A SYSTEMATIC APPROACH TO
CORPORATE PLANNING

APPROVED:

Graduate Committee:

C. L. Fetterfield
Major Professor

Lewis M. Abernathy
Minor Professor

Committee Member

Committee Member

Dean of the School of Business

Dean of the Graduate School
A SYSTEMATIC APPROACH TO CORPORATE PLANNING

DISSERTATION

Presented to the Graduate Council of the North Texas State University in Partial Fulfillment of the Requirements

For the Degree of DOCTOR OF PHILOSOPHY

By

Richard C. Johanson, B.B.A., M.B.A.
Denton, Texas
May, 1969
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>LIST OF TABLES</th>
<th>ix</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIST OF ILLUSTRATIONS</td>
<td>x</td>
</tr>
</tbody>
</table>

Chapter

I. INTRODUCTION .............................................. 1

- Influences Which Cause Corporations to Formalize Planning
- Significance of the Dissertation Topic
- Hypotheses
- Scope and Limitations of Dissertation
- Methodology of Research
- General Organization of Dissertation

II. HISTORY OF CORPORATE PLANNING FUNCTION .............. 14

- Comments on Relationship of Planning to the Management Process
- Evolution of Planning
- Firms Formalize Their Planning
- Early Experiences in Formal Planning
- Authorities Cite Need for More Effective Management
- The Planning Process and the Motivational Climate
- Accountability Management as Related to the Planning Process
- President's Role in Designing and Implementing a Formalized Planning and Decision-Making Framework
- Current Formalized Planning Process
- Summary Review of Strategic Development and Operation Planning
- General Pattern of Corporate Planning Processes
III. ORGANIZING FOR FORMALIZED CORPORATE PLANNING

Chief Executive's Role
Top Management's Active Support and Participation
Starting Formal Planning
Responsibilities and Functions of Staff
Corporate Planners
Position Description for Corporate Vice President of Planning
Important Accountabilities of Planning Staff
Centralization vs. Decentralization of the Planning Function
Compatibility of Management Programs, Procedures and Practices with the Planning Process

IV. ENVIRONMENTAL ANALYSIS

Utilization of Environmental Data
Environmental Analysis and Evolutionary Phases of Planning
Identifying the Corporation's Position in the Environment
Factors Which Determine When to Assess Environment
Corporate Personnel Involved in Preparation of Environmental Analysis
Personnel Involved with Continuous Monitoring
Preparation of Broad Industry Studies
Sources of Information for Industry Environmental Studies
Corporate Information Bank
Special Studies - Products, Acquisitions, Processes
Formulation of a Continuous Environmental Monitoring System
Relationship between Environmental Analysis and Corporate Objectives
<table>
<thead>
<tr>
<th>Chapter</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>V. ASSESSMENT OF CORPORATE STRENGTHS AND LIMITATIONS</td>
<td>106</td>
</tr>
<tr>
<td>Sample: Appraisal Techniques Utilized in Assessment Endeavor</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>VI. CORPORATE OBJECTIVES, GOALS, ASSUMPTIONS AND CRITERIA</td>
<td>129</td>
</tr>
<tr>
<td>Sample: Definition and Explanation of Objectives, Goals, Assumptions, and Criteria</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>VII. CORPORATE STRATEGY AND PREPARATION OF THE LONG-RANGE PLAN</td>
<td>169</td>
</tr>
<tr>
<td>Sample: Corporate Strategy</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>vi</td>
<td></td>
</tr>
</tbody>
</table>
Chapter VIII. IMPLEMENTATION OF FORMAL PLANS, PROGRAMS AND PROJECTS . . . . . . . . 197

Guidance Provided by the Corporate Planning System
Relation of Policies and Procedures to the Implementation of Plans
Implementation of the Corporate Formal Plan Through Programs and Projects
Implementation of Short-Range Plan Through Programs and Projects
Management Systems, Policies, and Programs Which Compliment the Formal Planning Process

Chapter IX. APPRAISAL OF PERFORMANCE WITH CORPORATE PLANS AND RECYCLING OF PROCESS . . . . . . . . 220

Corporate Appraisal System for Monitoring Attainment of Objectives and Goals
An Example of a Corporate Appraisal System
Appraisal Techniques Utilized by Responding Corporations in Monitoring Attainment of Objectives
Appraisal Program Related to Long-Range and Short-Range Plan
Appraisal of Company Performance Through Utilization of the Computer
Considerations Leading to a Recycling of the Formal Planning Process

Chapter X. SUMMARY AND CONCLUSIONS 240

Summary Highlights of Each Facet to the Formal Planning Process
Long-Range or Developmental Plan
Short-Range or Operational Plan
State of the Art of Planning--Present and Future
Conclusions
Areas for Further Research
<table>
<thead>
<tr>
<th>Appendix</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPENDIX A</td>
<td>271</td>
</tr>
<tr>
<td>APPENDIX B</td>
<td>286</td>
</tr>
<tr>
<td>APPENDIX C</td>
<td>292</td>
</tr>
<tr>
<td>APPENDIX D</td>
<td>295</td>
</tr>
<tr>
<td>APPENDIX E</td>
<td>301</td>
</tr>
<tr>
<td>APPENDIX F</td>
<td>310</td>
</tr>
<tr>
<td>APPENDIX G</td>
<td>312</td>
</tr>
<tr>
<td>APPENDIX H</td>
<td>315</td>
</tr>
<tr>
<td>APPENDIX I</td>
<td>320</td>
</tr>
<tr>
<td>BIBLIOGRAPHY</td>
<td>324</td>
</tr>
</tbody>
</table>
# LIST OF TABLES

<table>
<thead>
<tr>
<th>Table</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. Industry Studies by Responding Firms</td>
<td>93</td>
</tr>
<tr>
<td>II. Utilization of Industry Studies by Responding Firms</td>
<td>93</td>
</tr>
<tr>
<td>III. Sources of Information for Environmental Studies</td>
<td>95</td>
</tr>
<tr>
<td>IV. Patterns of Corporate Self-Appraisal</td>
<td>108</td>
</tr>
<tr>
<td>V. Areas of Corporate Assessment</td>
<td>112</td>
</tr>
<tr>
<td>VI. Planning Organization for Corporate Assessment</td>
<td>117</td>
</tr>
<tr>
<td>VII. Corporate Self-Appraisal</td>
<td>122</td>
</tr>
<tr>
<td>VIII. Corporate Assessment Techniques and Practices</td>
<td>125</td>
</tr>
<tr>
<td>IX. Corporate Assumption Base</td>
<td>143</td>
</tr>
<tr>
<td>X. Use of Objectives and Goals by Responding Firms</td>
<td>149</td>
</tr>
<tr>
<td>XI. Industry Capability Profile</td>
<td>178</td>
</tr>
<tr>
<td>Continental-Emsco Company (1961)</td>
<td></td>
</tr>
<tr>
<td>XII. Product/Market Profile</td>
<td>180</td>
</tr>
<tr>
<td>Continental-Emsco Company (1961)</td>
<td></td>
</tr>
</tbody>
</table>
## List of Illustrations

<table>
<thead>
<tr>
<th>Figure</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The System of Plans</td>
<td>40</td>
</tr>
<tr>
<td>2. Formalized Planning Process</td>
<td>42</td>
</tr>
<tr>
<td>3. A Structure and Process of Business Planning</td>
<td>44</td>
</tr>
<tr>
<td>4. Dynamic Formal Planning Process</td>
<td>48</td>
</tr>
<tr>
<td>5. Formal Planning Organization Phases</td>
<td>64</td>
</tr>
<tr>
<td>6. Environmental Impact on Corporate Planning</td>
<td>81</td>
</tr>
<tr>
<td>7. Planning Framework for Objective and Goal Setting</td>
<td>103</td>
</tr>
<tr>
<td>8. Comparative Analysis Guide</td>
<td>120</td>
</tr>
<tr>
<td>9. Umbrella Approach to Planning</td>
<td>152</td>
</tr>
<tr>
<td>10. Sales and Profits, Continental-Emasco Company</td>
<td>174</td>
</tr>
<tr>
<td>11. Planned Sales Growth</td>
<td>176</td>
</tr>
<tr>
<td>12. Interrelationship between Formal Plan</td>
<td>199</td>
</tr>
<tr>
<td>13. Overview of Corporate Development Plan</td>
<td>200</td>
</tr>
<tr>
<td>14. Overview of Corporate Operational Plan</td>
<td>202</td>
</tr>
<tr>
<td>15. Planning and Control Processes in Organization -- Internally Oriented Process</td>
<td>221</td>
</tr>
</tbody>
</table>
CHAPTER I

INTRODUCTION

Man, during the past two decades, has experienced a phenomenal change in his environment; and in this time, the human universe of knowledge, capacity, and achievement has been expanding rapidly in all directions.

On a world-wide scale and on a United States scale, one sees not merely a steady advance along a single line, but an explosion of change and growth in almost every area of human endeavor: social, political, economic, and technological. In this great human challenge the professional managers, who have done so much to create these unprecedented conditions, will have both the opportunity and the responsibility to provide creative vision and responsible leadership as man strives to fulfill his needs and wants.

The importance of leading has never been greater than it is in the business world of today; and more than ever these dynamic forces, molding our economy, call for an equally dynamic vision if management is to cope with tomorrow's demands of society. Likewise, there is every indication that tomorrow's management will be equally concerned with the survival and growth of the business enterprise. To do this
businessmen must anticipate long-range trends and avoid "crisis management" based on spot decisions, inadequate knowledge, and strictly intuitive judgment.

The current emphasis on advanced planning has been occasioned by the dynamics of our society; and as discussed by Steiner (4), there is no substitute for long-range planning in the development of profitable and healthy organizations which are functioning within an ever changing and extremely dynamic environment.

The entire area of long-range planning is a relatively new top-management process that has recently increased by geometric proportions in its utilization by business and governmental organizations. Market planning, economic planning, product planning, etc., have been widely accepted as necessities of management for the past several years. However, the development and acceptance by management of a formalized integrated planning system which encompasses both short and long-term planning is of recent origin and, in great part, results from the need of a corporation to respond rapidly to fast moving changes.

Influences Which Cause Corporations To Formalize Planning

The authors Dale and Kami give the following three principal reasons for the increasing trend of formalized planning:

1. The increased speed of technological change.
2. The growing need for coordination as companies grow larger.
3. The greater emphasis on pinpointing accountability, which tends to become blurred as company size increases (2, p. 252).

Technological Change

Writing on "The Era of Radical Change," Ways has said:

Within a decade or two it will be generally understood that the main challenge to U.S. society will turn not around the production of goods but around the difficulties and opportunities involved in a world of accelerating change and ever-widening choices. Change has always been a part of the human condition. What is different now is the pace of change, and the prospect that it will come faster and faster, affecting every part of life.

The break between the period of rapid change and that of radical change is not sharp; 1950 is an arbitrary starting date. More aspects of life change faster until it is no longer appropriate to think of society as mainly fixed, or changing slowly, while the tide flows around it. So many patterns of life are being modified that it is no longer useful to organize discussion or debate mainly around the relation of the new to the old (5, pp. 113-115).

Simple observation of our environment reveals the impact of change, and observation also reflects that many people today operate on the assumption that society is relatively static. At best these individuals or organizations attempt to plan by making simple straight-line projections of present trends. The result is an unreadiness to meet the future when it arrives.

Man's sense of the future is not enhanced by such an exposure to reality, and there is no heritage of the future. Since man does not possess a time-spanner to give a sense of the future, there is a requirement to develop one. In part, this can be done by examining the forces
of change existing within the concerned environment and by trying to understand how the forces of change originated, where they are likely to be going, and the opportunities made available by the forces of change.

The dynamic forces of change cause a corporation to see itself in a somewhat different relationship to time than it is accustomed. There is not much which can be done to affect the past, and the present is fleeing at an ever-faster rate; consequently, it is the future that is most amenable to the plans and actions.

Preparing the corporation for the future should be a matter of great concern, according to Marsh (1) of the American Management Association, and it is his contention that in the early 1960's business experts conceded that formal corporate planning was vital for a future edge over competition. Today these same experts now realize that effective long-range formal planning is essential for corporate survival and growth.

Marsh states in a letter:

In effect, our age of rapid social, economic, political and technological change has presented an ultimatum to corporate leaders. To remain competitive, you must ensure that your formal planning program not only predicts trends in markets, products, and methods, but also gives you a clear picture of how your company will have to operate to achieve continued growth in the business environment of the future.

It lets you keep your future objectives in mind at all times and determines, as accurately as possible, what resources will be needed and how these resources can best be used (1).

A major cause of corporate change is the need for the firm to maintain and improve the market acceptance of its product or service
if it is to continue to exist and experience growth. The impact of social, economic, political, and technological change means that last year's products and services will not meet the demands of this year's customer. Through the utilization of a formalized planning process, the corporation can readily determine if it is at a disadvantage in the market place. If so, it must institute change, and the response may be a marketing innovation, a change in distribution or manufacturing methods, a cost saving due to changes in financing methods, or a new or improved product resulting from innovations.

Recently, Schriever noted in a newspaper article:

As technology becomes more important in American business, management is moving toward more advanced planning and systems analysis. American management has learned the value of planning five or ten years in advance, whereas one year used to be the rule. Formerly many managers simply looked at the past and then projected on a straight line basis into the future. The importance of technology - the dynamic aspects of it plus the need for planning five to ten years into the future and the need for using a systems approach - evolved in the military after World War II.

It is now becoming a more important consideration management-wise in all larger companies because technology continues to be dynamic.

Short-term planning isn't so prevalent anymore, because technology plays a big role in business and industry and technology takes, generally, two to five years to be developed into something useful (3, p. 5).

It is becoming more evident that the management philosophy for the future should evolve to accommodate the decisions and actions of managers to a changing economic, social, political, and technological environment; and it must meet the criteria of change and vitality.
Growth and Requirement for Coordination

Many United States corporations in recent years have experienced a period of accelerated growth due, in part, to the growing number of mergers, acquisitions, and consolidations. This growth can be also attributed to the increasing trend toward diversifying into international markets, and in many instances corporations are diversifying the domestic operations into various industries within the United States.

Concurrent with the increasing size of many corporations and the trend toward greater complexity and diversity of operation, is the growing need for a planning and decision-making system which will permit management and all other corporate personnel to attain targeted corporate and individual objectives and goals.

Need for Pinpointing Accountability

In addition to the requirement for more effective coordination of corporate operations, there is a need for greater emphasis on the pinpointing of organizational components and individual accountabilities. As corporations grow larger and more complex, new organizational concepts should evolve in order to permit a more effective program of decentralization and delegation and the attendant means for monitoring accomplishment in relation to the delegated accountabilities. Some behavioral scientists foresee man's requirement for satisfying his manifold needs, which in great part will be accomplished through his occupational endeavors. Aware of such motivational considerations management
is beginning to realize the requirement for delineating and pinpointing areas of opportunity and accountability which will permit the incumbent to share in the action.

Significance of the Dissertation Topic

The fundamental purpose of this dissertation is to determine the extent to which many of the corporations within the United States are implementing formalized planning processes. The conditions surrounding the corporation, as previously reflected in this chapter, have caused the movement toward a more systematic approach to corporate planning since there appears to be no better substitute for a formalized planning process to help assure the survival and growth of the firm.

Also to be recognized is the timeliness of this study since the concept of the planning process is the last of the known subfunctions of management to receive the concerted attention of scholars and researchers. The investigation revealed that there is a limited amount of literature on the subject of formal planning. The first books on the subject of planning began to appear in 1961. In recent issues of the professional journals there is evidence of the growing interest in planning, especially in long-range planning. The concept of the formal planning process and the current research on the elements and nature of planning will provide future managers with a valuable conceptual framework for the design of future actions to keep the economy dynamic.
Hypotheses

1. A substantial and growing number of corporations within the United States are involved in implementation of more formalized and sophisticated planning techniques than in the past.

2. The formalized planning concepts may vary from one corporation to another, but there is a common sequential pattern prevalent in each concept.

3. The corporation's chief executive possesses an accountability for providing a general framework of management, and this can be greatly facilitated through the implementation of a formalized planning process.

4. There are indications that the evolving formalized planning process permits management the opportunity of becoming more oriented to the future survival and growth of the firm than in the past.

5. The corporation's long-range and short-range plans are being integrated on a more effective basis through utilization of the formalized planning process.

Effectiveness in implementing the planning process concept has its effect upon the probability that an enterprise will be able to survive and grow within the domestic and international economy under conditions which should provide for the maximum return from committed resources.
Scope and Limitations of Dissertation

The context of this dissertation is primarily the current formalized corporate planning process of United States corporations. The research will not take into account the formalized planning of governmental organizations or the non-profit category of organizations. Excluded from the research is a depth analysis of corporate short-range planning, which normally includes the annual budget management program of a firm. Likewise, a depth analysis of supportive management programs or aids which are allied with the formalized planning process will not be discussed; e.g., incentive compensation, systems management, electronic data processing. Additionally, the investigation does not take into account the extent to which the formalized planning process is compatible with the implementation of management by objectives, management by exception, and participative management concepts. To a limited extent the investigation reflects upon the various management programs, policies, procedures, and practices of a corporation which require revamping to allow for a more integral relationship with the formalized planning process. Since the formalized planning concept relates to the broader aspects of the planning function, the investigation dwells upon the more salient considerations of the state of the art for planning. The past and current state of the art for planning, plus observable future trends, are presented in relation to the corporation's introduction and use of the formal planning process.
Methodology of Research

To benefit from the primary sources of information, the scope of the investigation necessitated a program of research which was conducted throughout the United States.

Due, in part, to the currentness of the formalized planning process concept, there exists within the United States a small vanguard of individuals who are involved in researching and further developing the theory attendant to this area of management.

The primary research for this dissertation included extensive personal conferences and consultation with the following persons who, in most part, comprise the above mentioned vanguard of individuals:

Dr. H., Igor Ansoff, Dean
Graduate School of Management
Vanderbilt University
Nashville, Tennessee

Mr. Edward J. Green, President
Planning Dynamics Incorporated
Pittsburgh, Pennsylvania

Mr. Morris Katzen
Manager, Learning Center
American Foundation for Management Research
American Management Association
Hamilton, New York

Dr. Treadway Parker, Psychologist
American Foundation for Management Research
American Management Association
New York, New York

Dr. Milton Rock, Managing Partner
Edward N. Hay and Associates
Philadelphia, Pennsylvania
Additional primary research was accomplished through the mailing of a comprehensive questionnaire to two hundred of the leading United States corporations. The questionnaire, as shown in Appendix A, was designed to provide an insight into the progress being attained by the responding firms in instituting the formalized planning process. The response included sixty-six firms, which represents 32 per cent of the corporations receiving the questionnaire.

An important source of information has been from the writings of authorities and researchers. This includes books that have been concerned with the long-range planning movement, books concerned with the general aspects of economic planning, articles from leading business magazines, company written material, newspaper articles, and material acquired through graduate courses of study.

General Organization of Dissertation

The dissertation contents have been arranged in accordance with what appears to be the sequential pattern of the formal planning process and tend to follow the logical interrelationship between its various facets. The first three chapters provide background information
about the planning process, preparatory to a chapter-by-chapter depth analysis of each aspect of formalized planning. Chapters IV through IX are arranged in the general sequence involved in the implementation of a formalized planning process within a given corporation.

An overview of the dissertation is provided in Chapter X through means of a general summary and a reflection upon salient conclusions pertaining to the formalized planning process.
CHAPTER BIBLIOGRAPHY


CHAPTER II

HISTORY OF CORPORATE PLANNING FUNCTION

An overview of corporate planning will be presented in this chapter, with emphasis on the place of planning in relation to the traditional management process. Also to be considered is the managerial philosophy attendant to the formal planning process concept, which will be introduced in conjunction with the various facets of the planning process. Various types of formal planning processes are presented to help introduce the thought that there appears to be a common pattern when designing a corporate formal planning process for a given organization.

Comments on Relationship of Planning To the Management Process

During the past thirty or more years the concept of the management process has provided the foundation for management research and study, and today many of the management texts are written within the context of the management process.

Henri Fayol first presented the management process concept in France in 1916 and included the following management subfunctions: planning, organization, command, coordination, control (7, pp. 43-110).
Ralph C. Davis, in 1935, presented a concept of the management process and noted that management functions may be divided into three related phases: planning, organizing, controlling (4, p. 35).

In acknowledging the management process, John F. Mee noted:

Management philosophy for the future will evolve to accommodate the decisions and actions of managers to a changing economic, social, political, and technological environment. Creative-thinking and innovation will produce a superior conceptual framework for the intelligent use of future managers.

An operating philosophy of management must provide practicing managers with an effective approach to the solution of problems which prevent or impede the reaching of predetermined objectives.

A fourth stage of management thought is emerging. The management thought streams that originated from various related disciplines during the first half of the twentieth century have developed and converged to such a degree that they can be identified and integrated with the general concept of a management process.

The trend toward future management philosophy promises a much broader perspective which will include value concepts of the purpose of business enterprise.

A fourth stage of management thought is forming, with a broader perspective of the conceptual framework for the future mission of management in the economy. The emerging conceptual pattern of management philosophy can be illustrated as having a structure which is composed of elements, the performance of which in a web of relationships gives a life process of the purpose of management in organized society (17, 53-109).

In reflecting upon the thoughts of John Mee, it is exciting to think that the formalized planning process may occupy a strategic position in moving from the prevailing philosophy of management. It would appear that the more significant developments in the concepts of management
thought will be in the areas of planning and decision-making, since both planning and decision-making are concerned with the external and internal corporate uncertainties of the future. It is often recognized that a formalized planning process will not insure desired results, but planning can establish the foundation for understanding the uncertainties of the future and make provisions for adapting to them. Managerial planning can establish the courses of action that are essential if the desired result is to be realized within a framework of predictions, assumptions, and uncertainties.

Inadequate Attention Given to Planning

Of the major functions inherent in the management process: planning, organizing, directing, coordinating and control, there is concern that planning has not received the proper attention. The Long Range Planning Service of Stanford Research Institute (19) noted that corporate planning has been the most neglected and has proved to be the least amenable management function to respond to formal treatment. Elaborate management methods and mechanisms have been developed for the other functions of the management process, including specialization of various subfunctions, such as production, marketing, budgeting and control, engineering, finance, research and development. The long-range aspects of planning, however, have remained almost entirely in the domain of top management with little delegation of responsibility
and only minor deference to formal procedures. Only in recent years have steps been taken to develop guidelines and procedures for planning which compare with procedures developed long ago for other management disciplines.

Evolution of Planning

In evaluating the evolution of planning it is noted that before World War II planning was applied for the most part to separate projects or certain organization elements of the corporation. Planning in this period concentrated on operations and not on company-wide analysis and projective study which would contribute to a more effective general management of the corporation. The problems and challenges of World War II, according to Scott (20, p. 52), were the greatest single factors contributing to the development of formalized corporate long-range planning.

The various military branches and corporations supporting the World War II effort were faced with possibly the greatest challenge in the history of the United States. The General Electric Company serves to illustrate the significance of this. Cordiner observes, "From the beginning . . . it was apparent that the company was going to require increasingly better planning, greater flexibility, and faster, more informed decisions than was possible under the highly centralized organization structure, which was suited for earlier and different conditions" (3, p. 45).
In a research study Ginzberg and Reilley (9, p. 27) observed that many managers of the present generation have had considerable experience in government, civilian, or military service. This experience provided these managers with an exposure to the reliance that many government departments, particularly the Armed Forces, place on long-range planning, use of staff, and development of objective measures of performance.

During World War II the Air Force maintained an internal consulting group which, in part, comprised the following distinguished management personnel: Charles B. Thornton, formerly Director of Planning for the Ford Motor Company and, currently, Chairman of the Board for Litton Industries, Inc.; and Robert McNamara, former President of the Ford Motor Company and later United States Secretary of Defense. These two men, as well as their other associates, have contributed to the historical evolution of the formalized planning movement throughout the nation (15).

The Rand Corporation's contribution to military planning has also benefited corporate planning, and the greatest contribution appears to center on the application of management science to complex management situations. The Rand Corporation employed many persons with extensive mathematical backgrounds, such as H. Igor Ansoff who, through quantitative analysis and calculations with computers, focused increased attention on the expression and manipulation of planning
information with numbers or other abstractions which are easily compared (1).

The conditions of World War II demonstrated the need for formalized planning; likewise, the postwar era saw the ensuing popularizing of the subject. Since the 1950's, the planning function has received continual attention by educators, researchers, corporate and government personnel, and such organizations as the American Management Association and the National Industrial Conference Board.

According to the Stanford Research Institute, the initial idea to formulate a more formalized planning program originates eight times in ten with top management personnel. This fact clearly indicates the crucial role that executive management occupies in fostering and establishing a formal planning program (19).

Firms Formalized Their Planning

During the late 1950's and the early portion of the 1960's, firms throughout the United States commenced to institute programs of formalized planning. A Stanford Research Institute (19) survey in 1960 showed that of the 3600 U.S. manufacturing firms with yearly sales exceeding ten million dollars, no more than 700 firms followed formal planning procedures. Fewer than 200 of these firms had been planning, formally, for longer than four years. The survey also revealed two important factors which appear to influence a firm's setting up a formal
planning organization: the size of the company and the firm's market orientation. The survey established that among Fortune magazine's 500 group of corporations, nearly 300 firms, or about 60 per cent, were involved with programs of formal planning.

Early Experiences in Formal Planning

During the early 1960's, business planning was viewed as a way of thinking ahead on an annual or bi-annual basis about the many elements of the corporation's business for an ensuing period of usually five years. Many firms settled on the five-year planning period since general planning beyond five years reached out into an area of vast uncertainty and risk, whereas a long-range planning period of less than five years did not provide the futurity of thought needed for the commitment of corporate resources.

As an example of the approach to formal planning during the early 1960's, Continental-Emsco Company (2) prepared the traditional type of five-year plan which included a consolidated projection of sales, profits, and capital fund requirements by year for each of the ensuing five years. The long-range plan was based on a minimum of environmental data and a meager assessment of company strengths and limitations. Only a few members of top management participated in preparing and finalizing the five-year projection, and upon completion of this endeavor, the five-year plan was filed for discussion one year later unless...
some interested person desired to relate a given situation to the long-range plan.

Edward J. Green(10), President of Planning Dynamics Inc., expressed the opinion that in these early attempts, many corporations formalized a five-year long-range plan without benefit of a depth analysis of the environmental influences which would tend to create opportunities or contraints for the corporation. Likewise, there was a minimal and insufficient assessment of the strengths and limitations of the corporation's resources. In many instances the objectives and goals of the future were determined through a straight-lining of past year's sales, expenses, and profits. For example, a firm with an existing annual sales volume of $150 million would project a volume five years hence of $210 million, based upon an extension of the past sales curve into the future. This practice eventually was labeled "the numbers game," and the practice reflected an inadequate approach to formalized planning since it usually led to the adoption of unreliable and invalid objectives and goals.

Another concern voiced in this discussion was the fact that very often the recently prepared five-year long-range plan for a given corporation would be labeled "confidential," and it would be retained in the President's office. Under such an arrangement the organization derived a minimum of benefit from the formal corporate plan.
An additional disadvantage of the early efforts to prepare the formal long-range plan is that management elected to follow a rigid policy of updating the five-year plan once every year. A corporation in following such a practice soon found that the five-year plan was invalid due to a rapidly changing environment or a major change in the corporation's resources.

Authorities Cite Need for More Effective Planning

The formalized planning concept of management is the philosophy of management that directs and encourages the commitment of personnel in a corporation toward the specifically determined objectives and goals which are in the interest of the firm. Such a philosophy takes into consideration that the direction of the planning process should be upward, not downward. The process is not amenable to a highly centralized management effort, because as Galbraith notes:

... in modern industry a large number of decisions, and all that are important, draw on information possessed by more than one man. Typically they draw on the specialized scientific and technical knowledge, the accumulated information of experience and the artistic or intuitive sense of many persons. The final decision will be informed only as it draws systematically on all those whose information is relevant. There must, additionally, be a mechanism for testing each person's contribution for its relevance and reliability as it is brought to bear on the decision (8, p. 61).

In further consideration of the management philosophy and considerations attendant to the formalized planning process, Galbraith notes
that the real accomplishment of modern science and technology consists in taking ordinary men, informing them narrowly and deeply and then, through appropriate organization, arranging to have their knowledge combined with that of other specialized but equally ordinary men. Finally, following from the need for this variety of specialized talent is the need for its coordination. Talent must be brought to bear on the common purpose (8, pp. 62-63).

Thus decision in the modern business enterprise is the product not of individuals but of groups. Group decision-making extends deeply into the business enterprise. Effective participation is not closely related to rank in the formal hierarchy of the organization. Group power can be rendered unreliable or ineffective by external interference. Not only does power pass into the organization but the quality of decisions can easily be impaired by efforts of an individual to retain control over the decision-making process.

The efficiency of the group and quality of its decisions depend on the quality of the information provided and precision with which it is tested.

With the rise of the modern corporation, the emergence of the organization required by modern technology and planning and the divorce of the owner of the capital from control of the enterprise, the entrepreneur no longer exists as an individual person in the mature industrial enterprise. It embraces all who bring specialized knowledge, talent or experience to group decision-making. This, not the management, is the guiding intelligence--the brain--of the enterprise. There is no name for all who participate in group decision-making or the organization which they form. I propose to call the organization the Technostructure (8, pp. 65-71).

These thoughts of Galbraith focus on the requirement for a dynamic organizational framework which recognizes that the corporation
of today is no longer an organization in which there is a handful of top managers who make all the decisions. Many of the country's corporations are organizations of professionals and technicians of highly specialized knowledge, exercising autonomous, responsible judgment. Within the organization everyone--whether manager or individual expert contributor--is constantly making entrepreneurial type decisions. These decisions affect the economic characteristics and risks of the entire corporation; and they are made, not by specific "delegation from above," but inevitably in the performance of the incumbent's own position and work. The creative power inherent in a corporation can be focused upon the organization's objectives and goals on a decentralized basis when management provides a dynamic organizational framework.

For such a corporation and its member contributors to function effectively, at least two things are needed, according to Drucker (5, p. 242):

Knowledge by the entire organization of what the direction, the goals, and the expectations are.

Knowledge by top management of what the decisions, commitments, and efforts of the people of the organization are. The needed focus--one might call it a model of the relevants in internal and external environment--only a long-range plan can provide.

There has existed in recent years, according to Planning Dynamics Incorporated (18), a requirement for top management to reorient its
philosophy toward decision-making and planning. Most corporations until recent years have utilized a framework of management which is characterized as follows:

1. The employees, other than top management were provided a minimal opportunity to participate in the decision-making process.

2. The corporation's objectives and goals were established by a few individuals, usually utilizing an inadequate information bank.

3. The opportunity to participate in the planning activities of the corporation was reserved for the top management staff. Results of the planning efforts were labeled "confidential," and distribution was restricted to top management.

4. The employees were recipients of budgets and expectations which had been formulated without benefit of the incumbents participation.

5. The management system did not provide an opportunity to reformulate the standard of performance structure when there was a material change in the corporation's environment, resources, assumptions, objectives, or goals.

6. The creative talents and drives of most employees were not exploited to the greatest possible degree.
7. The efforts of employees to foster a greater degree of teamwork often proved to be most difficult since a unity of action and adequate information was lacking.

Formalized Planning Required to Preserve Initiative and Maintain Direction

According to Green (10), there is a requirement for an adequate management system, under today's conditions of complexity and change, which will permit a means of seeing the corporation clearly, as a whole, plus providing a framework for a high level of achievement motivation.

It is noted that formalized management planning should be provided if a corporation is to successfully cope with a dynamic operating system acting in a transforming world, requiring management by action and participation rather than reaction. This philosophy is based upon a climate which demands strenuous comprehension rather than instant or intuitive response.

Management must concern itself with the individual's motivation to participate and accomplish results. When a man's motivation to achieve is aroused, accomplishment of the accountability will be its own best reward. The significance of achievement motivation revolves around the notion of self-reinforcing performance.

Men with a high need to achieve, says Stringer (24), tend to

1. See and assume high degrees of personal responsibility.
2. Take calculated risks.
3. Set challenging, but realistic goals for themselves.

4. Develop comprehensive plans to help them attain their goals.

5. Seek and use concrete, measurable feedback of the results of their actions.

6. Seek out business opportunities where their desires to achieve will not be thwarted.

Stringer (24) also notes that high achievers will be attracted to those business environments which offer

1. Personal responsibility for accomplishments.

2. Freedom to pursue goals by means of one's own choosing.

3. Prompt and unbiased feedback of the results of action.

4. Moderately risky situations.

5. Consistent rewards and recognition for jobs well done.

The Planning Process and the Motivational Climate

A review and analysis of these high achiever characteristics delineates top management's responsibility for creating a planning and decision-making climate that will provide incumbents with new sources of satisfaction and new opportunities to achieve; thereby, arousing achievement motivation. Management under such a concept can deviate
from a philosophy which involves the need to exercise constant and forceful restraint on the individual's activities. The corporate planning and decision-making climate, in great part, is determined by the structure and the implementation of the formalized planning process; and if motivation is aroused within this framework of management, a new spirit of dynamic growth can be fostered. Along with this growth will come new challenges and new risks as a corporation becomes committed to new and expanding areas of opportunity.

The late Douglas McGregor recognized the inadequacy of the management techniques which rely heavily upon authority and control as the sole, or even the primary, method of accomplishing organizational objectives through people. Also of concern was the fact that the dependence downward was to excess and led to individual frustrations.

The philosophy of management by direction and control—regardless of whether it is hard or soft—is inadequate to motivate because the human needs on which this approach relies are relatively unimportant motivators of behavior in our society today. Direction and control are of limited value in motivating people whose important needs are social and egoistic (14, p. 49).

The writings of McGregor offer the principle of integration concept which is based upon the creation of conditions, such that the members of the organization can achieve their own goals best by directing their efforts toward the success of the enterprise. Being cognizant of the magnitude of the situation, McGregor (14, pp. 53-54) foresees that
management will be challenged to innovate to discover new ways of organizing and directing human effort.

The implementation of management by integration and self-control which best permits the achievement of organization objectives is predicated upon a corporate environment and management system which will encourage individual commitment to these organization objectives. Additionally, such a concept should provide opportunities for the maximum exercise of initiative, ingenuity, and self-direction.

Implementation of the formalized planning process helps provide a framework of management which is compatible with the job enrichment motivating concept recently described by Herzberg (12). Job enrichment provides the opportunity for the employee's psychological growth based upon the vertical loading of a given position, instead of the usual technique, which involves the horizontal loading of an incumbent's delegated accountabilities.

Accountability Management as Related To the Planning Process

The formalized planning process concept in many respects represents a further refinement of the management by objectives or accountability concept of management as advocated by such authorities as Drucker (6) and the late Edward N. Hay (11). These and others have helped bring about one of the great advances in management thought and practice since World War II by encouraging the acceptance,
understanding, and use of the concept of accountability or management by objectives as a major factor and means of managing a corporation.

According to Drucker (6, pp. 119-121), management should not be an end in itself. It is looked upon as being an organ of the business enterprise, and above all it consists of individuals. It is his opinion that the first requirement in managing managers is that the vision of the individual managers be directed toward the goals of the business, and that the wills and efforts of management be bent toward reaching these goals. Another thought is that the first requirement in managing managers is management by objectives and self-control, and in so doing management has no choice but to anticipate the future, to attempt to mold it and to balance short-range and long-range goals. Concerning the individual's position and the person's relationship with a corporate group, Drucker contends that a corporation must build a true team and weld individual efforts into a common effort, recognizing that each member of the enterprise contributes something different, but all should contribute toward common corporate goals. These efforts must pull in the same direction with all contributions fitting together to produce a "whole"—without gaps, without friction, and without unnecessary duplication of effort.

Accountability management requires the establishment of reliable and valid corporate objectives and goals, along with the balanced stress on these objectives by the executive management of a corporation.
The formalized planning process concept of management, as well as the management by accountability approach, rules out the practice of management by "crisis," which relies heavily on the intuitive judgment of management. The process gives full credibility to individual strength and responsibility and, concurrently, provides common direction of vision and effort, as there is the establishment of teamwork and a harmonizing of the individual's goals within the corporate framework of goals.

The investigation will explore the fact that the currently evolving formalized planning process provides the means for a more effective implementation of the accountability management or management by objectives process. The management by objectives is becoming, in many corporations, a managing "way of life" and has or is being merged into the various facets of the management process. Introducing such new managing concepts which change long-existing habits and ideas is not easily or effortlessly accomplished. It has taken several years to introduce the management by objectives or accountability management philosophy. The nation's management has experienced some difficulty in trying to implement this philosophy, mainly due to the following reasons:

1. The members of management often possess crisis-oriented habit patterns.

2. The corporation's planning efforts relate, normally to operational planning of a one-year forward duration.
3. The corporation maintains insufficient information about the external environmental influences which tend to shape and form the destiny of the corporation.

4. The management in formulating objectives and goals utilize inadequate information about the strengths and limitations of the corporation's resources.

5. The employees are not trained to be able to participate in the formulation of objectives and goals; consequently, the formulation of objectives is carried out on a highly centralized basis.

6. The integrated efforts of organization components and individual employees are not fully identified, and this prevents the realistic establishment of a hierarchy of objectives.

7. The corporation's ability and means for communicating objectives and accountabilities are not fully developed, causing a problem with the downward and upward communications of objectives.

8. The management tools necessary to support a management by objectives or accountabilities philosophy are not fully developed, and this hinders a more complete implementation of the concept. Examples might relate to position descriptions, job evaluation, employee compensation, performance appraisal, individual performance planning, etc.
9. The corporation's control system in many instances is not designed to be compatible with the concept of management by objectives. Reporting of results is extremely co-mingled, and it is difficult to pinpoint with any degree of accuracy the end-result contribution of organization components or individuals.

President's Role in Designing and Implementing a Formalized Planning and Decision-Making Framework

The role of the chief executive is of primary importance in the formulation and adoption of a formalized planning and decision-making type of management system. Such a system, through which all facets of the corporation operate, represents a set of interacting and inter-dependent managing processes which as system components combine in a conceptually unified program or approach for managing the corporation. The formalized and dynamic planning process provides a conceptual framework of coordinated principles or guidelines that weld together the component managing processes. Functioning as part of the process or system, each individual process has leverage because its effectiveness is multiplied. The result is a hard-hitting total effort that is more powerful than the sum of the parts. The chief executive formulates such a framework of management for the corporation, taking into account that employees can act more effectively when there are
principles to guide them. When the principles are united by a clearly understood system, action becomes even more purposeful and productive.

Drucker, in talking about the need for the establishment of a framework of management which would permit the implementation of management by objectives or accountabilities, said:

No business is likely to be better than its top management, have broader vision than its top people, or perform better than they do. ... A business needs a central governing organ and a central organ of review and appraisal.

The chief executive thinks through the business the company is in. He develops and sets over-all objectives. He makes the basic decisions needed to reach these objectives. He communicates the objectives and the decisions to his management people. He educates these managers in seeing the business as a whole and helps them to develop their own objectives from those of the business. He measures performance and results against the objectives. He reviews and revises objectives as conditions demand (6, pp. 161-162).

Drucker, writing on the manager of tomorrow, makes note of some very salient considerations which give further credibility to the formalized planning process:

... the manager will have to acquire a whole new set of tools--many of which he will have to develop himself. He needs to acquire adequate yardsticks for performance and results in the key areas of business objectives. He needs to acquire economic tools to make meaningful decisions today for a long-range tomorrow. He will have to acquire the new tools of the decision-making process.

We can summarize by saying that the new demands require that the manager of tomorrow acquit himself of seven new tasks:
1. He must manage by objectives.
2. He must take more risks and for a longer period ahead. And risk-taking decisions will have to be made at lower levels in the organization. The manager must therefore be able to calculate each risk, to choose the most advantageous risk-alternative, to establish in advance what he expects to happen and to "control" his subsequent course of action as events bear out or deny his expectations.
3. He must be able to make strategic decisions.
4. He must be able to build an integrated team each member of which is capable of managing and measuring his own performance and results in relation to common objectives.
5. He will have to be able to communicate information fast and clearly. He will have to be able to motivate people. He must, in other words, be able to obtain the responsible participation of other managers, of the professional specialists and of all other workers.
6. The manager of tomorrow must be able to see the business as a whole and to integrate his function with it.
7. The manager of tomorrow will have to be able to relate his product and industry to the total environment to find what is significant in it and to take it into account in his decisions and actions. And increasingly, the field of vision of tomorrow's manager will have to take in developments outside his own market and his own country. Increasingly he will have to learn to see economic, political, and social developments on a world-wide scale and to integrate world-wide trends into his own decisions (6, pp. 372-373).

Based on these thoughts of Drucker, it becomes quite evident that the role of the chief executive is of extreme importance in creating and maintaining the dynamic and formalized planning process as a framework through which each incumbent can perform designated accountabilities. During a recent speech to a group of top managers in Paris, France, Ansoff (1) took the view that it is the central job of top management to
determine what business the firm should be in through matching the present position and the capabilities of the firm to opportunities offered by the environment, and selecting a product-market position which best fulfills the objectives of the firm.

