MANAGEMENT BY OBJECTIVES: A PHILOSOPHY

DISSERTATION

Presented in Partial Fulfillment of the Requirements for the Degree Doctor of Philosophy in the Graduate School of The Ohio State University

By

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* * * * *

The Ohio State University
1959

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PREFACE

The encouragement and assistance given me by members of the staff of the USAF School of Logistics, Air Force Institute of Technology, have been of tremendous value.

I wish to express my deep appreciation to Mr. Charles Dugan who lived this study with me and whose searching questioning forced me to logically support each premise.

I am grateful to those who assisted me with individual chapters, especially Dr. Howard Timms, Indiana University; Dr. Paul Pigors, Massachusetts Institute of Technology; Dr. James Healey, Columbus, Ohio; Dr. Manley Jones, The University of Illinois; Mr. Thomas Dudgeon, Columbus, Ohio; Dr. Billy Goetz, Massachusetts Institute of Technology; Dr. George Terry, Northwestern University; and Admiral Henry E. Eccles, USN, Retired.

I am also grateful to my secretaries, Mrs. Marjorie Gudorf and Mrs. Geneva Powers, who so patiently assisted me in typing and editing.

Without my wife, Helen, who so willingly gave me constant inspiration, this study might never have been finished.

EUGENE R. MAGRUDER
August 1959
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CHAPTER I

INTRODUCTION

One of the most important areas of human behavior is that of management. The manager occupies a strategic role in American life. It is hardly an exaggeration to say that he is the central figure in American society—the symbol of our culture. Decisions and policies of the greatest import for the general welfare are entrusted to him. Wherever man exists in groups, there is found organization and the resulting institutions which the active fraction of men give design to and control. Specific institutions wax and wane; but, regardless of the nature of the particular social order, the managers, by whatever name, continue.

The field of management is very broad. It is related to many of the sciences. The manager utilizes many disciplines in his endeavors. In considering the many aspects of management, in an attempt to isolate that area which would appear to offer the greatest contribution to advancement of managerial knowledge, the author concluded that a search for a philosophy of management was most promising. Management discussions, development programs, and writings are increasing quantitatively, but we must,
with intellectual honesty, ask ourselves whether the art and science of management are improving qualitatively. Many students of management have emphasized the need for more concentrated and dedicated study in this area. The problem was stated very succinctly in 1950 by Professor R. C. Davis.

The problem of greatest importance in the field of management is and probably will continue to be the future development of the philosophy of management.1

More recently, management students have been invited by O. A. Ohmann, Director of Organization Planning and Management Development for the Standard Oil Company of Ohio, to join the search for a managerial philosophy.

If a manager is to practice his art skillfully and consistently, however, he must at least have a pretty good idea of what he is trying to do and why. Little attention, however, has been given to the need for revising the basic philosophy, for setting straight our notion of what we are doing and why. New techniques and procedures have merely been superimposed on old concepts and assumptions of the manager's job. Most of our efforts in management development have been directed at the how rather than the what and why of business. So each individual reader, perhaps feeling he has been led far afield, hereby has delegated back to him the continuing "search for a managerial philosophy," along with my wishes for "Happy Hunting!"2


If one were to attempt to read, or even to scan carefully, our literature on the subject of management and others closely related to the human enterprise process, he would be undertaking a task of no small size. When we see such titles as

1. dynamic group behavior,
2. personnel placement through the use of linear programming,
3. decision theory,
4. problem solving in multiple goal situations,
5. norms and habits of decision-making under certainty,

we should ask ourselves where in management thinking does one place these "words of wisdom?" Or, how do they change one's way of thinking? To many, the proliferation of ideas, concepts, and techniques results in confusion and misunderstanding.

For several years, the author of this study has felt very strongly that most research and writings in management and organization are concerned with the operative activities of business at the expense of more basic aspects. To observe this, one need only consider the numerous books, articles and college courses which are devoted entirely to production management, personnel management, sales management, hotel management or radio station management. Or if not primarily concerned with operative activities, students in management address themselves solely to the actions of the manager. Examples here, among others, are planning, organizing, controlling, motivating, delegating, executing
and evaluating. This feeling is shared by others. Mr. E. F. L. Brech, a well-known British management expert, states the problem as follows:

Most of the studies in management which appear in the textbooks are concerned with the methods and procedures by means of which management is carried on. Management is often thought of either as accountancy and financial procedures, or as the application of technical knowledge in production, or as a semi-mythical personal superiority commonly labeled "leadership." Management may well contain any or all of these things, but it is in itself something more than any one of them or than the sum of them all. That little recognition has as yet been accorded to this specific nature of "management" is undoubtedly due to the limitation of the majority of managers, both in their practice and in their outlook, to a certain part of management only—they are works managers, office managers, personnel managers, department managers.  

