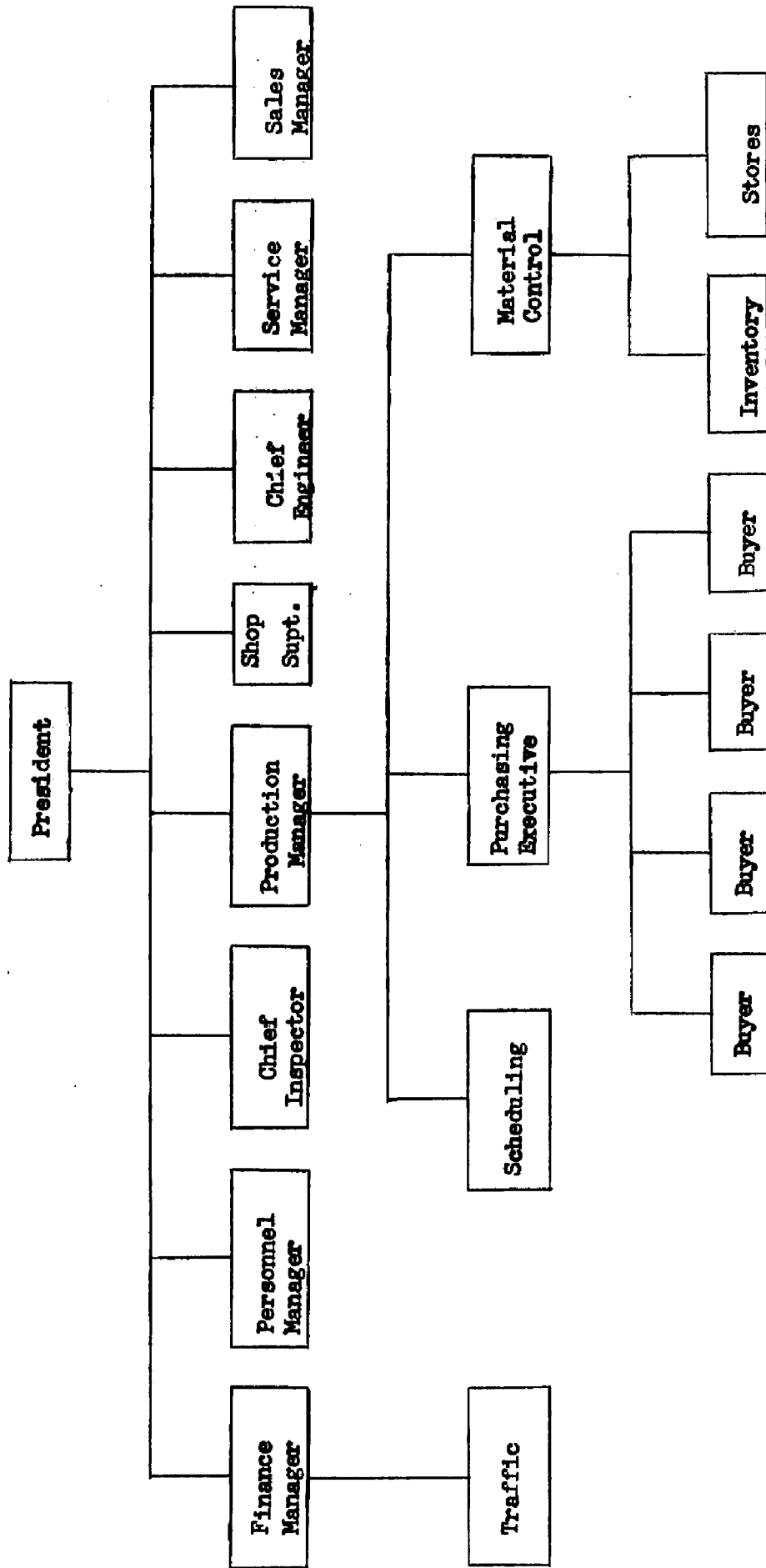


quantity, delivery, and price; (2) higher management and other department heads should be kept informed by purchasing of material costs, trends, etc.; (3) purchasing personnel should be aware of new developments in materials and products and keep the design engineering department informed; (4) costs and the profit motive of the company must be closely recognized by purchasing; and (5) purchasing should properly represent the company in contacts with vendors.

The president was asked how he judged the performance of purchasing. After a long pause, the president stated: "Obviously a simplified tool to judge purchasing performance is variance of prices paid against the price list supplied by the purchasing executive." Additional considerations in judging purchasing performance mentioned by the president are: (1) selection of vendors; (2) tenacity in satisfying materials needs; and (3) imagination and questioning regarding the satisfaction of engineering needs.

The material control function is not included in the purchasing department because this would be too much for the purchasing executive to manage. The president believes that the purchasing executive should be primarily concerned with the buying function.

The president negotiates most of the contracts for electric motors because they constitute a large percentage of the volume of purchases. However, the purchasing executive is asked to advise the president in regard to these contracts.



UNOFFICIAL PARTIAL ORGANIZATION CHART - COMPANY A

## CASE STUDY REPORT 2: COMPANY B

Company B manufactures excavation and concrete equipment. These products are used primarily in the construction industry. Approximately 700 people are employed by Company B. The basic production operations may be described as complete assembly.

The Purchasing Executive

The official title of the purchasing executive is Purchasing Agent. This title has been used in Company B for fifty years. The purchasing executive has always reported to the president.

The age of the senior purchasing executive is 39. He has 16 years experience in purchasing. Although he does not have a college degree, he has taken some general college courses.

The nature of the purchasing executive's first job assignment in purchasing was buying. Just prior to entering his first purchasing position, he was employed in sales work.

In answering a question regarding the type of background and experience that is important in filling the position of top purchasing executive, the purchasing executive in Company B stated that everyone who is hired in the purchasing department should have the potential to become the top purchasing executive. Everyone should have the potential to be a good leader. A pleasing personality and much initiative is a necessity.

The purchasing executive is a member of the National Association of Purchasing Agents and the Chamber of Commerce in order to maintain professional stature and competency. Regularly read publications are

Purchasing, Hoosier Purchaser, Steel, Iron Age, Foundry, Metal Market,  
and The Wall Street Journal.

The purchasing executive in Company B estimates that 90 per cent of his time is devoted to administrative work in the nature of planning, decision making, and organizing for the purchasing department. In the last two years, he has devoted more time to organizing than to anything else. It is his belief that successful accomplishment of objectives requires sound organization. The remaining 10 per cent of his time is spent mostly in buying and interviewing in problem areas. There is no job description for the position of senior purchasing executive.

Concerning participation in top management decisions, the purchasing executive states that he participates in policy formulation. This involves decisions regarding make-or-buy, inventory, and production level. The purchasing executive states: "I advise from this side of the fence, i.e., purchasing viewpoint versus production and other viewpoints." He believes that purchasing participation has definitely increased in recent years in Company B. Much of this increased participation is due to the emphasis that all purchasing personnel have given to their responsibilities. This naturally is brought to the attention of top management. The purchasing executive believes that higher management is paying more attention to the amount of expenditures involved in purchasing. It is the opinion of the purchasing executive that, due to the contributions that are possible through sound purchasing, higher management is forced to give this function good recognition.

One way of gaining top management attention is through reports which include a summary of the activities of the purchasing department. Twice a month the purchasing executive reports to the president on the

outstanding orders and their worth. In addition to these reports, there is a report on changes in sources of supply and possible savings.

What the purchasing executive expects from higher management. The purchasing executive in Company B states that his primary expectation is for "clear-cut" policies established by higher management. He states that basically all he wants is to be told what higher management wants from his department.

What the purchasing executive thinks higher management expects from purchasing. The purchasing executive in Company B is not sure what higher management expects from him and the purchasing department because purchasing involves so many varied activities that it is difficult to differentiate each area of accomplishment. After further thought, he stated that he supposed higher management expects purchasing to do a good job according to the policies that are established.

#### Purchasing Objectives

Inadequate clarification of purchasing objectives is one of the reasons for slow development of the purchasing function in industry today according to the purchasing executive in Company B. His primary concern is that too often the objectives of purchasing are expressed only in terms of the buying function.

There is no written statement of the objectives of purchasing in Company B. The purchasing executive's concept of purchasing is expressed in the following statement: "Sales department--you get the orders--we in purchasing will get the materials." In general, he views the objective of purchasing as getting the materials into the factory. This indicates the scope of purchasing from the viewpoint of the

purchasing executive. This broad objective encompasses the following: (1) to get the best quality of materials available; (2) to obtain the best quality at the most reasonable price; (3) to see that there is an adequate flow of the quantity of materials needed; and (4) to properly organize the purchasing department to enable it to perform effectively. The purchasing executive establishes the objectives for his department.

#### Purchasing Organization

The purchasing executive in Company B states that he has adequate authority and responsibility to achieve the purchasing objectives. He also believes that the purchasing department is adequately staffed. The purchasing executive selects the personnel for his department.

In addition to clerical employees and the purchasing executive, the purchasing organization consists of an assistant purchasing agent to whom four buyers report. On the same organizational level as the assistant purchasing agent is a production order scheduler and a material control supervisor. Included in the material control section of the purchasing department are the functions of shipping, stores, inventory control, and record keeping.

The purchasing executive in Company B does not believe that any additional functions should be included in the purchasing department. This department could well be considered a materials department rather than a purchasing department.

The relationships between all of these supply functions should be spelled out in manual form. There is no purchasing or materials manual. However, the purchasing executive recognizes the need and is writing one. There are no job descriptions for purchasing personnel and it was the

belief of the purchasing executive that there would be some descriptions drawn up and included in the purchasing manual.

Training for purchasing personnel. There is no formal training provided for purchasing personnel in Company B. However, there is informal on-the-job training. The purchasing executive believes that every new employee in his department should start at the bottom and "work and learn" his way to the top. The purchasing executive meets with his personnel each week to discuss problems and "get their thinking straight." He believes that these meetings provide some training for purchasing personnel.

Techniques and organizational devices used to blend the points of view of purchasing personnel and others. There are department head meetings each Wednesday when they all meet on common ground to discuss problems and try to resolve their differences of opinion. These meetings tend to result in policies. Although the president does not attend these meetings, there is an executive committee which meets to make top level decisions. This committee consists of the president, executive vice president of sales, the production manager, and the purchasing executive.

#### Quality Factor

The objective of purchasing in the area of quality is expressed by the purchasing executive as "buying the quality required." He further states, "all purchasing can do is recommend." Purchasing personnel try to keep from specifying the quality of materials that should be purchased because the burden is then on them if the material is not suitable. Nevertheless, purchasing is constantly seeking substitute materials.

When better substitutes are found, the information concerning these materials is presented to the product design department.

The purchasing executive of Company B believes that the responsibility for quality specification is definitely placed and well defined. The product design department has the final authority and responsibility for writing the quality specifications. However, purchasing participates through making recommendations based on their knowledge of materials and suppliers. In placing purchase orders, purchasing specifies and informs suppliers of the incoming inspection methods used by Company B. Purchasing personnel indicate that they are familiar with inspection in vendors' plants.

According to the purchasing executive, the main problems in the area of quality are due to differences in opinions between purchasing, engineering, and production. The right quality that should be purchased is frequently not definitely known. Since the purchasing department has to buy the materials, the purchasing executive feels that purchasing is in the middle of this confusion over quality needs.

#### Quantity Factor

The objective of purchasing in the quantity area is to operate on the lowest quantity within reason. The purchasing executive attempts to maintain good turnover of inventory.

The purchasing department makes out the requisition and determines the quantity to buy. Purchasing anticipates the needs of production. The basis for this anticipation is the information that is received in the executive committee meeting. The maximum level of production is established in this meeting.



There are written inventory policies in Company B. Inventory policies are established in the executive committee. It may be established in this committee, for example, that 40 pieces of equipment will be assembled per month. Purchasing will analyze the material requirements and make a recommendation to the president. The president, in consultation with the other members of the executive committee, may then decide that purchasing should buy no more than 90 days supply nor less than 30 days supply of materials.

All inventory should be controlled by the purchasing department according to the purchasing executive. He states: "If production handles inventory control after materials leave stores, you have two sets of records and for all practical purposes two sets of inventories. If production can manipulate inventory, the result will be poor control."

Activities begin with the production program. The purchasing executive states that this sets the limitations. After the production program is established, the material control supervisor and assistant purchasing agent are informed. The material control supervisor maintains a perpetual inventory. From this, a reorder point is established.

#### Time Factor

Purchasing determines the delivery time of materials. The objective of purchasing is to get the materials when needed by production but not to go over inventory requirements. The primary determinant of delivery is the supplier. Selection of a good supplier and maintenance of good relations is necessary in order to meet delivery dates.

Price Factor

The objective of purchasing in regard to purchase price is "to get the best price." The purchasing executive states that price determination is often a matter of negotiation. He further states that quality and the ability of a supplier enters into the "picture" as much as anything else.