The seriousness of establishing a formalized planning and decision-making framework was in evidence recently through the action of Sherman M. Fairchild, the major stockholder of Fairchild Camera and Instrument Company.

Throughout his life, Fairchild seems to have been influenced by his association with IBM. . . . His long service on IBM's executive committee and board of directors (since 1925) obviously influenced his approach to management.

He was dissatisfied, in part, with the former Chairman John Carter and President Richard Hodgson of Fairchild Camera because neither was as committed to long-range planning as IBM is. . . .

His philosophy as a chief stockholder has always been to hire a strong chief executive who was then allowed to run the company without outside interference (16, p. 114).

Current Formalized Planning Process

This investigation explores the dynamic formalized planning process which currently represents the state of the art for corporate planning. Also it appears feasible that this dynamic planning process may significantly reshape the decision-making, planning, and control process of many corporations in the years ahead.

Outlined below are the more important characteristics of the evolving formalized planning process as they were presented by the
Planning Dynamics Incorporated staff during a recent conference on corporate planning:

1. Planning cannot be a one-shot-and-relax affair. It's a continuous, dynamic process.
2. Planning is an essential and inseparable part of every management position and is not the exclusive accountability of executive management. In its absence the job manages the person, rather than the manager spending his time making certain that the right things happen.
3. Planning as a formalized dynamic and continuous process provides a better method of reaching agreement between a manager and his associates, superiors, and subordinates.
4. Planning must be totally integrated with the existing management systems and management aids within a corporation.
5. Planning as a continual process requires a most effective intelligence and information-gathering system, reporting, and decision-making process.
6. Planning as a process provides more effective management over a secular period through the more complete utilization of management by objectives.
7. Planning as a formalized dynamic system is coordinated by a well-qualified staff planning coordinator who does not do the planning; but assists members in the performance of the individual's planning accountability.
8. Planning as a dynamic system must have the intelligent and enthusiastic participation of key personnel, and it would be understood that the chief executive was responsible for instituting the formalized planning process.
9. Planning process should be designed to permit employees to satisfy their motivational requirement concurrent with the commitment of resources to the attainment of the corporation's objectives and goals. The continuous and dynamic planning process permits an environment conducive to a higher level of participative management (18).

Design of the Formal Planning Process

Designing the formalized planning process for a given corporation involves selecting the elements to be contained in the system and
determining their arrangement and relative emphasis. The chief executive, in conjunction with key personnel, coordinates this major undertaking with the ultimate accomplishment being the design of a basic format that represents the stable framework within which the corporation is managed for the immediate and secular periods. It is often recognized that one of the most important accountabilities of the corporate chief executive is the formulation of a planning process which provides a framework for strategic, developmental, operational, and project planning.

The basic building blocks of a planning system are a series of predetermined courses of action for a particular purpose, and there may be a basic pattern of tasks into which the processes of developing any complete actionable plan can be arranged. When viewed as a dynamic process, formalized planning becomes a means of establishing objectives and of defining the strategies, policies, and sequences of events to achieve these objectives. It defines the organization for implementing the planning process and assures an evaluation of performance as feedback in recycling the planning process. The formalized planning concept may be viewed in terms of structure, since planning requires the development of a comprehensive and reasonably uniform program of plans for the entire company or organization components, reaching out over a long period of time. This concept relates to an integrating
framework within which each of the functional or operational plans may be tied together and an over-all plan developed for the entire organization.

During the past few years the Stanford Research Institute has evaluated in depth the formalized planning patterns and process attendant to a framework for corporate planning. In searching for a framework of formalized planning, both the literature and actual practice were analyzed to see whether meaningful patterns could be detected. The results of the Stanford Research Institute studies uncovered the following:

There is a meaningful pattern into which individual plans for the various kinds of activity in any business can be arranged. In its entirety this pattern represents the total scope of planning for a firm. In this study, the total pattern is referred to as "The System" to distinguish it from the individual plans of which it is composed.

The basic building blocks of a planning system are a series of predetermined courses of action for a particular purpose--plans. There are several essential questions which any actionable plan must answer.

There is a basic pattern of tasks into which the processes of developing any complete actionable plan can be arranged (22, p. 3).

The Stanford Research Institute study conveyed a general pattern or framework for a comprehensive formal planning system as shown in Figure 1 (22, p. 4). In this formalized planning process the individual facets are the building blocks and are arranged in echelon form. Each echelon receives guidance from a prior facet and refines it by focusing on groups of activities having a common purpose. The pattern in Figure 1
Fig. 1--The system of plans*

covers all of the major activities carried on by any corporation, and the system as shown encompasses formalized planning for the entire firm. It covers all time periods planned for and allows for plans at all levels of the organization, and includes plans for all the different functions of the firm. A formalized planning process of this magnitude facilitates orderly subdivision of the total efforts of planning into tasks which can be performed separately; but which, collectively, assure the integration and accomplishment of the required efforts (22, p. 5).

The International Minerals and Chemical Corporation has designed and implemented the very extensive formalized planning process shown in Figure 2 (21). A review of this illustration denotes that first, there is the identification of challenges facing the corporation. Existing knowledge of the company's position in this environment helps to identify potential challenges and opportunities. In order to gain a depth insight and understanding of these challenges, it is necessary to conduct an analysis by gathering relevant facts and conducting studies which provide a greater insight and information bank for further use within the planning and decision-making process. With an improved comprehension the greater challenges to the organization come into clearer focus. Additionally, as shown in Figure 2, it is important to identify the strengths and weaknesses in the corporation's ability to handle the delineated challenges.
In formulating objectives and goals for achievement, alternative strategies should be created and devised. Within the formalized planning process these proposed strategies may be evaluated and compared, and it might develop that the "means" to achieve the desired results may not be available. As an example, it may be financially impossible to double sales in two years, if this were set as an objective. Figure 2 shows that the corporation's targets or aspirations must be made realistic. Once a strategy has been selected by members of the organization and reviewed with appropriate approvals, a thoroughly defined action-plan is formulated. Within the framework of the formalized planning process, conclusions are made by decision-makers who possess the authority to commit to the allocation of resources. The implementation aspect or action-plan is scheduled and areas of accountability will be pinpointed on a hierarchy basis (21, p. 7).

Over the past several years George A. Steiner of the Graduate School of Business Administration, University of California, Los Angeles, has researched, written, and consulted in formalized planning and decision-making. Steiner (23) proposes that formalized planning be viewed in terms of a structure or an integrating framework within which each of the functional plans may be tied together and an over-all system developed for the entire organization, providing the means for a further decentralization and delegation of corporate accountabilities.
Observing the requirement for a conceptual formalized planning model as a guide, Steiner offers a model structure, Figure 3 (23, p. 58). This structure includes four major elements, and the first consists of strategic plans which are essentially a loose, written and unwritten set of major objectives, strategies, and policies. The second element in this illustration is a detailed, uniform, and rather complete medium-range set of plans which in most corporations transpire over a period of five years. This element normally pertains to the major areas of organization activity. Next, the third element in the formal planning

Fig. 3--A structure and process of business planning*

system consists of one-year plans and operating budgets. The last element consists of comprehensive planning studies which frequently are projections of future corporate events, and these studies provide valuable input data for the planning process. Development and implementation of such a planning process becomes feasible when the chief executive realizes the requirement for a systematic and continuous planning program (23).

Summary Review of Strategic, Development, And Operation Planning

The Strategic Plan

The highest level of planning within a corporation is the strategic plan, and it provides a framework for the establishment of the corporation's mission and broad objectives. Additionally, through the strategic planning endeavor the strategies of the corporation are formulated and translated into specific, attainable goals. It usually embraces a longer time span of planning than either of the other types and has a primary purpose to get the firm started toward attainment of its missions and broad objectives, leaving to subsequent plans the details of execution. In effect, there are five separate but necessarily integrated aspects of strategic planning:

1. The efforts required in estimating the future.

2. The setting of objectives and goals in the context of that future.
3. The determination of the strategy necessary to achieve those objectives and goals.

4. The implementation of those strategies.

5. The appraising of the corporation's performance in terms of both the strategic actions and end results.

The Development Plan

Functioning within the framework of the corporation's strategic plan through which the chief executive of the firm has determined the firm's potential and broad course of action which can be realized within certain environmental influences, the development plan is the prime mover in purposeful modification of a firm's characteristics and performance. Development planning provides a formalized planning framework for conceptualization and evaluation of alternative ways of making major changes in existing corporate business or the development of new business. This facet of planning permits a selection of the best combination of actions to achieve the resource potential. In conjunction with strategic planning, the development plan will specify the corporation's strategy.

The Operations Plan

Operations planning is concerned primarily with the conduct of current corporate activities and provides a framework for specifying accountabilities based upon the immediate utilization of corporate
resources. Thus, there is the establishment of management controls to assure that organizational results meet qualitative and quantitative expectations. Operations planning is that facet of the formalized planning process which is concerned with the resource requirements of the strategic and developmental programs and projects, along with the expected performance and results of those possessing delegated accountabilities.

General Pattern of Corporate Planning Processes

Based upon discussion with authorities in the field of corporate planning, along with published material relating to the formal planning concept, there is in evidence a logical interrelationship between the various major facets of the framework attendant to the formalized planning process concept. This framework, reflecting the logical arrangement, is shown in Figure 4; and it denotes a philosophy and system of management which can be implemented by the chief executive in helping with the chief executive's accountability for establishing a planning and decision-making system. Each facet of the planning process is of sufficient importance to allocate a chapter, thereby permitting an opportunity to explore in depth its many ramifications.

Sequential Arrangement of Planning Facets

A review of Figure 4 reflects that the environmental analysis precedes all other facets of the formal planning process. Recognizing
Fig. 4--Dynamic Formal Planning Process
that the corporation's environment offers opportunities or constraints, management faces the need for first developing an environmental data bank which includes macro-inputs and micro-inputs on economic, social, political, technological, competitive, and other considerations. The completed environmental analysis provides management with significant information which can be utilized in the assessment of corporate strengths and weaknesses. This environmental frame of reference allows for a more meaningful assessment of corporate resources than in existing environmental assessment and helps management in pinpointing corporate strengths and limitations. Such an assessment will center upon the following resources: human, financial, physical facilities, equipment, machines, natural resources, patents or uniqueness, and product lines. This assessment will help establish a position relative to the tangible and intangible assets of a corporation, with emphasis upon the quantitative and qualitative measurement of such assets.

Recognizing that a corporation functions within a very dynamic environment and that the composition of corporate resources often change, management carries out a third sequential phase of the formal planning process. As shown in Figure 4, this phase requires the establishment of an assumption base and the formulation of corporate criteria which guide the future commitment of resources. The dynamic conditions inherent in the environmental analysis and assessment of corporate strengths and limitations establishes a need for the formulation
of assumptions which provide the underpinning to the projection of future environmental and assessment trends and patterns.

The fourth and probably one of the more significant facets of the formal planning process is the establishment of corporate goals and objectives. Utilizing information gained from the successful completion of the first three facets, the organization is able to formulate on a hierarchical basis quantitative and qualitative objectives. The objectives will relate to the immediate and future survival and growth of a corporation. Likewise, such objectives provide a basis for the future commitment of resources, taking into consideration the strategy which will be followed in the attainment of objectives and goals. The targeting of objectives and goals helps provide a framework of management which allows for the decentralized attainment of such goals; consequently, there is a desire to establish reliable, valid, and meaningful objectives and goals. Within the framework of the formal planning process concerned personnel can participate in setting objectives and goals on a participative and synthesizing basis, recognizing that the process allows for the flow of information from facets one, two, and three.

The risk exposure, which is prevalent when committing corporate resources, necessitates the adoption of strategies which are designed to permit the attainment of corporate objectives and goals. The strategies also provide the basis for the future commitment of
corporate resources, and this commitment is projected through the preparation of long-range and short-range plans.

The fifth facet, as shown in Figure 4, is the formulation of strategies and the preparation of a long-range plan based upon the adopted strategies. Since the fourth facet is the establishment of objectives and goals, it is logical for management to become involved with designing a strategic plan which provides the basis for attaining the adopted objectives and goals. Concurrent with major changes in the previous facets of the formal planning process, there is a requirement for redesigning the corporate strategies and the long-range plan. The flexibility inherent in committing corporate resources to the attainment of objectives and goals in accordance with adopted strategies necessitates the periodic updating and revision of the long-range plan.

The immediate commitment of resources is targeted through a short-range plan which is utilized by the corporation as a guide in the planning and decision-making necessary to the attainment of targeted objectives and goals. Normally, the first year of a long-range plan provides the basis for the preparation of a short-range or one-year plan, with the latter including various corporate budgets. The short-range plan, which is prepared, communicated, and implemented on a decentralized basis, is usually more quantitative and action oriented than the long-range plan.
The sixth and last facet of the formal planning process is the establishment of an appraisal or control system which permits the continuous and periodic comparison between actual and desired results. The appraisal phase of the planning process includes the design of a mechanized and manual control system which highlights the variances requiring management's attention. Additionally, the appraisal or control system permits the consolidation of results generated by the numerous accountability or profit/loss center points within a corporation. This last phase of the formal planning process provides the means for the continuous or periodic recycling of any or all process phases. Since the planning process involves various dynamic influences and considerations, a recycling of the process is necessary to the success of such a planning and decision-making system of management. It should be recognized that the state of the art of formalized planning has not developed to a point where there is a well-articulated, published, conceptual framework for systematizing information about the various facets of planning.

The research attendant to this dissertation has permitted a conceptual evaluation of the philosophy, logic, policies, practices and trends relating to the implementation of a corporate formalized planning process. The design and structuring of a so-called typical dynamic formal planning process, as shown in Figure 4, represents a culmination of thoughts resulting from extensive research into this subject.
A review of the glossary of terms contained in Appendix B should help clarify the many terms used in describing each facet of the planning process. Additionally, a greater insight can be acquired through review and analysis of the ensuing chapters of the dissertation, which will explore in considerable depth each facet of the process and the interrelationship between each facet.


54


CHAPTER III

ORGANIZING FOR FORMALIZED CORPORATE PLANNING

Since the concept of a dynamic formalized planning process is of recent origin, most efforts in designing formal organization arrangements for planning have evolved within recent years. Few companies have experiences in organizational activities attendant to formal planning; consequently, some corporations are involved with experimental organizational arrangements. Despite this newness, some useful data and pattern trends about the subject can be formulated on the basis of corporate experience.

While the term "formalized planning process" may sound restrictive, in practice quite the reverse is true. The process frees employees to work on their own within the organization framework of this concept. It allows persons a greater degree of self-direction and self-control. This style of management is also advocated by Drucker, who says, "If the manager, however, is controlled by the objective requirements of his own job and measured by his results, there is no need for the kind of supervision that consists of telling a subordinate what to do and then making sure that he does it" (4, p. 139). He goes on to say:

What activities and tasks the enterprise requires is indeed worked out from the top down, so to speak. The analysis has to begin with the desired end product: the objectives of business
performance and business results. From these the analysis
determines step by step what work has to be performed. But
in organizing the manager's job we have to work from the bot-
tom up. We have to begin with the activities on the "firing line"
- the jobs responsible for the actual output of goods and services
(4, p. 140).

Management has experienced a dilemma in attempting to adjust
itself to a philosophy of management similar to that required for the
implementation of a formal planning process. This dilemma relates
to the day-to-day action oriented habit pattern of management, wherein
top executives have been hard pressed to find enough time to devote to
the establishment and implementation of a formal planning process.
There are many factors that help explain why these pressures exist
among top management and which, in turn, tend to interfere with the
introduction of a formalized planning process:

1. Physical overload. Top executives are extremely
busy individuals; and, despite efforts to decentralize, top man-
agement still is involved with many time-consuming tasks.
Drucker notes, "The bottleneck is at the head of the bottle. . . .
No business is likely to be better than its top management, have
broader vision than its top people, or perform better than they
do" (4, p. 161).

2. Preference for routine. Another factor, limiting
the time which can be devoted to planning, is not so widely appli-
cable but is advanced by March and Simon: "When an individual
is faced both with highly programmed and highly unprogrammed tasks, the former tend to take precedence over the latter even in the absence of strong overall time pressure" (6, p. 185). In corporations which are not characterized by progressive and future-oriented top management, the preference may be to refrain from introducing a new concept of management.

3. Uninformed management. In some corporations top management has neglected to maintain a current insight into new techniques, concepts, and ideas for managing the firm; consequently, there is a lack of awareness of the importance and usefulness of a systematized planning and decision-making program (5, p. 4).

There are indications that the corporations which do not implement the formalized planning process often need it the most. Maines says, "In the cases of both high-growth and low-growth companies, those that now support planning programs have shown a superior growth rate in recent years" (5, p. 4).

Chief Executive's Role

Corporations, realizing the requirement for and benefits to be derived from a more comprehensive planning and decision-making concept, will normally conduct an extensive preparatory investigation to determine the existing state of the art of planning and how it might be applicable to a corporation.
Chapter II dealt with the chief executive's accountability for the establishment and implementation of a planning process to assist in meeting the responsibility for the broad strategic guidance in the commitment of resources to the attainment of corporate objectives and goals. According to Bower:

Of course, the grand design (i.e., makeup by businesses) and other major strategic plans of the company as a whole should be approved by the board of directors; and divisional chief executives will need more detailed approvals from corporate top management. But any chief executive must decide or recommend the strategy for his organization, and that responsibility cannot be delegated. It is a command decision (2, p. 57).

The chief executive may not develop strategic plans himself, but he should be sensitive to their importance and see to it that they are developed and implemented. He must, for example, direct the company so as to cope with increasing competition on an international scale and with rapid technological, political, and social change. And since continuing success requires growth, he must prepare it to cope with the problems of ever-increasing size and complexity.

The chief executive of a successful business is also the chief architect of the company's system of management. And after the system is built, he must articulate it and see that it is used, supported, and revised as changing conditions require.

Thus, I believe that any chief executive will do a better job if he thinks of himself not only as a leader and final decision maker but also as an architect with two broad responsibilities: (1) keeping the company attuned to external forces, and (2) building and maintaining a system of management (2, p. 148).

Top Management's Active Support and Participation

The chief executive in conjunction with the corporate executive management group should enthusiastically support and participate in the design and implementation of the planning process. This involvement
is vital since formalized planning is concerned with far-reaching decisions which affect the survival and growth of the corporation. Likewise, if managers are to cooperate in the development and execution of corporate planning, there is a need for assurance by top management that the manager's future performance will be measured on the basis of both long-range and short-range contribution and not simply on the basis of current-year operating results. A further consideration is that subordinate management in part patterns its attitudes toward planning on the basis of the attitude it sees reflected at the top level of the organization.

Recognizing that the design and carrying out of a corporate planning process represents a major undertaking, it becomes evident that the best method of introducing or extending planning within an organization must be carefully thought out. Normally a "plan for planning" is developed by the executive management groups in conjunction with the chief executive.

Besse says:

The first step toward adequate planning is the establishment of a planning climate. Best results are achieved when this begins with top management - the very top - the chairman of the board, the president, the executive vice president, and the important vice presidents. They must buy the proposition that planning, per se and as such, is an identifiable, controllable function essential to the health of the enterprise. And they will be completely convinced only if they do a little work on the subject. They must study some of the pertinent literature to familiarize themselves with planning techniques that have been
successfully applied in other companies, attend some high-level conferences, take a little time to think and talk about the subject. And they ought to write down their conclusions for everyone to see and approve. Somebody has said, "If you haven't written it out, you haven't thought it out." That is as true of planning as it is of any other fundamental principles (1, p. 46).

Line and Staff Personnel

The concept of formal planning as described in this study envisions that planning shall be a way of life in a corporation. It cannot be confined to executive management alone or to a small specialized staff group. Rather, it should involve everyone who possesses leadership responsibility for the effective operation of any facet of the corporation. Formal planning accountabilities embrace not only executive management concerned with the nature and basic product or services of the firm, but also members of management who are concerned with the survival and growth of the business.

It becomes evident that planning is an integral part of the management. If a manager is to be held accountable for end results performance measured against a plan, then, basically, the incumbent manager must be involved in the planning functions. If the design and implementation for a formalized planning process are formulated in cloistered seclusion by planning staff specialists and then submitted to line management for execution, there is denied the fundamental principle of organization responsibility.
Through mobilizing the know-how and imagination of key line managers throughout the corporation in the attainment of common objectives and goals, a total organized planning effort of this magnitude develops considerable corporate power. But unless the planning is properly organized and coordinated, it is likely to become unwieldy and demoralizing to the organization. Individual planning efforts should be pulled together into the integrated formal planning process; otherwise, these individual efforts may become meaningless and waste managerial energies and precious corporate resources.

Since it is a primary responsibility of line executives, planning affects the organization of a company to the extent that it functions more effectively in one formal arrangement than in another. The line manager can plan only those activities with which he is directly charged. If information concerning the activities and intentions of another segment of the business is necessary for his own planning but is unavailable, either organizational clarification is needed or the other component is not communicating satisfactorily.

The formal organization of a company expresses both longer-range planning and current operating responsibilities. Planning and doing are separate parts of the same job, they are not separate jobs (3, p. 181).

Assuming that corporate management has established the need for a formalized planning process, some person or group should be made responsible for coordinating the development of the plan for planning. This coordinated action would help to ensure that the planning was executed by line management; and within the framework of the process, the individual planning efforts would be pulled together into an integrated corporate plan.
Starting Formal Planning

In many instances the initial suggestion to create a formal planning process comes directly from top management and usually the chief executive officer. Installation of a formalized planning process may cover a period of from two to eight years; and according to a Stanford Research Institute (9) survey, the corporation will cycle through a five-phase planning evolution. This evolution is illustrated in Figure 5.

Phase I--Establishment of Executive Planning Committee

Establishment of a formal planning organization represents the initial effort toward the implementation of a formalized planning process, and it usually takes place under the direction of the chief executive officer. In most instances the corporate, key line and staff officers are designated as members of the Executive Planning Committee.

No one person can possibly know enough or be objective enough by himself to do the entire planning for a company. If he tries to do the job alone there will inevitably be a negative reaction to the plan regardless of its merits, among competing individuals in the firm, especially if they feel their interests are not adequately represented during the planning stages. By employing the team approach to the actual planning program, a company receives the benefit of its executives' collective experience (7, p. 20).

In general, the task force approach to organizing for long-range planning has some important advantages, even though it is essentially of a temporary nature. It offers great flexibility for short-term intensive studies. It allows the assignment of priorities and the direction of concentrated effort to problems which seem of critical importance. It also appears to be a most useful approach in getting long-range planning activities started,
<table>
<thead>
<tr>
<th>Phase Period</th>
<th>Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>I 6 months to 1 year</td>
<td>Establishing the Executive Planning Committee</td>
</tr>
<tr>
<td>I.1</td>
<td>1. Accumulate information inputs from line and staff groups</td>
</tr>
<tr>
<td>I.2</td>
<td>2. Evaluate information inputs to determine additional needs</td>
</tr>
<tr>
<td>I.3</td>
<td>3. Assign task groups to conduct special studies</td>
</tr>
<tr>
<td>I.4</td>
<td>4. Evaluate company's present position</td>
</tr>
<tr>
<td>I.5</td>
<td>5. Recommend alternative courses of action to chief executive</td>
</tr>
<tr>
<td>I.6</td>
<td>6. Develop guidelines for formalizing the corporate planning process</td>
</tr>
<tr>
<td>I.7</td>
<td>7. Recommend establishment of staff level planning function</td>
</tr>
<tr>
<td>II 2nd year</td>
<td>Designation of a Planning Director</td>
</tr>
<tr>
<td>II.1</td>
<td>1. Develop standard reporting procedure for divisions</td>
</tr>
<tr>
<td>II.2</td>
<td>2. Analyze corporate strengths and weaknesses</td>
</tr>
<tr>
<td>II.3</td>
<td>3. Establish corporate objectives and goals</td>
</tr>
<tr>
<td>II.4</td>
<td>4. Educate line managers on planning process and its importance</td>
</tr>
<tr>
<td>II.5</td>
<td>5. Special studies: diversification, acquisition, and growth fields</td>
</tr>
<tr>
<td>III 3rd year</td>
<td>Establishment of a permanent planning staff and division planning committees</td>
</tr>
<tr>
<td>III.1</td>
<td>1. Integrate divisional plans into over-all long-range corporate plan</td>
</tr>
<tr>
<td>III.2</td>
<td>2. Assess corporate objectives and goals relative to planning programs</td>
</tr>
<tr>
<td>III.3</td>
<td>3. Conduct special studies to cover activities not covered by divisions</td>
</tr>
<tr>
<td>III.4</td>
<td>4. Develop a program for improving planning in divisions</td>
</tr>
<tr>
<td>V 4 to 6 years</td>
<td>Establish planning as a division staff from function. Appoint Vice President</td>
</tr>
<tr>
<td>V.1</td>
<td>1. Establish performance evaluation procedures</td>
</tr>
<tr>
<td>V.2</td>
<td>2. Review corporate objectives and goals and recommend changes</td>
</tr>
<tr>
<td>V.3</td>
<td>3. Continuously monitor internal and external environments</td>
</tr>
<tr>
<td>V.4</td>
<td>4. Conduct special project assignments</td>
</tr>
<tr>
<td>V.5</td>
<td>5. Integrate divisional plans</td>
</tr>
<tr>
<td>V Final 5 to 8 years from</td>
<td>Establishing the evaluation and control function at corporate and division</td>
</tr>
<tr>
<td>V.1</td>
<td>1. Continuous review and updating of plans</td>
</tr>
<tr>
<td>V.2</td>
<td>2. Evaluate progress toward objectives and goals</td>
</tr>
<tr>
<td>V.3</td>
<td>3. Monitor external and internal developments</td>
</tr>
<tr>
<td>V.4</td>
<td>4. Coordinate and improve information flow</td>
</tr>
<tr>
<td>V.5</td>
<td>5. Evaluate and develop new business opportunities</td>
</tr>
<tr>
<td>V.6</td>
<td>6. Consult on implementation and conduct special studies</td>
</tr>
</tbody>
</table>

Fig. 5--The planning organization*

*Source: Stanford Research Institute
giving them an initial momentum and providing background acquaintance with relevant subject areas while demonstrating top management's active support (8, p. 177).

The initial phase in the formulation of a long-range planning process as presented by the Stanford Research Institute (9, p. 15) represents a most critical period in the evolution of the formalized planning organization. Through this initial effort corporate management is introduced to many new management concepts and begins to shape an attitude toward a formalized planning and decision-making process. During a period of approximately one year, the executive planning committee, in conjunction with the chief executive officer and the board of directors, becomes involved in augmenting many significant changes throughout the corporation. If a corporation has neglected the following managerial activities there exists a requirement for an updating of the corporation's management philosophy, practices, techniques, and systems:

1. The depth analysis of the salient external influences upon the corporation.

2. The required insight into the corporation's resources.

3. The formulation of the corporation's mission, objectives and goals on a more quantitative, qualitative and formalized basis.

4. The development of an assumption base attendant to formulation of objectives and goals.
5. The delineation of corporate strategy required in the attainment of objectives and goals.

6. The formalization of increasingly effective management systems to permit commitment of corporate resources in attainment of end results.

7. The establishment of a control and recycling system which is more compatible with the formalized planning process.

**Phase II--Designation of a Planning Director**

Upon completion of the extensive planning efforts accompanying the first phase, the Stanford Research Institute (9, p. 16) notes that the corporation reaches a point where there is a requirement to appoint a planning director who is capable of providing further coordinative support for the executive planning committee.

In many instances a member of the corporation's management group is promoted to the position of director of planning. On occasion some corporations must employ a director of planning when an individual from within the corporation is not available for assignment to this new position. The newly appointed director of planning is given the opportunity to acquire a staff of a few highly qualified individuals who function together as a planning department. The planning department operates as a staff group in assisting with the further development and implementation of the formalized planning process.
Scott states:

The organization arrangement for long-range planning which is most widely adopted among large companies calls for the establishment of a corporate staff planning unit. This unit reports directly either to the chief executive or to another senior top management executive, and it most commonly takes the form of a committee or department.

The unit best exemplified the formalizing changes which have taken place during recent years in relation to long-range planning activities, and it is obviously of great significance (8, p. 177).

A review of Figure 5 reveals that the planning staff provides the corporation with a professional approach to formal planning, and this know-how assists management in designing and implementing an effective planning process.

**Phase III--Establishment of Planning Staff**

This phase in the evolution of the corporate planning efforts normally happens three years after the initial action toward establishing a formalized planning organization. According to the Stanford Research Institute (9, p. 17) study, the planning group at the corporate management level becomes a permanent part of the formal organization structure. Its major assignment relates to the preparation of the corporation's first comprehensive five-year plan, with a primary accountability for the coordination and integration of the formalized planning process. This phase also requires a decentralization of the planning function, since a large part of the planning effort takes place at the operating level, with the corporate organization components
submitting individual plans which are coordinated and integrated into the total corporate plan by the planning staff.

**Phase IV--Establishment of a Division Planning Staff**

Having benefited from approximately five years of experience in the design and implementation of a formal planning process, the chief executive officer, according to the Stanford Research Institute (9, p. 18), is inclined toward elevating the director of planning to a Vice President of Corporate Planning. Additionally, within the larger corporations there is a movement toward the establishment of a division planning coordinator position.

Concurrent with the maturing of the corporate planning staff, this group becomes more involved with the acquisition and merger program, capital investment decisions, diversification efforts, and other strategic functions of the corporation.

**Phase V--Establishment of a Total Formalized Planning Process**

After several years of involvement with the formal planning process the corporation has the benefit of managing within a sophisticated framework for planning. The Stanford Research Institute (9, p. 19) notes that such a planning framework permits a greater decentralization of the corporate planning and decision-making accountabilities. The chapter which follows provides an opportunity to explore in
greater depth the many considerations relevant to phase five in the evolution of formal planning.

Responsibilities and Functions Of Staff Corporate Planners

Recognizing the scope of the formalized planning process, it becomes evident that a need exists to position within a corporation some person or group who should be made responsible for coordinating the development of this process, ensuring that planning is executed by line and staff management and then pulling these plans together into an integrated corporate plan. In a large corporation, organized to carry out its business through divisions, the planning structure may consist of a corporate plan, divisional plans, operating company plans, and functional department or unit plans within the corporation.

Permitting the planning process to function on a decentralized basis leads to the necessity for providing a combined corporate-divisional planning structure. A corporate-level group coordinates division plans, provides flexibility, and promotes executive management support and participation. Also, most planning inputs must come from operating divisions, since plans must be implemented at this level.

The nature of the planning efforts requires a planning staff at both the corporate and division levels, comprised of a small group of highly qualified persons assisting management with designing,
coordinating, and implementing formal planning which relates to the survival and growth of the corporation.

Position Description for Corporate Vice President of Planning

Steiner (10) maintains that the problems of the planning staff's role within the corporation often arise in the development and coordination of strategic plans by central planning staff and by operating divisions. Corporate planning staffs are inevitably involved in the interrelationship between the planning activities of various organizational components. The planning staff's role in coordinating the modification of plans to relate to the corporation as a whole may result in bitter conflict if important issues are involved. No matter how clear staff roles may be, this type of conflict will arise, but it is less likely to arise and less likely to be serious if roles are clearly specified and clearly understood.

Since the planning process is very complex it is necessary that there be understanding of authority, accountabilities, procedures and timing; with this being accomplished through the chief executive who is responsible for establishment of the formalized planning and decision-making process. In many instances a Vice President or Director of Planning is available to assist the chief executive with these planning accountabilities.
The position description and designation of individual and team accountabilities for the Vice President of Planning is often utilized by the chief executive when establishing a planning staff. A position description similar to the facsimile shown in Appendix C can be prepared by the corporation prior to the establishment of the chief planning position; and, due to the strategic importance of this position, it would be desirable to have the various vice presidents approve the contents of the position description.

Important Accountabilities of Planning Staff

Steiner provides an overview of the more salient accountabilities of a planning staff specialist:

First, he develops and maintains an accurate, detailed, and up-to-date assessment - an economic portrait, if you will - of the corporation as a whole, seen from three points of view:

The economic point of view requires the corporate planning officer to maintain a continuous record of existing product lines, their current, past, and projected growth; their competitive market position, and their contribution to profits. . . .

The operational view means that he must maintain an inventory of operating strengths and limitations. It involves continuous examination and assessment of all operating activities to identify those areas in which the company is performing well and those in which its capabilities are inadequate. . . .

This kind of analysis helps a corporation to build on its strengths while correcting its weaknesses or limitations. It also serves as a valuable guide in a corporate diversification program, since it indicates what the parent corporation must do to supplement effectively the strengths and weaknesses of the company being acquired, or to strengthen its capacity to absorb additional product lines or businesses.

The financial knowledge of the corporation's financial position and capacity is always important, and never more so.
than when management is preparing to embark on a program of expansion and diversification.

The economic portrait of the corporation embodying these viewpoints must naturally be derived from information gleaned from each of the company's operating activities and staff units. Only a person working at the top-management level is in a position to compose it in full detail and accurate perspective. This then is his first basic task.

His second responsibility and a most important one, is to maintain a broad and sensitive understanding of the changing environment within which the corporation operates.

The corporate planner's third responsibility is to help develop and crystallize corporate objectives.

The fourth responsibility of the top corporate planning executive may be to develop diversification targets - promising opportunities in business areas where the corporation does not yet operate.

His fifth and final responsibility, of course, is to create and administer the planning system itself (11, pp. 40-44).

Centralization vs. Decentralization of the Planning Function

The larger corporations tend to have both a central planning staff for the whole corporate operations and other planners for important decentralized facets of the firm. The more diverse the operations, product lines, or the more sophisticated the technology, the greater the need for decentralized planning. Generally, the division planner serves under the line supervision of a division head and under the functional guidance of the central planning staff.

When the company is organized functionally, according to Branch (3, p. 182), coordination is affected and comprehensive plans are drawn at the single profit center which controls at least production and sales.
When management is conducted through multiple profit centers, comprehensive planning of the activities at each center is the responsibility of the respective line manager. Depending upon the degree of decentralization or autonomy, each of the managers relates organizational component plans to the other facets of the corporation, with the coordinative efforts being handled by staff and divisional planning groups. A sound principle in either single or multiple profit centers is that only those planning activities are conducted at the corporate level which cannot be delegated, or for other reasons, are better performed centrally.

Compatibility of Management Programs, Procedures And Practices with the Planning Process

Concurrent with the implementation of a formal corporate planning process, the executive management group under the leadership of the chief executive officer has a requirement to determine the need for revision or origination of management aids, programs, or policies. An example is the need for devising a system which will permit the downward communication of objectives and goals to various organizational components and eventually to such incumbents as salesmen, foremen, staff personnel, etc. The reformation of positions descriptions and individual accountabilities, in part, will help augment the establishment of the hierarchy of objectives and goals. Likewise, management needs to implement an individual performance planning program that permits the upward and downward communications which are necessary
for the decentralized implementation of the formal planning process. Instituting an individual planning program can be accomplished after concerned personnel have designed the program, written the policy guidelines, and arranged to communicate the program and train all persons involved with the implementation.

The more difficult aspect of a formalized planning process relates to the action required in decentralizing planning to a point of having a framework of management which allows for the participation and involvement of employees operating at all echelons within the organization. Participative management, management by objectives or results will be more effective when management has taken the initiative and action to formulate the total managerial framework necessary to maximum implementation of these concepts.
CHAPTER BIBLIOGRAPHY


CHAPTER IV

ENVIRONMENTAL ANALYSIS

This chapter represents the first of several chapters which will permit a depth analysis of each major facet of the dynamic formalized planning process as shown in Figure 4. Each of these chapters will explore the requirements for a given facet of the process, the existing state of the art attendant to the particular part of the process, and the interrelationships among the various facets of the planning process.

The contents for each of the ensuing chapters will follow a format that reveals the logical line of thought for each major and subordinate aspect of the planning process. Since these chapters will be concerned with the state of the art of formalized corporate planning, several sources of information are utilized when presenting a given aspect of the process. These various sources of information are summarized below:

1. **Personal consultation with planning specialists**

Several authorities who are specialists in corporate planning were interviewed at various locations throughout the United States. These persons function as consultants to management, as educators, or as researchers, and most have written extensively on the subject of planning. Many of the
individuals provided a practical and current insight into the formal planning process movement.

2. Conference and seminar participation

Relevant information was acquired through participating in the following meetings relating to formal planning:

a. American Management Association Corporate Planning Course, one week; b. American Management Association Planning Workshop, three days; c. Planning Dynamics Inc. Planning Course, one week. This resource information on planning will be utilized in the succeeding chapters since the conferences centered on the corporate formal planning process.

3. Published materials

Some of the nation's leading management authors have published books and articles on the subject of formalized planning. Individuals like Drucker, McGregor, Steiner, Ansoff, and Levitt have provided an important base to the formal planning process movement. The writings of these authorities will be utilized along with other sources of information when reflecting upon the complex aspects of the corporate formal planning process.

4. Survey of formal planning process practices

In order to obtain current information regarding corporate formal planning practices, a select group of 206
United States corporations were requested to complete the questionnaire shown in Appendix A. This appendix notes that the survey sample of corporations covers a broad spectrum of industries, and the firms display a wide range of sales volume. Sixty-six corporations responded to the survey, representing 32 per cent of the total sample. Fifty-two firms completed and returned the questionnaires; and this information, which relates to specific aspects of the formal planning process, provides a basis for appraising current practices. Where feasible the corporate responses were tabulated and presented on a quantitative basis, and in some instances the corporate responses have been presented on a direct quote basis.

Utilization of Environmental Data

External environmental conditions affect a corporation's survival and growth possibilities; therefore, management needs reliable information about future economic, social, political, technological and other business conditions to help serve as a guide in formulating assumptions, objectives, goals, criteria, strategy, and the eventual commitment of corporate resources. Since objectives, goals, and strategies are based upon a group of key assumptions, management can benefit by devising a dynamic monitoring system which is capable of providing a
continuous appraisal of the salient influences which are considered when formulating the planning process assumptions.

To the extent that the environment consists of external factors essentially beyond the control of management, it is evident that a corporation should determine and monitor these environmental influences. An accurate and continuous long-range environmental forecasting system is therefore a vital ingredient of successful formal planning, because it enables management to make rational and timely decisions and plans for the survival and growth of the corporation. The environmental data assists management in adapting the corporation and corporation's products or services to the expected environment and helps when deciding upon the nature, scale, and scope of future corporate operations.

According to Steiner (8) a corporation comes into contact with the surrounding environment at many points. Factors such as population growth, income levels, buying habits, price trends, and technological developments affect product markets and over-all business conditions and usually exert a corresponding influence on corporate sales and operations. A corporation can adapt its operations to some of these changes after the environmental changes have already occurred. But it seems logical to assume that the adaptation is likely to be more successful if these environmental changes can be anticipated, and the necessary courses of action can be formulated through the formal planning process.
Dynamic Environmental Influences Upon Corporation

In a recent publication relating to long-range planning practices, Henry noted:

In planning the future activities of a business firm, one of the most fundamental tasks is to predict the nature of the business environment in the coming years. The social, political, economic, and technological changes which will occur in future years should be anticipated as accurately and as soon as possible. Otherwise, long-range planning may be built on a crumbling foundation. Changes in the environment will be translated into certain levels of demand for various types of products in each future time period. Therefore, a business firm needs to forecast the demand for the products it plans to manufacture and market (3, p. 46).

The numerous environmental forces which can have a significant impact on a corporation were provided in an overview chart by Steiner (8) and are summarized in Figure 6. Often it is difficult for a corporation to delineate and measure these forces and establish the degree of influence on corporate operations. This illustration denotes how environmental forces may affect different facets of corporate operations and the vital need to examine these influences. According to Steiner (8) the difficulty that management experiences in keeping abreast of these influences is one of the important reasons for designing and implementing a formal planning process with staff experts (i.e., economists and staff planners) to specify, study and project environmental factors important to the corporation.

In observing the environmental changes as shown in Figure 6, it can be noted that the consideration is far greater than mere changes...
in demand and in the tactics of competition. The changing pattern and trend of competition needs to be understood. New technological developments that may threaten a part of the corporation's product lines or provide an opportunity to strengthen its market position should be identified and analyzed. An understanding of demographic change, of

Fig. 6 -- Environmental impact on corporate planning*

changing consumer tastes, and of changes in consumer purchasing power needs to be developed. The potential effects of government policy and the potential impact of economic policy should be analyzed. Today great international opportunities are prevalent, and there is a need to relate such potentials to the corporation through utilization of the corporate formal planning process.

Environmental Analysis and Evolutionary Phases of Planning

A review of Figure 5, which portrays the evolution of the corporate planning organization as projected by Stanford Research Institute (7), denotes that the five evolutionary stages place great emphasis on the need for environmental data. In Phase I the Executive Planning Committee's first action is to secure comprehensive environmental information to assess the corporation's present position and to set a course for the formal establishment of a permanent planning organization. Entering into Phase II, a corporation appoints a Director of Planning who possesses sufficient competence to permit even more formidable environmental inputs than Phase I. As the corporation's planning endeavors proceed to Phase V, there is the establishment of a continuous type of monitoring system which permits continual appraisal of the economic, technological, social, and political influences upon the corporation.
Identifying the Corporation's Position in the Environment

Since all sound planning must start with a thorough understanding of "where you are" as a corporation and "what you have" before the corporate management can intelligently determine "where you want to go," many authorities have focused on some simple but extremely important questions which should be answered in conjunction with the design and implementation of the formal planning process.

Drucker (2) says the initial step in determining what the corporation's business is, is to be able to answer the question, "Who is our customer?" Attempting to answer this question, Drucker (2) notes, leads to such other questions as:

- Is he the actual customer?
- Who are the potential customers?
- Where are the customers located?
- What are their buying habits?
- What is required in reaching the customer?
- What is value to the customer?

The writings of Drucker (2), Levitt (4) and other authorities who recognized the inefficiencies of corporate planning have helped management to more fully realize the importance of environmental influences upon the firm. Levitt notes in his famous article "Marketing Myopia," "In every case the reason growth is threatened, slowed, or stopped is
not because the market is saturated. It is because there has been a failure of management" (4, p. 45).

Levitt also says:

... the organization must learn to think of itself not as producing goods or services but as buying customers, as doing the things that will make people want to do business with it. And the chief executive himself has the inescapable responsibility for creating this environment, this viewpoint, this attitude, this aspiration. He himself must set the company's style, its direction, and its goals. This means he has to know precisely where he himself wants to go, and to make sure the whole organization is enthusiastically aware of where that is. This is a first requisite of leadership, for unless he knows where he is going, any road will take him there (4, p. 56).

Levitt's (4) thoughts focus on the requirement for a formal planning process, with the initial management action relating to a depth analysis of the environmental influences which affect the purpose of a firm. Due to the many dynamic and ever-changing forces of society, Levitt (4) intimates that management, and especially the chief executive, should design a system of management which will permit the continual appraisal of the corporation's products and services at the marketplace. Likewise, management can also benefit from the design of a system which is capable of denoting new market opportunities for the corporation. The input derived from such a system, plus an assessment of corporate strengths and weaknesses, will provide a foundation for the formulation of corporate objectives, goals, assumptions, criteria, and strategy.
Factors Which Determine When To Assess Environment

The initial efforts to institute a formal planning process necessitate an original depth assessment of the relevant environmental influences upon the corporation. Based on the experience of Planning Dynamics Incorporated (5), the following major influences cause many corporations to turn to the formal planning process:

1. The increasing size and complexity of business
2. The number and rapidity of major changes affecting business:
   a. Industrial technology
   b. National and international economy and markets
   c. Social and political conditions
3. The increasing competitiveness of business from:
   a. Diversification of other firms
   b. Saturation of markets and excess capacity
   c. Competitor's innovations, improvements, and strategies
   d. Foreign production
4. The increasing size and term of capital commitments
5. The decentralization and functionalization of management

Planning Dynamics Incorporated (5) noted that these concerns
the initial corporate formal plan. Also, the initial environmental data is indispensable when implementing the other facets of the planning process. The dynamic nature of the corporation's environment requires a continuous probing for a deeper understanding of the forces at work and their significance to the corporation. To support the formal planning process accurate data should be periodically accumulated to supplement and bring up to date the basic information gathered during the original planning phase.

Steiner (8) gives the following examples of trend data which are often included in the environmental information bank:

1. The growth or decline in industry volume by products and market segments
2. The expansions and mergers of competitors
3. The relation of industry capacity to demand
4. The industry cost and price trends
5. The industry return on investment
6. The market share pattern
7. The pricing strengths and weaknesses

The planning authorities for the past several years have been communicating to corporate management the above noted information regarding the importance of assessing the corporation's environment. In 1954, Drucker wrote The Practice of Management (2), and in this book he suggested that management familiarize itself with its
environment in order to be in a position of projecting reliable and valid objectives and goals.

Corporate Approaches to Environmental Analysis

An insight into the various corporate approaches to environmental analysis was accomplished through a review of written materials presented by authorities who have helped corporations design such systems. Additional information about the techniques for evaluating environmental conditions was acquired through the Survey of Formal Planning Process Practices since the questionnaire contained pertinent questions relating to this first facet of the formal planning process. The responses to this survey tend to reveal that some corporations have established environmental analysis systems which provide extensive information for the remaining facets of the formal planning process.

Several corporations provided an insight into the techniques and considerations relative to the environmental analysis facet of the formal planning process by answering the following question: "What factors seem to be of key importance in determining when and how there should be an assessment of the environmental influences upon the firm?" (9). A representative listing of the corporate answers to this question is given below, and these answers tend to indicate that many corporations at the present time are aware of the various environmental influences upon the firm (9):
Loss of sales

Required to provide background for long-range planning

Main factor is to see that a regular review is made and our firm reviews environment yearly for both short-term (1 year) and long-term (5 years).

We make a continual assessment.

Believe there should be a continuing assessment of world environment due to dynamic nature of society, but reassessment becomes most important when governmental politics or policies change.

Broad environmental studies are made annually.

Change in market potential.

Decline in profits--unsatisfactory profit performance.

When present product lines no longer seem to have enough growth--usually takes one year to conduct.

Identification of potential diversification opportunities.

In a climate of constant change management must constantly assess environmental influences.

Any environmental change having an impact on the level, profitability, or vitality of the operations requires an assessment. The environment is reviewed continually and evaluated at regular meetings.

Corporate Personnel Involved in Preparation of Environmental Analysis

Steiner (8) comments that when the formal planning involvement was added to the already crowded schedules of corporate executives, there developed a requirement for a restructuring of accountabilities and staff assistance. To alleviate the problem of overtaxed
executives in relation to the growing demands of a formal planning process, the chief executive established a planning staff. In addition some firms expanded the marketing research organization; and, in many instances, full-time economists were employed for short-range and long-range forecasting.

The Survey of Formal Planning Process Practices (9) has also reflected that many corporate staff members are actively involved in the preparation of environmental analysis studies based upon answers to the following survey question: "What organization component(s) prepares the industry studies?" (9). The companies answered:

Corporate Planning Department
Marketing Research
Business Economics Department
Corporate Staff Services
Divisional Staff Services
Technological Advisory Staff
Consulting Firms

This same survey (9) brought out that the relationship of corporate personnel to the environmental analysis aspects of the planning process tends to vary in accordance with the following types of environmental data needs:

1. The continuous monitoring of the firm's environment as required in support of the operational or short-range plan.
2. The continuous monitoring of the major environmental influences attendant to the strategic or long-range plan.

3. The periodic environmental analysis appraisals required when preparing broad and complex industry studies in support of the corporation's major diversification and growth objectives.

4. The periodic environmental analysis appraisals required when preparing special studies relating to a new product, research and development projects, or the acquisition of a company.

Personnel Involved with Continuous Monitoring

The Survey of Formal Planning Process Practices (9) denotes that some corporations have delegated to the corporate planning staff the accountability for a continual monitoring of the salient environmental influences upon the corporation. In some instances the analysis and reporting of results is aided through use of electronic data processing, which is reviewed in Chapter IX. The corporate planning staff normally utilizes the counsel of the corporate economists, marketing research staff, technical advisors, and other in surveying, analyzing, and reporting the impact of environmental influences upon the corporation.
Personnel Involved with Non-Recurring Type of Monitoring

As a corporation continues to direct its efforts toward the accomplishment of objectives and goals, many opportunities for the commitment of resources develop, and, according to Smalter (6), management requests the preparation of feasibility studies. Such a feasibility study requires environmental analysis input which usually relates to a specific sector of a market. Smalter (6) notes that the task force type organization is often employed to assist the corporate planning staff prepare a product line study, patent shelter study, or a study relating to the acquisition of the assets of another firm. Since direct commitment of capital is at stake, the personnel assigned to the task group need to possess the capability for preparing a reliable study, considering the risks and uncertainties of the environmental influences and the internal influences upon such future endeavor.

Preparation of Broad Industry Studies

Steiner (8) foresees that management techniques and practices in many corporations are characterized by a more analytical approach, and this analytical approach is not necessarily an approach that utilizes computers, mathematics or statistics. The noted analytical approach is one by which a manager, in looking at any particular problem, tries not to move on an intuitive basis but attempts to relate a problem to some body of formal planning knowledge which the incumbent has
mastered. The manager is then able to utilize a framework which assists in managing in a thorough and planned manner. Planning Dynamics Incorporated (5) reveals that in recent years management and educators have developed a technique which is utilized in preparing a depth evaluation of the past, present, and future trends and patterns existing with a given business or industry sector of society.

**Corporate Responses to Broad Environmental Studies**

The corporations responding to the Survey of Formal Planning Process Practices tend to confirm the authorities' views as to the important role of broad industry type environmental studies. The questions and the respective answers as recorded in Tables I and II, plus the response to the general question on this subject, demonstrate top management's desire and need for broad environmental information to help in targeting areas of opportunity.

"Does your company prepare broad industry studies to determine economic, technological, social, and political trends and patterns (e.g. plastics, pollution equipment, recreation)?" (9)

To this question, 88 per cent of the firms answered "yes" and 12 percent answered "no."

A summary of the industries studied by the responding corporations is shown in Table I and reveals that most of these industries represent the higher growth areas within the United States.
TABLE I

INDUSTRY STUDIES BY RESPONDING FIRMS*

<table>
<thead>
<tr>
<th>Industry</th>
<th>Responding Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pollution Control</td>
<td>Continuing Education</td>
</tr>
<tr>
<td>Plastics</td>
<td>Chemicals</td>
</tr>
<tr>
<td>Electronics</td>
<td>Shipbuilding</td>
</tr>
<tr>
<td>Data Processing</td>
<td>Petroleum</td>
</tr>
<tr>
<td>Data Communication</td>
<td>Steel</td>
</tr>
<tr>
<td>Recreation</td>
<td>Photography</td>
</tr>
<tr>
<td>Transportation</td>
<td>Energy</td>
</tr>
<tr>
<td>Institutional Foods</td>
<td>Furniture</td>
</tr>
<tr>
<td>Oceanography</td>
<td>Medical Supplies</td>
</tr>
<tr>
<td>Paper</td>
<td>Material Handling</td>
</tr>
</tbody>
</table>

*Source: Questionnaire sent to select group of corporations, November, 1968.

With a majority of the responding firms demonstrating considerable activity in the environmental assessment of broad industries, a point of concern centers on how this environmental information is utilized by these responding corporations. In reviewing Table II, it

TABLE II

UTILIZATION OF INDUSTRY STUDIES BY RESPONDING FIRMS*

<table>
<thead>
<tr>
<th>Usage</th>
<th>Number of Firms</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formulation of Objectives/Goals</td>
<td>39</td>
<td>86</td>
</tr>
<tr>
<td>Diversification</td>
<td>34</td>
<td>75</td>
</tr>
<tr>
<td>Product Planning</td>
<td>34</td>
<td>75</td>
</tr>
<tr>
<td>Acquisition/Merger</td>
<td>33</td>
<td>73</td>
</tr>
<tr>
<td>Research and Development</td>
<td>31</td>
<td>70</td>
</tr>
<tr>
<td>Assessment of Corporate Performance</td>
<td>31</td>
<td>70</td>
</tr>
<tr>
<td>Manufacturing Process Planning</td>
<td>21</td>
<td>47</td>
</tr>
<tr>
<td>Reallocation of Investment</td>
<td>16</td>
<td>35</td>
</tr>
<tr>
<td>Divestiture</td>
<td>10</td>
<td>22</td>
</tr>
</tbody>
</table>

*Source: Questionnaire sent to select group of corporations, November, 1968.
becomes evident that there is a linkage between environmental analysis and the establishment of objectives and goals since 86 per cent of the respondents utilize such environmental studies when formulating objectives and goals. Additionally, according to the Survey of Formal Planning Process Practices (9), these studies are utilized to support other aspects of the formal planning process, such as diversification, acquisition, research and development.

Sources of Information for Industry Environmental Studies

Planning Dynamics Incorporated (5) reveals that within the last two decades the United States and other developed nations of the world have built vast information banks of social, economic, political, and technological data. This public and private information is important input for the formal planning process, and it can be utilized in conjunction with the continuous monitoring of the environment or is available when an organization is preparing broad industry or specific studies. Concurrent with the trends in data processing technology there appears to be an ever expanding accumulation of data. According to Planning Dynamics Incorporated (5), the challenge to those involved in implementing the formal planning process is to properly isolate environmental data which is pertinent to a given planning requirement. The availability of environmental data on a decentralized basis is also vital to the planning process.
Corporations Reveal Environmental Data Sources

The corporations responding to the Survey of Formal Planning Process Practices (9) tend to confirm the observation of Planning Dynamics Incorporated (5) by revealing the utilization of many information sources for use in conducting environmental studies attendant to the formalized planning efforts.

The participating corporations were asked to "check... the sources of information utilized in preparing environmental studies" (9), and a summary of these responses has been recorded in Table III.

TABLE III

SOURCES OF INFORMATION FOR ENVIRONMENTAL STUDIES*

<table>
<thead>
<tr>
<th>Source</th>
<th>Number of Firms</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company Directed Market</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research Studies</td>
<td>45</td>
<td>100</td>
</tr>
<tr>
<td>Government Studies</td>
<td>44</td>
<td>97</td>
</tr>
<tr>
<td>Services of Consultants</td>
<td>40</td>
<td>88</td>
</tr>
<tr>
<td>Trade Associations</td>
<td>40</td>
<td>88</td>
</tr>
<tr>
<td>SIC Data</td>
<td>35</td>
<td>77</td>
</tr>
<tr>
<td>Company's Data Bank</td>
<td>35</td>
<td>77</td>
</tr>
<tr>
<td>Professional Associations</td>
<td>20</td>
<td>44</td>
</tr>
<tr>
<td>University Facilities</td>
<td>19</td>
<td>42</td>
</tr>
<tr>
<td>Other Firms</td>
<td>16</td>
<td>35</td>
</tr>
</tbody>
</table>

*Source: Questionnaire sent to select group of corporations, November, 1968.

Corporate Information Bank

Henry (3) says that with the formal planning process functioning as a dynamic system which is sensitive to the external and internal
influences upon the corporation and the performance record of committed resources, the planning staff and other groups involved with the process have experienced a requirement to develop an information data bank. The planning staff, along with the marketing research staff and the full-time economists, become involved in building a data bank, which Henry (3) notes usually includes

1. Corporation library
2. Planning staff reference files
3. Marketing research reference files
4. Business economics reference files
5. Electronic data processing information pertaining to environmental influences
6. Advisory services and inputs from consultants on a retainer basis

On many occasions time becomes a critical factor when corporate management is involved with a potential acquisition or a major commitment of resources; consequently, those persons directly involved with these special studies are able to minimize the time required to prepare a study by having available salient information in the data bank.

Example of an Industry Study—Petroleum

With 88 per cent of the corporations which responded to the Survey of Formal Planning Process Practices (9) indicating the
preparation of industry studies, it becomes evident that such a report is an important document in supporting the formal planning process. Based on the findings of the Stanford Research Institute (7) a member of the planning staff is normally assigned the accountability for coordinating the preparation of an industry study. The preparation period spans from a few months up to approximately two years. The business study outline contained in Appendix D was utilized by the Continental-Emisco Company as a guide in preparing a comprehensive analysis of the international petroleum industry. A review of this outline reveals and highlights the relationship between an environmental analysis and the various parts of the planning process. The trends and patterns of social, political, economic, technological, and other important considerations provide a necessary underpinning to the assumption base which is required in formulating objectives and goals.

Special Studies -- Products, Acquisitions, Processes

The developmental (long-range) and operational (short-range) planning and, on occasion, the strategic considerations entail the simulation and depth analysis of alternative commitments of corporate resources (5). These special studies are prepared within the framework of the formal planning process, and Smalter (6) mentions that in many of the larger corporations some of the special studies are prepared on a decentralized basis prior to the upward dissemination of the study for approval. The special studies which are of corporate-wide scope
are normally prepared by the planning staff. Planning Dynamics Incorporated (5) notes that those persons involved in simulating a commitment of corporate resources must utilize timely and accurate environmental data. The needed environmental information in great part is derived from the formal planning information bank, and if additional inputs are required the services of marketing research, planning staff, etc., are utilized.

Planning Dynamics Incorporated (5) suggests that if a corporation has a given objective and goal to diversify a particular product line, there is a requirement to prepare a special study to determine the impact of such a commitment of resources upon corporate end results. For instance, what synergistic benefit will the corporation derive from an expansion of the product line in question. With a corporation possessing limited resources, such special studies will aid management in making trade-off decisions in regard to how corporate resources should be committed.

According to Planning Dynamics Incorporated (5) the table of contents of a typical special study report, relative to a company acquisition, might appear as follows:

1. Introduction
2. Recommendations and Conclusions
3. Personnel Information
4. General Review and Assumptions
Formulation of a Continuous Environmental Monitoring System

Smalter (6) comments that some corporations have formulated comprehensive and continuous environmental data accumulation, compilation, correlation, and information retrieval systems relating to all existing and contemplated industries, product lines, or various areas of interest and opportunity. It is noted that implementation of such a system encompasses a continual review of available economic, marketing, financial, and technical data pertaining to corporate operations and areas of interest.

A recent book published by an associate of Leontief notes:

Many fundamental business decisions which reach beyond the exigencies of the hour demand long-range, five-or-ten-year forecasts to get at basic growth trends. This book describes a new system for making such forecasts, a system which incorporates many detailed forecasts into a consistent picture of the whole economy five or ten years hence (1, p. 1).
A planning manual includes this thought on a continuous environmental monitoring system:

It is advantageous and economical for the planning specialists to distribute a limited amount of information to key management personnel throughout the organization so they can plan within the same frame of reference. As a matter of fact paper work will be reduced and planning effectiveness will be greatly increased when guidelines "cascade" down to lower echelons as far as such information is valuable and pertinent. For example, the Director of Planning Services at the corporate level should provide (and revise) basic environmental and competitive data that affects two or more divisions. The planning specialists at division should distribute (and update) supplemental information on a "need to know" basis.

Monitoring System Concepts of Surveyed Corporations

Since a continuous environmental analysis program is vital to the formal planning process concept of management, the Survey of Formal Planning Process Practices permitted an opportunity to determine whether corporations have implemented such a continuous assessment program. The following questions and various recorded responses tend to establish that many of the respondents have implemented monitoring systems, and these systems are contributing to the corporate formal planning process.

"Have you formulated a monitoring system which permits the continuous appraisal of the economic, technological, social, and political influences upon the firm?" (9)

Sixty-nine per cent answered "yes." Thirty-one per cent answered "no." With so many firms answering in the affirmative, the following answers are quite revealing (9):
We are decentralized and have several appraisal systems; coordination of these systems is major weakness.

We have a data bank that is computerized and relates to
a. forecasted federal government data, b. economic forecasted data.

Professional economists, business planners, and technological planners at corporate level with inputs from subsidiaries constantly evaluate world environments.

Continuous analysis of economic situation and evaluation of business conditions by the corporate economic department.

Each functional area is charged with the on-going accountability for keeping abreast of all significant and potentially significant developments. Regular reports and meetings where data is disseminated and impact on plans is reviewed.

Monitoring system provides background data for profit plan (next 2 years) and long-range plan (next 5-10 years).

An important companion question to the one just reviewed provides a further insight into the value of such a system of monitoring.
"If such a monitoring system exists, under what conditions will it contribute to the reformulation of your short or long-range plans?" (9)

The following quoted answers describe how several of the responding corporations implement and utilize the environmental monitoring process (9):

When reported data has changed the basic assumptions on which we are planning for the future of the company.

All plans must be based on assumptions which in turn must be clearly stated. If reality does not follow assumptions, latter must be re-evaluated, usually leading to a change in plans.

Results of computer data bank (environmental) are supplied to our operating divisions each year as a part of our
guidelines for planning document. Also the system will provide for interim reactions to major environmental changes.

Short-range plans are adjusted constantly based on environmental changes and long-range plans are adjusted twice a year.

Relationship between Environmental Analysis and Corporate Objectives

D. J. Smalter (6), Director of Strategic Planning for the International Minerals and Chemical Corporation, is of the opinion that management should possess a comprehensive understanding of the corporation's position in the existing and forecasted environment. There is a need to determine what is likely to happen in the environment and what could be made to happen, and also to determine the corporation's position as related to the environmental constraints and opportunities. Out of this analysis the challenges that a corporation faces must be perceptively identified. What are the market needs? What are the opportunities for the corporation? What threats must be overcome?

Environmental analysis input, plus the next step in the formal planning process which involves an assessment of corporate strengths and limitations, provides a basis for the establishment of corporate objectives and goals. The environmental analysis and assessment of corporate strengths and limitations provide a framework for the organization's involvement in projecting a hierarchy of objectives and goals.

This framework as shown in Figure 7 helps to communicate that there
is a hierarchy of objectives which are influenced by input factors as well as by internal and external constraints that tend to limit these objectives.
CHAPTER BIBLIOGRAPHY


CHAPTER V

ASSESSMENT OF CORPORATE STRENGTHS
AND LIMITATIONS

One of the more salient aspects of the formal planning process is the important part played by an intensive initial, corporate self-appraisal and a continuous program for assessing corporate strengths and limitations. The identification of environmental influences upon the corporation as discussed in Chapter IV is of utmost concern to management. Additionally, it should be realized that objectives and goals should be set not only in relation to the prospects of the business and its environment, but should also be based on a realistic appraisal of the present strengths and limitations of the corporation.

Corporate self-appraisal might appear to be a simple undertaking; but as Drucker (5) observes, the question "What is our business?" is almost always difficult to determine and can be answered only after hard thinking and study. According to Scott (7) the difficulty in answering the above question helps explain why some corporate managements have gone to extreme lengths to determine useful ways of thinking about the corporate entity.
Scott notes the following about corporate self-appraisal:

When planning executives undertake this type of analysis, they presuppose that their company has some predominant characteristics which can be isolated. These characteristics may relate to products, processes, equipment, distribution, finance, manpower, and/or research, to name some of the major possibilities (7, p. 78).

In connection with corporate self-appraisal, the objective evaluation of strengths and limitations—at both corporate and other organizational levels—is a vital ingredient in the formal planning process. Without sound information of this type, objectives may be set and action taken in ignorance of important facets of the situation that will influence the outcome. As brought out in previous chapters the logical approach for a corporation is to seek to achieve the right balance between resources and objectives/goals by capitalizing on the company's special competence or specific strengths and by minimizing the dependence upon those factors which will limit the achievement of corporate objectives and goals.

The assessment of corporate strengths and limitations within the framework of the formal planning process should precede the formulation of objectives, since to establish objectives without regard to the corporation's strengths is to risk overlooking a profitable opportunity or to fail to adequately exploit a corporate resource. Conversely, failure to identify company weaknesses or to ignore liabilities is to risk exposing the corporation to unnecessary hazards.
A Stanford Research Institute (9) study shows that corporations usually follow the evolutionary pattern in the assessment of strengths and limitations that is shown in Table IV.

**TABLE IV**

**PATTERNS OF CORPORATE SELF-APPRaisal**

<table>
<thead>
<tr>
<th>Phase</th>
<th>Time Period</th>
<th>Assessment Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>6 months to 1 year</td>
<td>General appraisal at corporate level of strengths/limitations</td>
</tr>
<tr>
<td>II</td>
<td>2nd year</td>
<td>Depth analysis of corporate strengths/limitations</td>
</tr>
<tr>
<td>III</td>
<td>3 to 4 years</td>
<td>Development of a method of evaluating performance on a decentralized basis</td>
</tr>
<tr>
<td>IV</td>
<td>4 to 6 years</td>
<td>Implementation of a continuous monitoring system for assessment of internal environment</td>
</tr>
<tr>
<td>V</td>
<td>After 6 years</td>
<td>Same as Phase IV but continuous system is implemented on a decentralized basis</td>
</tr>
</tbody>
</table>


Corporate Resources and Assets Requiring Assessment

The corporate self-appraisal program, according to Planning Dynamics Incorporated (6), is not merely a compilation of the assets
available to the corporation but also an analysis to determine joint
effects of the following areas of assessment:

1. The human resources
2. The financial resources
3. The corporation's facilities, i.e., plants, warehouses, retail locations
4. The corporation's machinery, equipment, and tools
5. The natural resources, i.e., petroleum reserves, iron ore, coal, etc.
6. The corporation's product lines
7. The value of existing or potential patents, plus an assessment of corporate uniqueness capable of generating a shelter at the market place
8. The corporation's other intangible assets, i.e., goodwill, franchises, licenses, etc.

The resources assessed in one firm included the following:

We focused attention on present product lines and products, together with manufacturing techniques. In addition we assessed the raw material position in relation to product use, i.e., purchased materials, captive materials.

We analyzed marketing strengths, including industries to which our products go. The products and market levels were appraised with a view to answering such questions as: Are the most needed products being provided? Is the firm geared to the ultimate rather than the immediate use of products? Marketing personnel were evaluated as to experience, training and effectiveness, as well as present marketing capacity compared with potential.
Production facilities were evaluated as to major use, practical capacity, and quality and condition of equipment. We reviewed the experience level of production and engineering personnel. We also assessed management skills. What kinds of problems could management solve? Research laboratory personnel were similarly evaluated in terms of capabilities and accomplishments (4, p. 6).

The management consulting firm Planning Dynamics Incorporated, which has assisted several corporations with the installation of a formal planning process, recommends that the following types of information should be included in the capabilities/opportunities assessment when evaluating strengths and limitations:

1. Basic Capabilities--a listing of unique skills, technologies, facilities.
2. Key Results Areas--an analysis of strengths/weaknesses in the key result areas defined by Peter Drucker: customer satisfaction, productivity, innovation, resources, management development and performance, employee attitude and performance, public responsibility, and profitability.
3. Product/Service--rating strengths/weaknesses in three critical areas:
   a. Design/quality/performance
   b. Cost/price/production
   c. Marketing effectiveness (6, p. A3.1)

The requirement for a comprehensive assessment of corporate strengths and limitations is necessary since the resultant information provides one of the important foundations for the formulation of objectives and goals. If a corporation has developed over a period of years a broad, diversified, and decentralized resource base, the assessment as noted by the authorities (4, 6) can become quite complex, and a combination mechanized and mechanical system is employed.
In comparing the areas of assessment as recommended by the authorities with the actual assessment programs of the corporations participating in the Survey of Formal Planning Process Practices (10), it is observed that the corporate approach parallels the authorities' (4,6) suggestions.

Respondents' Comments on Areas of Corporate Assessment

Since the assessment of corporate strengths and limitations represents a salient facet of the formal planning process, the Survey of Formal Planning Process Practices (10) permitted an opportunity to develop information regarding the key areas of assessment. The participating corporations were asked to: "Check below if your assessment program encompasses the following:" (10).

Many of the responding firms denoted that the corporation's analysis of strengths and limitations included an assessment of the eleven key areas as shown in Table V. The magnitude of these responses portrays an awareness of the importance of such an undertaking when implementing the formal planning process. The more significant areas of assessment as shown by the replies include the following: extent of annual dollar volume and growth rate, market penetration including historical and anticipated trends, corporate profit margins and rate of return on investment, and dollar volume by product and major customer.
### TABLE V

**AREAS OF CORPORATE ASSESSMENT***

<table>
<thead>
<tr>
<th>Specific Area</th>
<th>Firms Conducting Assessment</th>
<th>Percentage of Firms Reporting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extent of annual dollar volume and growth rate</td>
<td>49</td>
<td>96%</td>
</tr>
<tr>
<td>Degree of market saturation present</td>
<td>45</td>
<td>88</td>
</tr>
<tr>
<td>Market penetration including historical and anticipated trends</td>
<td>49</td>
<td>96</td>
</tr>
<tr>
<td>Dollar volume by product and major customer</td>
<td>47</td>
<td>92</td>
</tr>
<tr>
<td>Technological patterns</td>
<td>43</td>
<td>84</td>
</tr>
<tr>
<td>Quality and depth of company organization</td>
<td>44</td>
<td>86</td>
</tr>
<tr>
<td>Corporate profit margins and rate of return on investment</td>
<td>49</td>
<td>96</td>
</tr>
<tr>
<td>Product design, quality and performance</td>
<td>45</td>
<td>88</td>
</tr>
<tr>
<td>Product cost, price and production</td>
<td>47</td>
<td>92</td>
</tr>
<tr>
<td>Marketing effectiveness</td>
<td>43</td>
<td>84</td>
</tr>
<tr>
<td>Patent shelters or identification of uniqueness</td>
<td>34</td>
<td>66</td>
</tr>
</tbody>
</table>

*Source: Questionnaire sent to select group of corporations, November, 1968.*
Appraisal Techniques Utilized in Assessment Endeavor

According to Scott (7) there are two basic approaches to corporate appraisal which may be undertaken separately or in combination.

1. Examination of each functional activity. This examination consists of the analysis of each functional component of the corporation to permit an identification of the various strengths and limitations. By the functional approach there is an opportunity to formulate a comprehensive inventory of strengths and limitations in a systematic manner, thus providing assurance that the important considerations were not overlooked.

2. Examination of the total corporate entity. This second approach to corporate self-appraisal provides an opportunity to achieve a better insight of the corporation as a cohesive unit and to determine what characteristics in its nature may prove of special value in laying plans for the long-term future. The "total entity" type of self-appraisal permits management to become involved in a sensitive and imaginative analysis of not only the physical attributes but also the performance characteristics of the corporation.

Example of a Functional Assessment

The initial formal planning efforts of the Continental-Emsco Company (3) provide an opportunity to examine an actual functional
assessment which consisted of the implementation of the Phase I type of approach as shown in Table IV. The original planning efforts entailed an assessment of strengths and limitation inherent in each functional activity of the company. This self-appraisal was conducted by a task force of company officers. To aid in the thorough appraisal of each functional area of the company, the task force developed an extensive check list for each of the following functional components: engineering, manufacturing, marketing, finance and control, and personnel. The comprehensive check list utilized by the planning task force in conjunction with the functional assessment of corporate marketing is presented in Appendix E.

The initial introduction of a corporate formal planning process, similar to the approach used by Continental-Emesco Company (3), usually encompasses the most complete assessment of corporate strengths and limitations which has ever been prepared for a given firm. The original assessment of strengths and limitations is often a very laborious task and may span several months because the required input information normally is not readily available. As previously noted this initial assessment usually centers on the functional components of the corporation and is followed by a "total entity" corporate self-appraisal; the latter providing a broad appraisal of the combined strengths and limitations of all the corporate resources with emphasis on the synergistic capabilities of the firm.
"Total Entity" Type of Assessment

In most instances corporate resources are committed on the basis of an interacting relationship concurrent with the intent that such resources are combined together to permit attainment of objectives and goals. Since the functional approach to the assessment of resources, as described in the previous section, does not permit an assessment of the strengths or limitations when resources are combined, there is a need for the assessment of corporate resources on a 'total entity' basis.

The concept of 'total entity' assessment has been fostered by Ansoff (1), who has become a major contributor to the concept of synergy:

... we shall derive a method for qualitative estimation of joint effects. In the process it will be shown that measures of synergy are similar in ways to what is frequently called 'evaluation of strengths and weaknesses.' In synergy, joint effects are measured between two product-markets; in strength and weakness evaluation, the firm's competences are rated relative to some desired performance level.

... by means of capability profiles... which can be used to (1) evaluate any internal strengths and weakness within the firm (2) derive synergy characteristics which the firm can use in search for opportunities and (3) measure the synergy potential between the firm and a possible acquisition (1, p. 76).

This type of corporate self-appraisal is built upon the initial functional assessment base and permits an appraisal which takes into account not only an examination of the products being produced and
the markets being served, but also a consideration of the managerial philosophy, attitudes, and interests of corporate personnel.

Personnel Participating in Corporate Assessment

Original Phase

When the corporate chief executive initially decides that a formal long-range planning function is needed there is a tendency at this phase to form a top management task force. The task force group is usually called the Executive Planning Committee or Corporate Development and Planning Committee. As reflected in Table VI, the Stanford Research Institute (9) notes that the task force is comprised of executive management personnel who possess the background which will permit an accurate inventory of the corporation's strengths and limitations. At this stage in the evolution of the formal planning process the task force is involved in reviewing and analyzing all aspects of the corporation.

The Executive Planning Committee in conducting the corporate self-appraisal often will utilize both the resources of the corporation and the services of consultants. This committee normally prepares a comprehensive planning report for submission to the chief executive officer and the board of directors, and one of the more important facets of this report consists of the group's efforts in assessing the corporation's strengths and limitations.
<table>
<thead>
<tr>
<th>Phase</th>
<th>Participants</th>
<th>Assessment Assignments</th>
</tr>
</thead>
</table>
| I     | Executive Planning Committee  
        President  
        Vice Presidents of line and staff divisions  
        Staff advisors | 1. Secure operating data, research reports, project summaries  
2. Generate a reasonably accurate profile of corporation  
3. Assess corporation's present position in the industry and strength and weakness of corporate resources |
| II    | Executive Planning Committee  
        Director of Planning  
        Staff advisors | The professional know-how of the Director of Planning permits:  
a. Development of a standard reporting procedure for divisions  
b. A more complete analysis of corporate strengths and weaknesses including a depth assessment of decentralized organization components |
| III   | Executive Planning Committee  
        Staff Planning Department  
        Division Planning Committee | Corporate Planning Staff  
1. Develop methods for a continual performance evaluation  
2. Develop a continuing program for corporate self-appraisal  
Division Planning Committees  
1. Depth assessment of divisional strengths and limitations  
2. Utilize divisional assessment in preparation of a comprehensive divisional 5-year plan |
| IV, V | Chief Executive  
        Vice President  
        Planning Division Planning Coordinator  
        Corporate and Division Management | 1. Establish a continuous assessment program at corporate and decentralized organization levels  
2. Establish performance evaluation procedures  
3. Determine synergistic position of the corporation |

Staff Planning Organization

As a corporation commences to implement the more sophisticated aspects of the formal planning process, the staff planning department begins to coordinate the assessment activity. Initially there is a periodic updating of the original corporate self-appraisal by the task force, and this updating is accomplished by the staff planning department in conjunction with the Executive Planning Committee.

Upon moving into the later phases of the formal planning process evolution, the corporation has experienced a redesign of the reporting and control system and a greater utilization of electronic data processing. These improved management aids allow the planning staff and executive management to design and implement a continuous assessment program which permits a continuing analysis of corporate strengths and limitations.

Line and Staff Components

The Stanford Research Institute (9) states that an effectively designed and implemented formal planning process provides a framework of management which allows for the decentralized assessment of strengths and limitations by concerned line and staff organization components throughout the corporation. The planning process permits the delineation of objectives, goals, and standards of performance; and it provides a basis for the planned commitment of resources and
allows for information input which is designed to provide timely data on a decentralized and centralized basis. Aided by the coordinating efforts of the planning staff, the various divisional and sub-organization components of a corporation are placed in a position of being more actively involved in the continual assessment of the strengths and limitations attendant to a given organization component of a corporation.

Example of a Corporate Assessment Study

Singer Corporation

The Singer Corporation (8) has instituted a formalized planning process, and a review of their 1967-1971 Division Planning Guide indicates that the corporation has developed a monitoring system which permits the timely assessment of strengths and limitations. The divisions utilize a comparative analysis form, similar to the type shown in Figure 8, to provide an orderly approach for the divisional self-appraisal. The divisional planning manual noted the following examples and instructions attendant to the assessment:

The Division strengths (resources which will assist the Division in accomplishing its goals) and the Division weaknesses (limitations which will hinder the Division's ability to accomplish its goals), will be identified and discussed.

**Examples:**

**Strengths:**

1. Strong field management.
2. Ability to sell on installment terms.
3. Local manufacturing facility
4. Reputation for quality, reliability, and service.
5. As established selling organization and retail outlets.
<table>
<thead>
<tr>
<th>Item:</th>
<th>Rating: 012345678910</th>
<th>Comparison: Competitors ( ) Associates ( ) Similar group ( ) Independent ( )</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item:</td>
<td>Rating: 012345678910</td>
<td>Comparison: Competitors ( ) Associates ( ) Similar group ( ) Independent ( )</td>
</tr>
<tr>
<td>Item:</td>
<td>Rating: 012345678910</td>
<td>Comparison: Competitors ( ) Associates ( ) Similar group ( ) Independent ( )</td>
</tr>
</tbody>
</table>

Fig. 8--Comparative analysis guide*

*Source: Planning Dynamics Incorporated
Weaknesses:
1. Lack of management talent
2. Non-competitive products.
3. High level of selling and administrative expense.
4. Established channels of distribution are too limited.
5. Lack of consumer awareness of Singer's participation in the product line.
7. Inadequate management information (8, p. 6).

Another example noted is:

Strengths and weaknesses relative to the attainment of the factory goals.

Examples:

Strengths:
1. Relatively new, efficient equipment.
2. Modern plant layout with efficient work flow.
3. Sufficient space available to meet future demands.

Weaknesses:
1. Shortage of skilled workers.
2. Insufficient depth in management.
3. Projected demand will not increase operations to optimum capacity levels (8, p. 15).

The corporate self-appraisal examples included in the Singer Corporation Planning Guide (8) relate to qualitative assessment consideration. It should be noted that an appraisal of corporate strengths and limitations includes both a quantitative and qualitative assessment.

Continental-Emsco Company

A review of the Continental-Emsco Company's planning manual reveals the utilization of quantitative and qualitative assessment considerations as shown in Table VII.
TABLE VII
CORPORATE SELF-APPRAISAL*

<table>
<thead>
<tr>
<th>General Areas of Appraisal</th>
<th>Nature of Appraisal</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Quantitative</td>
<td>Qualitative</td>
</tr>
<tr>
<td>Sales volume</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Profits</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Industry comparisons</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Employee categories</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Manufacturing capacity</td>
<td>x</td>
<td></td>
</tr>
<tr>
<td>Marginal and non-profitable products</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Product acceptance</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Research and development capabilities</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>Managerial capacity</td>
<td></td>
<td>x</td>
</tr>
<tr>
<td>Financial resources</td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>


The quantitative and qualitative assessment of strengths and limitations will help provide a more meaningful and constructive corporate self-appraisal and also important input information for use as a basis in setting objectives and goals for the various functional, divisional, individual, and over-all corporate components of the firm.
As Bower notes:

It is not enough just to list and describe the major problems and opportunities. Each of them should also be quantified so that management can evaluate their relative importance and the amount of attention and resources that should be devoted to each. For example, a problem might be stated in such terms as these:

The Martinsburg plant has excess capacity equivalent to $3,000,000 of sales (or a 20 percent increase). Achieving full utilization will also require an increase in plant personnel and other costs (exclusive of materials) of $750,000. (Not listing the above assessment, "The Martinsburg plant has excess capacity.")

A management program for one division stated its major problems in the following quantitative manner:

1. Need to increase volume by about 30 percent in order to utilize capacity.
2. Need to reduce production cost by 15 percent to be competitive in major markets and to lower the break-even point to 50 percent of capacity.
3. Need to improve delivery performance and shorten delivery lead time by at least 20 percent in order to be fully competitive in the commercial vehicle market.
4. Need to reduce total capital investment in the division by $1,500,000 in order to achieve the return-on-investment goal.

Requiring that major problems and opportunities be identified and quantified as specifically as this provides, in effect, another type of goal. Thus, in a divisionalized company, this approach to planning requires division management to bring to the attention of top management, with suggested action steps, all matters of major concern and all opportunities for major advances (2, p. 205).

Assessment Practices of Responding Firms

Recognizing that there are many techniques and approaches which may be utilized by a corporation when conducting an assessment of strengths and limitations, there was included in the Survey of Formal Planning Process Practices (10) a question which permitted an insight
into the implementation of this facet to the formal planning process.

The questionnaire included this question:

"Attendant to your long range planning process, what approaches and techniques do you employ in evaluating the firm's relative strengths and limitations? Please consider the following areas:

<table>
<thead>
<tr>
<th>Area</th>
<th>Appraisal Techniques</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Human Resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Facilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) Financial Resources</td>
<td>(10)</td>
<td></td>
</tr>
</tbody>
</table>

The survey information on this facet, as summarized in Table VIII, denotes that the reporting firms realize a requirement for establishing a corporate self-appraisal and assessment program which will permit a corporate and divisional analysis of existing strengths and limitations on a "functional" and "total entity" basis. Many of the corporations have formulated approaches and techniques which allow for the continuous and timely assessment rather than a spasmodic or periodic approach. Since the formal planning process represents a dynamic system of planning and decision-making, its effectiveness is enhanced through the design and implementation of a continuous assessment program which permits the cycling analysis of corporate strengths and limitations.