The purchasing executive states: "We have to know the firm. This is the number one point." Furthermore, each material has to be treated separately, e.g., competitive bids are not requested for steel. Castings are purchased on the basis of patterns and these are not released to many suppliers. Sometimes other suppliers are requested to submit bids in order to make a comparison of prices. There are many prices available on some products, but these prices may not refer to exactly the same quality as is needed.

The purchasing executive was asked if he requested a cost breakdown from his suppliers. His reply was: "There isn't one out of a hundred suppliers who would give you a cost breakdown." Price is associated with a supplier. The name of a supplier means a certain quality of material. This throws the supplier into a price area according to the purchasing executive in Company B.

Twice a month the purchasing executive analyzes the commitment report. This report indicates how much money Company B has committed to materials. The purchasing executive feels that he can tell if the commitment is out of line.

Although any company can overemphasize price, the purchasing executive states that price should always be considered along with other factors such as quality. Actually, price is one of the first elements

to be considered because of its influence on the development of specifications. Concerning the role of purchasing in regard to price, the purchasing executive states: "You try to buy at right prices but it's hard to state what it means."

The purchasing executive believes that only large companies have a value analysis section to analyze the value received for the money spent. However, he is presently attempting to learn more about the concept of value analysis and how it might be established in Company B.

#### Opinions of Other Members of Management

Material control supervisor. The material control supervisor reports to the purchasing executive. This supervisor was also in charge of material control when it was in the production department. It is the material control supervisor's opinion that when material control was under the production manager, balancing of inventory was more difficult. He states that if this function is under production, the production department can achieve a favorable position by drawing out stock and keeping ahead. The material control supervisor states that this causes higher inventory than when purchasing controls the inventory.

Production manager. The production manager in Company B considers the objective of purchasing to be one of supplying all needed materials, not made in the plant, and supplying these materials according to the established production program. He states that production does most of the investigation regarding make-or-buy considerations.

Since material control and production order scheduling were formerly under the production manager, he was asked what he thought of these functions being included in the purchasing department. The production

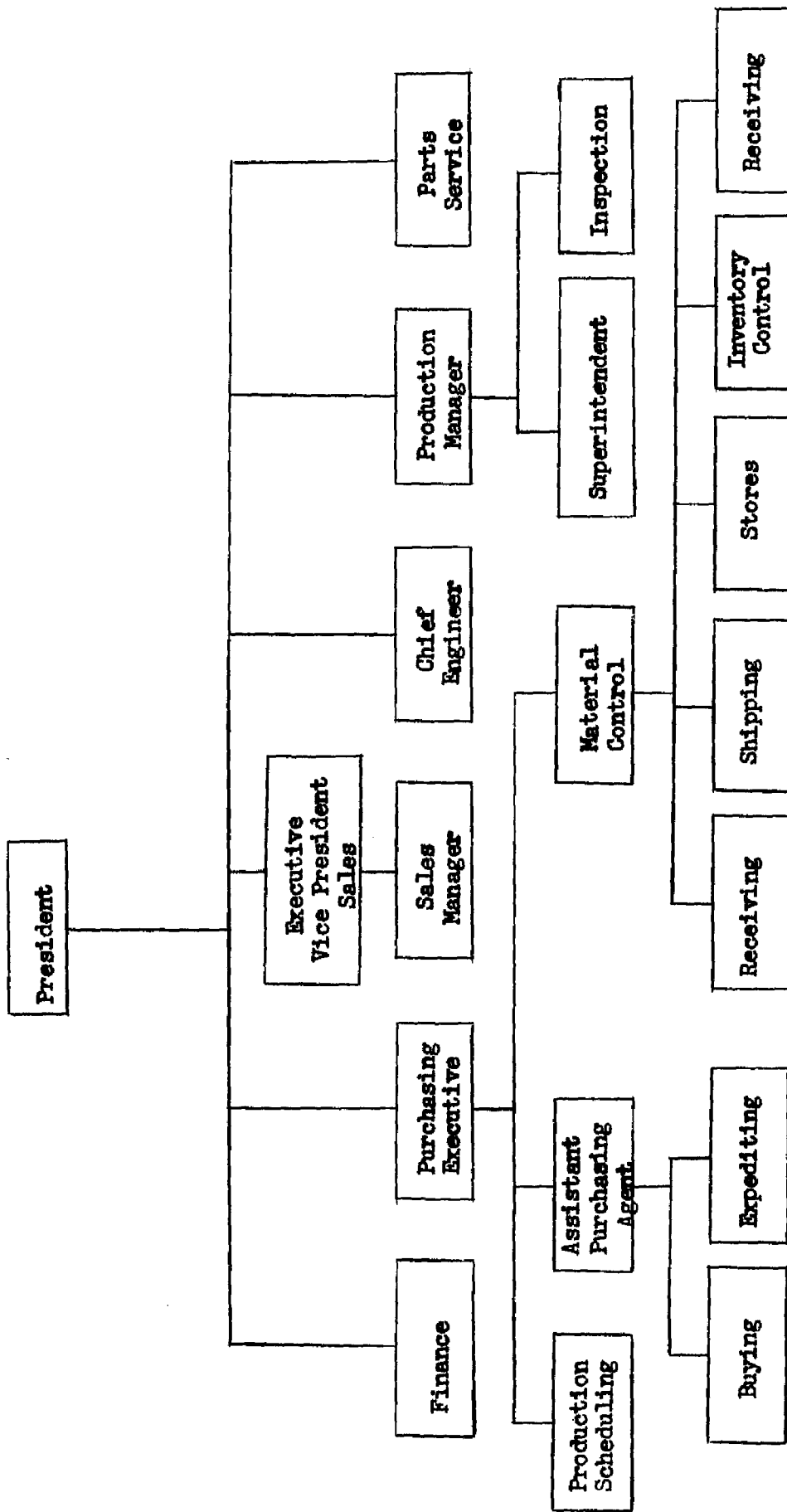
manager's reply was: "We work as a team in Company B." The production manager states that the purchasing department has to be supplied with lead times by production. He states that with scheduling under purchasing there is a reduction in duplication of work and records.

Chief engineer. The engineering department has the final authority and responsibility for specifying types, dimensions, and descriptions of all materials purchased. Although the vendor is frequently indicated on the specification, an attempt is made to use standard specifications so that more companies will be able to satisfy the needs.

The chief engineer states that the purchasing function is concerned with shopping around for the best buys. However, he agrees that purchasing plays an important role in assisting in the establishment of specifications. The chief engineer states: "You might say that purchasing serves as a 'watch-dog' on finding equal or better buys."

Purchasing personnel know enough about products to suggest modifications. The chief engineer states that purchasing personnel are in a very enviable position because of the good ideas that they receive from salesmen.

Chief inspector. The chief inspector states that when there is defective material, purchasing is notified and acts in a liaison position between production and vendors. Incoming inspection is under production in Company B.



UNOFFICIAL PARTIAL ORGANIZATION CHART - COMPANY B

## CASE STUDY REPORT 3: COMPANY C

Company C manufactures rolling chains and sprockets for mechanical transmission of power. These products are used in oil well equipment, farm equipment, conveyors, miscellaneous machines, and small appliances. The basic production operations are blanking and machining. Approximately 1400 people are employed by Company C.

The Purchasing Executive

Senior purchasing executive. The official title of the senior purchasing executive is Director of Purchasing. This title has been used for at least thirty-five years in Company C. The purchasing executive has reported to the executive vice president for thirty-five years.

The director of purchasing has 40 years experience in purchasing. He has a college degree in structural engineering. The nature of his first job assignment in purchasing was buying. Most of the director's time is devoted to steel buying. Since the director of purchasing is due to retire soon, the purchasing agent is actually the active administrator of the purchasing department. Therefore, most of the data were received from the purchasing agent, hereafter referred to as the purchasing executive.

Purchasing Agent. The age of the purchasing executive is 44. He has 20 years experience in purchasing work and has taken some college courses in accounting, production engineering, salesmanship, and purchasing.

The purchasing executive's first job assignment in purchasing was assistant purchasing agent. Just prior to entering his first job in purchasing, he was the head of the payroll department in another manufacturing company.

In answering a question regarding the type of background and experience that is important in filling the position of top purchasing executive, the purchasing executive in Company C states that a background in accounting, engineering, and metallurgy would be desirable. Production experience in the plant and the ability to be creative are also important. He believes that a college degree would be helpful but not necessary.

The purchasing executive is a member of the National Association of Purchasing Agents and the Chamber of Commerce in order to maintain professional stature and competency. Regularly read publications are Purchasing, Steel, Iron Age, American Machinist, Business Week and The Bulletin of the National Association of Purchasing Agents.

The purchasing executive in Company C estimates that 65 per cent of his time is devoted to administrative work--coordinating the work of the purchasing department and making required decisions relating to purchasing. The remaining 35 per cent of his time is devoted to functional duties concerned with buying such as visiting and evaluating vendors. There is no job description for the position of purchasing executive.

Concerning participation in top management decisions, the purchasing executive states: "Top management wants our opinions regarding policies and other decision areas that might be affected by or affect the purchasing function." He does not believe that his participation has

increased in recent years. The purchasing executive summarizes the activities and performance of purchasing and submits a yearly accomplishment report to higher management. In addition, he prepares and submits an anticipated budget.

What the purchasing executive expects from higher management.

The purchasing executive in Company C expresses the following expectations of higher management: (1) direction concerning the effects of various trends upon the company, (2) knowledge of the company's financial position, and (3) constructive criticism.

What the purchasing executive thinks higher management expects from purchasing. The purchasing executive believes that all higher management expects from purchasing is to buy the right material in the right quantity, at the right price and at the time required to assure that the material is available to satisfy production requirements.

Purchasing Objectives

There is no written statement of the objectives of purchasing in Company C. They are informally established by the purchasing executive. In addition to the typical objectives of buying the right quality and quantity of materials at the right price and time, the purchasing executive emphasizes the importance of the objective of improving vendor relations. Reduction of material costs is also a very important objective of purchasing in Company C. The remaining objective stated by the purchasing executive is to provide for an adequate purchasing organization.



Purchasing Organization

The purchasing executive in Company C states that his department has adequate authority and responsibility to accomplish the purchasing objectives. He also believes that his department is adequately staffed. The purchasing department consists of a director of purchasing who does the steel buying; a purchasing agent who is the administrator of the purchasing department; several buyers who are assigned various commodities; a supervisor of packing; a supervisor of raw material warehousing; and a sprocket material control supervisor. Purchasing personnel are selected by the president and the executive vice president with the advice of the purchasing executive.

The purchasing executive was asked if any additional functions should be included in the purchasing department. He stated that value analysis should be a purchasing function. Value analysis is handled by research and development, accounting, and the production manager. The purchasing executive states that purchasing has more knowledge than anyone else in regard to the value of purchased materials.

The relationships between the various supply functions and related functions are not explained by a purchasing manual. Also, there are no job descriptions for purchasing positions. The purchasing executive is against job descriptions. He states: "There is a job to be done regardless of any description. If there were written descriptions, purchasing people could use the excuse that certain tasks were not included in their job description and therefore shouldn't be performed by them." It is the purchasing executive's philosophy that much more work is performed without formal job descriptions.

Training for purchasing personnel. Since the application of policies requires an understanding of what they mean, company policy education is an important phase of Company C's general education program. Training of purchasing personnel is of an informal on-the-job type.

Techniques and organizational devices used to blend the points of view of purchasing personnel and others. There are seminars where department heads answer questions asked by members of other departments. These questions are compiled in brochure form and distributed to participants. The "top hundred" men in the company attend these seminars. Regardless of how good these seminars are, they occur only once in ten years. The reason stated for this infrequency of seminars is that turnover of personnel is very low and furthermore, exchange of ideas is on an informal basis. There are no committees in Company C because it is believed that the company is too small to have a need for committees.

#### Quality Factor

The objective of purchasing in the area of quality is expressed by the purchasing executive as "buying to meet specifications but yet encouraging and stimulating proper development of specifications by a careful review of them." The purchasing executive states that engineers often are not cost conscious when they develop a material specification.

Final authority and responsibility are definitely placed and well defined concerning specification development. Although design engineers write the specifications, purchasing plays an advisory role. As a result of purchasing participation, there are very few inaccurate or incomplete specifications. Purchasing personnel frequently recommend

new materials. The purchasing executive believes that his personnel are familiar enough with materials to suggest modifications in production materials.

Purchasing initiates a material test record for recording of inspection results by the inspection department. In addition, the purchasing department specifies incoming inspection methods to suppliers. The purchasing executive states that his personnel are familiar with vendors' inspection methods. Storage is a factor to consider in assuring that the original quality of purchased materials is maintained. Raw material stores is a responsibility of the purchasing department in Company C.