Relationship between Capability Assessment And Other Facets of Planning Process

The formal planning process chart, Figure 4 of Chapter II, shows that the corporate capability assessment follows the environmental
TABLE VIII

CORPORATE ASSESSMENT TECHNIQUES AND PRACTICES*

<table>
<thead>
<tr>
<th>Area</th>
<th>Appraisal Techniques</th>
<th>Assessment Frequency</th>
<th>Practice</th>
<th>No. of firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Human Resources</td>
<td>Personnel reporting system</td>
<td></td>
<td>Annual</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Capability matrix</td>
<td></td>
<td>Continuous</td>
<td>7</td>
</tr>
<tr>
<td></td>
<td>Manpower planning program</td>
<td></td>
<td>Semi-Annual</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Comparative analysis</td>
<td></td>
<td>Quarterly</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Performance appraisal program (based on management by objectives)</td>
<td></td>
<td>Monthly</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Replacement tables</td>
<td></td>
<td>Periodically</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Committee of 100 persons who conduct management audit</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Training needs survey</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Use of consultants</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Review by Staff Personnel Dept.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Facilities</td>
<td>Percent utilization of facilities</td>
<td></td>
<td>Continuous</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>Facilities audit</td>
<td></td>
<td>Annual</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Annual facilities plan</td>
<td></td>
<td>Semi-Annual</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>General conditions in economy and corporation's share of the market</td>
<td></td>
<td>Quarterly</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Informal awareness</td>
<td></td>
<td>Monthly</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>Review by staff department</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Facilities administration report</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Projected requirements and present utilization</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Strategic plan</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>New investment planning</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Financial</td>
<td>Reviewed by Finance Division</td>
<td></td>
<td>Continuous</td>
<td>18</td>
</tr>
<tr>
<td></td>
<td>Strategic Plan</td>
<td></td>
<td>Annual</td>
<td>4</td>
</tr>
<tr>
<td></td>
<td>Comparative analysis</td>
<td></td>
<td>Semi-Annual</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>Budgets and reports</td>
<td></td>
<td>Monthly</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Balance sheet model</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Post appraisal-investments</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Trade association data</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Accepted ratios</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Electronic data analysis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Financial consultants</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Questionnaire sent to select group of corporations, November, 1968.
analysis phase of the planning process and precedes the formulation of objectives, goals, assumptions, and criteria.

The scope and timeliness of corporate operations necessitates the simultaneous performance and interlinking of the various facets to the formal planning process. Additionally, there is a requirement to recognize the general sequence of events which tend to exist within the framework of the formal planning process.

Inputs generated through the environmental analysis efforts help produce a reference base which management can utilize when conducting an assessment of corporate strengths and limitations. The quantitative and qualitative identification of economic, social, political, and technological influences upon the corporation permits the identification of numerous considerations relating to the survival and growth of the firm.

A comprehensive environmental information bank is utilized as one of the bases of comparison by management during the assessment or corporate self-appraisal facet of the planning process. A case in point relates to the identification of the market trend and pattern for a given product line, taking into consideration historic sales and profits for a past number of years; also the existing pattern and an environmental forecast of the sales and profit trends and patterns for the ensuing five or so years. This environmental data provides a basis for the internal assessment of corporate resources which have
or will be committed to the given product line. It appears that it would be most difficult to conduct an assessment of corporate strengths and limitations attendant to a certain product line without the benefit of a thorough identification of the previously noted environmental considerations. Such an environmental framework or reference seems to be a vital and necessary facet of the formal planning process.

Realizing the importance of the formalized assessment of corporate strengths and limitations Scott noted:

While self-appraisal is only one part in the complex process of strategic long-range planning, its importance is becoming clear to increasing numbers of planning executives. It helps in providing a sound basis for determining future courses of action. It encourages companies to face impending changes which might otherwise be ignored (such as the fact that a company's major products have reached a stage of maturity in their life cycles). In addition, the better understanding it provides of the company helps not only in long-range planning but also in day-to-day administrative activities as well (7, p. 93).
CHAPTER BIBLIOGRAPHY


128
CHAPTER VI
CORPORATE OBJECTIVES, GOALS, ASSUMPTIONS
AND CRITERIA

The establishment of objectives, goals, assumptions, and
criteria is a matter of great importance whenever a corporation em-
barks upon the installation of a formal planning process. According
to Scott (14), the formulation of objectives and goals is one of the more
difficult aspects of planning, and in some organizations widespread
confusion often exists about what objectives and goals are, what they
should do, and how they should be expressed.

The formalized planning process provides a framework of man-
agement which is capable of assisting management in minimizing some
of the problems attendant to the formulation of reliable and valid objec-
tives and goals. According to a Stanford Research Institute (16) study,
few corporations have a well-defined set of corporate objectives and
goals prior to the installation of a formal planning process. Regarding
the formalization of objectives and goals within the planning process,
Payne notes:

The process of discard and synthesis by which such objectives are reached is not a simple one. Some managers
have said the most important single thing that long-range plan-
ning accomplished for their firm was that it forced them to agree
among themselves on a definition of company goals. The discipline involved in forcing each of them to channel his personal aspirations toward objectives beneficial to the entire company was worth the planning effort, by itself.

I am always surprised that many executives, who have never tried to formalize corporate goals, pass the job off as being a simple thing, almost elementary.

Where there has been no formal effort to define objectives based on factual analysis of the company's competitive strengths and weaknesses, there is seldom, if ever, any agreement among key members of management on fundamental goals (11, p. 50).

Corporations, like people, have individual characters, personalities, ideals, philosophies, aspirations, and economic desires. The corporation generally takes the characteristics of the men who manage it; and conversely, the corporation's character tends to influence the behavior and beliefs of those who manage it. Hence, the formal planning process should permit the responsive cross-currents of personal desires to reflect upon the formulation of balanced objectives and goals. Drucker (3) says the management of a business requires the balancing of a variety of needs and goals, and this necessitates a high degree of management judgment. It is also Drucker's (3) opinion that objectives are needed in every area of the corporation where performance and results directly and vitally affect the survival and prosperity of the firm. The objectives will spell out what end results the firm must aim toward and what is needed to work effectively toward these targets.

The following quotation indicates the importance Drucker attaches to objectives:
Objectives in these key areas should enable us to do five things:

1. To organize and explain the whole range of business phenomena in a small number of general statements
2. To test these statements in actual experience
3. To predict behavior
4. To appraise the soundness of decisions when they are still being made
5. And to enable practicing businessmen to analyze their own experience and, as a result, improve their performance (3, p. 63).

Further underscoring the importance of the proper formalization of corporate objectives and goals are the writings of Hughes (8). It is his contention that the corporation and the individual employees who comprise the corporation should be able to operate more effectively in an environment where there is harmony of goals and a concept of goal setting which will motivate persons to work together both for the common corporate objectives and for personal reasons. Management has an accountability to overcome the problem of trying to motivate employees to meet objectives and goals that are not known or improperly delineated. It is Hughes's thought that top-management is accountable for setting corporate objectives, and when this challenge is properly performed the employees will be more motivated to meet the challenge of such a corporate environment. Hughes states:

The organization, with the accompanying management system, is the result of the president's or leader's efforts to accomplish the corporation's purpose. It reflects his personality and needs. If he is goal-oriented and cognizant of a
purpose, then the organization should be able to achieve both individual and organizational goals—provided the needs of all concerned are truly compatible (8, p. 19).

Definition and Explanation of Objectives, Goals
Assumptions and Criteria

Corporate Objectives

The word "objectives" often suffers from a high degree of semantics fuzziness, and its meaning has become confused partly because it is used in so many different organizational settings. There also appears to be a lack of clear understanding about the concept of objectives, and in such circumstances it is important to explain the meaning of the word "objectives" as the term is utilized within the framework of the formal planning process.

Possibly the greatest semantic difficulty with the term "objectives" relates to the interchangeable usage of the two words, objective and goal. Many authorities in formal planning have distinguished between corporate objectives and goals. According to Planning Dynamics Incorporated (12), objectives are usually regarded as broad and general and are pursued but never completely achieved in terms of time. Objectives, such as profitability and survival, are continuous motivations. Goals on the other hand are targets or descriptions of things sought in a given time span. Goals may be established for profits, sales, share of the market, military vs. commercial business, asset acquisition,
and a number of other measures used within the corporation. Objectives will remain relatively stable over time, whereas goals change.

The following definitions of objectives relate to the term as utilized within the formal planning process:

Objective--a hypothesis regarding a very desirable future result that cannot be predicted with accuracy but which you expect to achieve through your efforts. Objectives should meet eight specific criteria: feasible, suitable, acceptable, valuable, achievable, measurable, firm determination (12, p. All. 81).

Corporate objectives: Broad, qualitative statements which provide basic guidelines for corporate activity; general statements of purpose (16, p. 3).

The objectives of a company--or its "mission", if the more inspirational synonym is preferred--should be set in broad, enduring terms that will focus the attention of everyone on "what we are trying to do" or "the kind of business we want to have." The objectives or mission should define how the organization will serve people, and hence should be expressed in services terms.

An objective is enduring, timeless, never fully achieved. The advisability of distinguishing between objectives and goals is important. Goals and subgoals are specific targets for planning and action. Goals, as subobjectives, are tied to objectives and subgoals are tied to goals. Goals and subgoals are targets quantified in value and/or time, and should be realistically attainable (1, pp. 63-64).

As a rational process formal planning presupposes corporate objectives as described by the authorities, and in the specific sense the term "objectives" according to Payne (11) relates to the fundamental statements of purpose which form the answers to such key questions as these:
What does the corporation really want to be?

What business or businesses does the corporation want to pursue?

What rate of growth is desirable?

What are the corporation's financial goals?

What are the expectations of stockholders?

Drucker says there are eight areas in which objectives have to be set:

1. Market standing
2. Innovation
3. Productivity
4. Physical and financial resources
5. Profitability
6. Manager performance and development
7. Worker performance and attitudes
8. Public responsibility (3, p. 63)

**Corporate Goals**

In defining the term "goals" and in further distinguishing between objectives and goals, it has been noted that corporate objectives are broad, general, and enduring statements of corporate purposes which are always pursued but never completely achieved in terms of time. Objectives serve as a prime and continual motivating force within the corporation.

Likewise, goals are the targets or the description of desired accomplishment, or goals may be considered standards by which corporate progress is measured. Corporate objectives are the forerunner
to the development of goals which may be established at the corporate level, or divisions may develop goals within broad corporate objectives and guidelines, or individual incumbents may develop goals.

Authorities have defined goals as.

Specific qualitative and quantitative statements used to direct the pursuit of corporate objectives. Descriptive goals indicate the kind of business a company wants to be in, the type of markets it wants to serve, and the over-all product mix. Quantitative performance goals provide specific criteria for measuring corporate progress. Included may be statements concerning sales and profit levels, percentage of industry sales, and similar measurements (16, p. 3).

Goals--used in dynamic planning to designate the intermediate "targets" enroute to achieving an objective (12, All, 81).

Goal--A measurable portion of an objective, which must include a date and be accompanied by assignment of responsibility (10, p. 36).

A goal is a specific quantitative or qualitative end established to direct the pursuit of an objective. A goal is measurable and has a time parameter. (Goals exist at all levels in a company.) (15, p. 2)

Hughes also provides a very comprehensive definition of goals:

A goal is an end, a result, not just a function or task or a function to be performed. It is a place in space and time that describes the conditions we want to achieve. It is a standard of achievement, a criterion of success, something tangible, measurable, and valuable that we are motivated toward. It is concrete and explicit, definitive and desirable and predetermined. It guides our actions and helps us plan as individuals and as managers. It can be long-range or short-range: Long-range goals help clarify our short-range goals, major goals determine minor goals, and the present is determined by the future--not the past (8, p. 6).

Goals represent an important aspect of the formal planning process; and it seems axiomatic that to direct the corporation's resources
toward desired key results, it is essential to know first exactly what 
it is that management and individuals are expected to accomplish. 
Certainly, the more clearly and specifically persons can view goals, 
the easier it becomes to communicate them to others and to devise 
ways of attaining them. The formal planning process provides a 
basis for the efficient performance of goal-setting which is becoming 
one of the most important and fundamental activities of management 
and individuals.

Listed below are the main characteristics which Ewing (4) por-
trays as being relevant to the goal-setting activity:

1. **Specific**: goals should be established as concretely 
as possible, and specific enough to help incumbents choose be-
tween different alternatives of action. A goal to "double the 
size of the organization" does not tell management whether to 
expand sales and production in the current lines of business, 
in new lines of business, or in some other way.

2. **Realistic**: goals are utilized as a basis for the es-
tablishment of an individual's or an organizational component's 
standard of performance, and in many corporations serve as 
an underpinning to the management by results program. It is 
vital that the formulation of goals be given the greatest thought 
and formulated as realistically as possible. Unrealistic goals
may cause serious morale problems and deter effective implementation of the formal planning process.

3. **Time dimension**: goals should be related to accomplishment within an established time period even though the time period is not always precise. It should be definite enough in the person's mind so that the goal guides the individual in choosing courses of action. The statement "increase sales 15 per cent" varies considerably, depending on whether it is to be done in one year or five years.

4. **Consistent**: goals which are normally formulated on a multiple basis for the individual or an organization component should be consistent with one another. If one objective is to increase sales volume by a certain amount and another is to increase profitability, they may be in conflict. Any trade-off requirement should be recognized before formulation of specific goals.

5. **Hierarchical**: goals are of different levels, proceeding from the broad and general aims of top management to increasingly specific goals for department units or individuals. Which combinations of goals will do most to ensure corporate success and how goals shall be used are decisions calling for top management's best skill and judgment in using its formal planning system.
Assumptions

Inasmuch as the formal planning process involves an environmental analysis and assessment of corporate strengths and limitations, which in part are based on certain events and circumstances expected to apply in the future, there is a requirement to identify the respective assumption base. By definition the formal planning process is concerned with the future; and for the process to be meaningful, it requires some estimate of the future setting for which objectives, goals, and commitment of resources is being designed. Consequently, management must depend upon the validity of an assumption base about the future when implementing the planning process.

One planning authority notes:

The complexity of strategic long-range planning would be greatly reduced if assumptions about the long-range future could be expressed clearly and precisely. But clarity and precision in this regard are usually difficult to attain for two major reasons: (1) The broad scope of strategic long-range planning requires assumptions about the future in all kinds of subject areas, some of which defy effort at accurate prediction, and (2) the time period encompassed by this kind of planning makes it exceedingly difficult to determine even outstanding characteristics of the future with a high degree of confidence. Nevertheless a systematic approach to the analysis of planning assumptions can be most useful (14, p. 104).

In an interview Green (6) revealed that the extremely rapid rate of change in the external and internal environment of a corporation makes it extremely difficult to predict the future with accuracy. This dynamic environmental situation is rapidly outmoding previous methods
of planning, decision-making, and managing which have placed heavy reliance on historical data and the projection of past experience. To further compound the problem, management is faced with a requirement to increase lead time in planning and decision-making; consequently, it becomes imperative for a corporation to have a way of estimating the future environmental developments which will have a substantial impact on the corporation's business. Through the formulation of an assumption base management is provided the means for identifying, measuring, and monitoring the more salient external and internal developments which could cause management to revise the previously formulated objectives, goals, criteria, and commitment of corporate resources.

The planning and control manual of Planning Dynamics Incorporated provides the following definition of an assumption:

"An "assumption" is a temporary hypothesis regarding a very important probable development which cannot be predicted with accuracy and over which you have no significant control. Those listed here should not be considered forecasts or predictions, but they do reflect the thinking of well-qualified, leading authorities in various fields (12, p. A4.1).

Scott (14) foresees that assumptions, like objectives and goals, usually emerge as the result of analysis; therefore, assumptions must be tailored to meet the requirements for a given corporation. The analysis used in developing the assumptions varies widely, ranging from emphasis on quantitative forecasts to emphasis on qualitative factors as a corporation deals with the uncertainties and risks of the future.
With objectives and goals being related to the future, uncertainty is never completely absent from the formal planning process. Therefore, an understanding of the problems rising from uncertainty helps those involved with planning to visualize which uncertainties might be reducible and which are irreducible. Such an understanding also helps management to better interpret assumptions so that uncertainties can be minimized when the corporation commits to objectives, goals, criteria, and strategy.

Planning Dynamics Incorporated highlights the importance of assumptions:

In a complex, rapidly changing, unpredictable environment it is impossible to plan without the use of assumptions. You cannot predict the future with accuracy . . . but you cannot plan for the future unless you create an estimate of what you think is going to happen . . . and your management team cannot plan together unless you all share the same estimate. That is why "assumptions" are so essential . . . and the most important ones should be dynamically quantified so it is easier to identify, detect and measure the deviation (12, p. A4.1).

Example of assumptions.--There is listed below a sample of the assumptions utilized by the Continental-Emsco Company:

The domestic petroleum industry will drill an average of 30,000 wells per year over the next five years.
The importing of foreign oil will increase to approximately 20 per cent of United States domestic demand over the next five years.
The domestic price of oil should remain at the present rate of $2.85 to $3.00 per barrel for the immediate future (2).
Preparation of an assumption base. --Because the formal planning process is primarily future oriented and it is never possible to predict the future with a high degree of certainty, it is necessary to make a number of assumptions as suggested in a prior section of this chapter. The many facets to the planning process are implemented through employment of assumptions which are given careful attention as the planning process is executed. In this manner the objectives, goals, criteria, strategy, and projects can be appropriately revised at the very earliest sign that an assumption has changed and is no longer valid.

Reflecting upon the need for an assumption base helps focus on the fact that formal planning is necessary because corporate conditions are uncertain and changing. If there were no change management could continue its program of management without the need for formal planning.

In general, assumptions can be divided into two categories--broad assumptions about the world in which you live and assumptions specifically concerned with your business or function. The first category might include managerial socio-political, economic and technological assumptions. Assumptions applying directly to your activity could include the future nature of your business or function, future environment and future capabilities. A "potential" is a special type of assumption commonly used in marketing planning but it should not be overlooked in other functions. It is essential to identify the future potential because this helps to derive realistic objectives without such heavy reliance on past experience.

Assumptions should always be stated within a span of time (i.e. before the end of the year, by December 31, 1973).
Whenever possible, they should be expressed in the form of a chart or graph with historical approach, current status and future projection (12, p. A4.1).

To assist in determining whether corporations utilize an assumption base, the Survey of Formal Planning Process Practices contained this question: "Do you formulate specific assumptions (quantitative and qualitative estimates of future developments which will have a substantial impact on your business) to provide a frame of reference for planning?" (18).

The importance of an assumption base was reiterated when 98 per cent of the responding corporations answered "yes" to the above question.

To explore in greater depth the degree of sophistication inherent in the various assumption bases of participating corporations, there was an opportunity to determine the extent to which the fifteen assumption areas, shown in Table IX, were included in a given corporation's base. The corporations were asked to: "Note below if there are areas where you quantify/qualify assumptions periodically or continuously:" (18).

A review of the answers to the above quoted question of the survey (18), as recorded in Table IX, indicates that many persons throughout the corporation are involved with the assumption base which in many firms is monitored on a continuous or periodic basis.
<table>
<thead>
<tr>
<th>Area</th>
<th>When Quantified/Qualified</th>
<th>Persons Involved</th>
<th>In Preparation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Continually</td>
<td>Annually</td>
<td>Quarterly</td>
</tr>
<tr>
<td>Fiscal policy</td>
<td></td>
<td>12</td>
<td>7</td>
</tr>
<tr>
<td>Monetary conditions</td>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General price patterns</td>
<td></td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Foreign trade</td>
<td></td>
<td>9</td>
<td>2</td>
</tr>
<tr>
<td>Consumer spending</td>
<td>9</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Technological impact on product lines</td>
<td>5</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>Population trends</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human resources</td>
<td></td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Money and capital markets</td>
<td>7</td>
<td>10</td>
<td>9</td>
</tr>
<tr>
<td>Legislation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sociological pressures and changes</td>
<td>7</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Market conditions (trends/patterns)</td>
<td>12</td>
<td>9</td>
<td></td>
</tr>
<tr>
<td>Securities markets</td>
<td>12</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Transportation/material costs</td>
<td>10</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Gross national product</td>
<td>7</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

*Source: Questionnaire sent to select group of corporations, November, 1968.*
Today's complex, rapidly changing, and often unpredictable environment makes it almost impossible to carry on the activities of the formal planning process without the use of an assumption base. As Green (6) notes it is difficult to predict the future with accuracy; consequently, management cannot effectively plan for the future unless there is created an estimate of what is likely to happen. This is why quantified and qualified assumptions are so essential in detecting and measuring the concerned deviation.

Corporate Criteria

Certain criteria are needed to measure or evaluate formal corporate plans, especially when it comes to establishing a priority of one specific plan or commitment over another or approving or disapproving projects attendant to implementation of the formal planning process. Such criteria vary with the nature of each corporation. From the over-all standpoint, one of the most important criterion is return on investment. It is not always easy to apply, according to Payne (11), the return on investment measurement to individual projects involving commitment of resources, but management should continually attempt to refine the use of this and other criteria which serve as guides in the formulation of goals and the necessary decisions relating to implementation of projects.
To illustrate corporate criteria as they relate to the formal planning process, the corporate criteria established by the Continental-Emsco Company are listed below:

1. Acquisition of product lines that fit the manufacturing capabilities of the Houston plant. Products that fit the Garland plant would be considered, but would be of secondary interest.

2. Selection of product lines that would not be sold to the major oil companies. Products for drilling contractors would be considered.

3. Products that decrease the company's dependence on the petroleum industry would be favored.

4. A gross profit of 30% is the minimum return required.

5. The product should represent growth potential.

6. The acquired companies should have adequate management talent.

7. Cash payments must be acceptable in any acquisition.

8. An acquisition costing over $15,000,000 should be a sizeable user of Youngstown's products.

9. Products considered should not interfere with the sale of Youngstown products.

10. Ideally produce at least a minimum rate of return on investment of 10 per cent.

Further Work to be Done on Criteria

1. Develop additional criteria needed to serve as more complete guides for product or company acquisition.

2. Evaluate the more complete line of criteria that is established to determine which are primary and which are desirable (2, p. 5).

Environmental Analysis and Corporate Strengths/Limitations

As Basis for Objectives, Goals, Criteria

On the premise that a significant relationship exists between the formal planning process facets of environmental analysis, plus the assessment of strengths and limitations and the formulation of corporate objectives, each of the firms taking part in the Survey of Formal
Planning Process Practices were asked: "Has the company, to an increasing extent, derived objectives from a careful analysis of future developments and potentials based on environmental analysis data and company strengths/limitations?" (18).

The tabulated answers to this question revealed that 88 per cent of the responding firms derive objectives from a careful analysis of the external and internal environmental considerations. This is an encouraging trend since without sound information of this type, objectives may be set and action taken in ignorance of important facets of the situation that will influence the survival and growth of the corporation. Drucker says:

But if the decision to go into a business is sound on the basis of marketing standing, innovation, and productivity, if it is sound according to what makes a business, it is the responsibility of management to make it produce the needed minimum profit. That, bluntly, is what managements are being paid for.

This is simply another way of saying that a business must be managed by setting objectives for it. These objectives must be set according to what is right and desirable for the enterprise. . . . Managing a business cannot, in other words, depend on "intuition."

Similarly, to reach objectives, detours may have to be made around obstacles. . . . This is one reason why all objectives have to be re-examined continually. Yet, setting objectives enables a business to get where it should be going rather than be the plaything weather, winds, and accidents (3, p. 60).

It becomes evident that the logical approach to the formal planning process is to seek to achieve the right balance between resources and goals by capitalizing on the corporation's special competence or
specific capacities and by minimizing the dependence upon those factors which will limit the achievement of corporate objectives and goals. To establish objectives and goals without regard to the company's strength is to risk overlooking a profitable opportunity or fail to adequately exploit a corporate resource.

Arbitrary objectives have been set and budgets designed to "meet" these objectives. When an effort was made to push behind these objectives, it was clear that very little had been done to (1) analyze projections of expected goals so as to set desired goals realistically, (2) analyze the specific problems standing in the way of filling the gap between expected and desired, and (3) design a program of action steps, not mechanical allocations of wishful thinking, designed to overcome these problems.

Because of inadequate forecasting, the best possible picture of the expected future state had not been drawn. Therefore, objectives were, to begin with, necessarily arbitrary since they reflect neither accurate projections of the external environment nor in most cases an accurate projection of internal change (19, p. 77).

The formal planning process can provide an orderly means for an objective assessment of the corporation's resource strengths and limitations. To help prevent the formulation of blue-sky type objectives and goals, management should fortify itself with the results of a comprehensive analysis of its financial, human, natural, and physical resources. The pinpointing of resource strengths and limitations and the inputs resulting from the environmental analysis, along with the design and utilization of an assumption and criteria base, should permit management and individual incumbents to do a creditable job of formulating quantitative and qualitative objectives and goals.
Establishment of Quantitative and Qualitative Objectives and Goals

According to Drucker (3) the difficulty lies not in determining what the corporate objectives should be, but in deciding how to set them. The measurements used in each area of objectives and goals establishes what the corporation pays attention to and helps management to become more visible and tangible.

For the subject is brand new. It is one of the most active frontiers of thought, research, and invention in American business today. Company after company is working on the definition of key areas, on thinking through what should be measured and on fashioning the tools of measurement (3, p. 65).

The results of the Survey of Formal Planning Process Practices (18), as recorded in Table X, bears out Drucker's (3) thoughts that corporations are attempting to design more effective systems for measuring progress in attaining objectives and goals. The corporations participating in the survey were given an opportunity to answer the following question in relation to the use of objectives and goals: "Check below if objectives and goal setting encompasses the following:" (18).

Of particular interest is the fact that over 70 per cent of the reporting firms have formulated quantitative and qualitative objectives and goals for incumbents within the corporation. This appears to be an important consideration since objectives and, especially, goals need to be stated in a manner which will provide a guiding framework or targets required by management when implementing the formal planning process.
TABLE X

USE OF OBJECTIVES AND GOALS BY RESPONDING FIRMS *

<table>
<thead>
<tr>
<th>How Utilized</th>
<th>No. of Firms</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantitative and qualitative objectives/goals for individuals</td>
<td>37</td>
<td>72 %</td>
</tr>
<tr>
<td>Hierarchy or descending scale of objectives/goals</td>
<td>36</td>
<td>70</td>
</tr>
<tr>
<td>Standards of performance</td>
<td>41</td>
<td>80</td>
</tr>
<tr>
<td>Basing management by results or management by exception on objectives/goals</td>
<td>35</td>
<td>68</td>
</tr>
<tr>
<td>Linking employee compensation plan to objectives/goals</td>
<td>36</td>
<td>70</td>
</tr>
<tr>
<td>Linking of performance appraisal and the individual's objectives/goals</td>
<td>37</td>
<td>72</td>
</tr>
</tbody>
</table>

*Source: Questionnaire sent to select group of corporations, November, 1968.

**Quantitative Objectives/Goals**

If targets are to be specific, they must be quantitative. A quantitative goal is easily understood. For example, a goal to attain a 15 per cent return on investment communicates both magnitude and import far better than just a goal to maximize return on investment. Inclusion of the 15 per cent figure reduces confusion and allows a person to arrive at the same basic interpretation of the goal. According to Bower (1), Du Pont has been notable for its pioneering in establishing return on investment as a primary goal for its operating divisions and other organizational components. Such goals prove to be a real challenge in decentralized planning involvement, because division
management knows it will be judged by the return shown in the operational plan and by the results recorded against the plan. Quantitative goals, besides return on investment, are established within the formal planning process; and these might include share-of-market, dollar sales volume, amount of capital employed, rate of growth in profits, growth in market value of common stock, and common stock price/earning ratio.

... the job of management is one of balancing a variety of goals. And even when goals are rather concrete, a great deal of judgment is essential in choosing from among alternatives to achieve them. When a variety of goals, quantitative and qualitative are considered, managerial judgment obviously becomes an essential ingredient in decision-making. In this sense objectives and goals not only set the purpose of planning; they cannot be separated from the actual planning process itself (17, p. 43).

In establishing quantitative objectives and goals, Scott (14) foresees that many corporations try to establish a position between the two conceptual poles, with one being the "carrot" type of target; the other is the "realistic" type. The "realistic" target relates to the best estimate of what achievements can be accomplished, taking into consideration the current strengths and limitations of the resources.

General Electric urges its managers to set "optimistic, difficult-to-attain goals," and planners in other companies similarly suggest targets which are "somewhat higher" than previous achievements. A planning executive at IBM also expressed this kind of approach that if you set objectives that are altogether out of reach, they discourage. If you set them too close, then they are "consumed" too quickly. Objectives must be attainable, but not too easily attainable (14, p. 100).
Additionally, a quantitative objective and goal denotes the strength of the action programs and projects that will be required to achieve the target. Thus, a target of increasing the corporation's retail distribution from 25 per cent to 50 per cent will necessitate a drastic program of committing corporate resources; whereas, an increase from 8 to 10 per cent will not.

Quantitative objectives and goals also help facilitate better control and measurement of progress as there is a commitment of resources in the attainment of corporate objectives and goals. It is easier to measure progress toward adding five new product, or twenty new distributors, or increasing the return on investment from 12 per cent to 15 per cent.

Qualitative Objectives and Goals

Since it is impossible to quantify all objectives and goals, corporate management has resorted to the formulation of qualitative type objectives and goals. A corporation's broad objectives or missions are amenable to being qualified in contrast with specific goals which relate to measurable progress by an organization component or an incumbent. Payne (11) suggests these examples of the qualitative type objectives:

Improve the corporate image

Develop better relations with vendors

Adhere to high ethical standards
The difficulty in utilizing qualitative objectives and goals arises when management attempts to monitor the attainment of such objectives. Also some difficulty is experienced when committing resources to the attainment of a qualitative objective.

Data Inputs Attendant to Formulation Of Objectives and Goals

The formal planning process may be implemented on a centralized or decentralized basis, and in many instances the size and complexity of a corporation will tend to establish the pattern for implementing the formal planning process. The larger corporation, because of the many organization components, are inclined to decentralize involvement with the planning process. This form of decentralized planning, which was suggested by Green (6) and Hughes (8), can be categorized as the "umbrella approach to planning," depicted in Figure 9.
In the Figure 9 example the President evolves broad objectives and goals, along with the formal planning guidelines, which will give the Vice Presidents the opportunity and means to formulate, on an upward basis, necessary goals, strategies, plans, and recommended commitment of resources within the context of future programs and projects. The umbrella concept of formal planning also relates to the other organizational levels below the Vice Presidents. Green (6) foresees that in the larger corporations, ideally, formal planning should be decentralized to the lowest organizational level where planning capability and skill can be reasonably combined with the expertise required in utilizing and implementing the facets of the formal planning process. The umbrella concept of planning is applicable to smaller corporations; but due to the closer and continual relationship in a small firm, the process is not as formalized as in the larger corporation. Unfortunately, except in the very smallest organization, an "information gap" usually exists between those who are implementing the formal planning process and the respective "need-to-know" of the individual. To solve the problem and to permit effective planning, information has to be moved within the umbrella down to the planning, goal-setting, strategy formulating, and commitment recommending point.

The Continental-Emsco Company (2) solved this problem through the establishment of a corporate planning department, comprised of economists, marketing researchers, and other qualified specialists
who were able to formulate and disseminate an information bank to the respective incumbents involved with the decentralized implementation of the formal planning process.

Incumbents, possessing the ability to implement the planning process, are supported by an information bank which permits bottom-up planning.

Without prior knowledge of company goals, individuals do not have the necessary information to set personal work targets that tie into company plans. Thus companies must plan from the top down; otherwise personal objectives will not parallel the company's objectives.

Major business objectives can be set only by people who are in a position to understand the broad, long-range implications of forecasts, trends, and the various strategies which can be expected to meet the company's requirements. Obviously, top management is the only group of individual employees that can have the necessary information, perspective, and experience. It does not follow, however, that knowledge of overall company plans and the reasons behind them is not needed lower down in the organization. Just as top management needs certain kinds of economic, financial, marketing, and product data to establish objectives for the company as a whole, individuals elsewhere in the organization need to have similar information communicated to them in as much detail as makes sense in light of the targets they must meet. Bottom-up planning without prior knowledge of authorization and goal feasibility is ineffective (8, p. 27).

Practical Consideration When Formulating Objectives and Goals

Corporate Management

Ewing (4) shares the point of view relative to formal planning that little difficulty exists in setting and using goals when the chief
executive provides strong backing to the planning process. If the corporation is headed by a very strong one-man type chief executive, there may be an unwillingness on his part to phase the objectives and goals. At the other extreme, a firm experiencing the cumulative benefit from planning and having many people participating in a general democratic fashion may find it relatively easy to formulate objectives and goals on a participative basis.

Should the superior set the objectives for the individual groups that are subordinate to him? It is apparent that he must at least approve them if he is to discharge his own duties. But he may or may not be the creative type who can visualize a whole range of subobjectives. . . . Some of his subordinates may be better at this creation of alternatives than he is. Certainly they should have had greater exposure in depth to internal and environmental constraints, challenges, and opportunities.

Some sort of conceptual framework embracing the whole range of objectives seems necessary if we are ultimately going to use objectives more effectively. In some orderly way we must relate the "grand design" type of objective with the much more limited objectives lower down in the organization (5, p. 64).

The corporate management group's objectives and goals are broadly conceived; and by virtue of top management's position in the hierarchy of management, personal goals will closely parallel the corporate objectives and goals. Hughes (8) says the challenge to management is to provide an objective and goal-setting "umbrella" where personal targets can be projected and reached by individuals at all levels of the corporation. This is important to motivation, and management should permit the framework to integrate the goals of the organization with the goals of its members and make personal goals attainable within this corporate framework.
executive provides strong backing to the planning process. If the corporation is headed by a very strong one-man type chief executive, there may be an unwillingness on his part to phase the objectives and goals. At the other extreme, a firm experiencing the cumulative benefit from planning and having many people participating in a general democratic fashion may find it relatively easy to formulate objectives and goals on a participative basis.

Should the superior set the objectives for the individual groups that are subordinate to him? It is apparent that he must at least approve them if he is to discharge his own duties. But he may or may not be the creative type who can visualize a whole range of subobjectives. . . . Some of his subordinates may be better at this creation of alternatives than he is. Certainly they should have had greater exposure in depth to internal and environmental constraints, challenges, and opportunities.

Some sort of conceptual framework embracing the whole range of objectives seems necessary if we are ultimately going to use objectives more effectively. In some orderly way we must relate the "grand design" type of objective with the much more limited objectives lower down in the organization (5, p. 64).

The corporate management group's objectives and goals are broadly conceived; and by virtue of top management's position in the hierarchy of management, personal goals will closely parallel the corporate objectives and goals. Hughes (8) says the challenge to management is to provide an objective and goal-setting "umbrella" where personal targets can be projected and reached by individuals at all levels of the corporation. This is important to motivation, and management should permit the framework to integrate the goals of the organization with the goals of its members and make personal goals attainable within this corporate framework.
So, if management:
1. Makes company goals known to the employees and
2. Provides opportunities for employees to participate meaningfully in meeting these objectives
3. In a way that gives employees a chance for identifying personal goals
4. The motivation to work that results will achieve
   a. Company goals as well as
   b. Personal goals (8, p. 22)

It becomes readily apparent that the formal planning process provides top management the opportunity for effectively formulating an objective and goal-setting framework. This framework also provides for the necessary synthesis inherent in objective and goal-setting since without prior knowledge of company goals, individual or organization components do not have the necessary information to set personal work targets that tie into company plans.

**Individual Incumbents**

The formal planning process is built upon a concept that each individual incumbent needs clearly spelled-out objectives and goals, and Drucker (3) contends that these objectives should establish what performance should be produced and should set forth what contribution the individual is expected to make in helping other components obtain the unit's objectives.

This requires each manager to develop and set the objectives of his unit himself. Higher management must, of course, reserve the power to approve or disapprove these objectives. But their development is part of a manager's
responsibility; indeed, it is the first responsibility. . . . There must be a "meeting of minds" within the entire management of each unit. This can be achieved only when each of the contributing managers is expected to think through what the unit objectives are; is led, in other words, to participate actively and responsibly in the work of defining them (3, p. 129).

Hughes (8) envisions the objective and goal-setting interplay between different levels of the organization as a dynamic process which usually transpires on an annual or semi-annual basis. Some corporations employ a philosophy or style of management which permits a high degree of individual involvement in formulating and recommending the incumbent's own structure of objectives and goals. Other corporations operate on a highly centralized basis when establishing the hierarchy of objectives; consequently, there is a minimum of incumbent involvement in the objective and goal-setting process. Companies such as General Electric Corporation, General Mills Corporation, American Telephone and Telegraph, Continental-Emsco Company, Texas Instruments Incorporated, etc., have implemented incumbent objective and goal-setting programs. Hughes suggests these steps in goal setting for the individual and for the organization:

1. Establishing specific goals to support stated purpose
2. Determining the importance of these goals
3. Making plans for action
4. Arriving at performance standards and measurement criteria
5. Stating anticipated problems
6. Weighing the resources required to carry out the planned action
7. Providing for the interaction of organizational and individual goals
8. Following up with actual performance measurement and evaluation

The general model, then can be applied to both corporate and personal needs. Its eight steps are obviously relevant to goal-setting and planning for the total organization, and they can readily be adapted to provide a system for individual use (8, p. 102).

Whether a corporation utilizes a system as proposed above or some other type of system for objective and goal-setting is not as important as the extent to which individual employees are permitted to participate in upward formulation and recommendation of individual and organizational unit objectives and goals.

Summary thoughts on individual involvement in the objectives and goal-setting hierarchical process are provided by McConkey:

Experience has proved that the best method of setting objectives is the one in which the objectives are drafted and recommended by the individual managers and then approved by their superiors. To have his objectives simply handed to him makes a man a mere tool for implementing someone else's thinking and decision making and precludes the necessity for him to think through his own responsibilities. Also, it deprives him of the opportunity to develop one of the most important managerial skills—the application of judgment to solving business problems. Setting his own objectives, on the other hand, requires the manager to determine how his department fits into the company as a whole, size up its strong and weak points, determine its total capability, and reach his own conclusions. It permits him to exercise his own ingenuity and initiative (9, p. 54).

To help determine the extent of organizational involvement with objective and goal setting, the Survey of Formal Planning Process Practices proposed this question: "What contributions are made to the
formulation of objectives and goals by corporate staff, division per-  
nel, individual incumbents?" (18)

Some of the representative responses to this question have  
been quoted below (18):

- Full participation is encouraged on the part of all manage-  
  ment and supervisory personnel.

- Grass-roots planning objectives are established by  
  individuals.

- Sets own goals consistent with total corporate goals.

- Participates in an annual commitment program.

- Certain members of corporate management set corpo-  
  rate objectives and pass on divisional goals.

- Presidential prerogative

Hierarchy of Objectives/Goals

In keeping with the concept of individual participation in setting  
objectives and goals, it is interesting to note in Table X that 70 per  
cent of the responding firms have hierarchy type or a descending scale  
of objectives and goals. By reviewing Appendix F there is an oppor-

- Normally, the organization structure of a corporation assigns  
  accountabilities on a vertical and horizontal basis to various organiza-
  tional components; and within this hierarchy type of organization struc-
  ture, management and employees become involved in the formulation  
of hierarchial objectives and goals.
This type of structure provides for different levels of goals, proceeding from fairly broad and extensive missions to increasingly specific departmentalized objectives and eventually to targeted objectives and goals for individual employees. An overview of this "grand design" type of hierarchy is made by Granger (5, p. 66).

Missions in fulfillment of the grand design

Charters of definitions of the business of operating units that support missions

Policies or statements of common purpose

Desired result in key areas

Long-range plans for given periods of time

Strategic programs

Budgets

Short-term program usually relating to individual or first-line organization components

Standards of Performance Derived From Objectives/Goals

Planning Dynamics Incorporated (12) observes that the targeting and measurement of individual and organization performance is based upon the formulation of reliable and valid standards of performance which are derived from the previously established hierarchy of objectives and goals. This exercise of setting standards of performance is another example of the interlinking relationship between the various
facets of the formal planning process. The thoroughness of management and supervision, as permitted through the implementation of the formal planning process, permits the establishment of standards of performance which are statements describing the conditions that will exist when a key area of a job is being effectively performed. The statement of performance for an individual or an organization component, according to Payne (11), will normally include a yardstick or measurement to determine clearly the extent to which the goal is achieved. In many instances management and the incumbent will set the target at a level of performance high enough so that individuals and organization components have to stretch in order to achieve them. A particularly important aspect of standard of performance is that there should be a clearly discernible connection with corporate objectives and goals. The more direct the relationship between personal objectives and corporate objectives/goals, the greater the potential for stimulating a high order of individual performance.

The responders to the formal planning process survey as shown in Table X indicated extensive utilization of performance standards, with 80 per cent noting that objectives and goal-setting also includes standards of performance. Additionally, 70 per cent of the firms noted the linking of the employee compensation plan to objectives/goals and standards of performance.
Objectives, Goals, and Standards of Performance As Basis for Management by Results

The Planning Dynamics Incorporated organization defines management by results as "a results-oriented system of management based on a dynamic process of planning and measurement which concentrates on the more effective use of resources to achieve the most important objectives and goals" (12, p. All. 81).