#### Quantity Factor

The objective of purchasing in the quantity area is to work with top management regarding the value of inventory. The purchasing executive states: "Purchasing keeps top management fully informed of lead times, etc., and tries to assist them in reaching an inventory decision which is acceptable to all."

The final authority and responsibility for inventory decisions rests with top management. Although there are no written inventory policies, the purchasing executive states: "Everyone knows what the inventory policies are." An example of an inventory policy in Company C, as stated by the purchasing executive, is: "For Material A, there should be enough in stock to supply production requirements, yet buy according to economic ordering quantities and attempt to maintain 90 days supply of Material A."

The purchasing department anticipates the needs of using departments primarily on the basis of the production schedule. Purchasing does not

get information directly from the sales department in regard to sales quotas and the sales forecast. However, information is received from production. Production scheduling is a production function. The scheduling department informs the purchasing department of expected production. The purchasing executive states: "We then use our own judgment concerning the actual amount to purchase."

#### Time Factor

The purchasing department in Company C takes into consideration such factors as seasonal difficulties, and changes in market condition. It also keeps in constant touch with production personnel. The most important responsibility of purchasing in assuring that materials are available when they are needed is proper selection of suppliers and maintenance of good relations with these suppliers.

#### Price Factor

Achievement of the objective of buying at the right price is dependent, in part, upon the knowledge purchasing personnel have regarding the price that the company can pay. The purchasing executive states that frequently he does not know whether the company can afford a certain price.

The determination of "right price" is a cooperative activity. In addition to "working out" prices with suppliers, known prices are considered in the writing of quality specifications. The purchasing executive compiles a price list and distributes copies to various manufacturing departments.

The purchasing executive is greatly concerned about increasing the role of purchasing in the area of value analysis. He has analyzed

value analysis programs in other companies and is presently attempting to decide upon an adequate value analysis approach in Company C. In regard to research, the purchasing executive states that his department does not perform research activities. There is confusion over the meaning of the word "research."

#### Opinions of Other Members of Management

Factory manager. It is the opinion of the factory manager that the purchasing function is primarily a buying function. He states that once production rates are established, they are converted into raw material requirements and sent to the purchasing department. These requirements usually cover current as well as the next four month's materials needs.

Engineering manager. The final say on material quality specifications rests with the engineering department. Although a major part of specification development is concerned with technical characteristics, the engineering manager wants information and advice from the purchasing department. He states: "There is no sense establishing a specification if there is no available supplier that will satisfy these requirements." Even though purchasing selects the suppliers, engineering must approve the source and the material to assure maintenance of required quality.

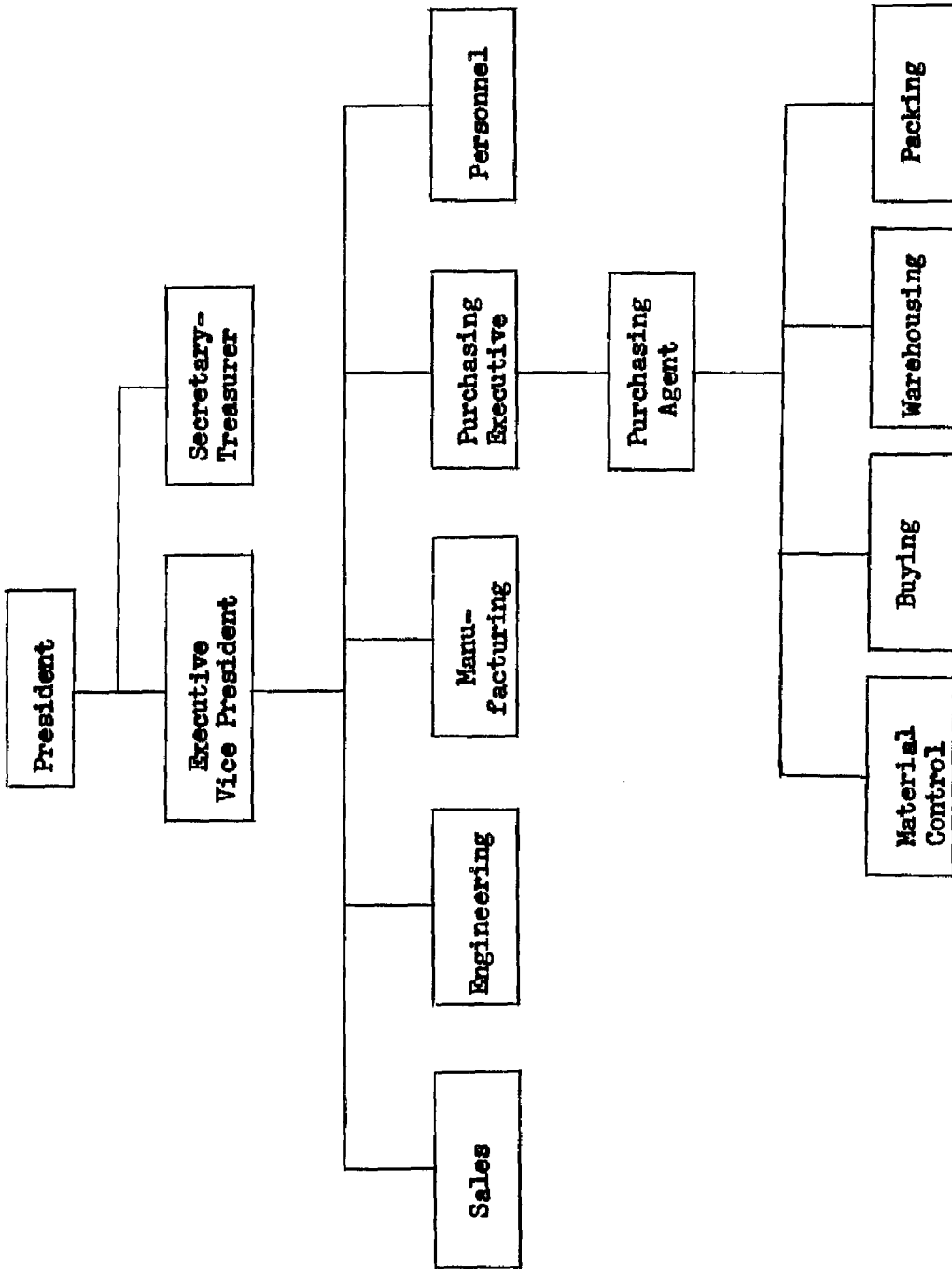
Executive vice president. The executive vice president of Company C emphasizes several expectations which he feels purchasing should fulfill: (1) purchasing should maintain an "adequate" supply of materials for proper operation of the plant; (2) the importance of cost reduction must be realized; and (3) purchasing should keep the raw material inventory level consistent with production--when production

is down, inventory should be down. This should be done with some direction from the executive vice president.

The executive vice president was asked how he judged the performance of purchasing. He mentioned the following considerations: (1) satisfaction of production departments concerning requirements for which purchasing is responsible; (2) the extent of "proven" cost reductions; (3) the amount of inventory in dollars as related to the current volume of production; and (4) the purchasing executive's ability to answer questions about his work without having to look in the records.

Specific purchasing objectives are not established by the executive vice president. He states:

I do not set specific goals for purchasing. Turnover is so low that people get to know what is expected of them. I think they know what their objectives are. There is no use setting specific objectives each year. They are always the same. It's ridiculous to repeat.



UNOFFICIAL PARTIAL ORGANIZATION CHART - COMPANY C

## CASE STUDY REPORT 4: COMPANY D

Company D manufactures tar, wood preservatives, and various related products. The company serves the chemical, rubber, pharmaceutical, petroleum, and public utility industries. The basic production operation consists of chemical processing. Company C operates through 14 plants throughout the country.

The Purchasing Executive

The official title of the senior purchasing executive is Purchasing Agent. This title has been used for twenty-five years in Company D. The purchasing executive has reported to the president for that length of time.

The age of the purchasing executive is 54. He has both a bachelor's and master's degree in electrical engineering and has had 24 years experience in purchasing. His first job assignment in purchasing was purchasing agent. Just prior to entering his first job in purchasing, he held a job in experimental engineering.

In answering a question concerning the kind of background and experience which is important in filling the position of senior purchasing executive, he states that a technical and broad background is needed. In addition, production experience in the plant is helpful.

The purchasing executive is a member of the National Association of Purchasing Agents in order to maintain professional stature and competency. Regularly read publications are Hoosier Purchaser, Engineering News Week, Chemical Week, Chemical and Engineering News, Iron Age, U. S. News and World Report, The Wall Street Journal, and The Bulletin of The National Association of Purchasing Agents.



The purchasing executive in Company D spends much of his time establishing central purchasing policies, advising, and approving plant purchases. Regarding participation in the formulation of top management decisions, the purchasing executive states: "I don't participate very much in top management decisions, but am consulted sometimes because of the questions I ask." He does summarize performance of purchasing for higher management. In the purchasing executive's words: "I blow my own horn when something good happens. If something goes wrong, higher management will know of it."

What the purchasing executive expects from higher management. The primary expectation of the purchasing executive is cooperation from higher members of management. He expects higher management to provide purchasing with the necessary information for making "good deals" for the company, e.g., when higher management plans an expansion, the purchasing executive wants this information in advance so that he can properly plan for purchasing activities. Recognition of purchasing as an integral part of the company and adequate purchasing staff are the remaining expectations mentioned by the purchasing executive in Company D.

What the purchasing executive thinks higher management expects from purchasing. Although higher management does not establish objectives for the purchasing department, the purchasing executive states that he thinks essentially higher management expects him to provide the necessary raw materials at the right place, at the right time, and at the right price.

#### Purchasing Objectives

When asked what the objectives of the purchasing department were, the purchasing executive stated: "The same as what higher management

expects from purchasing." There is no written statement of the objectives of purchasing in Company D. The purchasing executive believes that he has sufficient authority and responsibility to achieve the "typical" objectives of purchasing.

#### Purchasing Organization

The central purchasing department in Company D consists of the purchasing executive and a secretary. There is a timber buyer who reports to the vice president of production. In addition, there are purchasing agents in most of the 14 plants.

Important raw materials, as well as carload quantities of supplies, are purchased by or under the direction of the central purchasing executive. The purchasing executive states that although he supervises much of the purchasing, a lot of the buying is done at each plant. It is a policy of Company D that all purchases in excess of \$200.00 must be referred to the main office of the company.

There is no purchasing manual integrating and explaining the various activities of purchasing. Also, no job descriptions for purchasing positions are present in Company D. In addition, no planned training for purchasing personnel is provided. The president selects purchasing personnel for the main office and the plant manager selects purchasing personnel for his plant.

The purchasing executive was asked if any additional functions should be included in his department. He was unable to think of any additional function that should be under him.

Quality Factor

The purchasing executive states that "quality" is difficult to define in the chemical industry. Although the research laboratory writes the specifications for materials, the purchasing executive participates in the original determination. This participation is in the nature of providing advice and information which is received from various salesmen who call on the purchasing executive. In addition, the purchasing executive keeps informed of new developments through the publications he reads.

The purchasing executive states that he has no authority to change the quality specifications. These are established to meet definite needs. The purchasing executive suggests quality modification but states that he is not too well informed of some of the materials used because of particular chemical characteristics which are often desired by the research laboratory. The purchasing executive's primary responsibility is to assure an "adequate" supply of the desired material.

Quantity Factor

Tar is the major material used in Company D. Long term contracts are negotiated with supplying companies. Some of the contracts are for as long as 20 years. Because of the large financial commitment on tar, the executive committee, consisting of the president, vice president of production, and vice president of sales, makes the decisions on these contracts. Occasionally, the purchasing executive participates. His participation is in the nature of providing advice. The purchasing executive keeps the records of these contracts and places orders against them.

Asked what the inventory policies were, the purchasing executive stated: "Hold inventories as low as possible without getting into any difficulty. Really it's a changing thing." Inventory policies are not in written form. The purchasing executive insists that department heads keep adequate inventory records which will assist in preventing unnecessary shortages of materials. Maximum and minimum quantity figures are established. The purchasing executive anticipates, to some degree, production needs for materials. Weekly reports from the 14 plants of Company D provide the basis for the purchasing executive's anticipation of needs.

#### Time Factor

The purchasing executive determines when the material should be received by Company D. He works out the details of deliveries with vendors.

#### Price Factor

Regarding the purchasing executive's role in the price area, the purchasing executive states: "The best buy is up to me." Many times he can buy the material at only one price regardless of where he gets it. It is expected that the various plant purchasing personnel assist the central purchasing department in making better purchases. A memorandum to all plant purchasing personnel states: "Information regarding 'good deals' should be sent at once to the main office for circulation to all interested departments."

#### Opinions of Other Members of Management

Vice president of production. The vice president of production states that time is the deciding factor as to whether the purchasing

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executive or the executive committee negotiates the purchase contract. Usually, yearly contracts are the responsibility of the purchasing executive. Longer contracts are negotiated by the president with advice from the executive committee.

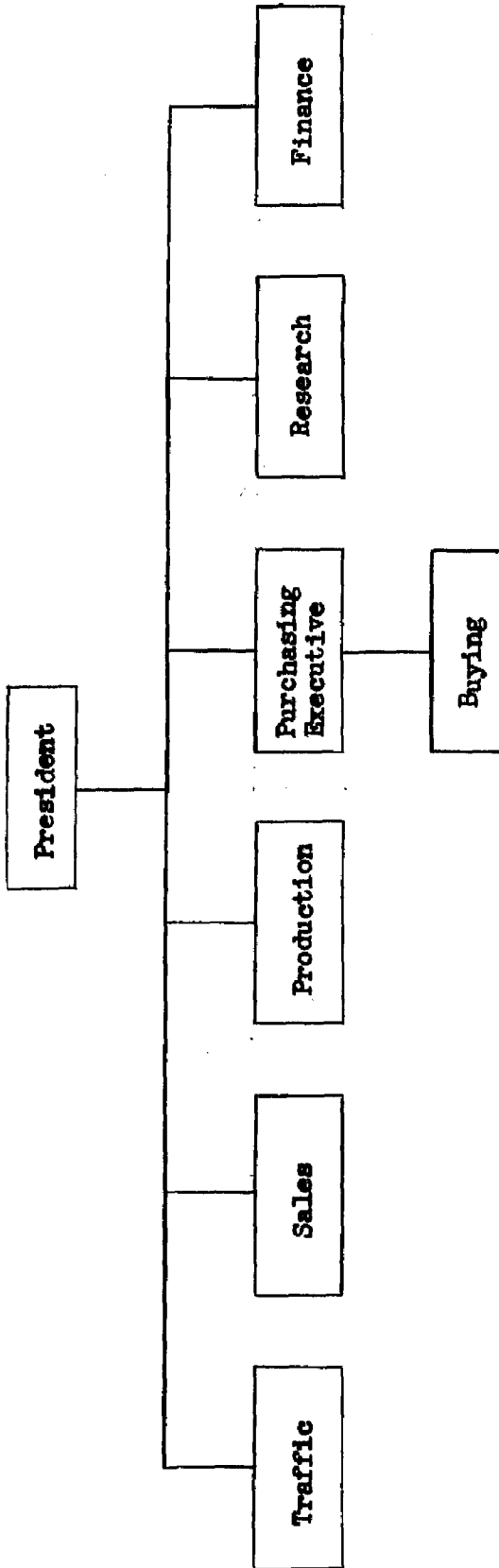
A plant manager. This manager views purchasing as only a buying function, but he believes that the purchasing department can and should do more than buy. He states: "Anyone can buy, but to get the best buy is something else."

President. The president personally makes the contract with the tar suppliers. He states that the purchasing executive places orders against these contracts after the executive committee has drawn them up.

The president is not concerned with "exact" delegation of authority. He states: "We operate more or less on the 'feel' of things. If the purchasing agent has any difficulty he'll discuss it with me. If I'm not here, someone will go ahead and do what has to be done."

Expectations which the president feels the purchasing executive should fulfill are to keep inventory in proper balance, and keep up-to-date records---"all those things that purchasing people ordinarily do."

The president was asked how he evaluates the performance of purchasing. Considerations mentioned are: (1) the degree of protection of supplies, (2) the number of emergencies regarding materials supply, (3) the manner in which reports are prepared, and (4) the information the purchasing executive has at his "finger-tips." The president clarified this by saying, "If the purchasing executive can answer questions promptly, he is probably efficient."



UNOFFICIAL PARTIAL ORGANIZATION CHART - COMPANY D

## CASE STUDY REPORT 5: COMPANY E

Company E manufactures a variety of metal fabricated products such as household utility tables, home furniture, and office furniture. The basic production operations consist of steel blanking and assembly. In addition to the main manufacturing plant, Company E owns three small tube mills and a steel blanking plant. The products are distributed to dealers and department stores. Approximately 1,000 employees are employed by Company E.

The Purchasing Executive

The official title of the senior purchasing executive is Director of Purchases. This title has been used for five years in Company E. Before this, there was no purchasing department. The purchasing executive reports to the executive vice president. However, most of his contacts with higher management are with the chairman of the board.

The age of the purchasing executive is 41. He has six years experience in purchasing. He does not have a college degree. He began his career in purchasing as the head of the purchasing department. Just prior to this, he was office manager in Company E. He has worked in many areas in Company E.

In answering a question concerning the background and experience which is important in filling the position of senior purchasing executive, the purchasing executive stated that he believes an accounting and engineering background with production experience in the plant would be desirable. He does not place very much emphasis on sales experience.

The purchasing executive is a member of the National Association of Purchasing Agents and the Chamber of Commerce. Regularly read publications are Iron Age, Equipment Digest, New Tools Digest, and The Bulletin of The National Association of Purchasing Agents.

The purchasing executive in Company E states that most of his time is devoted to administrative work involving decision making and participation in various company meetings. There is no job description for the position of director of purchases. He states: "I am liable to get into anything." The purchasing executive also states that he participates in top management decisions in all general areas and those that are specifically concerned with purchasing. He describes the nature of participation as "expression of ideas to top management." Participation in top level decisions has increased in recent years. The purchasing executive states: "It has only been a year since purchasing has gotten into the 'inner-sanctum' of management." Every month, the purchasing executive reports to higher management concerning research activities and findings pertaining to purchasing. In addition, weekly written reports are submitted to higher management informing them of the dollar value of inventory. All of these reports are reviewed in management meetings.

What the purchasing executive expects from higher management. The purchasing executive was asked what he expected from higher management. He replied: "This is hard to answer. I don't quite understand the question." After some hesitation, the purchasing executive stated: "I expect a free hand in performance of the purchasing functions and really there are very few 'strings' attached to my work." He finished his discussion of this question by saying that he never gave this question (what he expects from higher management) any thought.



What the purchasing executive thinks higher management expects from purchasing. The purchasing executive believes that higher management expects him and his personnel to: (1) buy the best quality of materials at the best price; (2) keep production inventories in line with policies; (3) see that the production departments keep within established material allowances; (4) establish master production schedules; and (5) participate in civic and church work.

#### Purchasing Objectives

There is no written statement of the objectives of purchasing in Company E. The purchasing executive states that the objectives of purchasing are the same as the expectations of higher management in regard to purchasing. He also states that he establishes the objectives for his department and has adequate authority and responsibility to achieve what higher management expects.

#### Purchasing Organization

In addition to the buying function, raw material stores and master production scheduling are included in the purchasing department. The purchasing executive selects his personnel. There are no job descriptions for the purchasing jobs in Company E. The purchasing executive states: "We have an understanding."

The purchasing executive was asked if any additional functions should be included in the purchasing department. He stated that perhaps the traffic function should be included in his department because of the similarity of this function and some of the others in his department. He believes that the purchasing department is adequately staffed. The reason given for the inclusion of scheduling in the

purchasing organization is that scheduling was under the purchasing executive before he became head of the purchasing department and the function remained with him. There is no purchasing manual in Company E. However, the purchasing executive believes that there are some benefits to be gained by having a manual integrating and explaining the various activities of purchasing, but he states: "When a crisis occurs you can't be bogged down with detail. Furthermore, a manual is difficult to keep current."

Training for purchasing personnel. No formal training is provided for purchasing personnel. However, everyone in purchasing in Company E has worked elsewhere in the plant. Also, the purchasing executive has a meeting with his personnel every week to discuss problems and "anything in general." Although these meetings are primarily concerned with procedures and proper methods of solving problems, they also are considered by the purchasing executive to be a means of providing some training for the purchasing personnel.

Techniques and organizational devices used to blend the points of view of purchasing personnel and others. In addition to many informal meetings with various members of management, there are regular meetings of the heads of such departments as material cost, product design, and purchasing. The purchasing executive is a member of the executive committee. This committee consists of the president, executive vice president, treasurer, director of sales, plant manager, and the purchasing executive. This group meets each week.

Quality Factor

The purchasing executive states the objective of purchasing in this area as "trying to buy the best quality because we pride ourselves

in making quality products in Company E." He considers the placement of authority and responsibility for quality decisions as being definite.

Development of specifications is a coordinated job usually involving the material cost department, purchasing, and product engineering. These participants make recommendations to be considered by the executive committee. These recommendations are discussed and a decision made by a majority vote of the members of the executive committee. For any product in production, quality changes are cleared by the new product engineer. Purchasing personnel frequently recommend substitute materials.

Incoming inspection methods are communicated to suppliers by the purchasing department. In addition, the purchasing executive states that the people on his staff are familiar with inspection in vendors' plants, especially in those companies where they have had problems.

#### Quantity Factor

The purchase quantity of materials is usually based on the rate of production according to the purchasing executive. He states: "We make approximate forecasts for two or three months, particularly on steel. We also try to take advantage of truck loads." The purchasing department anticipates the needs of using departments by analyzing sales orders, and the inventory level.

There are no written inventory policies in Company E. However, the purchasing executive states that inventory matters are frequently discussed in executive committee meetings. He expressed one policy as "keeping within six weeks inventory on steel and four weeks of

everything else." Final authority to decide upon the purchase quantity of materials rests with the purchasing executive. He feels that authority and responsibility for quantity decisions are definitely placed and well defined.

Material allowances are established for production and the purchasing department attempts to determine where waste is occurring if production exceeds this allowance. The purchasing executive feels that since he has responsibility to purchase for definite needs, he should determine the use production is making of these materials.

#### Time Factor

The objective of purchasing with regard to the time factor is "to have the materials in the plant when needed but not to exceed the desired inventory level." The purchasing executive states that he has control over production schedules in the steel mills which the company owns. This was not verified. However, he does determine the delivery schedule of materials from these mills.

#### Price Factor

The objective of purchasing in this area is "to get the best price that won't sacrifice the quality needed." The purchasing executive regularly attempts to determine if his department is paying over or under prices paid at different periods of time. If prices are higher, the purchasing executive wants to know why. He states that his personnel are constantly concerned with the value of purchased materials.

#### Opinions of Other Members of Management

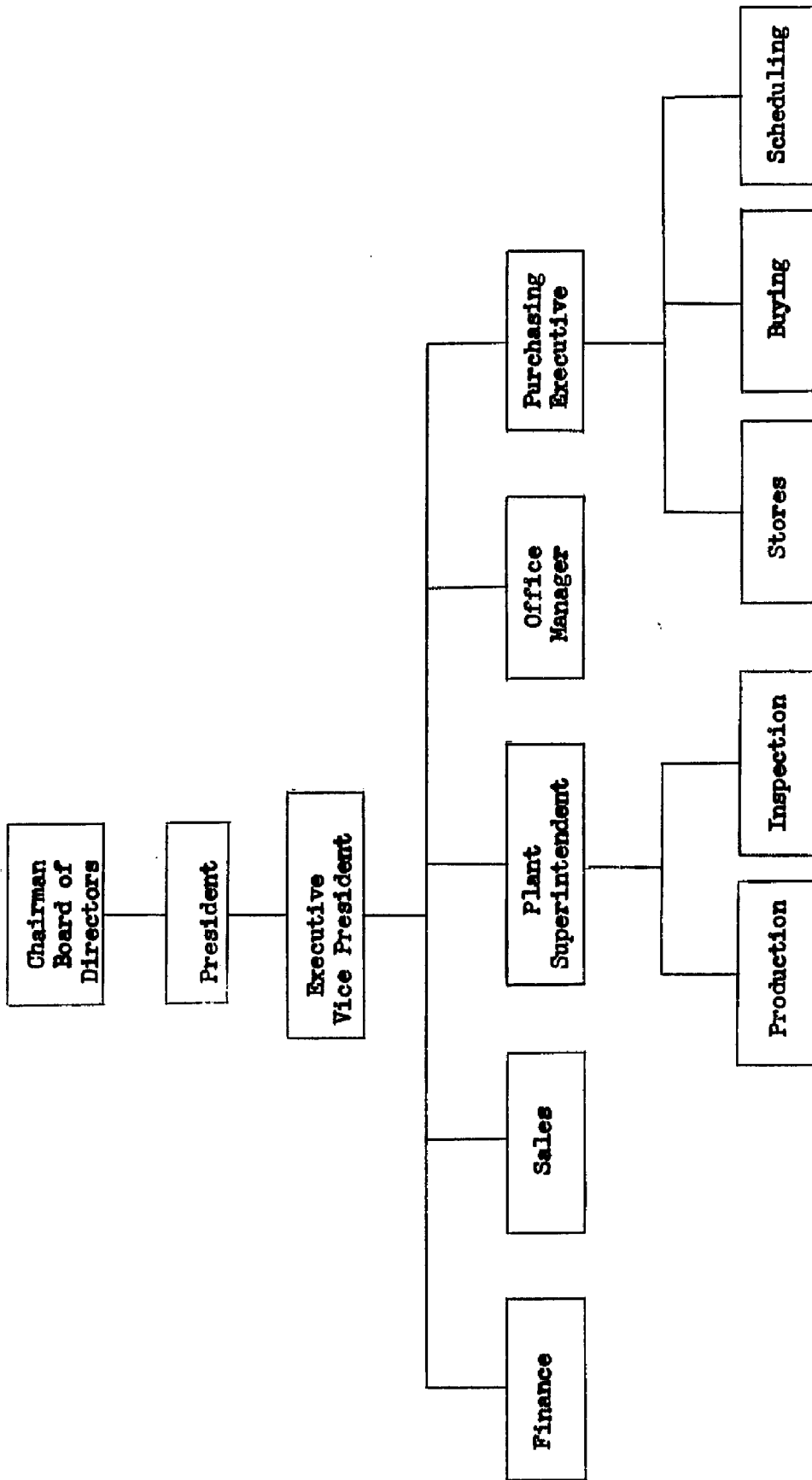
Production scheduler. The scheduler reports to the purchasing executive in Company E. The master production schedule is established

by the scheduler. He states that if the master schedule is established by production, production departments will produce to suit themselves. The scheduler maintains close relations with producing departments to find out whether they are having any materials problems.