One of the more commonly used concepts of management within the corporations participating in the Survey of Formal Planning Process Practices (18) is the management by results approach, with approximately 70 per cent of the firms basing such a program on objectives and goals formulated within the framework of the formal planning process. Schleh (13) describes the origin of management by results as an outgrowth of the dilemma which faced managers who were attempting to coordinate and control corporate organizations of ever increasing size and complexity.

An effective overview of the management by results concept was formulated by Westinghouse Air Brake Company as shown in Appendix G. Having implemented a formal planning process, this corporation was placed in a stronger position when instituting the management by results program described in the appendix.

In recent years the above noted course of management action has been labeled as: Management by Objectives, Management by Exception,
Results Oriented Management, Accountability Management, or Management by Results.

This style of management is based on the concept that an organization's objectives and goals are most effectively attained by formulating and communicating, within the framework of the formal planning process, specific accountabilities which relate to the hierarchy of objectives/goals of the corporation. The indispensable prerequisites of this management program, notes Green (6), are position description and accountability statements which are "results oriented." Emphasis is placed on "what" an incumbent is to accomplish and not "how" results are to be accomplished.

In many instances these accountability statements provide a means to determine if a corporation is fully organized to achieve corporate objectives and goals since, together with a management audit, there is revealed whether the corporation's human resources are adequate to meet the expected results. An effective management by results program requires the pinpointing and measuring of accountability and performance. On this subject Howell says:

Management by objectives should be thought of as a top management planning and control approach rather than as an aid to the personnel function.

When thought of in terms of this broader point of view, the effects on the over-all organization may be very great. They would include a better integration of the objectives of the total organization, its subunits, and the individuals in it; improved communications to the individuals in the organization as to where the organization is going and how it is going to get
there; emphasis on what is most important, not what is most expeditious, and thus the reduction of unnecessary work; and the elimination of overlapping responsibilities, reducing duplication of effort, interdepartmental misunderstanding, and conflict. All these would improve performance and boost morale (7, p. 15).

Summary

According to the authorities mentioned and quoted in this chapter and the responses to the Survey of Formal Planning Process Practices (18), the formal planning process provides the most effective known means for the delineation and required continual revision of corporate goals and objectives. Within the framework provided by the planning process important environmental data is accumulated to help form an information bank required in the establishment of reliable and valid objectives and goals. Another required input relates to the strengths and limitations of corporate resources. Since there is manifold participation in objectives and goals throughout the corporation, management needs to make arrangements to disseminate on a decentralized and need-to-know basis the data contained in the information bank. Due to the uncertainty of some of the information inputs, management faces a requirement to establish an assumptions base which helps provide a strong underpinning for the targeting of hierarchy type objectives and goals. The structure of objectives and goals establishes a basis for the preparation of performance standards and the implementation of a management by results concept for directing corporate
resources toward the attainment of targeted objectives and goals. The above noted relationships denote that objectives/goals are an emergent and interrelated part of the formal planning process.
CHAPTER BIBLIOGRAPHY


CHAPTER VII

CORPORATE STRATEGY AND PREPARATION
OF THE LONG-RANGE PLAN

Introduction

Having formulated corporate objectives, goals, assumptions, and criteria, as discussed in the previous chapter, the next step in the formal planning process is to establish strategies for reaching the targeted objectives and goals. While objectives are basic, they have no life of their own and only come to life through the determination and implementation of strategies. The initial phases of the formal planning process produce the necessary foundation and information bank required by management prior to a determination of the strategies to be pursued in the attainment of corporate objectives and goals.

Determination and adoption of corporate strategies is a necessary activity prior to the preparation of the corporate long and short-range plan. In most corporations the long-range plan (or developmental plan, as it is often called) usually spans a period of five years, and the short-range plan encompasses a period of one year. As can be noted in reviewing Figure 4, shown in Chapter II, the long-range plan provides a framework for the determination and implementation of programs and
projects which result from the strategies required if the corporation is to reach its targeted objectives and goals. Likewise, the long-range plan provides the framework for formulating the short-range plan which encompasses: capital budgets, sales budgets, production budgets, and profit budgets for an ensuing year.

This chapter provides an opportunity to explore in depth the subject of corporate strategy and the many considerations attendant to the preparation of a corporate long-range plan.

Corporate Strategy

**Definition and Examples of Corporate Strategy**

Based on the premise that the formal planning process provides a systematic approach for the making of decisions about matters which are of fundamental and crucial importance to the survival and growth of a corporation, it is necessary for management to formulate strategy which is designed to provide information as to the corporation's basic direction and purpose. Green (7) notes that these corporate strategies are of sufficient importance whereby they provide the underlying and unifying basis for all other plans to be developed within the corporation.

The term "strategy" has been defined by many of the formalized planning authorities as follows:

*Strategy*—a broad course of action selected from among alternatives as the optimum way to attain major objectives, with due regard for the environment, current policies and anticipated
competitor's actions. Strategy should take advantage of strengths ("things you do best") and minimize the effect of weaknesses (11, p. 81).

Strategy is the pattern of objectives, purposes, or goals and major policies and plans for achieving these goals, stated in such a way as to define what business the company is or is to be in and the kind of company it is or is to be. A complete statement of strategy will define the product line (in functional, not literal, terms), the markets and market segments for which products are to be designed, the channels through which these markets will be reached, the means by which the operation is to be financed, the profit objective, and the size and kind of organization which is to be the medium of achievement. Strategy can be deduced from behavior in the absence of conscious planning, for purpose is implied by action. It is easier, however, to work with verifiable statements of purpose (1, p. 5).

Strategic decisions are primarily concerned with external, rather than internal, problems of the firm and specifically with selection of the product-mix which the firm will produce and the markets to which it will sell. To use an engineering term, the strategic problem is concerned with establishing an "impedence match" between the firm and its environment or, in more usual terms, it is the problem of deciding what business the firm is in and what kinds of businesses it will seek to enter.

Specific questions addressed in the strategic problem are: what are the firm's objectives and goals; should the firm seek to diversify, in what areas, how vigorously; and how should the firm develop and exploit its present product-market position.

... strategic decisions deal with a choice of resource commitments among alternatives. . . . The object is to produce a resource allocation pattern which will offer the best potential for meeting the firm's objectives (2, p. 5-6).

Based upon the above definitions it can be concluded that corporate strategies relate to the broad courses of action which are usually selected by management from many different alternatives after considerable deliberation. The designated strategies represent how management intends to commit corporate resources to accomplish corporate
objectives and goals within the perimeter of external and internal environmental opportunities and constraints.

Green (7) comments that corporate strategy in many respects is synonymous with the long-range corporate plan since the latter portrays how the corporation plans to achieve its objectives and goals over a designated period of time.

**Example of Corporate Strategy**
**Continental-Emsco Company**

The Continental-Emsco Company (5) in 1957, concentrated all of its resources in the manufacturing and marketing of machinery, equipment, and supplies for utilization by customers and potential customers operating throughout the world. As shown in Figure 10, the company experienced a modest sales growth from 1951 through 1957. The growth rate was slightly less than the growth in the United States' gross national product for the same period. During the period 1951 through 1957, Continental-Emsco Company (5) management was pursuing an unwritten strategy of maximizing the firm's market penetration into the petroleum equipment and supply market. Since a formalized planning process was not in existence, the above strategy was based upon the intuitive judgment of top management. In March 1957, company management, supported by the strategy of growth through future penetration into the petroleum equipment and supplies market, intuitively forecasted sales for an ensuing four-year period as shown by
the dotted line in Figure 10. By 1960, the firm planned to attain a sales objective of $210,000,000 from sales of petroleum equipment and supplies in further support of the company's strategy to expand its market position through greater sales of existing equipment and supplies.

In 1958, a recession was experienced in the petroleum industry, causing Continental-Emsco Company (5) sales to drop to $98,000,000. The seriousness of the decline in actual sales is further highlighted when compared with the 1958 sales goal of $180,000,000. It should be noted that this sales goal was established without the benefit of a formalized planning process.

The company's existing strategy failed in 1958; consequently, management faced many far-reaching problems as the incumbent management group continued to concern itself with the survival of the company.

Concurrent with the failure in the company's strategy, the President appointed a Company Development and Diversification Committee comprised of the officers over each of the functional areas of the organization. This committee was delegated the accountability for instituting a formalized planning process which would provide a framework for the establishment of reliable and valid company objectives, goals, strategy, criteria, assumptions, and the preparation of a long-range five year plan. To provide the required information bank several months were spent in preparing an environmental analysis of the
Fig. 10--Sales and profits, Continental-Emisco Co.
opportunities or constraints within the international petroleum industry. This broad industry study, as discussed in the environmental analysis chapter, helped to pinpoint future social, economic, political, and technological trends. Additionally, the Company Development and Diversification Committee expended considerable effort in assessing the strengths and limitations of the various company resources, namely: human, financial, manufacturing plants, marketing facilities, machinery, equipment, patent shelters, product-line life cycles as to dollar sales and profit, and company uniqueness applicable to the petroleum or other industries.

The committee's work was further supported by the management-consulting services of the A. D. Little Company, who provided a contribution to the environmental data bank.

The committee, while finalizing its work in 1961, assumed that the present commitment of company resources would lead to a decreasing total company sales trend, as shown in Figure 11. This downward trend took into consideration the existing strategy of concentrating the commitment of present company resources to the prevailing opportunities in the international petroleum industry. Also reflected in Figure 11 is the Continental-Emsco Company's (6) targeted sales growth curve, which shows the objectives and goals as established by the President and the committee. Noteworthy is the long-range planning gap, this being the shaded area between the existing downward trend in sales and
Fig. 11—Planned sales growth*

and the targeted growth for the company based upon adopted objectives and goals.

Confronted with this planning gap, the Company Development and Diversification Committee assisted the President in the formulation of company strategy which would permit the closing of the planning gap. The management soon recognized that the design of company strategy represented one of the more important facets of the company's formal planning process.

In its deliberations the committee related the company's general capabilities to existing and proposed areas of opportunity which would permit a closing of the planning gap. The comparative profile for the company (5) is reflected in Table XI; and it relates existing capabilities to possible areas of interest, which would permit a diversification strategy necessary to the growth and survival of Continental-Emsco Company, as targeted in Figure 11. In addition the committee evaluated the company's product and market profile, shown in Table XII. The product and market profile provided an opportunity to relate existing products to the present markets and the proposed diversification markets. This profile also permits management to determine whether the company strategy should involve market penetration, market development, product development, or diversification.

In reviewing the Industry Capability Profile, Table XI, it becomes evident that Continental-Emsco Company (5) did not possess the resource
### TABLE XI

**INDUSTRY CAPABILITY PROFILE, CONTINENTAL-EMSCO COMPANY (1961)**

<table>
<thead>
<tr>
<th>Capabilities</th>
<th>Petroleum Equipment</th>
<th>Industrial Supplies</th>
<th>Plastics</th>
<th>Woodland Equipment</th>
<th>Defense Missile Handling Equip.</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Management</td>
<td>High</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Marketing</td>
<td>High</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>Financial Management</td>
<td>High</td>
<td>High</td>
<td>High</td>
<td>Moderate</td>
<td>Moderate</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>High</td>
<td>Moderate</td>
<td>Moderate</td>
<td>Low</td>
<td>Moderate</td>
</tr>
<tr>
<td>Research and Development</td>
<td>High</td>
<td>Low</td>
<td>Low</td>
<td>Negative</td>
<td>Negative</td>
</tr>
</tbody>
</table>

*Source: Continental-Emisco Company, Company Development and Diversification Committee Report, Dallas, October, 1961.*
capability to enter the plastic, woodland equipment, industrial supplies, or defense-missile handling equipment industries; consequently, the formulation of strategy must take into consideration the need for acquiring, through acquisition or merger, the necessary entry capabilities attendant to these industries. In some instances the required capabilities might be developed over time from within Continental-EmSCO Company (5). Also the committee recognized that the company could follow a diversification strategy of entering the industrial supply business through the acquisition or merger of another firm.

Taking into account all of the relative information and the targeted objectives and goals for Continental-EmSCO Company (5), management formulated the following company strategy:

1. To further penetrate the existing product markets of the petroleum industry.

2. To continue limited market development within the petroleum industry by concentrating expansion of product lines where there is market growth. Acquire through acquisition or a program of research and development product lines for diverse markets within the petroleum industry.

3. To rebalance and restructure the commitment of company resources to the petroleum industry by closing and consolidating plans and marketing facilities.
TABLE XII

PRODUCT/MARKET PROFILE
CONTINENTAL-EMSICO CO.
(1961)*

<table>
<thead>
<tr>
<th>Markets</th>
<th>Present</th>
<th>New</th>
<th>Defense Missile Handling Equipment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drilling Equip.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production Equip.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Secondary-Recovery Equip.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>General Supplies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Petroleum Equip &amp; Supplies</td>
<td>Market Penetration</td>
<td>Market Development</td>
<td></td>
</tr>
<tr>
<td>Industrial Supplies</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plastics</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Woodland Equipment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Industrial Equip.</td>
<td>Diversified</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Plastic Products</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tree Harvestry Equipment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wood Pulp Processing</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Missile Handling Products</td>
<td></td>
<td></td>
<td>Diversified</td>
</tr>
</tbody>
</table>

4. To diversify into governmental business by entering the missile handling equipment market. This to be accomplished through the utilization of existing excess resources and the acquisition of manpower and capital expenditure to offset any imbalance.

5. To diversify into the plastics industry by acquiring a company engaged in the manufacturing of reinforced plastics.

6. To diversify into the industrial supply business by manufacturing certain select general purpose supplies and through the offering of other manufacturer's supplies and equipment on a resale basis.

7. To diversify into the woodland equipment industry through the acquisition of a firm engaged in the manufacturing and marketing of a pulpwood tree harvester.

The corporate strategy as designed and implemented by Continental-Emsco Company (5) was accomplished within the framework of the formal planning process. This process was effective in permitting the company to institute long-range plans which were designed to close the planning gap portrayed in Figure 11.

Reasons for Strategies

The Opinion Research Corporation surveyed the planning practices of several firms within the United States; and according to this
study, the following reasons support the necessity for establishing corporate strategies:

Established strategies allow greater freedom of action for all members of the management team. More decisions can be made at all levels with less checking "upstairs."
The quality of decisions is enhanced because everyone has a sharper focus for his efforts.
With strategies, executives have rules to guide the search for new opportunities, both inside and outside the firm. Executives have better assurance that the company's over-all resource allocation is efficient.
Companies have an improved ability to anticipate and prepare for change (10, p. 32).

Design of Strategies

In accordance with the above reasons for having strategies and the example conveyed through the experiences of the Continental-Emisco Company (5), it is noted that the activities of a firm are guided by some sort of grand strategy. Additionally, this grand strategy, as mentioned by the National Association of Accountants (9), is supported by other strategies which are not as universal in scope as the grand strategy of the firm, especially if the firm is large and diversified. The supporting strategies will usually concentrate on one part of the firm's operations such as a division, a functional area, or a product line and will tend to align themselves with the hierarchy of objectives and goals attendant to a given organization component. Executive management possesses the accountability for the formulation of the grand strategies and the approval of supporting strategies as recommended by various levels of management and organization components throughout the corporation.
Conditions Causing the Reformulation
Of Corporate Strategies

According to Ansoff (2, p. 143), management should periodically
make a comparison, such as every six months, to determine the plan-
ning gap between corporate objectives/goals and current forecast of
corporate results based upon the existing and immediate future com-
mitment of resources. The discrepancy between aspirations and an-
ticipated attainment of objectives and goals may lead to a revision in
objectives or a revision in corporate strategy leading to a revised long-
range plan and its impact on the future commitment of corporate re-
sources.

Recognizing the dynamic nature of the formal planning process,
it seems logical to assume that from time to time there will be re-
quired revisions in corporate strategy. The grand or over-all corpo-
rage strategy will seldom change except when there is a major
restructuring of corporate objectives and goals. The National Asso-
ciation of Accountants (9) foresees that the supporting strategies are
more apt to change each time the corporation updates its long-range
plan, and in most corporations this is accomplished every six months.
The latter portion of this chapter provides an opportunity to examine
the preparation of a formalized long-range plan and the interrelation-
ship which exists between corporate strategy considerations and the
commitment of corporate resources as prescribed through the corpo-
rage five-year plan.
Corporate Long-Range Plan

Green (7) advises that in implementation of the formal planning process, management reaches a point where there is a requirement to commit in writing or by input into the computer a formalized long-range plan. It was noted that the various organization components at all levels of the corporation normally participate in the preparation of respective component plans which are consolidated on an upward basis with the long-range plans of other organizational components. This modular concept eventually leads to the over-all corporate long-range plan as prescribed by the formal planning process.

In accordance with corporate external and internal environmental data, objectives, goals, assumptions, criteria, and strategies, each organizational component finalizes this formal organization plan for the ensuing year and, usually, for four additional years. The short-range of one-year plan, the National Industrial Conference Board (12) notes, is sufficiently precise to serve as an operational plan. Due to the prevailing uncertainties the long-range plan represents projections which become less definite when related to future years, but anticipated commitments of resources and precise forecasts are also included.

The extent to which there is decentralization in formulation of the long-range plan, Branch (3, p. 224) says, is contingent upon the size and type of business, as well as the corporation's organizational and operating characteristics. It is recognized that there is a point of
equilibrium between the advantages of widespread organizational participation in the corporate planning process and the cost, delay and administrative complications of a management system that is too elaborate.

Cohen and Robbins (4) noted that planning provides a systematic and orderly means for shaping a company's future and involves the discipline of putting future plans into written form.

Henry says:

The culmination of long-range planning activities in the companies which had formal planning systems was the preparation of a written long-range corporate plan. All planning did not cease at this time, however, for it was a continual process of evaluating company progress, forecasting changes in the business environment, and replanning. Nevertheless, the long-range plan was a central focal point for much of the effort expended in long-range planning (8, p. 70).

The forementioned thought tends to highlight the importance of formalizing the long-range plan for the corporation and each of the organizational components where there is a requirement to prepare a formal plan. The long-range formal plan which can be projected on a manual or mechanized basis permits management to simulate and eventually target the expected results and accompanying commitment of corporate resources. The long-range plan becomes an important document which is used by management and other personnel in the formulation of programs and projects, delegation and decentralization of accountability, and the monitoring of organization performance.
Time Span of Corporate Long-Range Plan

According to a recent National Industrial Conference Board (12, p. 7) survey most respondents to the survey on long-range planning noted that the planning period included the ensuing five years. The firms noted a pattern whereby the five-year plan was updated annually, and the forthcoming year's budget constituted the first year of the plan. This became the firm's short-range plan. The survey, however, revealed a considerable range in the duration of long-range planning periods for those firms whose planning period extends beyond five years. Some of the participants reported that in certain areas, such as natural resource requirements, the planning period extends over a time span of twenty years.

Since there are many uncertainties involved when projecting the corporation's operations and performance into the future, a period such as five years could be considered as the maximum planning period and is consistent with feasible estimates of future performance.

Concerning the length of the long-range planning period, the National Association of Accountants notes:

In determining what is the most suitable length of time to be covered in the long-range plan, management usually seeks to identify the critical factors in the business, such as research and development, and thinks in terms of the horizon appropriate to the decisions to be made and the action to be taken. . . certain key factors affect the choice of planning period, and therefore need to be considered.

Nature of the industry and its products. The choice of time-span covered in the plan is heavily influenced by the
special characteristics of the business in which the company is engaged.

Amount of lead-time for making key decisions and putting them into effect.

Amount of time needed for achieving a major change in the business. Time needed to build an organization, or to effect a change in basic production processes influence their choice of planning period.

Product life--cycle and turnover of capital. The length of the product cycle from initiation to maturity and the time needed for recovering capital invested in a product or project.

Amount of time needed for planning capital structure and other financial needs (9, p. 27-29).

Example of a Corporate Long-Range Plan

The long-range five-year plan prepared by Continental-Emsco Company (6) tends to represent the traditional approach used by most corporations in the preparation of a long-range plan. The company, on an annual basis, prepares a long-range plan which comprises the many facets listed below:

Pro forma income statement

Pro forma balance sheet

Capital budget--Five year period

Cash budget

Source and use of funds forecast

Manpower forecast

Facility Forecast

Research and Development Forecast
The major organization components of Continental-Emasco Company (6) participate on a decentralized basis in the formulation of the five-year plan by preparing and communicating upward an organizational component, long-range plan which is consolidated to form the total company long-range plan.

Green (7) notes that the preparation of a company's long-range plan, similar to the case just described, involves many value judgment compromises and "trade-offs," due to the limitation in corporate resources. Some examples of the long-range planning "trade-offs" are:

1. Short-term profit vs. long-term growth
2. Profit margin vs. competitive position
3. Direct sales effort vs. market development
4. Growth opportunities—related vs. growth opportunities—unrelated
5. Penetration of existing markets vs. development of new markets

Persons involved in preparation of the corporate long-range plan must consider such "trade-offs" when preparing the corporate or organization component plan within the framework of the formal planning process. When making "trade-off" and other decisions pertaining to the long-range plan, Green (7) foresees that the formal planning process makes available the relevant inputs as generated through the various other facets to the planning process, objectives, goals, criteria, etc.
Techniques Involved in Preparing
A Corporate Long-Range Plan

In evaluating planning practices, Warren (13, p. 71) observes that the most typical approach to preparing the formal plan involves essentially five steps:

1. The lower levels of the firm prepare annual and five-year plans within the framework of the corporate formal planning process.

2. The short and long-range plans are summarized, consolidated, and reviewed at the division level.

3. The corporate management staff consolidates the division plans by corporate budget and also conducts a financial review of the consolidated annual and long-range plan.

4. The review of divisional plans supporting data which includes: objectives, goals, assumptions, strategies, and planned commitment of resources.

5. The final review of the consolidated corporate annual budget (short-range plan) and the long-range plans by the Chief Executive and the Board of Directors.

The information contained in Appendix H represents a format of the type utilized by corporations when consolidating the long-range plan's quantitative data into a minimum number of comparative schedules. Cohen and Robbins (4) note that when using this type format for
the long-range plan, a corporation needs to provide persons engaged in the preparation of the annual and long-range plans with the following assistance:

1. An external and internal environmental information bank which provides data for short and long-range planning.

2. An "umbrella" type framework which permits establishing and communicating objectives, goals, criteria, and corporate strategy.

3. A corporate planning staff or a divisional planning staff comprised of economists, business researchers, and specialists capable of providing information and consultant assistance in the preparation or implementation of short and long-range plans.

4. A manual or mechanized system of information, control data, policies, simulation, etc., to assist in the preparation and implementation of a short and long-range plan.

Green (7) comments that such a climate will encourage individual and team-effort type of participation, inasmuch as a small or large organization component helps the corporation formulate its short and long-range plans, which basically represent the quantitative and qualitative commitments of the strategy to be followed in attainment of objectives and goals.
In noting the various techniques utilized in the preparation of the annual and long-range plan, there appears to be a trend toward the greater employment of the computer in preparing the formal corporate plan. The long-range plan format, as shown in Appendix H, appears to be amenable for input into the computer; thus providing management with a long-range plan which is more accessible, one which can be readily revised on a continuous updating cycle or as the occasion demands, and a formal plan which is easily communicable to all or a portion of the corporation. Utilization of the computer in formal planning has been described in Chapters IX and X.

Organization Components Involved In Preparation of the Formal Plan

The extent to which a corporation is centralized or decentralized will, in great part, tend to determine whether the corporation's formal plan will be prepared by an elite group such as a planning committee or the corporate staff planning department. In this respect the recent National Industrial Conference Board survey noted:

A number of companies without long-range planning staffs have organized planning committees of key executives.

Some of the committees are charged with the preparation of the corporate plan (12, p. 13).

The following practice is noted as occurring in the preparation of the corporate plan within the decentralized firm:

Among survey respondents with decentralized organizations, it is common practice to give the managers of the various operating units responsibility for formulating long-range plans for their respective units (12, p. 13).

During the past five years, according to Green (7), some of the larger corporations in the United States have implemented the formal planning process, and this has permitted the establishment of a planning and decision-making framework which has led to a decentralization of many planning functions. In addition to the installation of a formal planning process, many of the larger corporations have entered into an advanced phase in the evolution of the planning organization; consequently, the organization structure includes a Vice President of Planning who directs a corporate planning staff. Green (7) observes that at the division level there is a division planning staff reporting to the division manager. Such a planning climate permits the formulation of reliable and usable long-range and short-range plans.

Benefits Derived in Preparing Formal Plans

The decentralized participation in the preparation of formal plans, according to Branch (3, p. 225), tends to stimulate people toward thinking ahead in a deliberate, organized, and purposeful fashion. Involvement in planning helps promote a comprehensive view so that an individual can scan and foresee the full range of relevant factors at the outside of an analysis.

In addition to advance thinking, the preparation of a unit plan requires that all significant elements of the unit be
considered; similarly, at the topmost level of management the corporate plan calls for identification, integration, and projection of all components and crucial aspects of the business together (3, pp. 225-226).

Recognizing that the formal planning process represents a rather complex program of management, the benefits to be derived from a fully developed planning process will not be realized in a short period of time. As the organization moves through the learning curve, with the implementation of the formal planning process, a point will be reached when the process is fully developed, whereby

... the way of thinking and acting which it represents has become part and parcel of the general corporate attitude, and the procedures involved are familiar, accepted, and not unduly difficult in themselves.

What is necessarily implied by corporate planning is a higher degree of purposeful integration, projection toward accepted objectives and institutional efforts than is otherwise likely. This is certainly to the corporate good (3, p. 232).

Summary

In this chapter corporate strategy and the corporate long-range plan were described in relation to the formal planning process. It was recognized that strategic decisions are concerned with the planning gap caused by the variance between anticipated performance based on the commitment of existing resources and the forecasted growth curve of the corporation, which includes stretch or work-toward objectives and goals. Based on a premise that corporate resources are limited, management can benefit by simulating the various "trade-off"
combinations which are attendant to the various possibilities for committing resources in the implementation of the grand and supporting strategies.

Upon selecting the appropriate strategies and combinations of resource commitments, the organization becomes involved in the preparation of an annual and a long-range plan. These formal plans provide a vehicle of communications between different levels of management prior to and after the adoption of the corporate and organizational component plans. The respective plans are based on the previously adopted objectives, goals, criteria, strategies, and such plans as relate to the commitment of resources for a long-range planning period of usually five years. The dynamic forces of the external and internal environment require the annual or semi-annual updating of the short and long-range plan, and on occasion these formal plans will also be updated if there is a significant change in the assumption base which, in turn, causes a restructuring of the corporate objectives and goals.

The next chapter provides an opportunity for the further analysis of the annual plan, along with a depth study of the techniques to be employed in the formulation of programs and projects leading to the attainment of organizational objectives and goals.
CHAPTER BIBLIOGRAPHY


CHAPTER VIII

IMPLEMENTATION OF FORMAL PLANS, PROGRAMS AND PROJECTS

This chapter provides an opportunity to consider matters relating to the implementation of the formal corporate plan, with emphasis upon the short-range or annual plan and those programs or projects which provide for the commitment of resources in the attainment of corporate objectives and goals.

The formal planning process framework has permitted management to finalize the following facets: environmental analysis and the assessment of corporate strengths and limitations; the formulation of objectives, goals, assumptions, and criteria; and the determination of corporate strategy and preparation of the long-range plan. Having accomplished these noteworthy facets of formal planning, management is ready to concern itself with the implementation phase of the process.

Concerning the various implementation considerations, this chapter will convey information pertaining to the communication of short and long-term plans, organizational and individual accountabilities of the implementation phase of the planning process, management philosophies and techniques which tend to support in many instances
the decentralization and delegation of implementation accountabilities, and a discussion of corporate programs and projects which are the primary means for implementing the strategic plans of management.

Guidance Provided by the Corporate Planning System

In following the discussion of guidance provided by the corporate system of formal planning, it will be beneficial to reflect upon Figure 1 and the information supporting this figure, as contained in Chapter II. This figure, as presented by the Stanford Research Institute (9), portrays the basic system of formal plans and denotes that the planned strategy establishes the long-term guidance for the corporation, taking into account the broad objectives, goals, and strategies formulated by top management and the board of directors. Figure 12 denotes that corporate strategies are implemented through formulation of a long-range or developmental plan and a short-range or operational plan, with the latter being analogous to the corporation's annual plan.

The Stanford Research Institute (9) utilizes the term "Strategic Plan" to denote the corporate strategies which resulted from the completion of each of the forerunner facets contained in the formal planning process. Through instituting a formal planning process and the formulation of the strategic plan, there is provided the framework and guidance for preparing the long-range or development plan and the short-range plan.
In discussing the plans which are formulated within the framework of the formal planning process, Ewing offers the following thoughts relative to implementational planning:

A second major set of motions that organizations go through when they plan has to do with the steps, measures, and programs set up to achieve the broad goals. Authorities on planning have labeled this second set of motions in different ways. To contrast it with strategic planning (sometimes called comprehensive, over-all or objectives planning), the second set is called variously, tactical, derivative, functional, operational, or implementational planning. Almost all the experts agree that in a given organization there are more possibilities for delegating and spreading around decisions concerning implementational planning (5, p. 30).

Since the Stanford Research Institute (9) has functioned as one of the leaders in fostering the state of the art for formal planning, the overview of developmental and operational planning tends to depict the various aspects of implementational planning as described by Ewing in the quotation above.
Guidance Provided by Corporate Development Plan

A pictorial overview of the corporate long-range or development plan, as projected by the Stanford Research Institute (9), is contained in Figure 13. The various aspects of the development plan denotes that this plan establishes guidelines which relate to the long-term commitment of corporate resources.

Fig. 13--Overview of corporate development plan*


Ewing says:

It [long-term guidance] determines the activities by which a new generation of products and markets will join or
replace the current ones. At the same time it maps in greater
detail the route toward the future position of the firm. . . .
The corporate development plan is concerned with:
Assuring that favorable conditions exist for creating or discovering new product and market ideas to
help keep the development pipeline full.
Processes which screen out poor prospects.
Forecasts which identify those developments with the highest potential.
Projecting the resource requirements and the
timing needed to implement a program after it passes
from development to operations (5, p. 8).

Based on the above thoughts it can be observed that the so-called
development plan provides implementing guidance for the diversification
program, research and development program, and in some instances
a divestment program. These programs have a long-term impact upon
the corporation; consequently, these programs provide the means for
implementing corporate strategies which were designed by management
in the interest of attaining the targeted corporate objectives and goals.

Guidance Provided by Corporate Operational Plan

The Stanford Research Institute (9) notes that the operational
plan provides a guiding framework or blueprint for current business
actions; thus, it can be viewed as the short-term or annual corporate
plan. As shown in Figure 14 the operational plan provides a guiding
framework for the functional, program, and project activities which
accompany the commitment of corporate resources in the accomplish-
ment of immediate objectives and goals.
According to Stewart (10), in some corporations the operational plan directly influences plans for such functional groups as: production, marketing, finance, and administration. Within decentralized firms which are comprised of several divisional and subordinate organizational components, the various corporate programs and projects provide the means for committing corporate resources to the accomplishment of decentralized objectives and goals.

Ewing comments on the operational or short-term plan:

... important reasons that implementational planning is so often preferred. It is more specific, more concrete, more visible. When a manager works on the implementation of plans and programs, he thinks in terms of certain people, jobs, facilities—things that he knows and can see (5, p. 31).
As to the concreteness and guidelines of the operational short-term plan, Stanford Research Institute states:

In combining a firm's various current programs and projects into actionable plans for functional groups, the operations plan specifies the total work to be accomplished in the plan's span. It subdivides the work into logical work units; assigns the work stations at which the work will be done; defines the flow of work among work stations; and establishes the lines of authority that build the work stations into an organization. And, of course, it sets schedules and budgets (9, p. 10).

Respondents' Utilization of Formal Planning Guidelines

To provide an insight into existing corporate practices relative to the preparation and implementation of the long-range and short-range plans, the Survey of Formal Planning Process Practices contained the following question: "In what ways have long range plans been used to provide guidance in the formulation and implementation of short range plans?" (11).

The responses by many of the participating corporations tend to underscore the views of various authorities that the corporation's formal plans provide implementational guidance for the commitment of corporate resources. There is quoted below a representative listing of the various comments relating to planning guidance (11).

The long-term plans provide the boundaries within which the short-term plans are formed and executed.

Establish broad framework of assumptions, objectives and goals and framework to develop short-range plans in detail.

The first year of our five year plan becomes next year's operating plan.
Long-term plans and especially marketing plans, are the basic framework guiding the operations of the firm. Short-term plans fit the long-term plan, but may be modified as conditions warrant. Long-term plans are the long-run posture of the corporation, while short-run plans are the operating tools.

The long-range plan guides decisions on short-range product plans (next year's lines). Long-term plans guide decisions on capital investment for the short-term and management development.


These comments indicate that many of the responding corporations have prepared a formal long-term plan or development plan and a short-term or operational plan in conjunction with the formal planning process. Such formal plans provide the guiding framework for the decentralized recommendation and actual commitment of resources through the implementation of corporate programs and projects.

Green (6) says that in many instances the commitment of corporate resources is accomplished through the implementation of programs and projects which are proposed and adopted within the prevailing structure of policies and procedures and the formal planning process. A corporation at a given point in time might be implementing from 75 to 400 different programs and projects contingent upon the size of the corporation.
Relation of Policies and Procedures
To the Implementation of Plans

A brief comment about the corporate policy and procedure framework is in order since the implementation of formal plans is also accomplished on the basis of adhering to the existing policies and procedures of the corporation. In some instances the scope and complexity of programs and project lead to the requirement for updating, revising, or establishing new policies and procedures.

In their planning manual Planning Dynamics Incorporated conveys the following in regard to policies and procedures:

Two principal questions should be considered:
1. Are there any areas where existing policies/procedures prevent optimum performance?
2. Are there any areas where policy/procedure guidance is needed to perform more effectively?

As a part of the planning process, it is a manager's responsibility to recommend changes in or additions to existing policies/procedures that effect his area of responsibility.

An orderly process of planning will usually force clarification of major policies (7, p. A6.1).

Implementation of the Corporate Formal Plan Through Programs and Projects

As corporations institute the formal planning process there is created a framework of management which is conducive to the implementation of the management by results concept of corporate direction. Such a concept of management, according to Green (6), includes the greater decentralization of accountability and authority, plus the increasing opportunity for incumbents of most organizational levels to
participate in the planning and decision-making process of the firm. Under such a management structure there is a requirement to provide a framework of administration, policies, and procedures which allows for the design, development, and upward recommending of programs and projects that are designed to permit a given organization component or individual to attain the objectives and goals which were previously established within the framework of the formal planning process.

According to Green (6) a corporation is continually involved with numerous programs and projects which are being implemented throughout the firm. The Planning Dynamics Incorporated Planning and Control Manual reads:

There are few areas in the whole field of management where there is more wasted time and effort, confusion and frustration than in the authorization of programs and projects. Significant progress can be made through the use of the Project Data form which provides an effective way to spell out the What, Why, Who, When, and How Much of a simple project or to transmit attachments that bring forth the details of a more complex program (7, p. A7.1).

Drucker's Thoughts on Programs and Projects

Drucker notes that to turn an entrepreneurial program into performance requires that:

All proposals for new ventures, capital investment, or new products and services, should be directed toward the company's program for performance. All such proposals should be presented together rather than piecemeal. This applies to capital investments for a given period, to new products, and to all new activities and efforts. . . . Only in this way is it possible to find out whether these proposals seek the best
utilization of the company's resources and whether they are focused on the right opportunities and on the needed results. Only in this way can it be seen whether the proposed investments, products, or activities aim at realizing the idea of the business and support its objectives. Each individual proposal should clearly spell out the expectations that underlie it (4, p. 220).

Responding Firms' Program and Project Practices

Some of the corporations, in answering the survey, revealed that the planning process aided in the management of programs and projects. They were asked to "Describe the approach you employ in the development of specific strategies, programs, and projects to capitalize on strengths, correct weaknesses, solve problems, seize opportunities and accomplish objectives (i.e., priorities, project scheduling, formulation of a course of action)" (11).

Some of the more representative answers to this question are given below (11):

Decentralized divisions formulate strategies within corporate policy guidelines. From the strategies, divisions formulate action programs and projects.

Annual planning cycle leads to review of all contemplated projects and programs... and to an assessment of their impact on objectives/goals, economic and human resources.

In several divisions, objectives sheets are prepared. On these sheets are listed action projects to achieve objectives, names of people with responsibility, target dates.

Annual budgets are proposed by regions, consistent with previously submitted corporate outlook. Between budget submissions, specific projects are proposed as indicated.
Implementation of Long-Range Plan Through Programs and Projects

Experience gained through consulting with corporations on the installation of the formal planning process has helped Green (6) to recognize that corporations which are actively involved with the implementation of a complex and far-reaching long-range or developmental plan tend to rely more heavily on the program and project approach for managing the commitment of resources. As portrayed in Figure 13 the development plan is the major means for implementing the long-range type of corporate strategies. Green (6) notes that the developmental plan is concerned with the long-term commitment of sizable corporate resources, and this necessitates divisional and corporate management becoming directly involved in designing, recommending, approving, and implementing such major programs or projects as might be required in the attainment of corporate objectives and goals.

An example of the type programs and projects utilized by management when involved with developmental planning concerns the strategies attendant to the concept of corporate diversification through acquisitions and mergers. Stewart (10) mentions that most corporate acquisition and merger programs and projects, which relate to the closing of the previously noted planning gap, are proposed and implemented by the Staff Planning Department, corporate line and staff officers, and the Chief Executive. Programs and projects which relate
to the implementation of the long-range plan are managed on a centralized basis by corporate or divisional management. Green (6), on this subject, revealed that in most corporations the Staff Planning Department recommends acquisition and merger projects either to an acquisition and merger committee or to the chief executive officer. Review of a given acquisition project which normally involves the acquiring of another company, a product line, or a patent shelter, is conducted by the corporate executive committee, composed of officers over each corporate functional division. Upon approval of the acquisition project, which often includes board of director sanction, the chief executive and members of top management implement the project leading to the acquisition as established through the project proposal.

The forementioned example as to the utilization of the program and project concept in the implementation of the long-range plan helps establish the organizational involvement in directing the firm toward the attainment of corporate objectives and goals. In reflecting upon the programs and projects attendant to the long-range plan, there is a need for realizing that non-management personnel, operating at lower hierarchy levels of a corporation, often become involved in the many aspects of programs and projects. An example would be the scientist or inventor who is involved with the corporate research and development programs.
Implementation of Short-Range Plan
Through Programs and Projects

With the short-range plan being analogous to the annual plan, which usually relates to an ensuing year, Stewart (10) and Green (6) say there is considerable decentralized involvement with the implementation of numerous programs and projects. Likewise, the extent of program and project involvement is greater in a corporation which employs a decentralized management and accountability structure since objectives and goals have been structured on a hierarchy basis.

The formal planning process provides corporate management with the means for this decentralization and delegation of objectives and goals, which includes organizational and individual accountability points located throughout the corporate organization structure.

The adopted objective, goal, strategy, and formal plans framework helps to establish a management system which, Green (6) notes, relies heavily upon the upward recommendation and implementation of programs and projects that allow for the commitment of resources in accordance with the desired attainment of the hierarchy of objectives and goals.

In a discussion of the program and project subject with Russell (8), it was revealed that the AMF Corporation had instituted a decentralized system which made provisions for recommending and implementing of programs and projects. An overview of the more important
aspects of this decentralized operational planning concept is noted below:

**Action Programs:** The specific programs and continuing procedures required to carry out the strategy.

The plan is accomplished through action programs. In many cases several action programs may be necessary to implement any one phase of strategy. In such a case, some programs may not be obvious at the start and a project to select the necessary programs may be a part of the initial plan.

As each program is prepared, it must be clearly defined in terms of target, costs, and expected results. The man responsible for each program should be indicated and a reporting schedule should be prescribed to provide a means of measuring the progress against the results desired.

For the most part, these procedures are needed within the unit and between the unit and the group. Consequently, they should be laid out to meet the particular requirements of the business unit manager and the group executive, and may well vary from group to group (1, p. 12).

The AMF Corporation utilizes the following guide:

<table>
<thead>
<tr>
<th>General Outline For Each Action Program</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Objective</strong></td>
</tr>
<tr>
<td><strong>Target</strong></td>
</tr>
<tr>
<td><strong>Background</strong></td>
</tr>
<tr>
<td><strong>Description</strong></td>
</tr>
</tbody>
</table>
c) Discussion of criteria used in planning the program, major assumptions, areas involving judgment, and factors which could affect the program's success.

**Financial Schedule**

a) Pro Forma P & L statements.
b) Investment schedule for capital requirements.
c) Cash Flow schedule.

**Control**

a) Progress schedule.
b) Procedures for interim measurement and review of program (1, p. 13).