Engineering and costs manager. This manager states that sometimes he obtains price information from suppliers. However, purchasing maintains most of the contacts with suppliers. The engineering and costs manager informs the purchasing executive of desired materials costs. Material allowances are established by the costs manager. He states: "Purchasing can buy more materials than required; however, purchasing is held accountable for excess materials."

New product engineer. For any product in production, the new product engineer is primarily responsible for specification changes. He encourages suggestions from purchasing personnel concerning possible substitute materials. He also believes that purchasing personnel, because of their daily contacts with salesmen, are well informed as to alternative materials. The new product engineer and the purchasing department work together on cost reductions.

Plant manager. The plant has an incentive plan and the plant manager states: "Purchasing is the 'key' factor as to whether we meet our quotas." He considers the function of purchasing in broader terms than just buying. The plant manager does not believe that purchasing should be under production. He states: "Purchasing works directly for the company--not any particular department."



UNOFFICIAL PARTIAL ORGANIZATION CHART - COMPANY E

## CASE STUDY REPORT 6: COMPANY F

Company F manufactures a variety of metal cutting tools and alloys in wrought and cast forms. These products serve a number of industries such as chemical, petroleum, and aircraft. The alloys also serve an important role in the processing of materials for the Atomic Energy Program. Company F employs approximately 3,000 employees in three plants. The basic production operations in the main plant are casting, molding, and finishing. The wrought alloy plant is at the same location as the main plant. An investment casting plant is approximately fifty miles from these two plants.

The Purchasing Executive

The official title of the senior purchasing executive is Works Purchasing Agent. This title has been used for at least ten years in Company F. The purchasing executive has always reported to the treasurer.

The age of the purchasing executive is 41. He has 14 years experience in purchasing and two years of college work with a major in engineering. His first job assignment in purchasing was expediting. Just prior to entering his first job in purchasing, he was a junior electrical engineer.

In answering a question concerning the background and experience which is important in filling the position of senior purchasing executive, the purchasing executive states: "Experience in the plant is desirable for acceptance by production people." He also states that acquaintance with related functions of the business, experience in purchasing, and

ability to talk in engineering terms and understand engineering problems are desired qualifications.

The purchasing executive is a member of the National Association of Purchasing Agents. The publications read regularly are Purchasing, Hoosier Purchaser, News Week, Business Week, Reader's Digest, and The Bulletin of The National Association of Purchasing Agents.

The purchasing executive in Company F estimates that 60 per cent of his time is devoted to administrative work involving such activities as departmental planning and company meetings. The remaining 40 per cent of his time is devoted to operative duties such as buying, interviewing, and visiting plants of suppliers. The purchasing executive buys capital equipment and construction items.

Although the purchasing executive states that he has never seen a job description for his position, the treasurer to whom the purchasing executive reports said that there is an old one which he read to the purchasing executive when he became head of the purchasing department. Summarization of this job description follows:

The purchasing agent is responsible for operations and results of the purchasing group. He is responsible for liaison with manufacturing and other departments. He assists in explaining company plans and policies to the employees under his supervision.

The purchasing executive states that he participates in top management decisions relating to purchasing policies. The nature of participation is advisory. The purchasing executive states that his participation in top management decisions has increased in recent years due to "demonstration of the purchasing department's abilities and potentialities."



Reports are a basic vehicle for communicating information from the purchasing executive to his superior. The purchasing executive submits a monthly report to the treasurer regarding the nature and conclusions of purchasing projects. Particular emphasis is directed in these reports to the savings made possible by the purchasing department. An additional report is concerned with general business trends.

What the purchasing executive expects from higher management. The purchasing executive in Company F states that higher management should provide:

1. Opportunity to utilize modern purchasing procedures with the support of top management.
2. Opportunity to exercise the abilities of purchasing personnel without being forced to follow engineering decisions, i.e., opportunity to utilize purchasing advantages before others make the decisions.
3. Advice regarding desired relations with other departments.
4. Recognition and backing so that purchasing personnel can acquire and retain prestige within the company.
5. Adequate authority, i.e., a free hand in purchasing activities.
6. Knowledge of top management philosophies.

What the purchasing executive thinks higher management expects from purchasing. The purchasing executive states that higher management expects the following from purchasing:

1. The most value for dollar expended by the purchasing department.
2. Efficient operation of the purchasing department.
3. Compatibility of purchasing with other departments.

4. Purchasing personnel to keep posted on outside developments which might affect Company F.
5. Sound advice relating to the purchase of materials.

#### Purchasing Objectives

Although there is no written statement of the objectives of purchasing in Company F, the purchasing executive states a number of objectives which he has established for his department:

1. To provide all areas of the company with the kind of information that will encourage everyone to rely upon the purchasing department for proper performance of the buying and related functions.
2. To negotiate the best possible buy.
3. To make a complete evaluation of all purchased materials.
4. To voluntarily provide higher management and concerned departments with the kind of information which will help them make profitable decisions.
5. To always endeavor to keep abreast of manufacturing trends in the industry as well as in Company F.
6. To endeavor to coordinate those activities which relate directly to purchasing.
7. To select the best suppliers and maintain good buyer-supplier relations.
8. To develop purchasing personnel.
9. To advise top management of the accomplishments of the purchasing department.

The purchasing executive states that for a few years there were meetings with top management where objectives were reviewed and established. However, immediate problems tended to "crowd out" the task of establishing long-run objectives for purchasing. The purchasing executive states that his department has adequate authority and responsibility to accomplish the objectives which he establishes for the purchasing department.

#### Purchasing Organization

The purchasing staff consists of a purchasing agent, assistant purchasing agent, abrasive engineer, and four buyers. Each of these members of the purchasing department is assigned the responsibility for a group of commodities. There are no job descriptions for purchasing positions in Company F. Purchasing personnel are selected by the purchasing executive with approval of the treasurer.

The purchasing executive considers his department adequately staffed for the functions now included in the purchasing department. He was asked if any additional functions should be included in the purchasing department. He stated that better coordination of supply functions would be possible if the following functions were included in his department: (1) value analysis, (2) production and supply stores, and (3) movement of materials up to the point where they enter the production process. All of these additional functions are presently supervised by individuals reporting to the same executive as does the purchasing executive.

There is no purchasing or materials manual explaining the inter-relations between all of the supply functions. Both the purchasing

executive and the treasurer recognize the need for a materials manual.

Training for purchasing personnel. Every year commodity assignments are rotated in order to introduce new thinking, broaden the buyers' experience and facilitate vacations. Some of the purchasing personnel have attended a sales training program sponsored by the personnel department. An additional training device is the departmental meeting. Every few weeks a purchasing department meeting is called to discuss savings effected by purchasing personnel. At these meetings, each buyer discusses his progress on some project. Other buyers "brainstorm" the possibilities regarding the project under discussion. The primary purpose of these meetings is to exchange information. There are no regularly established company committees to which purchasing personnel belong.

#### Quality Factor

The purchasing executive points out the following purchasing objectives in the area of quality:

1. To evaluate established quality specifications.
2. To keep informed of alternative materials and products.
3. To request clear and definite specifications.
4. To buy as near as possible to quality requirements and provide as many savings as possible.

The purchasing executive states that authority and responsibility for the quality of purchased materials are definitely placed and well defined.

The purchasing department receives tentative specifications from the quality control department with the request that any comments and

suggestions be brought to its attention before the final development of specifications. The purchasing executive states that there are many instances when he is not asked to participate in the development of specifications.

After quality specifications have been established, and used for some time, purchasing personnel ask for re-evaluation of the specifications. They often suggest to using departments that test checks be made on other materials that can be purchased at a lower price.

The purchasing executive states that many specifications have to be rewritten to make them complete and accurate. If this were not done, suppliers would not know the exact quality requirements of Company F. It is the responsibility of the purchasing department to make sure that suppliers understand what is expected of them. Suppliers are usually informed of the incoming inspection methods in Company F. Concerning inspection methods in suppliers' plants, the purchasing executive states that his personnel are not adequately aware of these.

Purchasing personnel attempt to determine the importance of various materials to the end products of Company F to assist them in purchasing the materials. However, the purchasing executive states: "Some raw materials are so difficult to get that we have little range in quality requirements." Many times the purchasing department has to determine the end use of materials. Knowledge of the use of materials aids purchasing personnel in seeking substitutes.

The purchasing department aids in the control of the quality of purchased materials by determining the ability of suppliers to satisfy the needs of Company F. Purchasing also acts as a "go-between" for using departments and suppliers when any material does not meet the

quality requirements. When anyone from the plant wants to visit the plant of a supplier, the purchasing executive insists on sending someone along from the purchasing department. The reason for this is that purchasing wants to be informed of any quality decisions which might be made.

Much of the role of purchasing is informal. The purchasing executive feels that there is a lack of understanding by higher management and department heads of what purchasing can contribute. One potential area for more purchasing participation is that of make-or-buy. Although the final decision on make-or-buy is made by higher management, purchasing frequently initiates an investigation in this area and sometimes serves as coordinator of the study. The role of purchasing in this area is not definite.

#### Quantity Factor

The purchasing executive states that the objectives of purchasing in the quantity area are "to purchase the most economic lot size consistent with need, storage, and availability of capital for investment in materials." The purchasing executive does not feel that the authority and responsibility for quantity decisions are definitely placed and well defined. He states: "The president and the treasurer may make many of these decisions . . . . I feel that the purchasing department has the freedom to make the decisions."

The purchasing department "keeps track" of the usage of materials through contacts with producing departments and the stores room. This provides past and present usage figures. In regard to future needs, buyers have to "dig" for this information. Purchasing tries to refuse

to buy materials until specific uses are determined. The purchasing executive's feeling is that materials in stock should be used if they will work before buying new or additional materials.

There are no written inventory policies in Company F. The purchasing executive states: "The only inventory policy we have is in the minds of those involved." In general, the purchasing executive attempts to see that no more than three months supply is maintained, depending on "turnover and costs." Wherever possible, purchasing tries to maintain a small inventory and then schedule shipments with suppliers over a long period.

For stores items of a repetitive nature, purchasing follows an order quantity table based on the annual use of the material and classified for a carrying cost of 11 per cent. A quantity discount advantage sheet is used to figure the rate of return on the extra investment required to purchase larger quantities. This is compared with the prevailing rate of return on investment to determine the advisability of purchasing the larger quantity.

#### Time Factor

The purchasing department, with the concurrence of using departments, determines the time of delivery of materials. The purchasing executive points out that to some extent the availability of a few of the raw materials determines the production schedule. Some of the raw materials used to produce the alloy are short in supply.

#### Price Factor

Purchasing tries to buy at the lowest price consistent with the required quality. According to the purchasing executive many prices

are uniform. The purchasing executive states that purchasing personnel know what it would cost to produce some of the requirements which are purchased. This knowledge enables buyers to more properly evaluate prices.

In regard to research activities, the purchasing executive states that his department is constantly reviewing new products, processes, and relative prices. In addition, purchasing personnel attempt to stimulate suppliers and other departments in Company F to carry on research in order to reduce the cost of materials.

Opinions of Other Members of Management

A production superintendent. This superintendent resents the insistence of the purchasing executive that someone from the purchasing department accompany the superintendent when he visits the plant of a supplier. He states: "If the purchasing department can spare someone to go along for a ride, it has too many people." The superintendent thinks that purchasing personnel want to dictate too much. He believes that production people should have the say concerning the source of materials.

Although the superintendent states that the purchasing job is concerned only with placement of purchase orders, he also admits that purchasing suggests many substitute materials for consideration. However, the superintendent does not feel that purchasing personnel have sufficient technical knowledge.

A production superintendent. This superintendent states that the primary role of the purchasing department should be to select good suppliers. He believes that purchasing personnel should have a background in production to do the kind of job that is expected of them.



Production control supervisor. A production control department has existed for only two years in Company F. So far, there has been very little relationship between this department and purchasing. The only stated relationship is that the production control supervisor informs purchasing when there are anticipated layoffs. This information assists purchasing in scheduling purchase orders and quantities.

Head of material handling, stores, and receiving. The stores department supplies purchasing with monthly usage reports to aid in placing purchase orders. Purchasing is also informed of excessive usage of materials by the stores department.

The head of materials handling, stores and receiving agrees with the purchasing executive that authority and responsibility are not definitely placed. He also states that there are no definite inventory policies.

Director of technical development. The primary function of the technical development department is to develop new products or modify present products. Approximately 15 new products are developed every year. The director states:

Often, my staff does not have much information regarding requirements. The purchasing department can often contribute new ideas that it gets from salesmen. Many times we have trouble with materials. We then ask purchasing if they know what else might work from an economic standpoint.

There are quite a few conferences between technical development personnel and purchasing personnel.

Quality control supervisor. The quality control department has the final authority and responsibility for developing specifications not established by the technical development department. The quality control

supervisor states that occasionally he asks the purchasing department to "find" several suppliers who can supply the materials. The quality control supervisor emphasizes that in reality there is no sense in establishing specifications if a supplier is not available to meet the company's requirements.

Although purchasing personnel usually investigate inspection methods in the plants of suppliers, occasionally someone from the quality control group will investigate the supplier's inspection methods. The quality control supervisor believes that purchasing personnel have a "pretty good understanding" of technical problems as a result of asking questions.

Treasurer. The purchasing executive reports to the treasurer in Company F. The treasurer was asked what he expects from purchasing. The following expectations were mentioned regarding the purchasing department:

1. To properly handle all phases of negotiation.
2. To keep abreast of production developments.
3. To voluntarily "funnel" all information on raw materials, etc. to interested departments.
4. To maintain adequate sources of supply.
5. To maintain good relations with representatives of supplying companies.
6. To constantly prove themselves.

In addition to these expectations, the treasurer expects the purchasing executive to: (1) be able to properly organize and maintain the purchasing functions; (2) constantly analyze the performance of

purchasing personnel; (3) indoctrinate purchasing personnel as required; and (4) constantly review purchasing procedures.

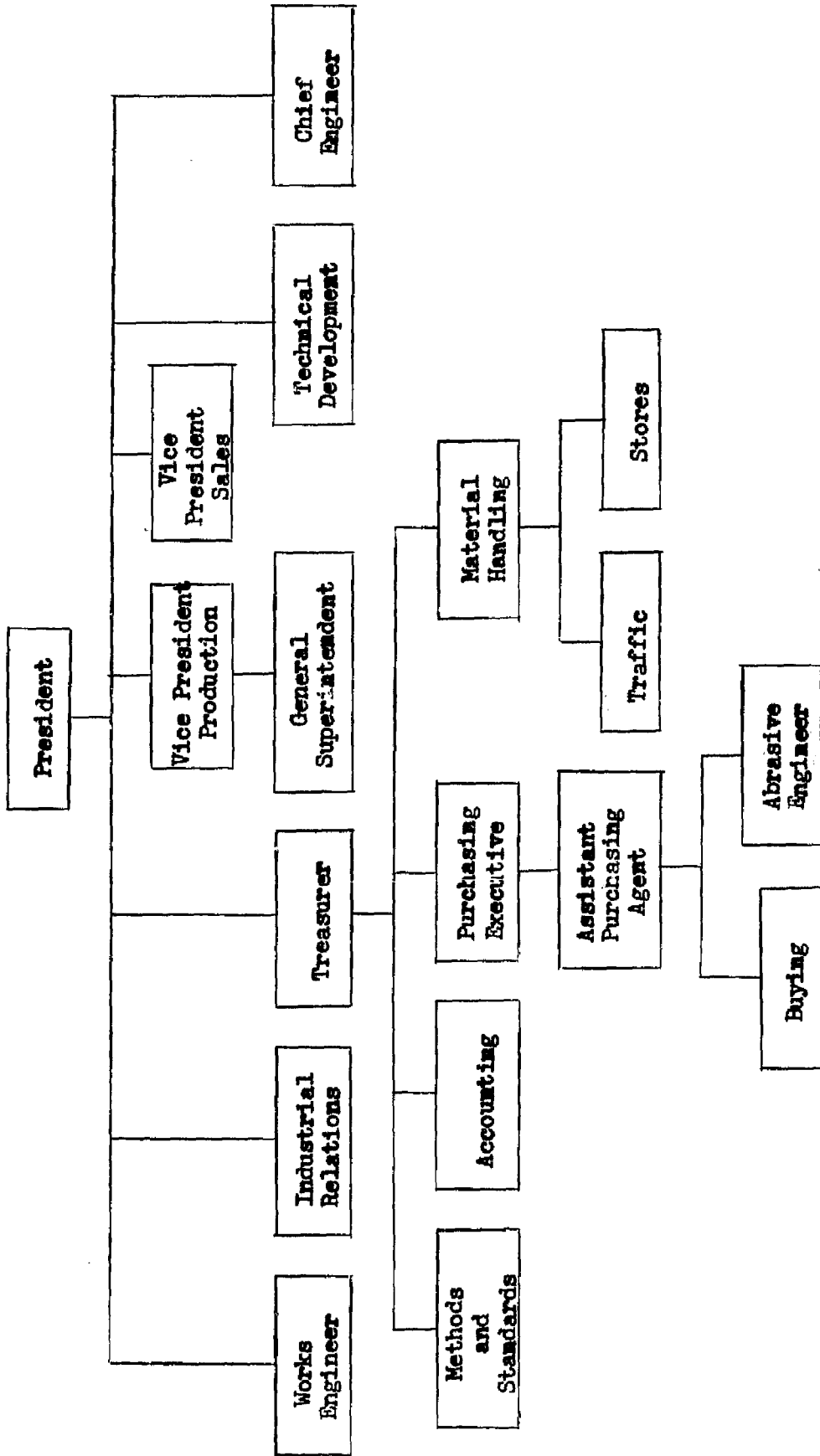
The factors used by the treasurer in evaluating the performance of purchasing personnel are: (1) the number of requisitions, (2) purchasing reports on savings, and (3) opinions of other department heads.

The treasurer was asked why the purchasing executive reports to him. He stated that the primary reason was to maintain more effective financial control of expenditures for materials.

President. The president states that the basic reason why the purchasing executive reports to the treasurer is that historically, purchasing has always been under finance. He does not agree that the justification is financial control.

Evaluation of purchasing performance is on the basis of information received from the treasurer, observation of the inventory level, knowledge of the purchasing executive concerning all aspects of purchasing work, and opinions of using department heads.

The president expects the purchasing department to: (1) assist in controlling raw material inventory, (2) constantly seek substitute materials at lower prices, (3) maintain constant contact with the production control department in order to know of changes in requirements, and (4) keep informed of market trends.



UNOFFICIAL PARTIAL ORGANIZATION CHART - COMPANY F

## CASE STUDY REPORT 7: COMPANY G

Company G consists of three divisions with 15 plants located in 5 cities. These divisions serve the automotive, electrical appliance, and furniture industries. The basic production operations are metal fabricating, stamping, and assembly. Approximately 4,200 employees are employed by Company G.

The Purchasing Executive

In addition to the vice president of purchasing who reports to the president, there are three directors of purchasing. The directors report to their respective divisional vice president and general manager. In addition to the vice president of purchasing, data were received from the director of purchasing in the electronic division. This division was selected because it was more fully developed in regard to purchasing. The first part of this report concerns data obtained from the vice president of purchasing. The second part is devoted to the electronic division.

Vice president of purchasing. The vice president's first job assignment in purchasing was buying. Just prior to entering his first job in purchasing, the vice president worked in sales.

In answering a question concerning the background and experience which is important in filling the position of senior purchasing executive, the vice president of purchasing stated that probably a combination engineering and business administration education would be ideal. He also believes that sales experience would be helpful. Regarding production experience in the plant, he states: "There are

plenty of production people in the company who can pass necessary production information on to the purchasing executive. Although production experience may be good, it is not necessary."

The vice president of purchasing is a member of the Chamber of Commerce. He does not belong to The National Association of Purchasing Agents. He states: "By not being a member of a professional organization, I can avoid making 'off-the-cuff' decisions with salesmen." Regularly read publications are: Purchasing, Purchasing News, Steel, Iron Age, Nations Business, Fortune, Forbes, U. S. News and World Report, and The Wall Street Journal.

The vice president of purchasing estimates that 98 per cent of his time is devoted to administrative work involving planning, and participation in top management decisions. The remaining 2 per cent of his time is devoted to buying activities. His primary participation in top management decisions involves advice in the formulation of company policies. The vice president recommends certain policies in the purchasing area but believes that combined judgment is always best. There are no job descriptions for purchasing positions. The vice president states: "Job descriptions are not very practical. There are many changes in duties and these would keep two or three people busy keeping the descriptions up to date."

In answering a question regarding what he expects from the president, the vice president of purchasing stated: "I expect the president to solicit opinions of purchasing personnel regarding general policy areas." The vice president thinks that the president expects him to: (1) be well informed of the availability of materials, inventory

levels, and market prices, (2) see that his personnel are adequately trained, and (3) make sure that company obligations are promptly satisfied.

#### Purchasing Objectives

The vice president of purchasing states: "The objectives of purchasing are to buy materials at a competitive price, of sufficiently good quality for their purpose, to be delivered when needed. Everything else 'funnels' into this." He believes that he has adequate authority and responsibility to achieve these objectives. He states: "Realistically, the only authority that purchasing has is in regard to buying. It's all a matter of cooperation among various department heads and purchasing."

#### Purchasing Organization

The vice president's staff is primarily concerned with the purchase of steel and supplies to be used by all of the divisions. The vice president of purchasing was asked if he thought the material control function should be included in the purchasing department. His philosophy is that production superintendents should have the responsibility for inventories in their departments. Since authority and responsibility should be equal, he believes that the authority for material control should be given to the superintendents.

Purchasing manual. A purchasing manual has been written for use in Company G. The vice president of purchasing explains his philosophy on manuals as follows:

Preparation of a manual is more often considered a job for the top administrative members of a purchasing department. In giving this job to the younger people, we have provided them with more than the usual opportunities to learn purchasing's important role in company activities. Our manual is being written by and for the people who will make the greatest use of the information and guidance it will provide. Instead of a compendium of rules and regulations imposed on the purchasing department from above, this manual will be a self-developed guidebook.

Evaluation of purchasing performance. The vice president states that evaluation of purchasing performance is difficult and often improperly done. He believes that the basis for performance should be the knowledge purchasing personnel have regarding the availability of materials, and the kind of relations existing between the buying and supplying companies.

#### Purchasing Executive

The official title of the senior purchasing executive of the electronic division is Director of Purchasing. This title has been used for two years. The purchasing executive has reported to the vice president and general manager of the electronic division for the same length of time. Prior to this, all purchasing was centralized under the vice president of purchasing.

The age of the purchasing executive is 42. He has 7 years experience in purchasing, and has a degree in chemical engineering.

The purchasing executive's first job assignment in purchasing was buying. Just prior to entering his first job in purchasing, he was a sales manager. He believes that an engineering, sales, and general business background would be of great help in a position such as his.



The purchasing executive is a member of the Chamber of Commerce. Regularly read publications are: Purchasing, Purchasing News, Fortune, and The Wall Street Journal.

The purchasing executive estimates that 80 per cent of his time is devoted to administrative work such as planning, decision making, and participation in various committees and meetings. The remaining 20 per cent of his time is devoted to buying. His buying assignment consists of one item from each of the commodity assignments of his purchasing agents. His reasoning behind this is that it enables him to keep abreast of developments in many areas.

What the purchasing executive expects from higher management.

The purchasing executive expects higher management to recognize the status of purchasing and consider it as an equal function with sales and production. Maintenance of an adequately qualified purchasing staff requires the cooperation of higher management. In addition to these two expectations, the purchasing executive expects "complete authority and responsibility" to perform the purchasing functions.

What the purchasing executive thinks higher management expects from purchasing. Although higher management does not establish specific objectives for the purchasing department, the purchasing executive believes that higher management expects the purchasing department to: (1) obtain required materials when needed and at the best price, (2) continuously try to reduce costs, and (3) cooperate with other departments.