**Responding Corporations' Use of Formal Plans As a Guide in Allocating Resources**

The corporations participating in the Survey of Formal Planning Process Practices were asked this question: "In what ways have either or both the long range plans and short range plans been used to provide guidance in the allocation of corporate resources?" (11).

Some of the more salient comments to this question are quoted below (11):

We are an extensive company. We use a project system within a business plan system within the constraint of over-all corporate capability—means forced choice at nearest objective level.

Three annual planning cycles, and three are project planning and reporting systems. A careful assessment is made of corporate resource utilization.

Long-range plans are essential in allocation of corporate resources. Long-range plans are inseparable from the allocation process.

Strategy of long-range plans guides the allocation of resources as between competing alternatives in short-range plans.

Programs must show opportunity for profitable investment—establish priority for capital.
Short and long-range plans and the evaluation of return from expected projects provide the means for allocating resources; especially where resources have definite limitations.

Both short and long-range plans are continuing control mechanisms, worked with almost on a daily basis by corporate managements.

These comments tend to indicate that many corporations are utilizing the formal planning process and the resulting formal plan as an important managerial system in the day-to-day and long-range direction of corporate operations. To be assured of the maximum benefits which might be derived from the implementation phase of the formal planning process, corporate management, according to Bower (2), is faced with the requirement for designing and instituting various management and organizational systems, policies, and programs which will compliment the formal planning process.

Management Systems, Policies and Programs Which Compliment the Formal Planning Process

After consulting to major corporations for several years, Bower arrived at the following conclusions:

To be effective, the will to manage must ultimately be reflected in the purposeful and productive actions of people. Therefore, an effective system for managing a company must activate the people in it to perform the work required in a purposeful and productive manner.

There are many ways to get people going: order them, impose penalties on them, advise them, encourage them, frighten them, drive them, lead them, inspire them, grant them rewards, motivate them in other ways, and, best of all,
let them govern themselves, i.e. use self-direction and self-control.

I believe that the activating package will be most effective when it is part of a management. In fact, the interdependencies and interrelationships of the various means for activating people underscore the value of the systems approach to managing. When individual activating methods are integral parts of a total system, they support one another and draw strength from other system components. In short, the total interaction makes the activating task easier and more effective (2, pp. 223-224).

The above comments give further credence to top management's accountability and obligation for supporting the formal planning process with policies, procedures, and programs which will permit the greatest possible decentralization in the implementation of the formal plans.

When the Continental-Emsco Company (3) instituted a formal planning process the management, on a concurrent basis, implemented the following changes in the over-all management system. These changes, as listed below, were designed to foster a program of decentralization, delegation, diversification, and company growth.

A program for individual planning which allowed the incumbent to prepare an annual operating plan in accordance with delegated objectives and goals.

A comprehensive accountability type system of organization which included a new job evaluation program, accountability style of position descriptions, employee compensation related to delegated accountabilities, and a human resources development system based upon the training gap.
A program which permitted the accountability type of
performance appraisal with performance measurement based
upon individual accountability for attainment of delegated cor-
porate objectives and goals.

A revamping of the control and reporting system with
greater utilization of the computer which provided the increased
opportunity to relate organizational and individual results with
the budgeted results based upon the long and short-range plans.

A complete revision in the chart of accounts and various
financial schedules to allow for an accountability type system
of reporting.

A complete revision in the formal organization struc-
ture with the major change relating to the establishment of over
100 separate profit and loss centers.

A capital investment policy manual and procedural guide-
line to permit the decentralized implementation of program and
project recommendations involving the commitment of corporate
resources.

A management acquisition and merger policy manual
was developed to assist corporate management in the implemen-
tation of the diversification program. This permitted greater
effectiveness in the implementation of diversification programs
and projects.
These major changes helped contribute to a more effective management system which complimented the formal planning process at Continental-Emisco Company (3), and such changes permitted a management by results program as described by Bower (2).

Corporations' Use of Simulation Techniques in Planning

Recognizing that there are manifold opportunities for committing resources through instituting various corporate programs and projects, the Survey of Formal Planning Process Practices (11) provided the means for evaluating the simulation techniques which are used in making resource commitment decisions. The surveyed corporations provided answers to the following question:

"In what manner have you utilized the simulation technique in conjunction with the formalized planning process?" (11)

A majority of the representative answers to this question are quoted below (11):

Probability simulation of capital expenditures; linear programming models in capital expenditures and machine time allocation simulation of financial conditions and financial statements.

We have a simulation of profit and loss cash flow, production, sales volume, costs, margins. This model is used for examining quickly a series of alternative product strategies.

A computer simulation model is used in preparation of the long-range corporate plan.
Models have been constructed to enable management to assess the likely results of a number of alternative courses of action, principally in marketing and financial areas.

Have detailed computerized simulation models of various kinds at corporate and division level.

We are really just beginning to apply simulation and other management science techniques to formal planning.

Determine alternatives from available courses of action - equipment design, market demand, inventory, and production programs.

Limited. Recent accomplishment has been the use of forest lands simulation, designed to optimize use of land resources.

Computerized model of corporation. Statistical analysis of market data base.

Demand model - Financial models - Planning models to assess effects of alternatives.

Simulation technique is in the process of being developed. Has been used on a few specialized products.

Just beginning this year with a corporate model - not yet creditable.

Product line distribution and location of production and warehouse sites. Simulation techniques used for production control. Mathematical design of experiments, simulation to check out and prevent bottlenecks.

None so far but very interested in locating a practical approach to being able to simulate in conjunction with formal planning.

Based on these findings, it is apparent that many of the responding corporations are utilizing the computer and data processing techniques, along with management science, in an effort to create a more effective formalized planning process. Since the computer hardware
appears to provide the capacity for greater mechanization of formal planning, the challenge to management centers on the need for designing more effective software. With the software experimentation, which is being performed in many of the responding firms, there should be continual improvement in the design and implementation of formal planning processes.

Summary

This chapter provided an opportunity to establish the relationship between the formal plans and the program and project concept of management. Likewise, important considerations were explored relative to the long-range or developmental plan and the short-range or operational plan, with emphasis on the type of management system which would best support the formal planning process concept of management.

In the next chapter the control or appraisal aspect of this dynamic planning process will be discussed with consideration given to the periodic recycling of the total formal planning process as a corporation continues to survive and grow within a dynamic sphere of opportunities and constraints.
CHAPTER BIBLIOGRAPHY


10. Stewart, Robert F., Manager Planning Research, Stanford Research Institute, personal conversation, Menlo Park, California, October 21, 1968.

CHAPTER IX

APPRAISAL OF PERFORMANCE WITH CORPORATE PLANS AND RECYCLING OF PROCESS

By concentrating upon the appraisal or control facet of the formal planning process, this chapter concludes the full cycle review of the various components of the planning process, as described in Figure 4. Also to be considered in this chapter is the required recycling of the total formal planning process due, in part, to the dynamic external and internal environmental forces of the corporation.

Focus on this facet of the formal planning process brings about the recognition of the integral relationship between planning and control; and, accordingly, "control" or, as it is often called, "appraisal" occupies an important position in the planning process. Due to the analogous relationship between the concept of appraisal and control, the term "appraisal" will be utilized throughout this chapter when describing the appraisal facet of the formal planning process.

Conceptually, it is possible to break the appraisal process into its purely appraisal elements and its planning elements, but such a breakdown is not useful, since in practice the elements occur together.

In short, planning and appraisal activities are so closely intertwined in the budgeting process that to describe each of them separately is not only difficult but also pointless—pointless because those concerned with the process usually are involved
with and interested in both its planning aspect and in its appraisal aspect (1, p. 11).

In recognizing the integral relationship between planning and appraisal, there is need for realizing that the appraisal function is structured on a multiple basis to provide a companion relationship with the long and short-range plans of the corporation.

Anthony (1) offers the conceptual framework of this relationship between planning and appraisal, as shown in Figure 15.

![Diagram of Planning and Control Processes in Organization—Internally Oriented Process]

Fig. 15—Planning and Control Processes in Organization—Internally Oriented Process

In equating Anthony's (1) planning and appraisal concepts to the formal planning process, the following relationship is noted:

<table>
<thead>
<tr>
<th>Anthony's Process</th>
<th>Formal Planning Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strategic Planning</td>
<td>Facets of Process leading to development of strategies</td>
</tr>
<tr>
<td>Management Appraisal</td>
<td>Long-Range Plan</td>
</tr>
<tr>
<td></td>
<td>(Developmental Plan)</td>
</tr>
<tr>
<td>Operational Appraisal</td>
<td>Short-Range Plan</td>
</tr>
<tr>
<td></td>
<td>(Operational Plan)</td>
</tr>
</tbody>
</table>
Based on the above noted considerations the formal planning process, portrayed in Figure 4, is primarily concerned with three levels of planning and appraisal; and of necessity, there is an interlinking relationship among these levels:

Corporate Strategy Appraisal

Long-Range or Development Plan Appraisal

Short-Range or Operational Plan Appraisal

In some instances corporations will combine corporate strategy and the long-range plan into one appraisal system, since in many respects the long-range plan is the primary means for implementing the corporate strategies which were formulated within the framework of the formal planning process.

Ewing underscores the import of the appraisal facet of the process by stating:

Clearly the modern corporation must meet a requirement: a system of effective control. There is probably no leading company in North America or western Europe today that could be where it is without techniques of management and operations control. Sometimes these are qualitative: simple reports and verifications. More often they are quantitative: figures on costs, sales volume, price, assets, employee turnover, and so forth (4, p. 5).

Ewing also recognizes the need for a variable appraisal system:

Progress measurements in short-term planning are different from measurements in long-term planning. In the former, M. J. Kami (formerly with International Business Machines and Xerox) has noted, actual results are properly compared with planned results. The comparisons can be fiscal— for example, actual monthly revenues and expenditures—as well as physical—such as sales productivity, manufacturing output, etc. But in
long-term planning such precision is self-defeating; there are more unknowns, more subjective estimates (4, p. 13).

Corporate Appraisal System for Monitoring Attainment of Objectives and Goals

When designing the corporate appraisal system a major consideration is the degree of self-direction and self-control which has been delegated to incumbents within an environment of corporate decentralization. The appraisal system is normally tailored to a corporation based upon whether the firm is highly centralized, decentralized or has an approach to management which lies between these two extremes.

The following proponents of the formal planning process concept of corporate management visualize the process as providing a framework of management which permits a high degree of incumbent self-direction and self-control.

Bower notes:

... the control component is strictly an information component. True, the information provided is designed to induce action. But the action does not follow automatically from the information. If it did, there would be no need for capable managers. The information simply influences managerial will, judgment, and initiative—and the managers take whatever action they deem appropriate in the circumstances.

Actually, the term "control" itself is somewhat misleading, since control involves changing people's behavior by motivating them in some way. Therefore, I think it may be more helpful to give up the concept of "control" as a component in favor of two separate components: management information and activating people. (In any case the classic notion of control is wholly contrary to the concept of self-control).

Once we focus on the concept of management information, we can approach the task simply and directly. What management
needs to activate and reactivate people is (1) information on which to base planning, (2) measures of performance of the people involved, and (3) feedback on what is actually happening. This planning information/performance measurement/information feedback cycle is an information cycle. It provides the basis for action—not the action itself (2, p. 217).

Hughes also underscores the concept of self-direction and self-control:

Actual performance measurement and evaluation provide the control function. Whether we are judging organizational or individual performance, evaluation must be understood in terms of results achieved. During this phase the supervisor will have the important task of mediating between individual and organization to help each person understand just how performance has been successful or unsuccessful in relation to objectives (6, p. 105).

There is need for relating these thoughts on self-direction and self-control to the requirements for monitoring attainment of the long-range and short-range plans of the corporation. A well-designed and implemented system of formal planning is essential to a decentralized concept of management which creates the conditions for self-direction and self-control. Such a system of appraisal, according to Kitchell (7), is impossible unless the purpose of organized effort is known and understood; and this is accomplished through the determination of objectives and goals, plus the designing of a desired course of action through the formal planning efforts. These provide the underpinning to the measurement and audit of accomplishments of both organizational components and individuals.
A recent article describes the above concept of planning and appraisal:

A company can implement an effective appraisal system within a Theory Y framework—that is, one in which management encourages the employees to accept responsibility for planning and evaluating his contributions to the organization's goals. This approach emphasizes the integration of the employee into the organization, and to a substantial degree it satisfies the employee's need for ego reinforcement and provides an opportunity for self-fulfillment.

McGregor has recognized the need for an appraisal method that provides a basis for guiding the development of the employee within the corporate world, and he views Peter Drucker's concept of "management by objectives" as a good starting point. This management concept emphasizes employee planning and appraisal (10, p. 16).

Since the formal planning process concept of management represents an effective means for implementing the management by objectives system, which is also the basis for self-direction and self-control, it becomes logical to assume that the planning process facet of appraisal would be compatible with such a system of management.

An Example of a Corporate Appraisal System

Having instituted the formal planning process of management, the Continental-Emsco Company (3) designed and implemented a management by objectives type of appraisal system. The appraisal system was designed to be compatible with the long-range plan and short-range plan of the company, along with a decentralized concept of management which permitted the more effective direction of an international company.
comprised of operational points located around the world. The sequence of events relative to the design and implementation of the appraisal system of the Continental-Emsco Company (3) are summarized below:

1. The recognition by the chief executive and other corporate officers that the company's present system of management was inadequate. Management also recognized the inadequacy of company sales, profits, return on investment, and long-term survival and growth prospects.

2. The strengthening of general office line and staff officer and non-officer personnel was required in order to be assured of having human resource know-how capable of designing and implementing new systems of management.

3. The consulting organization of Edward N. Hay and Associates was retained to help introduce into the company the accountability concept of management. In conjunction with the consultant, corporate management designed and implemented an accountability or objective oriented formal organization structure which included a position description, a listing of accountabilities, and the establishment of a salary compensation plan using the guide-profile chart which places emphasis on individual contributions to corporate objectives and goals (the guide-profile chart is shown in Appendix I). The accountability concept related to each managerial, supervisory, technical,
sales and administrative position throughout the company, and it provided a vehicle for introducing the hierarchy of objectives and goals on a decentralized basis.

4. The chief executive appointed a task force of corporate officers and designated this group the "Company Development and Diversification Committee." This task force group, aided by the consulting firm of A. D. Little, Incorporated, designed and implemented a formal planning process which led to the preparation of the first five-year long-range company plan. Over a two-year period the task force performed the following functions of the planning process:

a. Environmental analysis.

b. Assessment of company strengths and limitations.

c. Assisted chief executive in formulating broad company objectives and goals.

d. Designed an assumption base and guiding criteria.

e. Assisted chief executive in formulating company strategy to help close the long-range planning gap.

f. Prepared the five-year long-range plan.

5. The comptroller, in conjunction with general office line and staff personnel, revised the annual budgeting process and instituted a system of short-range planning which was built upon the concept of responsibility accounting. Also established
was a more integral relationship between the long-range plan and the short-range plan.

6. The Chief Executive issued a policy statement noting that formal planning would be performed on a decentralized basis with concerned incumbents having the accountability for preparing on a bottom-up basis plans based on incumbent objectives and goals. This decentralized planning endeavor would be supported by a need-to-know information inflow from the Planning Department and other staff services. Likewise, the Planning Department was held accountable for coordinating the preparation of the long-range plan, and the Comptroller coordinated preparation of the short-range plan.

7. The company's management, in conjunction with consultative assistance from Booz, Allen and Hamilton; Price Waterhouse; and the International Business Machines, Inc., completely revamped the company appraisal system which had prevailed on a highly centralized basis for many years, since top management had not been interested in sharing operational results with non-executive personnel.

The revised appraisal system was structured on a decentralized basis and provided greater compatibility between the functions of planning and appraisal. Included were over one hundred profit and loss or accountability centers. To implement
this new appraisal system it was necessary to revamp the chart of accounts and the numerous schedules and reports. This allowed for greater utilization of the computer and the decentralized reporting of results to incumbents who required such information for the purpose of self-direction and self-appraisal within the framework of company policies and procedures.

8. The utilization of this newly implemented planning and appraisal system placed Continental-Emsco Company management in a position of being able to install a management by objectives program of administration. After a few years experience with this concept, incumbent personnel became proficient in the planning and appraisal efforts, and this permitted the company to prepare a more realistic and valid long-range and short-range plan than existed before.

9. The continued refinement of the planning and appraisal endeavors was accomplished through the design and use of capital budgeting and corporate investment planning concepts, plus the reporting of sales, profits, and return on investment contributions by product lines, geographical area, and organizational components.

Over a period of several years the management of Continental-Emsco Company (3) has been able to completely restructure its planning and appraisal system, and this new system has allowed
for greater employee participation in the affairs of the company. Likewise, the creative know-how and drive of a large number of people have focused upon the survival and growth of the company as it diversified and grew in new areas of opportunity.

Appraisal Techniques Utilized by Responding Corporations
In Monitoring Attainment of Objectives

Several of the corporations participating in the formal planning process survey described specific practices which are utilized in appraising the attainment of objectives and goals as prescribed within the framework of the planning process (14):

- Appraisal is based on exception reporting.
- Formal appraisal at corporate level—we rely heavily on management by objectives.
- Monthly reports by each division which compare divisional operating plans with actual performance.
- Management information system based on forecast variances—all emphasis is on forecast.
- Correlation of division plans and operating results to the 5 year corporate strategic plan—exposing results to operating personnel.
- Measurement of the degree of attainment of specific goals in long-range plan is reviewed. This is used as a "feedback" to monitor actual performance and to assist in the continuous review and resetting of objectives and goals.
- The concept of management by objectives is being incorporated into compensation and management development programs.
- Responsibility accounting and measurement by key functions with performance to plan on goals.
These comments indicate that several of the reporting corporations have or are implementing a program of management by objectives. Also in evidence is a hierarchical type of appraisal program, as shown in Figure 15.

**Appraisal Program Related to Long-Range and Short-Range Plans**

Since corporations tend to formulate two basic types of formal plans; namely, the long-range plan and the short-range plan, there is a need for considering the types of appraisal systems which provide a companion relationship with the two types of plans.

One important purpose of the long-range plan is to provide a means for establishing control over performance in order to achieve desired objectives. Since planning alone does not bring realization of planned results, the majority of the companies participating in this study use a two-stage procedure to make action and results conform to plans. The approach consists of long-range control applied through the long-range plan and short-range control and follow-up by means of annual budgets and a routine reporting system. In brief, the procedure is as follows:

1. The long-range plan is the guide for preparing the annual budget and defines actions that need to be taken now in order to move toward long-range objectives.
2. In preparing the budget, there is year-by-year review of progress made toward realization of the long-range plan. To the extent that the long-range plan is incorporated into the annual budget, the usual budgetary control process acts as a control on actions needed to realize long-range plans (9, p. 103).

In summarizing the above noted thoughts about the two general types of appraisal systems, it seems evident that the following characteristics exist:
Appraisal Attendant to the Long-Range Plan

Since the long-range or development plan relates to those objectives, goals, and strategies which are attained through programs involving diversification, acquisitions, mergers, research and development, divestiture, and other long-range programs, there is not a requirement for implementing an appraisal plan that provides the continuous monitoring of results in comparison with company plans. Many companies will compare actual performance to long-range plans on a quarterly or semi-annual basis with the emphasis centering on the closing of the planning gap. This appraisal system is more centralized due to the general centralization of the accountabilities for implementation and attainment of the objectives, goals, and strategies analogous with the company long-range plan.

Appraisal Attendant to the Short-Range Plan

The annual budgeting process provides the basis for an appraisal system which incumbents and management can utilize in relating actual results with the short-range or operational plan of the company.

The appraisal system, which relates to the short-range plan, has been described as follows:

Budget control reports are another means of follow-up, especially useful for those objectives which have been quantified and expressed in units which correspond to accounting and budgetary units. While the usual budget reports will not provide all the necessary follow-up information in the most convenient manner, they will serve as one of the several sources of control.
which a company requires. Moreover, in those companies which emphasize responsibility accounting, much of the information needed for control and follow-up of progress toward objectives will be available as a matter of course and special reports will not be necessary. Responsibility accounting is designed to provide each manager with the data required for effective performance in his job.

Thus the regular accounting and budget reports will reflect progress made toward quantified objectives having to do with costs, income, production, sales volumes, rates of return, and related indices (8, p. 79).

The appraisal system used in conjunction with the short-range annual plan is largely quantitative in nature since the annual objectives and goals are usually structured in this manner. Likewise, the commitment of resources for attainment of the short-range plan requires appraisal input on a continuous, weekly, or monthly basis; and to provide such a system, management has provided the means for a highly flexible, decentralized, and timely approach to company and incumbent appraisal.

Appraisal of Company Performance Through Utilization of the Computer

Stanford Research Institute says:

Two interesting trends are occurring in the field of measurement. One is the increasing use of a computer linked to special apparatus at work stations that enables an hour-by-hour measurement of schedule performance or resource utilization, or both. The second trend--occurring in the process industries such as basic chemicals and petroleum--is the tendency to move measurement as far upstream in the work process as possible. Since the trend toward computer-based, hour-by-hour measurement is analogous to the process industry's monitoring, it appears that measurement of other aspects of business eventually may move further upstream (11, p. 9).
Based upon the research findings of Henry (5) the applications for computers in business planning have increased rapidly in recent years due to the third generation of computers and the improvements in management science, plus the great amount of information available for use in business planning. Computers are used to simulate alternative commitment of resources or to make a financial analysis of profitability using the rate of return on investment concept. Some firms have used computers in the planning of corporate facilities to help determine optimum levels of operation.

According to Steiner (13) some corporations have utilized the computer as a means for storing the long-range and short-range plan, and on a real time or periodic basis actual performance is stored in the computer. The capacity and flexibility of the computer permits the design of electronic data processing systems which will allow a comparison between corporate plans and actual results. Such a system is often structured on a hierarchy basis, thus contributing to the establishment of multiple accountability centers throughout the corporation.

**Utilization of Computers in Planning As Noted by Respondents**

The corporations participating in the formal planning process survey provided the following comments relative to the role of computers within the planning process (17):

Computers are used extensively in the development of environmental background data, industry forecasts, etc. Also
used in scheduling of product inventory control and distribution, plus simulation of opportunities.

Data bases for forecasting. Monitoring performance vs. plan.

Economic analysis of specific investment proposals. Demand/supply planning studies. Various specific studies.

Simulation of route and rate structures. "Costing out" alternative activity assumptions—these are still under development including broader computer applications to include an industry "model."


For allocation of resources, as well as for fairly complex simulation models.

Only for historical accumulation of data for the long-range plan. Developing a simulation model for long-range and short-range plan.

These responses indicate that many corporations are attempting to develop a more sophisticated formal planning process through greater deployment of the computer and management science techniques. It is conceivable that with the passage of time many corporations will utilize to a greater extent the computer in conjunction with the formal planning process, thus developing a more timely planning and appraisal effectiveness.

Considerations Leading to a Recycling Of the Formal Planning Process

Based on the premise that there will be periodic changes in the environmental influences upon the corporation along with changes in the
assumption base and in corporate resources, there is need for designing a formal planning process which can be recycled on a pattern or special basis.

Although the period covered in the planning process is typically five years, companies seldom follow the same plan for more than one year. Since they view long-range planning as a dynamic process, most companies prefer to keep their plans current rather than retain the same plan unchanged for the duration of the five year period. Nearly all the companies interviewed regularly revise their long-range plans every 12 months. At that time they make any necessary changes in the planning. Significantly, the companies that revise plans annually are largely the same ones where there exists a high degree of integration between short-range planning and long-range planning.

The usual procedure for these companies is to put the long-range plan on a "rolling base," and to maintain a current five-year projection by updating and extending it every 12 months. A very few companies revise plans less frequently than once a year, or do so only "as needed" (9, p. 31).

The National Industrial Conference Board (12) survey on planning practices noted that a majority of the respondents revise and update the long-range plan once a year, and in some companies there will be an updating and review more frequently if conditions warrant. The survey noted the comment of a company president who stated that "plans can be altered, changed, or entirely revised at any time during the year in order to maintain flexibility and to encourage growth" (12, p. 8).

An important feature of the formal planning process is its ability to recycle and permit management to revise in an efficient manner any or all facets of the process. Since objectives and goals are
formulated on a futurity basis, there is considerable reliance by management on the assumption base concerning future social, economic, political, and technological trends and patterns. With major change in the assumption base; e.g., the country's involvement with a war, the recycling process would probably lead to a revision in the corporate objectives, goals, strategies, long-range plan, short-range plan, and eventual commitment of resources. A system for continuous monitoring and appraising of those considerations which could lead to a recycling of the planning process is vital to this concept of planning.

Summary

This chapter concludes the review and analysis of the formal planning process as each facet has been discussed in detail within a respective chapter of the dissertation. The complexity of the formal planning process necessitated that the review be confined to the more important considerations. In keeping with this approach the previous chapters have provided an overview of the particular facets of the planning process, and the final chapter is addressed to the linkage of parts in the application of the formal planning process.
CHAPTER BIBLIOGRAPHY


CHAPTER X

SUMMARY AND CONCLUSIONS

In this final chapter there is reflection upon many thoughts and conclusions relative to the state of the art of formal planning. Initially, an overview or summary of the various facets to the formal planning process will provide background information which will be helpful in determining the progress made by the formal planning movement. Then, specific attention will be directed to the hypotheses which were prescribed in Chapter I. Salient information gained from primary and secondary research techniques (e.g., formal planning process survey questionnaire and comprehensive personal interviews) will be utilized in testing the hypotheses regarding the formal planning process concept of corporate management. Finally, the anticipated trends and matters of future concern in formal planning will be presented along with potential areas for further research into this complex subject.

Summary Highlights of Each Facet to the Formal Planning Process

Environmental Analysis

1. The numerous external environmental conditions vitally affect a corporation's survival and growth; therefore, management needs
reliable information about future economic, social, political, technological, and other business conditions to help serve as a guide in formulating assumptions, objectives, goals, criteria, strategy, plus the long and short-range plans.

2. Corporations involved with formal planning have designed monitoring systems to permit the continuous appraisal of salient environmental influences.

3. The assumption base in many respects relates to environmental considerations; consequently, a significant change in the corporate environment will lead to the restructuring of assumptions.

4. A variety of corporate staff specialists (e.g., economists, planners, market researchers, financial specialists, engineers) are actively involved in providing environmental information required for the formal planning process.

5. The corporate planning staff prepares broad industry studies (e.g., plastics, electronics, pollution control) which are utilized in conjunction with the formal planning process and the diversification, acquisition, and merger endeavors.

6. The corporate planning staff also prepares special studies which are utilized in the implementation of the long-range and short-range plans. These studies provide environmental input data with emphasis on product lines, specific markets, acquisition of given corporations, plus research and development opportunities.
7. The environmental analysis data bank is based upon a corporation's existing and future product/market mix, diversification strategies, divestment considerations, and major commitments of corporate resources.

Assessment of Corporate Strengths and Limitations

1. The corporate management, when initially implementing a formal planning process, will conduct a depth assessment that is likely to include the following resources: human, financial, facilities, products, patent shelters and uniqueness, equipment, and natural resources.

2. The management will pursue two basic approaches in assessing corporate strengths and limitations:

   a. Examination of each functional activity.

   b. Examination of the total corporate entity.

3. The corporate entity type of assessment helps provide an insight into the synergistic capabilities of the firm.

4. The initial assessment in many corporations is conducted by a management task force, and subsequent assessments are coordinated by the staff planning department in conjunction with line and staff personnel.

5. The assessment of strengths and limitations is based upon quantitative and qualitative considerations, and in some instances this
is accomplished on a continuous basis, wherein some resources are periodically assessed.

6. The information gained from the environmental analysis facet of a formal planning process is used as a part of the comparison base when conducting the corporate resource assessment.

7. The inputs generated from the environmental analysis and assessment of strengths and limitations provide an important underpinning for the formulation of the assumption base and objectives, goals, and criteria.

Corporate Objectives, Goals, Assumptions And Criteria

1. The corporation operates within an extremely dynamic and ever-changing external and internal environment; consequently, the formulation of an assumption base which requires continual monitoring and updating is important to the establishment of corporate objectives and goals.

2. The formal planning process provides management with the means for formulation of quantitative and qualitative type objectives and goals which are structured on a hierarchial basis in accordance with organization components and individual incumbents.

3. The establishment of objectives and goals in some corporations is accomplished on a bottom up basis wherein individual incumbents target respective objectives and goals, which are
communicated upward in the organization structure for eventual synthesis and approval.

4. The corporation and its many facets usually comprise a growth oriented philosophy; consequently, stretch or work-toward targets are designed into the objectives and goals.

5. The terms "objectives" and "goals" have at times created semantical problems, but for this study the following distinctions have been utilized:

Objective--broad, quantitative and qualitative statements which provide basic guidelines for corporate or incumbent activity. Objectives are enduring and often never fully achieved since over a period of time they are usually restructured.

Goal--derived from an objective and helps pinpoint the intermediate targets as resources are committed for the attainment of objectives. The targeting of specific end results as related to the factor of time is required, with the targeting usually stated first on a quantitative basis and then a qualitative basis.

6. The effective preparation of objectives and goals framework permits the corporation to implement a management by objectives or management by results program, predicated on a high degree of incumbent participation in the commitment of resources to the attainment of objectives and goals.
7. The corporation benefits from the development of criteria since these provide salient guidelines for use in a decentralized organizational environment wherein incumbents are involved with capital investments, diversification, acquisition, mergers and research or development projects.

8. The objectives and goals establish corporate direction as equated to time, and this accomplishment is formalized in writing and communicated throughout the corporation on a need-to-know basis.

**Corporate Strategy**

1. The corporation upon formulating its objective and goal structure must design and adopt strategies which, when implemented, will provide the right direction for the commitment of resources; thus, strategies relate to the broad courses of action which a management must select from many different alternatives.

2. The formulation of strategies helps provide for a greater decentralization in the implementation facet of the formal planning process as incumbents make decisions in the attainment of the long and short-range plans.

3. The corporate strategies relate to both the long-range or developmental plans and short-range or operational plans, but the strategies in great part are implemental through the long-range plan.

4. The strategies are changed or recycled whenever there is a major change in the corporate objectives and goals since
strategies provide the basic thoughts or means for attaining objectives and goals.

Long-Range or Developmental Plan

1. The corporate long-range plan or development plan, as it is sometimes called, is a commitment in writing of the corporate objectives, goals, strategies, and commitment of resources. This commitment culminates in such documents as pro forma income statement, pro forma balance sheet, pro forma source and use of funds statement, pro forma cash budget, pro forma expense statement. In addition to the above quantitative statements, the long-range plan also includes non-financial quantitative plans. The non-financial, quantitative commitments culminate in salary administration budget projections, magnitude of employee suggestions and ideas, employee turnover projections, employee safety plans, marketing plans relating to market penetration, new customers, inventory turnover, and other key areas of the business which can be quantified. In most corporations the long-range plan covers a period of five years.

2. The general practice followed by many corporations is to update the five-year plan on a sliding annual, semi-annual, or continuous basis—the latter being related to an unusual change in the various facets of the formal planning process which might cause a recycling.

3. The importance and scope of corporate long-range planning leads to the requirement for considerable decentralized involvement
in the preparation of long-range plans for the organizational hierarchy, and this is usually handled on a bottom up basis with the eventual building toward a consolidated corporate long-range plan.

4. The computer has been utilized in recent years as an aid in the preparation of the long-range plan, and upon completion the five-year plan is stored in the computer for retention and utilization on a need-to-know basis.

Short-Range or Operational Plan

1. The corporate short-range plan or, as it is sometimes called, the "operational plan" usually relates to the ensuing one year period; consequently, there is an interrelationship between the corporate budgeting system and the short-range plan.

2. The basic guiding framework for the short-range plan is provided by the first year of the five-year long-range plan, and of necessity there is a continual ongoing relationship between the long-range plan and the short-range plan—the latter relating to objectives, goals, strategies, and commitment of resources for an immediate period of one year or less.

3. The annual short-range planning and budgeting process is very amenable to decentralized involvement; consequently, incumbents who use an individual planning system are involved in establishing respective goals and plans for such an immediate period.
4. The short-range plan assists in creating a functional or divisional plan which provides a guiding framework for use by incumbents and management in making the many daily, weekly, or monthly decisions attendant to the commitment of corporate resources.

**Appraisal of Performance and Recycling of Process**

1. The appraisal facet of the formal planning process permits management to periodically or continually monitor attainment of objectives and goals through implementation of the long-range and short-range plans.

2. The computer is being used by many corporations as a means for the continual or periodic reporting of significant variances between corporate short-range and long-range plans and the actual performance being generated by the numerous incumbents and organizational components throughout the corporation.

3. The corporation will utilize its appraisal system to help monitor external and internal environmental influences and especially those which provide the basis for the corporation's assumption base.

4. The appraisal system in many corporations permits a management by exception approach to managing the firm due to the inter-relationship between objectives, goals, long and short-range plans, and the particular design of the appraisal system.

5. The formal planning process is a dynamic and not a static concept of management; consequently, there is a requirement for
designing the planning process to permit relative ease for recycling. In some instances management will recycle the process on the basis of a set time schedule, such as every six months. Additionally, under some circumstances the planning process will be recycled whenever there is a major change inside or outside the corporation which may affect the attainment of objectives and goals.

State of the Art of Planning--Present and Future

The research which related to the general concept of a formal planning process for the corporation produced the general observation that various authorities (1, 2, 4, 8, 9, 15) are involved with helping corporations introduce a formal planning process, similar in design to the planning process depicted in Figure 4. Many of the consulting authorities (1, 4, 8, 9, 15) in planning have spent the past several years helping to develop the state of the art of a formal planning process. Within the past five to seven years these individuals have been involved in the application and experimentation with the planning process as corporate management recognizes the requirement for thinking and acting in strategic terms.

The growing magnitude of available information tends to indicate that many organizations are more aware of the need for formalized planning, and this awareness has resulted in part from a limited number of pioneers who have advocated the need for a more formalized
approach to planning. Some managers are participating in seminars on planning and reading various publications on this subject. In addition there is the exchange of planning information between management personnel of various organizations.

As more individuals and organizations develop a greater insight into the formal planning process, it seems likely that the state of the art of planning will continue to improve and become more effective. Some of the planning authorities (1, 8, 9, 15) recognize that a gap exists between the general planning practices of management and the more sophisticated formal planning process. This observation was also evident in evaluating the results of the Survey of Formal Planning Process Practices (17) since some large corporations commented that top management is just beginning to recognize a need for instituting a formalized planning process.

During personal consultation with some of the authorities (1, 8, 9, 10, 15) it was indicated that the state of the art of planning is in the embryonic stage, and it is foreseen that in the years ahead there will be many evolutionary changes in the planning process of management. In addition to corporations, various non-profit organizations and governmental units are becoming involved in instituting more formalized approaches to planning. These organizations will also be making contributions to the state of the art of planning.
Based upon a growing commitment of resources to the improvement of formalized planning, there is reason to believe that progress will be forthcoming. The Survey of Formal Planning Process Practices (17) shows such a commitment trend.

Conclusions

Conclusions in Relation to the Hypotheses

The primary purpose of this investigation was to determine whether or not a formal planning process exists within a representative group of corporations throughout the United States. There is summarized below relevant comments relating to each of the previous noted hypotheses, and in the interest of brevity the comments and thoughts will be structured to present the key considerations. In addition to the five hypotheses the conclusions include comments upon the following subjects which were discussed in previous chapters: formalized planning processes' compatibility with management by objectives and the fact that the planning process necessitates a revision of policies and procedures.

Hypothesis 1. -- A substantial and growing number of corporations within the United States are involved in implementation of more formalized and sophisticated planning concepts.

The investigation revealed that there is a growing awareness of the need for more effective formalized corporate planning, and
according to the research the following information tends to support this trend toward a formalized approach to planning:

1. From 1965 to 1968, a total of 25 corporations have participated in the Planning Program of the American Management Association Learning Center (9) at Hamilton, New York. One of the main objectives of this program is to help corporations design and implement the formal planning process.

2. Under direction of Edward J. Green (8), Planning Dynamics Incorporated has been retained as a consultant for approximately 50 corporations during the past three years, with the intent of assisting these firms in the design of a formalized planning process. Additionally, Green (8) noted that other corporations are discussing with his company the design and implementation of a formal planning process.

3. The Stanford Research Institute has been conducting planning seminars for corporate management in various locations throughout the world; and, according to Stewart (15), there is a very decided trend toward a more formalized approach to corporate planning. The Stanford Research Institute personnel have functioned as consultants for United States and foreign corporations, with many of the consulting assignments centering on the design and introduction of a planning process.
4. The corporations participating in the Survey of Formal Planning Process Practices (17) conveyed comments which tend to indicate that various responding firms have or are planning to upgrade the planning function. Of particular note are the responses to the question: "Do you see a trend toward the development of a formalized and dynamic (continuously revised) approach for short and long run planning?"(17). The answers, as recorded in this chapter, tend to indicate that the planning function is a subject of concern to corporate management, and action is being taken to improve the planning process.

5. A further indication of the greater emphasis upon planning is the growing participation of corporate management in the planning conferences, seminars, and workshops presented by the American Management Association (9). These educational type conferences are being presented throughout the United States, and in the past few years the enrollment has shown a remarkable increase.

6. A recent survey conducted by the National Industrial Conference Board (16) points out that the respondents' commitment to long-term planning has been growing.
Hypothesis 2. --The formalized planning concepts may vary from one corporation to another, but there is a common sequential pattern prevalent in each concept.

The planning authorities have presented various flow diagrams which represent the sequential pattern of evolvement when implementing the formal planning process. An analysis of these diagrams, plus the written material presented on each facet of the planning process and the respondents' comments to the Survey of Formal Planning Process Practices (17) reveals that there is a common sequential pattern inherent in the formal planning process. This pattern consists of the following general sequence in formal planning:

1. Environmental analysis
2. Assessment of strengths and limitations
3. Preparation of an assumption base
4. Determination of objectives
5. Determination of goals
6. Establishment of criteria
7. Formulation of strategies
8. Preparation of the long-range plan
9. Preparation of the short-range plan
10. Appraisal of results and the recycling of the planning process
The following sources have helped in the delineation of the common sequential pattern which is attendant to the formal planning process:

1. Stewart (15) of the Stanford Research Institute has commented that the various research investigations conducted by this organization denote that the formal planning practices of corporations tend to follow a basic sequential pattern. The noted pattern has been shown in Chapter II.

2. The respondents to the Survey of Formal Planning Process Practices (17) indicate that a sequential formal planning process exists. The various answers to this comprehensive survey indicate that an integrative relationship exists between the various facets of the formal planning process; likewise, the various facets are implemented on a sequential basis.

3. The planning authority Steiner (13) has observed a sequential approach to planning based on the formal planning process as shown in Figure 3. It is recognized that the application of the formal planning process may vary based upon such circumstances as the philosophy of management, international vs. domestic oriented business, consumer vs. industrial orientation, etc. But, according to Steiner (13), a broad sequential pattern is followed by most firms when instituting a formal planning process.
4. Planning Dynamics Incorporated has designed a formalized pattern for planning which has been conveyed to interested organizations through their planning and control manual. Green (8) recognizes that variations of this conceptual design is required based on conditions contiguous to a given organization, but it is also recognized that a basic sequential pattern is necessary in the interest of effective planning.

5. The American Management Association (9), when presenting the planning course to a group of corporate officers, utilizes an approach to formalized planning which includes a flow chart that depicts the sequential relationship between major facets of the formal planning process.

6. In reviewing the works of planning authorities, of note are these authors who suggest a sequential approach to formalized planning:

   H. Igor Ansoff, Corporate Strategy (1)
   Melville C. Branch, The Corporate Planning Process (4)
   David W. Ewing, The Practice of Planning (7)
   Brian W. Scott, Long-Range Planning in American Industry (12)
   Charles E. St. Thomas, Practical Business Planning (11)

   The formalized planning process as shown in Figure 4 conveys the common or general pattern of facets of the formal planning process
which appears to be evolving among various corporations within the United States.

Hypothesis 3. — The corporation's chief executive possesses an accountability for providing a general framework of management, and this can be greatly facilitated through the implementation of a formalized planning process.

Most of the planning authorities recognized the vital role of the chief executive when instituting a more formal planning process. Some experts felt that the prime accountability of the chief executive relates to the establishment of a formal planning process framework of management which will allow for the decentralization and delegation of various planning activities. Since the chief executive possesses considerable authority in determining how corporate human resources will be committed, it is natural to presume that a formalized planning process will be most effective in a corporation whose chief executive helps design, adopt, and whole heartedly implements the planning process.

The role of the chief executive in relation to the formal planning process was discussed by the following planning authorities:

1. Stewart (15) has utilized the services of behavioral scientists to help in identifying the entrepreneurial characteristics which relate to the successful introduction of formalized
corporate planning. Such a study recognizes the strategic role of the corporate chief executive who occupies a key position when designing and implementing a more formalized approach to planning.

2. Green (8), when discussing planning with chief executives, desires to convey the important role of the top executive in relation to the formal planning process. He noted that the chief executive should actively participate and endorse the initial and continuing planning efforts of the corporation.