Purchasing Objectives

Although there is no written statement of the objectives of purchasing, the purchasing executive states that the objectives are:

(1) to always have materials in the plant when they are needed, (2) to endeavor to maintain a "good" inventory level, and (3) to attempt to lower costs. The purchasing executive believes that he has adequate authority and responsibility to achieve these objectives.

#### Purchasing Organization

The purchasing department consists of a director of purchasing and six purchasing agents. The purchasing agents are assigned various commodities. There are no job descriptions for purchasing jobs.

The purchasing executive was asked if any additional functions should be included in the purchasing department. He said that possibly the material control function should be under his direction. At present, a material control department is being established directly under the plant manager. The purchasing executive said that he was not sure where the material control function should be in the organization but that there should be a close relationship between the material control function and the purchasing function.

Training for purchasing personnel. Training is basically on-the-job (training by doing). Usually, vacancies are filled by promotions; therefore, the purchasing executive feels that this provides training for his personnel. He states that an individual usually starts out as an expeditor. As he learns his job and proves himself, more responsibilities are transferred to him.

Techniques and organizational devices used to blend the points of view of purchasing personnel and others. Weekly department head meetings, problem and policy meetings, and frequent informal contacts assist in exchanging information and blending different points of view.

The purchasing executive states that Company G is "made up" of closely organized teams. In addition to the above mentioned meetings, purchasing is represented on the following committees: scheduling committee, product planning committee, sales committee, and value analysis committee.

#### Quality Factor

The purchasing executive believes that authority and responsibility are definitely placed and well defined in the quality area. Design engineers have the final authority to establish the specifications. However, they are expected to consult with the purchasing executive before final development of specifications because the desired materials must be available at a "reasonable" price.

Purchasing assists design engineers by obtaining samples of products and submitting them for inspection. In some instances, purchasing specifies incoming inspection methods to vendors. The purchasing executive states that neither he nor his personnel are familiar with inspection methods in their suppliers' plants.

#### Quantity Factor

The purchasing executive states: "The sales forecast is the governing device and all authority [for quantity decisions] stems from this. There are no written inventory policies." He also states:

Inventories are affected by general business conditions. What may be good inventory today may be inadequate or three times what is needed next week. Two things determine this [inventory]--availability and usage. These two change frequently. Therefore, inventories get good attention each week.

Time Factor

The purchasing executive said that it was the responsibility of purchasing to make sure that materials are in the plant when they are needed. One of the major purchasing problems is to educate suppliers on the importance of satisfying delivery requirements. This requires maintenance of close relationships with supplier representatives.

Price Factor

The purchasing executive was asked to describe the role of purchasing in the price area. He stated: "This is the area where experience is important." The purchasing executive stated that practically all purchasing factors are taken into consideration when attempting to purchase at the "best" price. The insistence of purchasing on standard materials is an important contribution to the price objective.

Price analysis involves consideration of more than prices. Purchasing is constantly doing some research. There are departmental meetings every two weeks when each buyer selects his highest cost item and discusses means of bringing about savings. Other buyers express their opinions also.

There is a value analysis committee in Company G consisting of engineering, production, sales, and purchasing. The purchasing executive states that value analysis projects are frequently initiated by purchasing personnel. There is no single individual in charge of value analysis. The purchasing executive states: "Value analysis is a team deal."

Opinions of Other Members of Management

Chief engineer. A relationship between purchasing and engineering is described by the chief engineer as follows:

First, the design of the product is determined, then specifications are determined and put on drawings. Before there is a release of model prints of components, drawings are sent to purchasing. There may not be a decision made until quotes are received from purchasing. After a model has been in production, if there is any trouble, it is difficult for purchasing to request changes by vendors. Therefore, purchasing should advise engineering before production starts.

The chief engineer expects purchasing to keep design engineering informed of surplus materials so that provision can be made for their use in production. The chief engineer thinks that purchasing personnel are adequately informed regarding materials used in production but "they don't have sufficient technical knowledge to suggest many usable modifications in materials." Since purchasing personnel are in contact with suppliers, they should and do "screen" salesmen before sending them to talk with design engineers.

The chief engineer states that purchasing work involves much more than buying. He describes the role of purchasing as: (1) providing advice regarding the availability of materials, (2) developing latest price information, (3) expediting samples, (4) keeping aware of new materials and products, and (5) informing the engineering department of surplus materials which may be used in production.

In regard to value analysis, the chief engineer states that this is the main contribution of engineering. "No one but engineers can make a value analysis."

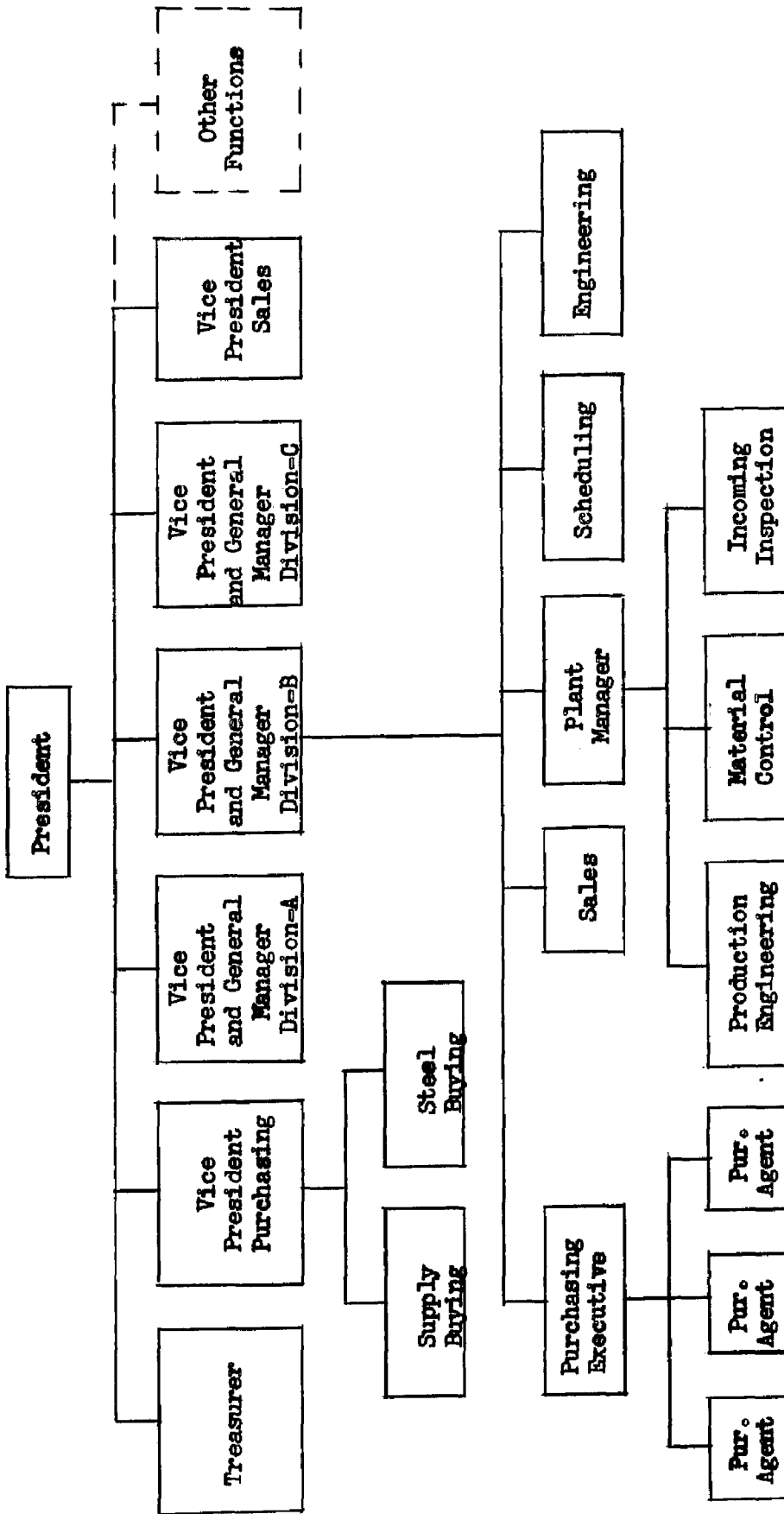
Director of electrical appliance engineering. The director states that all departments must be concerned with value analysis. Purchasing contributes much more than merely placing purchase orders. The director expects purchasing personnel to be able to suggest substitute materials and inform engineering of standard materials.

Vice president and general manager. The purchasing executive reports to the vice president and general manager. The vice president and general manager states that he expects purchasing to provide an uninterrupted supply of materials. He states: "It should be pointed out that all interruptions in the supply of materials are not caused by purchasing people."

The vice president believes that the purchasing department should do more than purchase at the "best" price. He states: "The purchasing department should develop very close relationships with suppliers-- particularly major suppliers. Our suppliers should be informed by purchasing of our long-range planning."

Value analysis is much broader than price analysis. It requires team effort, according to the vice president and general manager.

When asked how he evaluates the performance of purchasing, the vice president stated: "I don't believe I've ever tried to answer this question. My first thought is that you probably evaluate a person's personality."



UNOFFICIAL PARTIAL ORGANIZATION CHART - COMPANY G

## CASE STUDY REPORT 8: COMPANY H

Company H manufactures pharmaceutical and biological products. These products serve the medical profession. The basic production operation is processing. Approximately 6,000 employees are employed in four plants of Company H.

The Purchasing Executive

The official title of the senior purchasing executive is Director of Purchasing. This title has been used for at least 20 years in Company H. The purchasing executive has reported to the executive vice president of operations for two years. Prior to this, the purchasing executive reported to the vice president of finance.

The age of the purchasing executive is 54. He has 13 years experience in purchasing work and a college degree in economics. His first job assignment in purchasing was sales. Just prior to entering his first job in purchasing, he was the manager of the pharmaceuticals department of a meat packing company.

In answering a question concerning the background and experience which is important in filling the position of senior purchasing executive, the purchasing executive in Company H states: "Experience in purchasing, production methods, and a college degree."

The purchasing executive is a member of The National Association of Purchasing Agents and the Chamber of Commerce. The publications read regularly by the purchasing executive are: Chemical Week, Chemical and Industrial Engineering, Purchasing, The Wall Street Journal, New York Journal of Commerce, Fortune, Business Week, and miscellaneous daily reports.



The purchasing executive estimates that 60 per cent of his time is devoted to administrative work concerning the purchasing department and 40 per cent of his time is spent on research projects. The purchasing executive does not feel that the head of a purchasing department should do any buying.

Concerning participation in top management decisions, the purchasing executive said that he participates in operating areas where the purchase of materials is involved and may affect or restrict certain plant operations, e.g., in the determination of whether there is a sufficient supply of materials for one, two, or three shifts in the plant. Another area in which the purchasing executive participates is that of inventory policy. The nature of this participation is advisory. The purchasing executive states that his participation in top management decisions has increased in recent years because of the following reasons: (1) the purchasing department, as a whole, knows more now; (2) more authority is granted to purchasing; and (3) the organizational position of purchasing makes for more higher management backing and sympathy.

Activities and performance of purchasing are summarized and included in semi-annual and annual reports submitted to the executive vice president of operations by the purchasing executive. Also, many day-to-day developments require reports to higher management.

What the purchasing executive expects from higher management. The purchasing executive in Company H expresses the following expectations which he believes higher management should provide:

1. Backing concerning decisions made by purchasing personnel.

2. Understanding of purchasing problems and the potential of the purchasing department.
3. Confidence in purchasing personnel to properly perform tasks which may be assigned to them.
4. Freedom to operate the purchasing department without specific directives from top management.

What the purchasing executive thinks higher management expects from purchasing. The purchasing executive states that he believes higher management expects purchasing to: (1) ethically perform all purchasing activities, (2) buy material of the right quality, of the right quantity, at the right price, and assure that the material is in the plant at the right time, and (3) pass on pertinent information to higher management and other department heads.

#### Purchasing Objectives

Although there are no written statements of purchasing objectives, the purchasing executive stated the following goals of purchasing:

- (1) to provide the necessary materials at the lowest practical price;
- (2) to provide information for guidance of operations in other departments;
- (3) to relate purchasing efforts to the efforts of other departments;
- and (4) to advise top management regarding the materials aspects of the business.

The purchasing executive states that his department has adequate authority and responsibility to achieve these objectives.

#### Purchasing Organization

In addition to the purchasing executive, the purchasing staff consists of three managers of purchases and a salvage manager. Each of these managers has a staff for his area of operations. The managers of

purchases have a group of commodities for which they are responsible. The director of purchasing and commodity managers select the purchasing personnel. There are no up-to-date job descriptions for purchasing positions.

The purchasing executive does not think that his department is adequately staffed. He would like his department to be in a position where the purchasing personnel would be able to spend more time in the plant. This would enable them to gather information concerning difficulties with materials where they occur. In addition, it is the opinion of the purchasing executive that the raw material inventory and stores responsibility should be the responsibility of the purchasing department. He believes that this combination of functions would speed up decisions and result in lower inventories.

There is no purchasing manual explaining the interrelations of purchasing and other supply activities. The purchasing executive said that he expects to develop a manual.

Training for purchasing personnel. There is no formal training for purchasing personnel in Company H. The purchasing executive states: "Synchronization of thoughts of purchasing personnel is attempted through informal meetings."

Techniques and organizational devices used to blend the points of view of purchasing personnel and others. The purchasing executive said that he has engineers, pharmacists, and chemists on his staff. He also assigns purchasing personnel to other departments to act in a liaison capacity. In addition, the purchasing executive or one of the members of his staff is an active member of several committees composed of representatives of various departments. Some of these committees are:

(1) operations planning, (2) salvage, (3) suggestion, and (4) safety. In addition, the purchasing executive occasionally "sits in on" or receives the minutes of the production development committee, product introduction committee, and the product revision committee.

#### Quality Factor

The primary objective of purchasing regarding quality is to reduce costs but not sacrifice required quality of purchased materials. The purchasing executive states that a minimum purity and quality of materials is necessary. Purchasing personnel constantly ask questions regarding quality needs to assure against unnecessary restrictions which might affect the availability and price of materials.

The analytical control department, which is under the vice president of research and development, has the final say on quality requirements. Although this department writes the quality specifications, purchasing personnel participate in their development. The participation is in the nature of providing advice regarding availability, prices, and possible substitutes. Because of the education of his purchasing personnel, the purchasing executive feels that his staff is familiar enough with materials to offer good suggestions.

The purchasing department provides suppliers with a report on the manner in which materials will be inspected upon receipt at the plant. Purchasing has the responsibility for adjustments and return of defective materials.

#### Quantity Factor

The objective of purchasing in the quantity area is to attempt to attain more balanced inventory through a careful analysis of requisitions.

The purchasing executive states: "The final responsibility for inventories rests with the production planning division. Nevertheless, purchasing can vary purchase quantities in order to take advantage of price breaks."

Purchasing personnel keep informed of suppliers' facilities and notify department heads of any known difficulties in the plants of suppliers. In addition, information regarding the possibility of strikes, or any other factors affecting availability of materials, is given to top management.

The purchasing executive states that there are no formal written inventory policies for raw materials, but "the judgment of top management is passed on." Production needs are of primary consideration regarding purchase quantities. The purchasing executive states: "Only in a few instances does purchasing anticipate the needs of using departments. We usually wait for requisitions."

#### Time Factor

The objective of purchasing regarding the time factor is to satisfy production needs. Purchasing attempts, through good relations with suppliers, to shorten the "lead time."

#### Price Factor

The objective stated by the purchasing executive in regard to price is: "To pay no more than competitors." The purchasing executive believes that purchasing personnel have a good idea what competitors are paying for like materials. This information is obtained from conversation with salesmen, price lists, and exchange of information between pharmaceutical purchasing executives.

Purchasing asks for a breakdown of all ingredients used in their products and a flow chart to determine if there is any place in the manufacturing sequence where materials can be purchased at less cost. Purchasing research is concerned with reduction in ultimate costs of materials. Purchasing personnel are constantly attempting to justify standardization of purchased materials.

Regarding make-or-buy decisions, the purchasing executive states that purchasing personnel participate in these decisions, but that there is no well defined policy regarding them.

Opinions of Other Members of Management

Director of control. The control department includes such activities as analytical control of incoming and finished materials, and control of methods of production.

All raw materials are purchased to specifications which are formulated by the control group. Although this group has the final say on specifications, the pilot plant personnel and purchasing assist through coordination of information. The director of control states: "Some suppliers, for example, do not want to be pinned down on certain specifications and purchasing can question these aspects during the time of developing the specifications."

Purchasing personnel work closely with the control group and emphasize definite needs rather than wishes of department heads. Purchasing frequently submits samples to be tested by the control group. Since quality of materials is particularly important in the pharmaceutical business, the control director expects willing conformance and maintenance of quality requirements.

Director of production planning. The production planning division includes such departments as Raw Materials and Packaging Planning, Raw Materials and Finished Goods Stores, Manufacturing Ticket Issue, and Raw Materials Scheduling. The director of production planning reports to the vice president of production. This vice president is on the same organizational level as the director of purchasing.

The director of production planning described some of his responsibilities concerning materials as follows:

The responsibility placed in production planning by the vice president of production is to see that adequate inventories are in the shipping department to supply customers. An allied responsibility is that to maintain finished goods inventories, this department must execute inventory control and maintain uniform work loads in manufacturing departments through proper scheduling of production. Production is based on economic lot size.

To maintain production schedules, I must have some say on what is produced, when it should be produced, and in what quantity. This means that I must have some say on raw material inventories.

Top management wants inventory information centralized. But it must keep in mind that no one area can work effectively in isolation. Production planning's role is coordination of inventories.

The production planning department has the final say on the quantity of materials to buy, but both purchasing and production planning work together on the decision. The production planning department receives information from purchasing concerning quantity price "breaks." The director of production planning described the role of purchasing: "The role of purchasing is to buy, advise, and guide actions. Purchasing's role is played after schedules have been established. However, where there is no assurance of materials, purchasing comes into the picture earlier."

Production planning sends requisitions to the purchasing department instructing them as to the quantity to buy and dates of delivery.

In regard to raw material inventory policies, the director of production planning states that there are none. He believes that there is a definite need for raw material inventory policies.

Director of product development. The work of the product development department can be described as taking the results of basic research and developing the "research concept" into useful commercial products. The director states that work of an experimental nature like this requires much investigation of materials, prices, and sources of supply. Purchasing plays an important role for the product development department. In addition to finding sources of supply, purchasing advises regarding substitute materials.

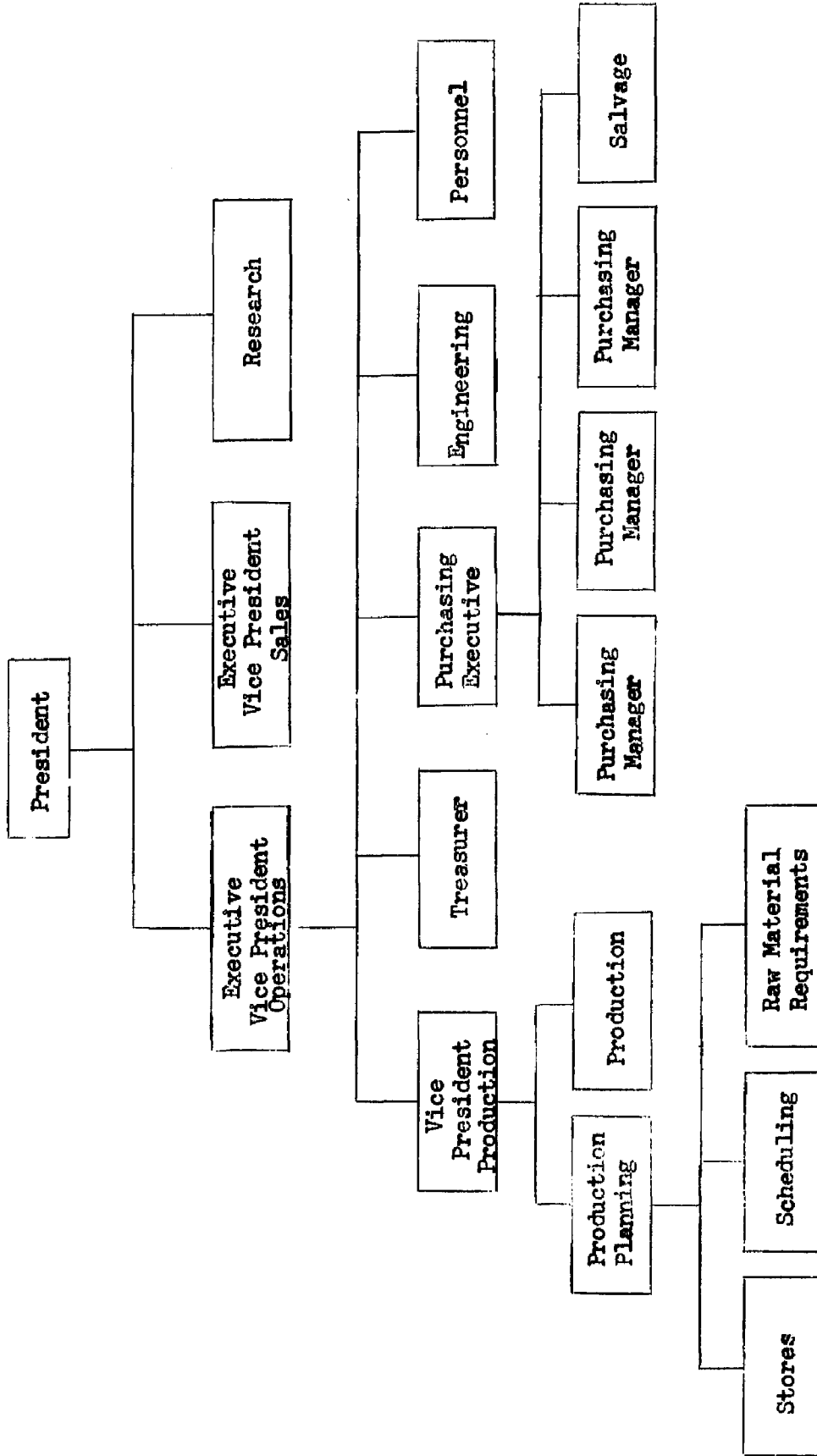
Executive vice president of operations. The director of purchasing reports to the executive vice president. He said that there is much more to purchasing than order-writing and buying. He states: "Purchasing must determine the need for materials and provide advice to other departments. They must be alert in cultivating salesmen and getting information."

The executive vice president's response to a question concerning who was responsible for materials management was: "Inventory control is a joint responsibility and if inventory control were under purchasing, it might 'strangle' the business."

As to the responsibilities of purchasing and the extent of their authority, the executive vice president states: "There is 'built-in' responsibility. People know when they are stepping on others' toes."



The executive vice president was asked how he measures the performance of purchasing. His reply was: "That's a wicked question. Ask the purchasing director. There is no realistic answer."



UNOFFICIAL PARTIAL ORGANIZATION CHART - COMPANY H

BIBLIOGRAPHY

## BIBLIOGRAPHY

Books

- Davis, Keith. Human Relations in Business. New York: McGraw-Hill Book Co., 1957.
- Gushee, E. T. and L. F. Boffey. Scientific Purchasing. New York: McGraw-Hill Book Co., 1928.
- Healey, James H. Executive Coordination and Control. Columbus, Ohio: Bureau of Business Research, The Ohio State University, 1956.
- Heinritz, Stuart F. Purchasing. New York: Prentice-Hall, Inc., 1951.
- Holden, P. E., L. S. Fish, and H. L. Smith. Top-Management Organization and Control. Stanford: Stanford University Press, 1941.
- Lewis, Howard T. and W. England. Procurement. Homewood, Illinois: Richard D. Irwin, Inc., 1957.
- Merten, Robert K., Marjorie Fiske, and Patricia Kendall. The Focused Interview. Glencoe, Illinois: The Free Press, 1956.
- Parten, Mildred B. Surveys, Polls, and Samples. New York: Harper & Brothers, 1950.
- Planty, Earl G. and Thomas Freeston, Developing Management Ability. New York: The Ronald Press Company, 1954.
- U. S. News and World Report. How Business Buys. Princeton, New Jersey: United States Publishing Corporation, 1957.
- Westing, J. H. and J. V. Fine, Industrial Purchasing. New York: John Wiley and Sons, Inc., 1955.

Articles

- "Every Buyer a Manager," Purchasing, XLIII (March, 1957), p. 83.
- Farrell, Paul V., "The Purchasing Agent of the Future," Purchasing, XLIII (October, 1957), p. 129.
- "How Well do Purchasing Budgets Work?" Purchasing, XL (March, 1956), p. 81.
- "Is Purchasing doing the Other Fellow's Job?" Purchasing, XLIII (March, 1957), pp. 94-96.

Purchasing, XLII (May, 1957), pp. 33-491.

Reports and Unpublished Material

Allen, Louis A., "Improving Staff and Line Relationships," Studies in Personnel Policy Number 153. New York: National Industrial Conference Board, Inc., 1956.

Bryan, Stanley E. "A Program Approach to Materials Management," Unpublished D.C.S. Dissertation, School of Business, Indiana University, 1950.

The Bulletin of the National Association of Purchasing Agents, XX, No. 21 (May 25, 1949).

Hill, John A., "The Purchasing Revolution," Paper read before the 38th Annual International Convention, National Association of Purchasing Agents, Los Angeles, May 25, 1958.

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