3. Steiner says, "The chief executive is responsible for corporate planning. The most effective planning is done when he strongly supports the planning program and exerts his influence at appropriate points in the process" (14, p. 313).

Hypothesis 4. -- There are indications that the evolving formalized planning process permits management the opportunity to become more oriented to the future survival and growth of the firm.

The design of the formal planning process causes management to ask questions and seek information in regard to the external and internal environmental influences which tend to have a noteworthy impact on the destiny of a corporation. Since the planning process is designed to function as a dynamic system, a means is developed for continually and periodically sensing the important considerations which, in turn,
may lead to a change in the assumption base. The integral relationship between the various facets of the formal planning process leads to a chain of events whenever there is a requirement to recycle any or all facets of the planning process.

Such a dynamic planning system helps management to first identify survival and growth considerations; and, secondly, it provides the means for continually monitoring and acting or reacting to such survival or growth influences.

Several of the planning authorities (1, 2, 3, 4, 7, 8, 9, 13, 15) have proposed a philosophy of management which centers on the considerations relating to the survival and growth of a corporation. This philosophy of management is inherent in the formalized planning process, as proposed by the above noted authorities. The focus on survival and growth is accomplished, in part, through effective environmental analysis, assessment of strengths and limitations, the delineation of forward looking objectives and goals, and most importantly, the preparation of a long-range plan which outlines the means for accomplishing the corporate objectives and goals.

Hypothesis 5. -- The corporation's long-range and short-range plans are being integrated on a more effective basis through utilization of the formalized planning process.
The formal planning process permits the corporation to prepare a highly realistic long-range plan which usually spans a period of five years. The basis for such a long-range plan is the effective implementation of each formal planning process facet which is to be accomplished before the preparation of the long-range plan. This preparation commences with the environmental analysis and is concluded with the determination of corporate strategy. Since the long-range plan is formulated on such a firm foundation as provided by the formal planning process, it is logical to assume that the short-range or annual operating plan will be more completely integrated with the long-range plan.

In some corporations the first year of the five-year long-range plan provides the framework which is used in formulating the short-range plan, and it is logical that there be an integral relationship between the two types of plans with the short-range plan targeting specific accomplishments as related to time.

The strongest evidence of the integrated relationship between a formalized planning process and the long-range and short-range plan was reflected by the respondents to the Survey of Formal Planning Process Practices (17). These firms noted that there is a developing interrelationship between the long-range and short-range annual budgeting functions of the firm with the long-range plan forming the perimeter for the short-range plans.
Compatibility with Management by Objectives

The formalized planning process is compatible with and permits a more effective implementation of management by exception, management by objectives, and participative management concepts.

The formal planning process appears to offer an effective means for bringing into the corporation a decentralized concept of management which is also amenable to management by objectives. This philosophy of management permits incumbent involvement within the framework of the formal planning process which provides a basis for the founding of hierarchial type objectives and goals. The information banks of the planning process help to establish more valid and reliable objectives and goals for various incumbents and organizational components which are extended the authority to commit resources to the attainment of decentralized objectives and goals.

Additionally, the formal planning process, assisted by the establishment of an appraisal system, is vital to a program of management by objectives and allows for the decentralized participative involvement of corporate personnel.

The following sources tend to substantiate the desired interrelationship between the formal planning process and a management by objectives program:

1. Green (8), during a discussion with Peter F. Drucker regarding the formal planning process movement in the United
States, developed the thought that the formal planning process provides an important foundation for implementing a management by objectives or management by results program. According to Green (8), various client corporations are interested in instituting both a formal planning process and a management by objectives program.

2. The accountability approach to management is another designation which can be used when describing management by objectives, and according to Rock (10), there is a growing kinship between the concept of accountability management and formalized planning. As Managing Partner of a consulting firm which has helped pioneer the management by objectives movement, Rock (10) foresees a requirement for the Edward N. Hay and Associates consulting firm to diversify by providing consultation in the area of formalized planning. Corporate clients are interested in instituting accountability management or management by objectives and a more formalized approach to corporate planning.

Planning Process Necessitates Revision
Of Policies and Procedures

The various management programs, policies, procedures, and practices of a corporation are being revamped to permit a more integral relationship with the formal planning process.
The corporations responding to the survey and authorities involved with formal planning have met a requirement to restructure many of the traditional management aids. As previously noted, there is a requirement to develop a different type of position description, identification and listing of incumbent accountabilities, guide-profile job evaluation plan, an employee compensation plan tied to objectives and goals, a program for individual planning, the restructuring of performance appraisal plans, and also the revamping of the chart of account and the redesign of accounting and financial schedules or reports. The various electronic data processing systems have been designed to provide greater compatibility with the formal planning process concept of management.

Comments by many of the responding corporations to the survey questionnaire indicate continued experimentation with various management aids to permit the further support of a formalized concept of planning.

An example of the requirement for a restructuring of the various management policies, programs, and practices was described in Chapter VIII, especially in relation to the Continental-Emasco Company (6). This firm, utilizing various management consultants and the talents of company management, revamped certain management policies, procedures, and practices to provide the necessary compatibility with the formal planning process.
This investigation into corporate formal planning practices, in general, reveals that corporations are utilizing an integrated planning process which usually includes the facets to planning shown in Figure 4. There was no evidence that all corporations have become involved with the implementation of a formalized planning process, but there are a sufficient number of corporations which have instituted a rather sophisticated formal planning system to arrive at the conclusion that planning is evolving into a more formalized system.

**Responding Corporations Comment On Formalized Planning Process Trends**

Dealing with the hypotheses which relate to the formal planning process concept of management, the Survey of Formal Planning Process Practices (17) presented an opportunity to secure comments on the state of the art for corporate planning. The participating corporations were asked to answer this question: "Do you see a trend toward the development of a formalized and dynamic (continuously revised) approach for short and long run planning?" (17).

The responding corporations expressed the following thoughts in regard to this critical question (17):

Yes. [16 corporations responded in this manner]

We are there now.

Yes. More importantly the same manager who works on short-range plan must be cognizant of long-range objectives
and strategies. Vice versa true. Short-range keeps long-range from being "blue sky stuff" in many top manager's eyes.

Certainly prior to 1975 this will be on line.

We would like improved objectives and follow up (related more closely to performance measurement and salary). At this stage we will not formally revise more often than annually.

We believe we are using a dynamic short and long range planning system now. We have formal planning, but any planning must have a high degree of flexibility.

I think the process is improving. Management in total is more involved and responsive. Management by objectives has real potential.

Yes, this is one of my department's main missions.

Yes, but it is painful and not instantly imminent.

Formalized planning has been in effect since 1961 with emphasis on annual planning cycle (primary benchmark is annual off-site meeting where long-range plans are presented to Board of Directors). Project plans are developed and serve as the performance standard for period.

Yes, well managed and successful companies are developing more formalized and dynamic approaches to short and long-range planning. Each company requires a tailored plan.

Yes, but 3 to 5 years away.

Yes, revisions as necessary.

Yes, but grandiose or theoretical planning not an integral part of every day operation--is clearly of little interest or effectiveness.

No real ground swell, but firms using planning on a reasonably formal basis seem enthusiastic based on results both tangible and intangible.

Yes, the trend toward continuous planning is evident. The first emphasis, however, has to be the improvement of
planning content to focus more exactly on decision demands and timely action programs. Improvements in planning methodology are important and are being developed.

No more than what we have been employing for the past 3 to 4 years.

A few years ago we saw a trend toward developing broad corporate planning departments. Now we see more development of segmenting the various facets of planning into the functional areas of the company where the planning can have the greatest impact. At the top level only a very small staff assisting the president.

We are not ready for this.

Yes, but this is extremely slow for a company this large and one being in the commodity type business.

Yes, we are and have been developing and refining our planning in those areas—for 10 or more years.

Yes, we work continuously throughout the year to keep planning assumptions up-dated and usable for decisions on allocation of resources. There is considerable skill developing throughout the company in planning.

The availability of computer programs and build-up of corporate data banks will definitely move planning toward a more formalized and dynamic condition. Storing up input data and assumptions and using dynamic models, a follow-up on plans and timely revisions seem within grasp.

Yes, no doubt about it—any major company that doesn’t do this will be left behind.

These responses reflect the interest existing within many corporations for the further improvement in formalized planning, and some of the comments indicate that some firms have designed and implemented rather sophisticated formal planning systems. Based on such a high interest level, management, during the immediate years ahead,
will possibly experience many break-throughs as there is the continued attempt to refine the formal planning process concept of management.

Areas for Further Research

During the course of this investigation the exposure to formalized planning indicated that there are many areas requiring research and depth analysis. Research in the following areas should provide valuable assistance to all facets of society which might benefit from more effective planning practices. The areas for further research are

1. Centralized vs. the decentralized approach to formal planning.

2. Utilization of the computer to further support a dynamic formal planning process.

3. Techniques for developing and monitoring an assumption base tailored to a given corporation.

4. The establishment and implementation of a more effective objective and goal structure as established for incumbents of varying organizational levels throughout the corporation.

5. Role of the central planning staff in relation to the formal planning process.

6. A depth analysis of the relationship between the formal planning process concept and the management by objective concept.
7. The behavioral science considerations attendant to the formal planning process concept of management.

8. Interrelationship between management policies, practices, programs, and the formal planning process.
CHAPTER BIBLIOGRAPHY


SURVEY OF FORMAL PLANNING PROCESS PRACTICES

Summary of Responses

Total number of corporations receiving questionnaire .................. 205
Total number of corporations answering questionnaire .................. 52
Total number of corporations responding but not returning questionnaire .......................... 14
Total number of responding corporations .......................... 66
Per cent of total number of corporations responding to survey .......................... 32

Title of Corporate Officers Completing Questionnaire

<table>
<thead>
<tr>
<th>Title</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>President</td>
<td>2</td>
</tr>
<tr>
<td>Executive Vice President</td>
<td>3</td>
</tr>
<tr>
<td>Senior Vice President</td>
<td>1</td>
</tr>
<tr>
<td>Vice President-Treasurer-Director</td>
<td>1</td>
</tr>
<tr>
<td>Vice President, Finance</td>
<td>3</td>
</tr>
<tr>
<td>Vice President, Corporate Planning</td>
<td>8</td>
</tr>
<tr>
<td>Assistant to President</td>
<td>2</td>
</tr>
<tr>
<td>Director of Corporate Planning</td>
<td>23</td>
</tr>
<tr>
<td>Director, Economics</td>
<td>1</td>
</tr>
<tr>
<td>Manager Management Controls</td>
<td>1</td>
</tr>
<tr>
<td>Assistant Director, Corporate Planning</td>
<td>4</td>
</tr>
<tr>
<td>Corporate Planner</td>
<td>3</td>
</tr>
</tbody>
</table>

Size of Corporations Completing Questionnaire

(By Sales Volume)

<table>
<thead>
<tr>
<th>Sales</th>
<th>Number of Corporations</th>
</tr>
</thead>
<tbody>
<tr>
<td>$3 billion and larger</td>
<td>7</td>
</tr>
<tr>
<td>1 - 3 billion</td>
<td>11</td>
</tr>
<tr>
<td>800 - 1,000 million</td>
<td>5</td>
</tr>
<tr>
<td>600 - 800 million</td>
<td>8</td>
</tr>
<tr>
<td>400 - 600 million</td>
<td>6</td>
</tr>
<tr>
<td>200 - 400 million</td>
<td>9</td>
</tr>
<tr>
<td>100 - 200 million</td>
<td>6</td>
</tr>
</tbody>
</table>
### Array by Industry of Corporations Completing Questionnaire

<table>
<thead>
<tr>
<th>Industry</th>
<th>Number of Corporations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Machinery</td>
<td>7</td>
</tr>
<tr>
<td>Electronics and Electrical</td>
<td>6</td>
</tr>
<tr>
<td>Foods</td>
<td>6</td>
</tr>
<tr>
<td>Transportation</td>
<td>5</td>
</tr>
<tr>
<td>Consumer - Non Food</td>
<td>5</td>
</tr>
<tr>
<td>Forestry and Paper</td>
<td>4</td>
</tr>
<tr>
<td>Petroleum and Coal</td>
<td>3</td>
</tr>
<tr>
<td>Insurance</td>
<td>3</td>
</tr>
<tr>
<td>Recreation</td>
<td>2</td>
</tr>
<tr>
<td>Steel</td>
<td>2</td>
</tr>
<tr>
<td>Banking</td>
<td>1</td>
</tr>
<tr>
<td>Packaging</td>
<td>1</td>
</tr>
<tr>
<td>Material Handling</td>
<td>1</td>
</tr>
<tr>
<td>Utilities</td>
<td>1</td>
</tr>
<tr>
<td>Rubber Goods</td>
<td>1</td>
</tr>
<tr>
<td>Drugs</td>
<td>1</td>
</tr>
<tr>
<td>Paints and Glass</td>
<td>1</td>
</tr>
<tr>
<td>Chemicals</td>
<td>1</td>
</tr>
<tr>
<td>Consumer - Appliances</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>52</strong></td>
</tr>
</tbody>
</table>
### Corporations Who Received the Formal Planning Process Questionnaire

<table>
<thead>
<tr>
<th>Company</th>
<th>Headquarters</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addressograph Multigraph Corp.</td>
<td>Cleveland, Ohio</td>
</tr>
<tr>
<td>Aluminum Company of America</td>
<td>Pittsburgh, Pennsylvania</td>
</tr>
<tr>
<td>American Airlines</td>
<td>New York, New York</td>
</tr>
<tr>
<td>American Can Company</td>
<td>New York, New York</td>
</tr>
<tr>
<td>American Machines &amp; Foundary Co.</td>
<td>New York, New York</td>
</tr>
<tr>
<td>American Standard Incorporated</td>
<td>New York, New York</td>
</tr>
<tr>
<td>#American Telephone &amp; Telegraph Co.</td>
<td>New York, New York</td>
</tr>
<tr>
<td>Armco Steel Corporation</td>
<td>Middleton, Ohio</td>
</tr>
<tr>
<td>Armstrong Cork Company</td>
<td>Lancaster, Pennsylvania</td>
</tr>
<tr>
<td>&quot;Automatic&quot; Sprinkler Corporation</td>
<td>Cleveland, Ohio</td>
</tr>
<tr>
<td>Avon Products Incorporated</td>
<td>New York, New York</td>
</tr>
<tr>
<td>Babcock &amp; Wilcox Company</td>
<td>New York, New York</td>
</tr>
<tr>
<td>Bangor Punta Corporation</td>
<td>New York, New York</td>
</tr>
<tr>
<td>*Bank of America</td>
<td>San Francisco, California</td>
</tr>
<tr>
<td>Bell &amp; Howell Company</td>
<td>Chicago, Illinois</td>
</tr>
<tr>
<td>*Bemis Company</td>
<td>Minneapolis, Minnesota</td>
</tr>
<tr>
<td>Black &amp; Decker Company</td>
<td>Towson, Maryland</td>
</tr>
<tr>
<td>Blaw-Knox</td>
<td>Cleveland, Ohio</td>
</tr>
<tr>
<td>*Boeing Company</td>
<td>Seattle, Washington</td>
</tr>
<tr>
<td>Boise Cascade Corporation</td>
<td>Boise, Idaho</td>
</tr>
<tr>
<td>Borden, Incorporated</td>
<td>New York, New York</td>
</tr>
<tr>
<td>Borg-Warner Corporation</td>
<td>Chicago, Illinois</td>
</tr>
<tr>
<td>*Brunswick Corporation</td>
<td>Chicago, Illinois</td>
</tr>
<tr>
<td>Budd Company</td>
<td>Chicago, Illinois</td>
</tr>
<tr>
<td>Burroughs Corporation</td>
<td>Philadelphia, Pennsylvania</td>
</tr>
<tr>
<td>*Cabot Corporation</td>
<td>Detroit, Michigan</td>
</tr>
<tr>
<td>Calumet &amp; Hecla</td>
<td>Boston, Massachusetts</td>
</tr>
<tr>
<td>Campbell Soup Company</td>
<td>Des Plaines, Illinois</td>
</tr>
<tr>
<td>#Carnation Company</td>
<td>Camden, New Jersey</td>
</tr>
<tr>
<td>Carrier Corporation</td>
<td>Los Angeles, California</td>
</tr>
<tr>
<td>Caterpillar Tractor Company</td>
<td>New York, New York</td>
</tr>
<tr>
<td>Central Soya Company</td>
<td>Peoria, Illinois</td>
</tr>
<tr>
<td>Certain-teed Products Corporation</td>
<td>Fort Wayne, Indiana</td>
</tr>
<tr>
<td>Chase Manhattan Bank</td>
<td>Ardmore, Pennsylvania</td>
</tr>
<tr>
<td>Chicago Pneumatic Tool Company</td>
<td>New York, New York</td>
</tr>
<tr>
<td>Chrysler Corporation</td>
<td>New York, New York</td>
</tr>
<tr>
<td>*Cincinnati Milling Machine Company</td>
<td>Detroit, Michigan</td>
</tr>
<tr>
<td>*Clark Equipment Company</td>
<td>Cincinnati, Ohio</td>
</tr>
<tr>
<td>*Clevite Corporation</td>
<td>Buchanan, Michigan</td>
</tr>
<tr>
<td></td>
<td>Cleveland, Ohio</td>
</tr>
</tbody>
</table>
Coastal States Gas Producing Company  
Coca Cola Company  
Colt Industries Incorporated  
*Combustion Engineering Corporation  
Commonwealth Edison Company  
*Consolidated Edison Company  
Container Corporation of America  
Continental Banking Company  
Continental Can Company  
Continental Oil Company  
*Control Data Corporation  
*Cooper Industries, Incorporated  
Corn Products Company  
Corning Glass Works  
Crane Company  
Crown Cork & Seal, Incorporated  
*Crown Zellerbach Corporation  
*Cummins Engine Company  
Curtiss-Wright Corporation  
Cutler-Hammer, Incorporated  
Deere & Company  
Dow Chemical Company  
*Dresser Industries, Incorporated  
#DuPont de Nemours & Company  
Eastman Kodak Company  
Emerson Electric Company  
*Equitable Life Assurance Society of the United States  
Evans Products Company  
FMC Corporation  
Fairchild Camera & Instrument Corp.  
Federal Pacific Electric Company  
Fibreboard Corporation  
Fieldcrest Mills, Incorporated  
Firestone Tire and Rubber Company  
First National City Bank  
#Ford Motor Company  
Fruehauf Corporation  
Gardner-Denver Company  
General Aniline & Film Corporation  
General Electric Company  
*General Foods Corporation  
General Host Corporation  
*General Mills, Incorporated  
General Motors Company  
Corpus Christi, Texas  
New York, New York  
New York, New York  
Cleveland, Ohio  
Chicago, Illinois  
New York, New York  
Chicago, Illinois  
New York, New York  
New York, New York  
Minneapolis, Minnesota  
Houston, Texas  
Englewood Cliffs, N. J.  
New York, New York  
New York, New York  
Philadelphia, Pennsylvania  
San Francisco, California  
Columbus, Indiana  
Woodridge, New Jersey  
Milwaukee, Wisconsin  
Moline, Illinois  
Midland, Michigan  
Dallas, Texas  
Wilmington, Delaware  
Rochester, New York  
St. Louis, Missouri  
New York, New York  
Portland, Oregon  
San Jose, California  
Lyossett, New York  
Newark, New Jersey  
San Francisco, California  
Spray, N. Carolina  
Akron, Ohio  
New York, New York  
Dearborn, Michigan  
Detroit, Michigan  
Quincy, Illinois  
New York, New York  
New York, New York  
White Plains, New York  
New York, New York  
Minneapolis, Minnesota  
Detroit, Michigan
General Telephone & Electric Corporation
Genesco Incorporated
Georgia-Pacific Corporation
*Gillette Company
*Goodyear Tire & Rubber Company
Grace (W. R.) & Company
Great Atlantic & Pacific Tea Company
*Green Giant Company
Grolier, Incorporated
Gulf & Western Industries, Inc.
*Gulf Oil Corporation
*Hamermill Paper Company
Harris-Intertype Corporation
Hart, Schaffner & Marx
Hewlett-Packard Company
Hoerner-Waldorf Corporation
Honeywell, Incorporated
Hoover Company
*Indian Head Corporation
Ingersoll-Rand Company
Inland Container Corporation
*International Business Machines Corp.
International Harvester Company
International Minerals & Chemical Corporation
*International Paper Company
International Silver Company
International Telephone & Telegraph Corporation
*I. T. E. Circuit Breaker Co.
*Itek Corporation
J. C. Penney Company, Inc.
*John Hancock Mutual Life Insurance Co.
Johns Manville Corporation
Johnson & Johnson
Joy Manufacturing Company
Kaiser Industries Corporation
Kelsey-Hayes Company
Kerr-McGee Corporation
#Kimberly-Clark Corporation
#Koehring Company
*Koppers Company
Kroger Company
#Lever Brothers
Libby-McNeil & Libby

New York, New York
Nashville, Tennessee
New York, New York
Boston, Massachusetts
Akron, Ohio
New York, New York
New York, New York
LeSueur, Minnesota
New York, New York
New York, New York
Pittsburgh, Pennsylvania
Erie, Pennsylvania
Cleveland, Ohio
Chicago, Illinois
Palo Alto, California
St. Paul, Minnesota
Minneapolis, Minnesota
North Canton, Ohio
New York, New York
New York, New York
Indianapolis, Indiana
New York, New York
Chicago, Illinois

Skokie, Illinois
New York, New York
Meridan, Connecticut

New York, New York
Cincinnati, Ohio
Lexington, Massachusetts
New York, New York
Boston, Massachusetts
New York, New York
New Brunswick, N. J.
Pittsburgh, Pennsylvania
Oakland, California
Romulus, Michigan
Oklahoma City, Oklahoma
Neenah, Wisconsin
Milwaukee, Wisconsin
Pittsburgh, Pennsylvania
Cincinnati, Ohio
Rotterdam, The Netherlands
Chicago, Illinois
*Ling-Temco-Vought, Incorporated
*Lockheed Aircraft Corporation
Manufacturers Hanover Trust
Maytag Company
McGraw-Edison Company
McGraw-Hill, Incorporated
*Mead Corporation
*Merck & Company
*Metropolitan Life Insurance Co.
*Minnesota Mining & Manufacturing Co.
#Mobil Oil Corporation
Motorola Incorporated
*National Biscuit Company
*National Cash Register Company
#New York Life Insurance Company
Otis Elevator Company
*Owens-Illinois, Incorporated
Pacific Gas & Electric Company
Pan American World Airways, Inc.
Penn Central Company
Pennsalt Chemicals Corporation
*PepsiCo, Incorporated
Pet Incorporated
Phillips-Van Heusen Corporation
Pillsbury Company
Pitney-Bowes, Incorporated
Pittsburgh Plate Glass
*Polaroid Corporation
Proctor & Gamble Company
#Prudential Insurance Company of America
Radio Corporation of America
*Ralston Purina Company
Raytheon Company
Rex Chainbert, Incorporated
Rexall Drug & Chemical Company
*Reynolds Metals Company
Reynolds (R. J.) Tobacco Company
Rheem Manufacturing Company
Rockwell Manufacturing Company
Safeway Stores
#Scott Paper Company
#Sears, Roebuck
Sherwin-Williams Company
Dallas, Texas
Burbank, California
New York, New York
Newton, Ohio
Elgin, Illinois
New York, New York
Dayton, Ohio
Rahway, New Jersey
New York, New York
St. Paul, Minnesota
New York, New York
New York, New York
Franklin Park, Illinois
New York, New York
Dayton, Ohio
New York, New York
New York, New York
Toledo, Ohio
San Francisco, California
New York, New York
Philadelphia, Pennsylvania
Philadelphia, Pennsylvania
New York, New York
St. Louis, Missouri
New York, New York
Minneapolis, Minnesota
Stanford, Connecticut
Pittsburgh, Pennsylvania
Cambridge, Massachusetts
Cincinnati, Ohio
Newark, New Jersey
New York, New York
St. Louis, Missouri
Lexington, Massachusetts
West Milwaukee, Wisc.
Los Angeles, California
Richmond, Virginia
Winston-Salem, N.C.
New York, New York
Pittsburgh, Pennsylvania
Oakland, California
Philadelphia, Pennsylvania
Chicago, Illinois
Cleveland, Ohio
Singer Company
Smith, (A. O.) Corporation
Southern California Edison Company
Southern Pacific Company
Sperry Rand Corporation
Staley Manufacturing
*Standard Oil Company
Stewart-Warner Corporation
*Studebaker-Worthington, Inc.
Square D Company
TRW, Incorporated
#Teledyne Incorporated
Tenneco Incorporated
#Texaco, Incorporated
*Texas Instruments, Incorporated
Textron Incorporated
Time Incorporated
Timken Roller Bearing Company
*Trans World Airways, Inc.
U. S. Industries, Incorporated
U. S. Plywood-Champion Papers, Inc.
United Air Lines, Incorporated
United States Steel Corporation
*Union Carbide Corporation
Union Tank Car Company
Victor Comptometer Corporation
Warner & Swasey Company
Western Electric
*Westinghouse Air Brake Corporation
*Westinghouse Electric Corporation
Weyerhaeuser Company
*Whirlpool Corporation
Wyandotte Chemicals Corporation
Xerox Corporation
*Youngstown Sheet and Tube Company

New York, New York
Milwaukee, Wisconsin
Los Angeles, California
San Francisco, California
New York, New York
Decatur, Illinois
New York, New York
Chicago, Illinois
New York, New York
Park Ridge, Illinois
Cleveland, Ohio
Los Angeles, California
Houston, Texas
New York, New York
Dallas, Texas
Providence, R. I.
New York, New York
Canton, Ohio
New York, New York
New York, New York
New York, New York
Chicago, Illinois
New York, New York
New York, New York
Chicago, Illinois
Chicago, Illinois
Cleveland, Ohio
New York, New York
New York, New York
New York, New York
Tacoma, Washington
Benton Harbor, Michigan
Wyandotte, Michigan
Rochester, New York
Youngstown, Ohio

*Corporations answering questionnaire
#Corporations responding but not returning questionnaire
Companies are moving beyond the preparation of the traditional 5-year type plan and are now engaged in the design and implementation of a dynamic formalized planning process. This research questionnaire should assist in determining the current state-of-the-art of the planning process. Preliminary research indicates a greater degree of integral relationship between such facets of management as environmental analysis, assessment of the firm's resources, formulation of objectives/goals, projection of assumptions, criteria, and strategies, the interlinking of long-range planning with short-range planning, and the use of a control system which permits dynamic re-cycling.

Please answer the following questions by circling (yes) or (no) or writing in. Use additional sheets as required. Whenever it will be helpful, include company documents to supplement your response.

I. Environmental Analysis

1. Does your company prepare broad industry studies to determine economic, technological, social, and political trends and patterns (e.g. plastics, pollution equipment, recreation)?
   
   Yes  No

If yes, what were some of the industries studied?

2. What organization component(s) prepares the industry studies?

3. Check below how the industry studies were utilized:

   - [ ] Formulation of Objectives/Goals
   - [ ] Product Planning—Lines, Mix, etc.
   - [ ] Process Planning—Technology, Methods, Facilities, etc.
   - [ ] Acquisition/Merger
   - [ ] Divestiture
   - [ ] Diversification
   - [ ] Reallocating Investment
   - [ ] Assessment of Company's Performance
   - [ ] Research and Development
   - [ ] Other (Specify)
4. Check below the sources of information utilized in preparing environmental studies:

- SIC Data
- Company Directed Market Research Studies
- Services of Consultants
- Trade Associations
- Company's Data Bank
- University Facilities
- Governmental Studies
- Other Firms
- Professional Associations
- Others (Specify)

5. To what degree has the program of environmental analysis helped in developing more reliable and valid objectives and goals? (Check one)

- Extremely Beneficial
- Moderate
- Limited

6. What factors seem to be of key importance in determining when and how there should be an assessment of the environmental influences upon the firm?

7. (a) Have you formulated a monitoring system which permits the continuous appraisal of the economic, technological, social, and political influence upon the firm? Yes No

If yes, please describe.

(b) If such a monitoring system exists, under what conditions will it contribute to the reformulation of your short or long range plans?
II. Assessment of Corporate Strengths and Limitations

1. Attendant to your long range planning process, what approaches and techniques do you employ in evaluating the firm's relative strengths and limitations? Please consider the following areas:

<table>
<thead>
<tr>
<th>Area</th>
<th>Appraisal Techniques</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>(a) Human Resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(b) Facilities</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(c) Financial Resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(d) Other</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. Check below if your assessment program encompasses the following:

- [ ] Extent of annual dollar volume and growth rate
- [ ] Degree of market saturation present
- [ ] Market penetration and historical and anticipated trends
- [ ] Dollar volume by product and major customers
- [ ] Technological patterns
- [ ] Quality and depth of company organization
- [ ] Demonstrated company profit margins and rate of return on investment
- [ ] Product design, quality, performance
- [ ] Product cost, price, production
- [ ] Marketing effectiveness
- [ ] Patent shelters or identification of uniqueness
III. Formulation of Objectives and Goals

1. Has the company, to an increasing extent, derived objectives from a careful analysis of future developments and potentials based on environmental analysis data and company strengths/limitations? Yes No

2. What contributions are made to the formulation of objectives/goals by:

Corporate staff:

Division personnel:

Individual incumbents:

3. Check below if objectives and goal setting encompasses the following:

_____ Hierarchy or descending scale of objectives/goals
_____ Standards of performance
_____ Quantitative and qualitative objectives/goals for individuals
_____ Linking of performance appraisal and the individual's objectives/goals
_____ Linking employee compensation plan to objectives/goals
_____ Basing management by results or management by exception on objectives/goals

IV. Preparation of Assumptions and Strategies

1. Do you formulate specific assumptions (quantitative and qualitative estimates of future developments which will have a substantial impact on your business) to provide a frame of reference for planning? Yes No
2. Note below if there are areas where you quantify/qualify assumptions periodically or continuously:

<table>
<thead>
<tr>
<th>Area</th>
<th>By Whom</th>
<th>How Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fiscal policy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monetary conditions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>General price patterns</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Foreign trade</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consumer spending</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Technological impact on product lines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Population trends</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Human resources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Money and capital markets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legislation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sociological pressures and Changes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Market conditions (trends/patterns)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Securities markets</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transportation/material costs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gross national product</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please note)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

3. Describe the approach you employ in the development of specific strategies, programs, and projects to capitalize on strengths, correct weaknesses, solve problems, seize opportunities and accomplish objectives (i.e., priorities, project scheduling, formulation of a course of action).

V. Interrelationship with Short Range Plans

1. In what ways have long range plans been used to provide guidance in the formulation and implementation of short range plans?
2. In what ways have either or both the long range plans and short range plans been used to provide guidance in the allocation of corporate resources?

VI. Control System for Monitoring Attainment of Plans

1. In addition to the usual facets of a control system (capital budgeting, expense budgeting, income statements, etc.), what additional techniques have been utilized in monitoring attainment of the firm's objectives?

Other Data

1. What role does the Chief Executive occupy in the company's planning program?

   ____ Coordinates and approves the design and institution of the planning process
   ____ Formulates mission and broad objectives for the firm
   ____ Provides guidance for the firm's Planning Division
   ____ Approves major commitments of the firm's resources
   ____ Monitors attainment of plans
   ____ Other (specify)

2. In what manner have you utilized the simulation technique in conjunction with the formalized planning process?
3. In what principal ways are computers used in the planning process?

4. Do you see a trend toward the development of a formalized and dynamic (continuously revised) approach for short and long run planning?

Thank you for completing this questionnaire.

Name and title of person completing the questionnaire:

Name: ________________________________  Title: ________________________________

Company: ________________________________

Street: ________________________________

City & State ________________________________  Zip Code ______________
Assessment—the art of appraising an organization's resources to delineate strengths and limitations. Appraisal may be conducted on a periodic or continuous basis with results being recorded in a report for use with the planning process (4, 5).

Assumption—a temporary hypothesis regarding a very important probable development that cannot be predicted with accuracy and over which you have no significant control. Since planning relates to the future, a plan requires some estimate of the future setting for which it is being designed. Objectives and goals emerge in part through utilization of an assumption base which includes quantitative and qualitative forecasts (4, 5).

Budget—since planning alone does not bring realization of plans, control over operations is necessary to achieve planned objectives. A budget is a management tool for controlling operations within the scope of a plan. It is expressed in financial terms and is based on the idea of predetermining the results and using comparison of actual performance with budgeted performance to measure progress against objectives. Budgets are associated with the short-range plan and usually relate to a one year time period (3, 4).

Control—process within formal planning system of monitoring activities (through feedback) to see that there is conformance to planned results. Is one of the activities of management which includes: planning, organizing, directing, coordinating, and controlling. Planning precedes control since planning permits the formulation of objectives, goals, strategies, and long-range plus short-range plans, with control being utilized to measure anticipated results as established through this framework. Control systems permit managers to monitor deviations which require corrective action (3, 4).

Constraints—an organization's environment imposes limitations in such broad categories as technological, economic, social, and political that, consequently, the organization in interest of survival and growth needs to delineate these constraints. The constraints or limitations are considered when formulating objectives, goals, and strategies (2, 4).
Criteria--a standard on which many corporate judgments or decisions are based. A corporation will formulate multiple criteria which are used in conjunction with the formal planning process with most criteria pertaining to the commitment of resources; e.g., not to dilute stock ownership, diversification through acquisitions (2, 4).

Data--facts and statistics which, when effectively processed on a manual and mechanical basis, form basic "input" for planning and decision-making (3, 4).

Developmental Plan--a long-range type plan which permits a corporation to make major changes in existing business and develop new business over a period of several years. Such a plan relates to the orderly and purposeful application of a corporation's creative resources to correct its faults as a business, to adjust itself to the changing environment, to create opportunities, and to close the planning gap (6).

Director of Corporate Planning--an individual occupying a key corporate position and possessing the ability to assist the chief executive and others by coordinating all salient aspects of the formal planning process. Helps design the "plan for planning," provides input data for planning, assists in coordinating the implementation of the various facets to the formal planning process, provides counseling and assists chief executive in implementing the developmental plan (3, 4, 5, 7).

Dynamic Planning Process--a continuous process which helps to assure the survival and growth of a corporation through implementing the following facets of the process: environmental analysis; assessment of strengths and limitations; formulation of assumptions, objectives, goals, and criteria; formulation of corporate strategies; preparation of the long-range and short-range plans; implementation of the plans through commitment of resources as specified by programs and projects; and the utilization of an appraisal/control system to help assure that the process functions in a dynamic way (3, 4, 5, 6).

Environment--a corporation operates within an extremely dynamic environment; consequently, the survival and growth of an enterprise is contingent upon the effective identification of economic, technological, social, and political influences. Environmental analysis information provides one of the underpinnings for the
establishment of corporate objectives and goals. Many environmental considerations are monitored on a continuous basis; whereas, others are assessed on a periodic basis. The assumption base is a key consideration in determining what environmental influences should be monitored (4, 5, 7).

Functional organizational components—the major organizational facets of the corporation which are based upon the homogenous grouping of similar functions. Typically, a functionally oriented, corporate organization structure includes marketing, finance, manufacturing, engineering, and personnel (4).

Goals—used in dynamic planning to designate the intermediate "targets" enroute to achieving an objective. Specific quantitative and qualitative statements used to direct the pursuit of corporate objectives. Performance goals provide means for measuring corporate and incumbent progress. Included may be statements concerning sales and profit levels, market penetration, etc. (3, 4, 5, 7).

Guidelines—background information or a guiding framework as provided by the formal planning process which makes available a common frame of reference for corporate personnel so that planning and decision-making can be coordinated and consolidated (4, 6).

Implementation—the action required through instituting programs and projects which provide for the commitment of resources to attain corporate objectives and goals (4, 5).

Limitations—a corporation faces certain limitation or constraints which are inherent in the corporate external or internal environment. Such constraints should be identified and recognized when formulating objectives, goals, and strategies (3, 4, 5).

Long-Range Plan—generally includes the determination, for at least five years ahead, of long-term corporate objectives, goals, strategies, and planned commitment of resources. The long-range plan is also called the "developmental plan" (3, 4, 5, 6, 7).

Management by objectives—a result oriented system of management based on a dynamic process of planning and measurement which concentrates on the more effective use of resources to achieve a hierarchy of objectives and goals (3, 4, 5).
Objectives—a term used to designate broad strategic objectives for the enterprise. Objectives are general and enduring statements of purpose that express management's fundamental intentions and provide guidelines for planning the future development of the corporation (3, 4, 5, 7).

Operational Plan—a short-range plan which relates to the annual corporate budget for guiding current business actions. This type plan centers on the activities by which the existing generation of goods and services are sold into existing markets. In combining a firm's various current programs and projects into actionable plans for functional components, the operational plan specified the total work to be accomplished during the planned period (6).

Planning—a major aspect of the management process; planning being the first function performed in the cycle of management. Planning is the process of determining in advance what actions must be taken to achieve results relating to the survival and growth of a firm. Planning is accomplished through established practices for collecting and presenting statistical data and other necessary inputs. Such practices provide for the review of plans, programs, and projects; and includes criteria for measuring progress. Planning is accomplished by instituting a corporate formal planning process (3, 4, 5, 7).

Standards of performance—specifications of the conditions that will exist when a job is done acceptably. Normally the standards provide for progress stage of development as related to a specific time period. A standard of performance is a goal for a specific task (3, 4, 5).

Strategy—a broad course of action selected from among alternatives as the optimum way to attain major objectives, with due regard for the environment, criteria, policies, and corporate resources (1, 3, 4, 5).

Synergy—when the end result of a combination of committed resources adds up to more than the sum of its parts. This is often referred to as the "2 + 2 = 5" effect (1, 4).
APPENDIX BIBLIOGRAPHY


Position Description

Vice President Corporate Planning

Accountability Objective

With primary planning and decision-making accountabilities for corporate survival and growth centering in the chief executive office and the executive management group, the incumbent and planning staff in conjunction with the executive planning committee, performs functions relating to establishment of a formalized planning process, formulation of corporate objectives and goals, analysis of environmental opportunities and existing capabilities, formulation of strategic courses of action, also performs functions relating to acquisitions, mergers, and diversification.

Basic Accountabilities

1. Coordinates in conjunction with executive management the development of a formalized planning process that is responsive to the managerial and control needs of the corporation.

2. Institutes a planning data bank with data being available on a manual or mechanical basis to assist the corporation in performance of the recurring and non-recurring planning functions.

3. Takes initiative to provide reliable decision-making information at time and place of decision.

4. "Programs" the planning process to meet specific requirements of the corporation.

5. Organizes and schedules the semi-annual business and budget reviews.

6. Monitors external changes in various business markets to identify new opportunities for the corporation.

7. Studies and evaluates in depth specific industrial or economic areas in which the corporation can most effectively participate relative to its capabilities.

8. Coordinates activities and prepares special studies centering on acquisitions, joint endeavors, disposals, manufacturing rights, and patents.
10. Analyzes the corporation's resources to determine present and future performance span.

11. Assists chief executive and executive management in coordinating and establishing appropriate time references for certain types of major commitments.

12. Serves as a resource for determining the acquisition, disposal, and movement of corporate assets.

13. Encourages the stimulation of ideas from management toward broadening corporate operations; extracting these ideas and following up on possibilities.

14. Assists with the design and preparation of the corporate budgeting and control systems.

15. Develop, recommend, and obtain approval of plans, procedures, and policies to be followed in implementing a diversification program.

16. Establishes adequate educational programs to support the formalized planning process concept.

17. Contributes to the development of over-all corporate policy, strategy, diversification and growth in a capacity as a member of top management and presidential advisor.
BUSINESS STUDY OUTLINE

THE INTERNATIONAL PETROLEUM INDUSTRY

CONTINENTAL-ENSCO COMPANY

I. PURPOSE AND SCOPE

A. Purpose:
1. To provide a long-range petroleum industry projection of trends and patterns over the period 1965-1985.
2. To serve as a data base for decision making and planning for the future.
3. To chart areas of concern and opportunity for the company.
4. To delineate long-range implications for the equipment expenditures and requirements.

B. Scope:
A comprehensive review and analysis of the international and domestic industry, encompassing
1. Analysis of projected energy demand and resource allocations 1965-1985:
   a. Global
   b. Regional
   c. Categorical Resources
2. Analysis of projected petroleum hydrocarbon demand, 1965-1985:
   a. Global
   b. Regional
   c. Oil and Gas
3. Review and Analysis of petroleum hydrocarbon resources and availability:
   a. Petroleum reserves
   b. Geographical location
   c. Past development
   d. Future development
   e. Alternate sources
   f. Relationship to market
4. Analysis of the structure of the international oil industry:
   a. Exploration
   b. Production
   c. Refining
   d. Transportation and marketing
5. Review of the economics of the international oil industry:
   a. Companies involved
   b. Financial factors
   c. Influence on future trends
6. Analysis of the relationship of political influences, market trends and prices, import policies, and nationalistic aspects on the future of the international petroleum industry
7. Consideration of the role, current status, and future status of the domestic United States segment of the international oil industry:
   a. Resources and reserves
   b. Production
   c. Refining, marketing and transportation
   d. General outlook
8. Summarization and general outlook for the international oil industry and the domestic United States segment.

II. GLOBAL ENERGY DEMAND:
   A. General Energy Demand and Consumption Patterns
      1. Global
      2. Regional
         a. Western Europe
         b. North American Continent
         c. Middle East
         d. South America
         e. Africa
         f. Oceania
      3. Resource Category Distribution
         a. Coal
         b. Petroleum hydrocarbon
         c. Hydro-electric
         d. Nuclear and other
      4. Growth Rate
         a. Historical
         b. Current
         c. Projected
   B. Projection of future energy demand patterns, 1965-1985
      1. Global
      2. Regional
      3. Resource derivative and proportion

III. PETROLEUM ENERGY DEMAND:
   A. Historical and Current
      1. General Consumption Trends
         a. Global
         b. Regional
            (1) Western Europe
            (2) North American Continent
            (3) Middle East
            (4) South America
            (5) Africa
            (6) Oceania
B. Exploration Patterns and Trends:
   1. Historical
      a. Geophysical activity factors, global and regional
      b. Drilling activity factor, global and regional
   2. Projected
      a. Geophysical activity factors, global and regional
      b. Drilling activity factors, global and regional

C. Production Patterns and Trends
   1. Historical
      a. Production of crude oil, global and regional distribution
      b. Capacity estimates, global and regional
      c. Production by petroleum hydrocarbon resources (gas/oil)
   2. Projected
      a. Production of crude oil, global and regional distribution
      b. Capacity vs. production, global and regional
      c. Production by petroleum hydrocarbon resources

D. Refining
   1. Refined Product Demand and Yields, Global and Regional
   2. Refinery Capacity vs. Demand, Global and Regional
   3. Effects of increasing Yields on Crude Requirements
   4. Effects of Excess Refining Capacity
   5. Anticipated Trends and Patterns in Refining

E. Transportation and Marketing
   1. Transportation
      a. Inter-regional transfers of oil shipments
      b. Tankers, pipeline mileage, patterns and trends
      c. Future projections of shipments
   2. Marketing
      Market prices, global and regional, potential effect on regional demand and usage

VI. INTERNATIONAL OIL ECONOMICS

A. Dominant Concerns Comprising Major Forces in International Oil
   1. Specific companies
   2. Proportionate relationship

B. Revenue Received and Distribution of Income

C. Return on Capital

D. Fixed Asset Expenditures

E. Capital Expenditures Trends and Patterns
   1. Exploration
   2. Production
   3. Refining
   4. Transportation
   5. Marketing

F. Capital Expenditures
   Regional
G. Prices and Receipts
H. Geographical Distribution of Investment
I. Organization and Control of the World Petroleum Industry
J. Governmental, Political, and Nationalistic Factors Affecting International Oil, Global and Regional:
   1. Concessions
   2. Import Policies
   3. Inter-regional Facts

VII. THE ROLE OF THE UNITED STATES IN INTERNATIONAL OIL:
A. Petroleum Hydrocarbon Demand, Historical and Projected:
   1. Crude Oil
   2. Gas
B. Resource Reserve Adequacy:
   1. Crude Oil
   2. Gas
   3. Other
C. Exploration and Development Patterns:
   1. Geophysical Activity
   2. Exploratory and Development Drilling Levels
   3. Reserve Additions
   4. Areas of activity
   5. Outlook for Capital Expenditures
D. Production
   1. Crude Oil Production
   2. Growth Trends in Secondary vs. Primary Production
   3. Growth Trends in Imports vs. Domestic Production
   4. Outlook for Capital Expenditures
E. Refining and Marketing
   1. Demand for Refined Products
   2. Capacity vs. Demand Levels
   3. Refining Yields
   4. Outlook for Capital Expenditures
   5. Domestic Crude and Refined Price Structure and Economic Implications
F. Governmental Influences
   1. Import Policies
   2. Political Influences
   3. Depletion Allowance
   4. Foreign Policy

VIII. SUMMARIZATION AND GENERAL OUTLOOK - 1965-1985:
A. International
   1. Demand/Supply Patterns
   2. Exploration Trends
   3. Production Outlook
   4. Refining Projections
   5. Transportation and Marketing Outlook
   6. Governmental and Economic Factors
B. Domestic
   1. Demand/Supply Patterns
   2. Exploration Trends
   3. Production Outlook
   4. Refining Projections
   5. Transportation and Marketing Outlook
   6. Governmental and Economic Factors

IX. IMPLICATIONS FOR THE OILFIELD EQUIPMENT AND SUPPLY INDUSTRY - 1965-1985:

A. Anticipated Changes in Industry Composition:
   1. Size
   2. Types of Operating Companies
   3. Number of Competitors
   4. Marketing Patterns and Channels of Distribution
   5. Product Emphasis

B. Projected Technological and Equipment Changes in the Areas of:
   1. Exploration
   2. Production
   3. Refining
   4. Transportation

C. Anticipated Demand Levels for:
   1. Oilfield Equipment and Services
      a. Drilling equipment
      b. Production and Maintenance
      c. Service items
   2. Refinery Equipment
   3. Metals and Tubular Products

D. Geographical Distribution of Demand:
   1. Drilling and Exploration Equipment
   2. Production and Maintenance
   3. Refinery and CPI items
   4. Services and Related Equipment
   5. Transportation and Marketing

E. Conclusions and Recommendations
   1. Areas of Geographical Concentration
   2. Product Mix
   3. Marketing Channels and Methods
APPENDIX E
FUNCTIONAL ASSESSMENT - MARKETING
Continental-Emsco Company

I. NATURE OF PRODUCT LINE

A. Fundamental type of product
   1. Heavy capital equipment
   2. Medium capital equipment
   3. Light capital equipment
   4. Consumer goods

B. Diversity of product lines
   1. Wide range of lines (more than 10)
      a. With many types, ratings & models per line
      b. Essentially few types or models per line
   2. Middle range of lines (5 to 10)
      a. With many types, ratings & models per line
      b. With essentially few types or models per line
   3. Few lines (5 or less)
      a. With many types, ratings & models per line
      b. With essentially few types or models per line

C. Degree of standardization by lines
   1. Completely special or custom design
   2. Partly special
      a. Where principal components are special with few
         standard parts employed
      b. Where principal components are standard with few
         specials used
      c. Where components are standard but assembled into
         a "custom job"
   3. Standard items added into production schedule as orders
      received
   4. Standard stock items carried in finished stock

D. Relative importance of
   1. Completeness of line
   2. Quality of product
      a. Heavy duty under severe conditions
      b. Light limited duty
   3. Style or appearance

II. NATURE OF MARKETS

A. Fundamental types of markets
   1. Heavy industry - i.e., utilities, transportation, chemicals,
      rubber, steel, etc.
      a. For installation or major units of equipment
      b. For modernization of tools, handling equipment, etc.
      c. For maintenance
   2. Manufacturing industry
      a. For installation of major producing equipment
      b. For plant modernization
c. For maintenance
a. For incorporation of product or component in end product
3. Distributors, agents, and contractors

B. Range of markets
1. Extreme range of markets
   a. Including many types of industries
   b. Including many types & sizes of customers within industries
2. Middle range of markets
   a. Several basic types of markets reached with numerous types & classes of customers in each
   b. Several basic types of markets but relatively few types or classes of customers
3. Limited range of markets
   a. With wide range of customers
   b. With few types of customers
4. Highly restricted market such as exposure meter
5. Principally an internal company market

C. Location of markets
1. National market
   a. Plus wide export demand
   b. Little export demand
2. Principally concentrated in ½ or fewer selling districts
3. Essentially restricted
   a. To regions or areas
   b. To specific cities or centers
      (1) Of industry
      (2) Of population

D. Stability of Market
1. Subject to only broadest economic fluctuations
2. Has definite cyclical pattern
   a. But no seasonal
   b. With seasonal influence added
3. Is affected by advent of, or random actions of, competition, government, etc.
   a. To some degree
   b. To a high degree
4. What "natural" economic factors influence the market, i.e., floods, droughts, etc.

E. Trend of market
1. Is the market a new one with
   a. Broad possibilities for growth
   b. Limited possibilities
2. Is the market well established
   a. With remaining growth possibilities
   b. With few remaining growth possibilities
3. Is the market well "worked over" & appearing saturated
III. NATURE OF PRINCIPAL SELLING CHARACTERISTICS

A. Relationship to other products
1. Product sold by itself
2. Product sold in conjunction with others but not as part of an integrated system
3. Product sold as part of integrated system but not as "factory package"
4. Product sold as part or whole of a "factory package"

B. Quantity sold on one order
1. Usually only one item per order
2. Several items or models sold per order
3. Each order covering substantial production run or stock delivery
4. Contract order calling for phased deliveries

C. Frequency of sale to same customers
1. Basic installation involving only maintenance for many years - very infrequent
2. Periodic modernization involving sale every few years
3. Sales of maintenance equipment or sales of products for components in customers' products
   a. On regular basis
      (1) Year
      (2) Month, etc.
   b. On irregular basis
      (1) But predictable to some extent
      (2) Unpredictable

D. Nature of Product Specifications Employed
1. Customer furnishing full specifications
   a. Without possible modification
   b. With possible modification
2. Pre-engineered factory specifications
3. Standard specifications
   a. On order
   b. Stock

E. Character of Sales Support Required
1. Technical assistance needed
   a. Product Specialist
   b. District Application Engineer
   c. Industry Application Engineer
   d. Product Division Sales Engineer
   e. Product Division Engineer
2. Types of quotation service needed
   a. Handbook
   b. District Sales Engineer
   c. Industry Sales Engineer
   d. Product Sales Engineer
3. Inside sales service needed  
   a. Unnecessary  
   b. Helpful but not essential  
   c. Pace of activity makes essential  

IV. NATURE OF COMPETITION  
A. Fundamental types of competition  
   1. On similar basis, covering same general line of products and markets  
   2. Specialized competition  
      a. Specializing on certain products  
      b. Specializing on certain markets  
   3. Competition from different types of products for similar application  
      a. From outsiders  
      b. From other products within the company  

B. Ease of identification & comparison  
   1. Competition broad & comparisons difficult  
   2. Some comparisons possible through Trade Asso. Data, etc., but situation complex & never completely clear  
   3. Competition localized and easy to analyze  
      a. Few competitors  
      b. In localized area  

C. Significance of "trade patterns" or practices  
   1. Trade generally highly regimented into specific nomenclatures, ratings, discount policies, etc.  
   2. Some trade practices but not followed by a preponderant majority  
   3. No specific patterns  
   4. Existence of licensing agreements as a factor  
      a. Substantial factor  
      b. Minor factor  
      c. Not a factor  

V. INDUSTRY SALES POSITION  
A. Actual standing  
   1. Strong position with majority of industry sales  
   2. Strong position & dominant but not over 50%  
   3. Strong but not leading  
   4. Among top three or four contenders  
   5. Not an important position  

B. Trend  
   1. Up - or gaining position  
   2. Holding position  
   3. Losing position  

C. Significance of Industry Position  
   1. Sales volume only  
   2. Can bring weight to bear on industry practices in quality, style, etc.
3. Can literally dominate industry practices
4. Attitude of customer
   a. Favorable
   b. Indifferent
   c. Unfavorable

VI. CHANNELS OF DISTRIBUTION
   A. Fundamental types of channels used
      1. Direct selling
         a. On a general basis through
            (1) Industry salesmen
            (2) Territory salesmen
      2. Indirect selling
         a. To full line distributors
         b. Specialty distribution

   B. Trends in Importance of Channels
      1. Direct sales advantages gaining owing to nature of market
         concentration, etc.
      2. No discernable trend in shifting of importance
      3. Secondary distribution gaining in importance

VII. PRICES AND TERMS OF SALE
   A. Principal factors determining prices and terms
      1. Manufactured cost
      2. General industry levels
      3. Negotiation and competitive bidding

   B. Nature of Price Situation
      1. Trend of price per unit and per pound
         a. Downward
         b. Holding about the same
         c. Upward
      2. Condition of price structure
         a. Great stability of price
         b. Generally firm prices
         c. Prices subject to fluctuation
            (1) For certain items
            (2) For certain customers

   C. Responsibility for pricing
      1. Who has basic responsibility for setting prices
      2. Who has responsibility for changing prices
         a. Initially
         b. Final say

VIII. CHARACTER OF PLANNING FUNCTIONS
   A. Forecasting and Market Research
      1. Ease and practicality
         a. Industry potential unknown & forecasting largely
            by "feel"
         b. Forecasting & research helpful but only in specific
            areas
2. Importance of Type of Forecasting
   a. Market & industry maturity make fundamental forecasting relatively unimportant & places emphasis on field research
   b. Unknown factors in market & its future make fundamental forecasting of considerable importance as headquarters research activity

3. Significance of Long Range Forecasting
   a. Industry highly flexible, can meet changes without difficulty - long range forecasting important but not critical
   b. Industry not flexible, heavy investment - long range forecasting highly significant

B. Product Planning
   1. Importance of Functions
      a. Application engineering
      b. Design engineering and sales of equal significance
      c. Marketing & manufacturing consideration most important
   2. Frequency & ease of line modification
      a. Frequent & without difficulty
      b. More difficult, changes limited to essentials
      c. Almost impossible
   3. Trend of Items in Product Line
      a. Increasing
      b. Holding position
      c. Decreasing
   4. Relative Importance of Balanced Line
      (Including less profitable items)
      a. Of little significance to overall job
      b. Of some importance but not controlling
      c. Essential

C. Sales Planning
   1. Character of Sales Planning
      a. Reliance largely on repeat business, Planning principally a field function
      b. Planning for new business important to get
         (1) Greater share of business from existing customers
         (2) New customers
      c. Emphasis on new products most important
      d. Emphasis on new uses for old products most important
   2. Primary objective of Sales Planning
      a. Increased sales volume
         (1) In long margin lines i.e. to get a more strategic mix
         (2) In overall factory
         (3) In more strategic factory load
         (4) For better balanced market competitive position
b. Better coordination between sales & production & control of production through
   (1) Stock sales off shelf
   (2) Backlogged orders
   (3) Current orders
c. Intensity of Planning
   (1) Periodic review for broad plans
   (2) Frequent analysis for changes in plans or operations
   (3) Continuous process
      (a) Covering certain products & markets
      (b) Covering all products & markets

IX. ADVERTISING AND SALES PROMOTION

A. Fundamental type of advertising & sales promotion needed
   1. Broad industrial institutional type
   2. Broad industry type
   3. Broad product type
   4. Specific product
      a. Broad applications
      b. Specific applications
   5. Specialty promotion

B. Relationship with other products
   1. Tie-in with system
   2. Tie-in with related products
   3. No tie-in

C. Relationship between Advertising & Sales Promotion & Selling Activities
   1. Close tie-in for direct selling & with distributor campaigns
   2. General acknowledgement of relationship but no close tie-in on sales
   3. No relation between advertising & direct selling activity (Turbines)

D. Size of Expense in Relation to Sales
   1. Above 5%
   2. Between 2 and 5%
   3. Below 2%

X. NATURE OF SERVICE FUNCTIONS

A. Nature of Order Service Requirements
   1. Few, large orders easily followed
   2. Varied range of orders on normal distribution basis
   3. Preponderance of small orders requiring "man-production" handling of paper
   4. Closeness of relationship between order handling & production control
      a. When factory load is of critical importance
      b. Where expediting & order following is essential
B. Nature of Warehousing Requirements
   1. Heavy preponderance of production going into finished stock
      a. At factory
      b. In field
   2. Some part of production requiring warehousing, balance from
      factory to customer
      a. Because of backlog or orders
      b. Because of "custom build" nature of equipment
   3. Production largely direct to customer
      a. With parts warehousing requirement
      b. Without parts warehousing requirement
   4. Handling requirements
      a. Heavy equipment for bulky products
      b. Palletized flow of small products involving "car pooling"
         etc.

XI. INTERNAL ORGANIZATION AND MANAGEMENT
A. Fundamental scope of marketing organization
   1. Marketing functions including product planning, market
      research, advertising & sales promotion, etc.
      a. With field selling organization
      b. Without field selling organization
   2. Limited marketing functions with balance
      a. The responsibility of another group
      b. Performed on "service" basis
B. Requirement for adaptability
   1. Stable market requiring little change in marketing organi-
      zation form as functions from year to year
   2. Modifications needed periodically
   3. Volatile market requiring great degree of adaptability &
      frequent change
C. Requirement for internal controls
   1. Broad budgeting & periodic checking of performance only
   2. Budgets tighten & requiring frequent adjustment with close
      following of performance & expenses
   3. Need for rigid controls on
      a. Establishing sales goods
      b. Checking performance
      c. Maintaining expense %
      d. Checking trends in expenses, coverage, etc.
PLANNING SYSTEM

- OBJECTIVES
- GOALS
  Sum of Group Goals plus Corporate Programs
- STRATEGY
- PROGRAMS
  Corporate Development
  Inter-Group Programs
  R & D - New Fields
  Acquisitions
  Corporate Operations

GROUP PLANS

- MISSION
- GOALS
  Sum of Business Unit Goals plus Group Programs
- STRATEGY
- PROGRAMS
  Group Development
  Inter-Unit Programs
  Group Operations

BUSINESS UNIT PLANS

- PURPOSE
- GOALS
- STRATEGY
- ACTIONS
Policy Statement: Management by Objectives

Westinghouse Air Brake Company

1. Concept of Management by Objectives
   a. Better management is essential to cope with the speed and complexity of our environment.
   b. Management can be improved through wise decentralization of authority, responsibility, and accountability.
   c. This decentralization requires that objective goals and standards of performance be substituted for subjective appraisals and personal supervision insofar as possible.
   d. Consistent objectives must be formulated within a framework which gives appropriate consideration to all the elements vital to profitability.
   e. Effective application of adequate resources to accomplish optimum objectives is the ultimate criterion of good management at every echelon.
   f. The responsibility for formulation of objectives lies at the same point as the responsibility to achieve the objectives.
   g. The system of measuring progress toward achievement of objectives must allow managers to revise objectives continuously as conditions change.

2. Concept of Objectives
   The paramount objective is enduring Profitability, broadly defined as "gain from the activity." It can be achieved through equitable and adequate performance in the following Profitability Result Areas:
   - Market Position
   - Innovation
   - Manpower Development
   - Public Responsibility
   - Productivity
   - Resources
   - Employee Attitude

3. Concept of Delegation
   Management by objectives can be achieved through decentralization, without abdication, by delegating authority, responsibility, and accountability for the following functions:
   a. Formulation of plans and objectives. Reaching agreement on where you are, where you want to go, how you want to travel, when you want to arrive, and how much you are willing to pay for the trip.
   b. Formulation of budgets. Securing allocation of necessary resources to carry out authorized plans.
c. **Execution.** Seeing to it that effective action is taken to achieve approved objectives.

d. **Evaluation.** Measuring progress against adequate standards of performance.

4. **Concept of Methodology**

Management by objectives can only become a "way of life" if it is based on such a simple, flexible method that:

a. The average manager can use it effectively, in spite of daily pressures and the absence of extensive training.

b. Each manager needs to use only those portions that help him perform his own job.

c. It provides the right data at the time and place of decision and facilitates joint planning between functions such as marketing, engineering, manufacturing, and finance.

d. It makes it easier to modify programs and requirements brought about by changes in environment, assumptions, and objectives.

5. **Concept of Participation**

Managerial personnel at all levels of the organization must participate intelligently and enthusiastically. This requires a continuing program of education and motivation.

6. **Concept of Performance and Reward**

Management personnel must be rewarded in accordance with their contribution to the formulation of sound plans and the effectiveness with which they apply their resources toward the accomplishment of optimum objectives.
## Financial Forecast Income Statement

<table>
<thead>
<tr>
<th>Currency Units</th>
<th>Name of Company</th>
<th>Contracted</th>
<th>Company Code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

### Operating Revenue

<table>
<thead>
<tr>
<th>Product Group</th>
<th>Code</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude Oil and Condensate</td>
<td>0199</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lube Oils</td>
<td>0299</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Gas</td>
<td>0399</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Petroleum Products</td>
<td>0499</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemical Products</td>
<td>0599</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Products</td>
<td>0699</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Purchases

<table>
<thead>
<tr>
<th>Product Group</th>
<th>Code</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crude Oil and Condensate</td>
<td>0199</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lube Oils</td>
<td>0299</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Natural Gas</td>
<td>0399</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Petroleum Products</td>
<td>0499</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemical Products</td>
<td>0599</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Purchases</td>
<td>0699</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Inventories Increase/Decrease

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumed in Operations, Fire Losses, etc.</td>
<td>0799</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Operating Margin

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income from Operations</td>
<td>0899</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Non-Operating Charges/Credits

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest Credits</td>
<td>0999</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Unrealized Exchange Gains, Losses</td>
<td>1099</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Non-Operating Expenses</td>
<td>1199</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Non-Operating Expenses</td>
<td>1299</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Income Taxes

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Income Taxes</td>
<td>1399</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Net Profit/(Loss)

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gross Profit</td>
<td>1499</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other Operating Expenses</td>
<td>1599</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Operating Expenses</td>
<td>1699</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Depreciation and Amortization

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Depreciation and Amortization</td>
<td>1799</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Interest

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest Charges</td>
<td>1899</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Interest</td>
<td>1999</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Operating Costs

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Operating Costs</td>
<td>2099</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Other Income

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Income</td>
<td>2199</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Operating Income

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating Income</td>
<td>2299</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Financial Results

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Operating Income, Non-Operating Charges, and Other Income</td>
<td>2399</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Total Operating Income

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Operating Income, Non-Operating Charges, and Other Income</td>
<td>2499</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Net Income

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
<th>2019</th>
<th>2018</th>
<th>2017</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Net Income</td>
<td>2599</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Financial Forecast

## Balance Sheet

<table>
<thead>
<tr>
<th>Column Code</th>
<th>Line Code</th>
<th>Item Description</th>
<th>Unit</th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>CURRENT ASSETS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>01101</td>
<td>CASH AND MARKETABLE SECURITIES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>01201</td>
<td>INVENTORIES MATERIALS AND SUPPLIES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>01202</td>
<td>INVENTORIES CRUDE, PRODUCTS OTHER MERCHANDISE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>INTER-CO. ACCOUNTS RECEIVABLES INTERNATIONAL AFFILIATES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>INTER-CO. ACCOUNTS RECEIVABLES OTHER CONSOLIDATED AFFILIATES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>01203</td>
<td>TOTAL CURRENT ASSETS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CURRENT LIABILITIES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>01201</td>
<td>INCOME TAXES PAYABLE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>01202</td>
<td>ACCEPTANCES, NOTES PAYABLE TRADE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>01203</td>
<td>ACCEPTANCES, NOTES PAYABLE NON-TRADE</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>INTER-CO. ACCOUNTS PAYABLE INTERNATIONAL AFFILIATES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>INTER-CO. ACCOUNTS PAYABLE OTHER CONSOLIDATED AFFILIATES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>01204</td>
<td>TOTAL CURRENT LIABILITIES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NET WORKING CAPITAL</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>01299</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LONG TERM ASSETS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>01401</td>
<td>PROPERTY, PLANT AND EQUIPMENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>LESS RESERVES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OTHER LONG TERM ASSETS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>01499</td>
<td>TOTAL LONG TERM ASSETS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LONG TERM LIABILITIES</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>01501</td>
<td>LONG TERM DEBT COMPANY</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OTHER LONG TERM DEBT OTHER CONSOLIDATED AFFILIATES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>RESERVES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>OTHER LONG TERM LIABILITIES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>RESERVE FOR FOREIGN EXCHANGE FLUCTUATIONS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>MINORITY INTERESTS</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>01599</td>
<td>TOTAL LONG TERM LIABILITIES</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL NET ASSETS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>01699</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NET WORTH</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>01799</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Financial Forecast

**Capital Budget and Expenditures**

<table>
<thead>
<tr>
<th>Function</th>
<th>Line Code</th>
<th>Column Code</th>
<th>Budget Code</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Producing</td>
<td>2101</td>
<td>01</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refining</td>
<td>02103</td>
<td>02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemicals</td>
<td>02103</td>
<td>02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marketing</td>
<td>02103</td>
<td>02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marine</td>
<td>02103</td>
<td>02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pipeline</td>
<td>02103</td>
<td>02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative and Other</td>
<td>02103</td>
<td>02</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>02103</td>
<td>02</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Budget Expenditures**

<table>
<thead>
<tr>
<th>Function</th>
<th>Line Code</th>
<th>Column Code</th>
<th>Budget Code</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Producing</td>
<td>2101</td>
<td>02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Refining</td>
<td>02103</td>
<td>02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chemicals</td>
<td>02103</td>
<td>02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marketing</td>
<td>02103</td>
<td>02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marine</td>
<td>02103</td>
<td>02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pipeline</td>
<td>02103</td>
<td>02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Administrative and Other</td>
<td>02103</td>
<td>02</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>02103</td>
<td>02</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Carry Over to Following Year**

<table>
<thead>
<tr>
<th>Line Code</th>
<th>Column Code</th>
<th>Budget Code</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>09000</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Financial Forecast

#### Source and Disposition of Funds

<table>
<thead>
<tr>
<th>Currency Units</th>
<th>Name of Company</th>
<th>Column Code</th>
<th>Source Code</th>
<th>Company Code</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### New Capital

<table>
<thead>
<tr>
<th>Type</th>
<th>Company Code</th>
<th>Other Capital</th>
<th>Other Plant Reductions</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loans</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stock</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total New Capital</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Other Sources of Funds

<table>
<thead>
<tr>
<th>Type</th>
<th>Company Code</th>
<th>Other Capital</th>
<th>Other Consolidated Affiliates</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loans</td>
<td></td>
<td></td>
<td>Non-Affiliated Companies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stock</td>
<td></td>
<td></td>
<td>Non-Affiliated Companies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Miscellaneous

<table>
<thead>
<tr>
<th>Type</th>
<th>Company Code</th>
<th>Other Capital</th>
<th>Other Consolidated Affiliates</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loans</td>
<td></td>
<td></td>
<td>Non-Affiliated Companies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stock</td>
<td></td>
<td></td>
<td>Non-Affiliated Companies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Total Other Sources of Funds

<table>
<thead>
<tr>
<th></th>
<th>Total Other Sources of Funds</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Total Working Funds Available

<table>
<thead>
<tr>
<th></th>
<th>Total Working Funds Available</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Total Dividends

<table>
<thead>
<tr>
<th></th>
<th>Total Dividends</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Additions to Plant

<table>
<thead>
<tr>
<th>Type</th>
<th>Company Code</th>
<th>Other Capital</th>
<th>Other Consolidated Affiliates</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loans</td>
<td></td>
<td></td>
<td>Non-Affiliated Companies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stock</td>
<td></td>
<td></td>
<td>Non-Affiliated Companies</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Total New Investments

<table>
<thead>
<tr>
<th></th>
<th>Total New Investments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Reinvestment of Long Term Debt

<table>
<thead>
<tr>
<th>Type</th>
<th>Company Code</th>
<th>Other Capital</th>
<th>Other</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loans</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stock</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Total Retirement

<table>
<thead>
<tr>
<th></th>
<th>Total Retirement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Increase/(Decrease) in Working Funds during Year

<table>
<thead>
<tr>
<th></th>
<th>Increase/(Decrease) in Working Funds during Year</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
**DEFINITION:** Problem Solving is the original, "self-starting" thinking required by the job for analyzing, evaluating, creating, reasoning, arriving at and making conclusions. To the extent that thinking is circumscribed by standards, covered by precedents, or referred to others, Problem Solving is diminished, and the emphasis correspondingly is on Know-How.

Problem Solving has two dimensions:
- The Thinking Environment in which the problems are solved.
- The Thinking Challenge presented by the problem to be solved.

**MEASURING PROBLEM SOLVING:** Problem Solving measures the intensity of the mental process which employs Know-How to (1) identify, (2) define, and (3) resolve a problem. "You think with what you know." This is true of even the most creative work. The raw material of any thinking is knowledge of facts, principles and men; ideas are put together from something already there. Therefore, Problem Solving is treated as a percentage utilization of Know-How.

---

**Table:**

<table>
<thead>
<tr>
<th>THINKING CHALLENGE</th>
<th>1. REPETITIVE</th>
<th>2. PATTERNEDED</th>
<th>3. INTERPOLATIVE</th>
<th>4. ADAPTIVE</th>
<th>5. CREATIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Environmtn</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A. STRICT ROUTINE:</td>
<td>10%</td>
<td>14%</td>
<td>12%</td>
<td>22%</td>
<td>33%</td>
</tr>
<tr>
<td>Simple rules and detailed instructions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B. ROUTINE:</td>
<td>12%</td>
<td>16%</td>
<td>19%</td>
<td>25%</td>
<td>38%</td>
</tr>
<tr>
<td>Established routines and standing instructions.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C. SEMI-ROUTINE:</td>
<td>14%</td>
<td>19%</td>
<td>23%</td>
<td>30%</td>
<td>43%</td>
</tr>
<tr>
<td>Somewhat diversified procedures and precedents.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. STANDARDIZED:</td>
<td>16%</td>
<td>22%</td>
<td>29%</td>
<td>38%</td>
<td>50%</td>
</tr>
<tr>
<td>Substantially diversified procedures and standardized standards.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E. CLEARLY DEFINED:</td>
<td>19%</td>
<td>25%</td>
<td>33%</td>
<td>43%</td>
<td>57%</td>
</tr>
<tr>
<td>Clearly defined policies and principles.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F. BROADLY DEFINED:</td>
<td>22%</td>
<td>29%</td>
<td>38%</td>
<td>50%</td>
<td>66%</td>
</tr>
<tr>
<td>Broad policies and specific objectives.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G. GENERALLY DEFINED:</td>
<td>25%</td>
<td>33%</td>
<td>43%</td>
<td>57%</td>
<td>76%</td>
</tr>
<tr>
<td>General policies and ultimate goals.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H. ABSTRACTLY DEFINED:</td>
<td>29%</td>
<td>38%</td>
<td>50%</td>
<td>66%</td>
<td>87%</td>
</tr>
<tr>
<td>General laws of nature or science, within a framework of cultural standards and business philosophy.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Copyright 1968**
**DEFINITION:** Know-How is the sum total of every kind of skill, however acquired, required for acceptable job performance. This sum total which comprises the overall "buddy" has 3 dimensions—requirements for:

- Practical procedures, specialized techniques, and scientific disciplines.

- Know-How of integrating and harmonizing the diversification in operating, supporting, and administrative fields. This Know-How may be exercised continuously (operation management) as well as progressively and involves in some combination the areas of organizing, planning, executing, controlling and evaluating.

- Active, practicing, face to face skills in the area of human relationships.

**HAY GUIDE CHART

KNOW-HOW

COPYRIGHT 1941

**MEASURING KNOW-HOW:** Know-How has both specific (variety) and depth (throughput). Thus, a job may require some knowledge about a lot of things, or a lot of knowledge about a few things. The total Know-How is the combination of scope and depth. This concept reduces the comparison and weighting of the total Know-How content of different jobs in terms of "HOW MUCH KNOWLEDGE ABOUT HOW MANY THINGS."

<table>
<thead>
<tr>
<th>MANAGERIAL SCOPE</th>
<th>III. HETEROGENEOUS</th>
<th>IV. BROAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>I. NONE OR MINIMAL Performance or supervision of one or all of the elements of a subfunction, with an operational regard for relevant activities.</td>
<td>Operational integration of several functions (or subfunctions) within an organizational unit, or inter-unit coordination of a function.</td>
<td>Integration of major functions in an enterprise (or similar) complex, or corporate-wide coordination of a strategic function which significantly affects corporate planning or operations.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>I.</th>
<th>II.</th>
<th>III.</th>
<th>IV.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>B</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>C</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>D</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>E</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>G</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**HUMAN RELATIONS SKILLS**

1. **BASIC:** Ordinary courtesy and effectiveness in dealing with others.

2. **IMPORTANT:** Understanding, influencing, and/or serving people are important, but not critical considerations.

3. **CRITICAL:** Alternative or combined skills in understanding, selecting, developing and motivating people are important in the highest degree.
# Accountability Chart

### Impact of Job on End Results

**Remote:** Informational, recording, or occasional services for use by others in relation to your important end result.

**Contributory:** Interpretive, advisory, or facilitating services for use by others in taking action.

**Shared:** Participating with others (except own subordinates and superiors), within or outside the organizational unit, in taking action.

**Primary:** Controlling impact on end results, where shared accountability of others is involved.

### Definitions:
- **Accountability** is the responsibility for action and for the consequences thereof. It is the measured effect of the job on end results. It has three dimensions in the following order of importance:
  1. **Freedom to Act** - the degree of personal or procedural control and guidance as defined in the left-hand column below.
  2. **Job Impact on End Results** - as defined at upper right.
  3. **Magnitude** - indicated by the general dollar size of the area(s) most clearly or primarily affected by the job, either in
     - "Dynamic S" (focusing on the company, or expenditures by the company on its services on an annual basis) or
     - "Static S" (the value of assets, money, coverage, etc., held or managed).

### Accountability Chart

#### 1. Very Small or Indeterminate

<table>
<thead>
<tr>
<th></th>
<th>Remote</th>
<th>Contract</th>
<th>Shared</th>
<th>Primary</th>
<th>Remote</th>
<th>Contract</th>
<th>Shared</th>
<th>Primary</th>
</tr>
</thead>
<tbody>
<tr>
<td>$100 K</td>
<td>10</td>
<td>14</td>
<td>19</td>
<td>25</td>
<td>14</td>
<td>19</td>
<td>25</td>
<td>33</td>
</tr>
<tr>
<td>Under $100 K</td>
<td>12</td>
<td>16</td>
<td>22</td>
<td>29</td>
<td>16</td>
<td>22</td>
<td>29</td>
<td>38</td>
</tr>
<tr>
<td>1-3 M</td>
<td>25</td>
<td>33</td>
<td>43</td>
<td>57</td>
<td>25</td>
<td>33</td>
<td>43</td>
<td>57</td>
</tr>
</tbody>
</table>

#### 2. Small

<table>
<thead>
<tr>
<th></th>
<th>Remote</th>
<th>Contract</th>
<th>Shared</th>
<th>Primary</th>
<th>Remote</th>
<th>Contract</th>
<th>Shared</th>
<th>Primary</th>
</tr>
</thead>
<tbody>
<tr>
<td>$100 K</td>
<td>10</td>
<td>14</td>
<td>19</td>
<td>25</td>
<td>14</td>
<td>19</td>
<td>25</td>
<td>33</td>
</tr>
<tr>
<td>1-3 M</td>
<td>25</td>
<td>33</td>
<td>43</td>
<td>57</td>
<td>25</td>
<td>33</td>
<td>43</td>
<td>57</td>
</tr>
</tbody>
</table>

#### 3. Medium

<table>
<thead>
<tr>
<th></th>
<th>Remote</th>
<th>Contract</th>
<th>Shared</th>
<th>Primary</th>
<th>Remote</th>
<th>Contract</th>
<th>Shared</th>
<th>Primary</th>
</tr>
</thead>
<tbody>
<tr>
<td>$100 K</td>
<td>10</td>
<td>14</td>
<td>19</td>
<td>25</td>
<td>14</td>
<td>19</td>
<td>25</td>
<td>33</td>
</tr>
<tr>
<td>1-3 M</td>
<td>25</td>
<td>33</td>
<td>43</td>
<td>57</td>
<td>25</td>
<td>33</td>
<td>43</td>
<td>57</td>
</tr>
</tbody>
</table>

#### 4. Large

<table>
<thead>
<tr>
<th></th>
<th>Remote</th>
<th>Contract</th>
<th>Shared</th>
<th>Primary</th>
<th>Remote</th>
<th>Contract</th>
<th>Shared</th>
<th>Primary</th>
</tr>
</thead>
<tbody>
<tr>
<td>$100 K</td>
<td>10</td>
<td>14</td>
<td>19</td>
<td>25</td>
<td>14</td>
<td>19</td>
<td>25</td>
<td>33</td>
</tr>
<tr>
<td>1-3 M</td>
<td>25</td>
<td>33</td>
<td>43</td>
<td>57</td>
<td>25</td>
<td>33</td>
<td>43</td>
<td>57</td>
</tr>
</tbody>
</table>

#### 5. Very Large

<table>
<thead>
<tr>
<th></th>
<th>Remote</th>
<th>Contract</th>
<th>Shared</th>
<th>Primary</th>
<th>Remote</th>
<th>Contract</th>
<th>Shared</th>
<th>Primary</th>
</tr>
</thead>
<tbody>
<tr>
<td>$100 K</td>
<td>10</td>
<td>14</td>
<td>19</td>
<td>25</td>
<td>14</td>
<td>19</td>
<td>25</td>
<td>33</td>
</tr>
<tr>
<td>1-3 M</td>
<td>25</td>
<td>33</td>
<td>43</td>
<td>57</td>
<td>25</td>
<td>33</td>
<td>43</td>
<td>57</td>
</tr>
</tbody>
</table>

### Table Columns:
- **Remote**: Informational, recording, or occasional services for use by others in relation to your important end result.
- **Contract**: Interpretive, advisory, or facilitating services for use by others in taking action.
- **Shared**: Participating with others (except own subordinates and superiors), within or outside the organizational unit, in taking action.
- **Primary**: Controlling impact on end results, where shared accountability of others is involved.

### Table Rows:
- **Very Small or Indeterminate**: Jobs with limited accountability and responsibility.
- **Small**: Jobs with moderate accountability and responsibility.
- **Medium**: Jobs with significant accountability and responsibility.
- **Large**: Jobs with high accountability and responsibility.
- **Very Large**: Jobs with the highest accountability and responsibility.

### Table Columns:
- **Freedom to Act**: Degree of personal or procedural control and guidance.
- **Job Impact on End Results**: Effect of the job on end results.
- **Magnitude**: General dollar size of the area(s) most clearly or primarily affected by the job.
BIBLIOGRAPHY

Books


**Articles**


"Armco Steel Decides to Let a Committee Run the Show," Business Week, (June 29, 1968), 75.


"Beating a Growth Goal," Business Week, (October 8, 1966), 98.


"Factors in Corporate Manpower Planning," Management Record, 22 (September, 1960), 8-12.


"Foundation for Attack on the Big New Markets," Steel, (March 4, 1963), 49-55.


Howell, Robert A., "A Fresh Look at Management by Objectives," 
*Business Horizons*, 10 (Fall, 1967), 8-11.

__________, "Multiproject Control," *Harvard Business Review*, 
46 (March-April, 1968), 63-70.

Irwin, Patrick H. and Frank W. Langham, Jr., "The Change Seekers," 

Johanson, R. C., "How to Manage by Setting Objectives," *Business 
Studies*, North Texas State University, (Spring, 1965), 20-28.

Jonsson, J. E., "Meeting the Problems of Rapid Expansion," General 
Management Series No. 185, American Management Association, 
(1962), 14-19.

Kast, Fremont E., "Management and Accelerating Technology," 

to Salesman Performance," *Business Horizons*, 9 (Fall, 1966), 
91-100.

Keller, J. Wayne, "Developing Better Profitability Measures," 

Kelley, William T., "Marketing Intelligence for Top Marketing," 

King, Edmund R., "Translating Economic Trends into Realistic Cor-
porate Plans," *Economic Trends and Government Policy: Their 
Meaning for Management*, General Management Series No. 188, 

Koch, Edward G., "A Practical Approach to Management Planning and 


Lawrence, Paul R. and Jay W. Lorsch, "New Management Job: The 
Integrator," *Harvard Business Review*, 45 (November-December, 
1967), 142-151.


"The Management Audit, Men & Management, No. 199 (June, 1968).

"Management by Objectives or Appraisal by Results," The Conference Board Record, 3 (July, 1966), 27-31.


"Running the Show with a Keyboard," *Business Week*, (July 13, 1968),


"The Status of Long-Range Planning," The Conference Board Record, 3 (September, 1966), 7-17.


, "How to Assure Poor Long-Range Planning for Your Company," California Management Review, 8 (Summer, 1965), 93-94.


Reports


---


Publications of Learned Organizations


Unpublished Material


________________________, Company Development and Diversification Committee Report, Dallas, October, 1961.


________________________, "Importance of Planning and Diversification," Dallas, 1964.


________________________, Minutes of Diversification Committee Meeting, Dallas, July 5, 1962.


________________________, Position descriptions of Executive Personnel, Dallas, 1964.


Krausse, Dan M., "Results Management," excerpt of address to Dallas Management Association, Dallas, March 1, 1967.


Newspaper Articles

The Denver Post, August 27, 1968


Personal Conversations


Green, Edward J., President, Planning Dynamics Incorporated, personal conversation, Pittsburgh, September, 1968.


Stewart, Robert F., Stanford Research Institute, personal conversation, Menlo Park, California, October 21, 1968.