Recently, we have observed among scholars and practitioners an awareness of the importance of objectives as a basis for management thinking. Are objectives the starting point, the basis from which one can build a philosophy of management? This then becomes the purpose of this study. Stated another way, can all management actions and decisions be related to objectives? The first sentence of Aristotle's Politics suggests that all systems of human cooperation are set up for some purpose. An attempt will be made to

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ascertain the validity of Aristotle's statement in terms of today's management environment. To understand the environment in which managers make decisions it seems appropriate that one understand what is being managed—the organization—and why it is being managed. An analysis of the nature of organized activities will broaden this understanding, assuming that organizations exist for some purpose, or for the attainment of objectives. Reflection along these lines will very naturally prompt questions as to the nature, formulation, and classification of objectives. This facet of management is explored and an attempt made to place objectives in an appropriate context. Logically, there follows a consideration of the limitations, both tangible and intangible, that one must recognize and consider in the determination of the general path to follow (guidance to be provided) in the attainment of these objectives.

Management methods, procedures, techniques, systems and processes must then be selected and the cost in terms of resources must be determined in order to select the course of action which will either maximize attainment with a given cost or accomplish a stated level of attainment at minimum cost.

Resources must next be acquired and distributed. Directions must be given to assure the performance of activities (by people) which will successfully accomplish the organizational objectives. This attainment of objectives
through the performance of activities by people must be planned, organized and controlled. Much support validates the above as the objective of management. Mary Cushing Niles, one of the more astute students of management, precisely expresses the point. "The job of management is to achieve the common objectives with the resources available."5

In every managerial situation decisions must be made and most decisions affect people. The decision process and the human relations aspects of management will be analyzed and an endeavor made to relate them to the objectives of the organization.6

Research will be made to ascertain if there is a logical division between the objective of management and the content of management. Does the manager have some basic framework against which he can apply the tools, functions, and techniques of management? If this relationship can be shown it will assist in clarifying the fundamentals of management.

This study seeks out the universality of management thinking, attempting to clarify the semantics where possible. Do managers have the same thing in mind when they speak of


ends, purposes, tasks, goals, missions or objectives? Do all decisions made by management relate to objectives? Can it be shown that activities are performed in terms of quality, quantity, time, and by the utilization of resources? If so, what are the relationships between activities and objectives? Does, or should the framework of management philosophies, doctrines, principles and theories evolve around this relationship? These are the questions to which this study is addressed. The answers to these questions is the expected result. The objective throughout is the pulling together of these complex and varied parts—the organs to the organism—into an understandable whole, with reference made to the more detailed studies of the operative functions. An understanding of the nature of organization (the organism) and the relationship of its parts (the brains, systems, muscles and fat) should enhance the study of management philosophy and assist in a better understanding of the objectives of management activities; it may result in the basic formulation of an acceptable management philosophy.

The philosophical approach is not new. It may have been temporarily shelved with advances in techniques and methods being nothing short of spectacular. The approach of one of the greatest "thinkers" of all time—Aristotle—has influenced the author in attempting to revive this philosophical basis. In his *Logic* Aristotle reflects upon
the character and validity of mental processes. There is, he saw, a "grammar" governing correct thinking, which the grammar of language follows and expresses. Just as all the profusion of speech may be reduced to a limited number of "parts of Speech," so may all our reasoning make use of eight or, at the most, ten categories:

1. Substance  
2. Quality  
3. Relation  
4. Quantity  
5. Time  
6. Place  
7. Action  
8. Being Acted Upon or Affected  
9. Perhaps State and Position

There is nothing we can think about that does not fall under one or another of these headings. Not being inclined, or qualified philosophically, to debate the validity of Aristotelian logic, the author has accepted the approach and has attempted its application to this study of Management by Objectives: A Philosophy.

Managers are not compensated for their physical ability to produce a good or service. They are compensated, and some have said quite handsomely, for their managerial skills. Stated another way, they are paid for making decisions. On what basis do they make decisions? They obtain concepts from reading, observing and listening. They mentally manipulate these concepts into ideas both quantitatively (creativity) and qualitatively (logic). This thinking or decision-process

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7 Aristotle's Logic or Organon comprises the Prior and Posterior Analytics, the Topics, the Sophistici Elendu, the Categories and the De Interpretatione.
can only be meaningful if they, as managers, can successfully
communicate these decisions. And this must, in most
instances, be done orally or through the medium of writing.
The processes of gathering concepts, thinking, and communi-
cating may be classified as PERSONAL SKILLS. How personal
skills are applied in the attainment of the objective of
management will be discussed.

This study is primarily one of relating the various
aspects of management and of placing each managerial action
in its proper niche—if this be possible. This study does
not attempt to analyze or evaluate present management prin-
ciples, functions or techniques except where it is deemed
appropriate in order to clarify a particular point. Rather,
reference is freely made to current analyses and evaluations.
The subject of management is too broad to include herein all
of its methods, procedures and techniques. The author has
been selective but inclusive enough to support or reject the
hypothesis that has been postulated.

The methods utilized in this study include--

1. A thorough research of current and historical
literature in management and the related
sciences.

2. Personal interviews with approximately one-
hundred professional managers and leading
academicians in Schools of Business throughout
the United States.

3. Presentation of the findings (chapter by chapter)
to the staff and students of the USAF, School of
Logistics.
In each of the methods enumerated above, the author has sought an unbiased acceptance, modification or rejection of the ideas presented. In order to successfully accomplish the objectives sought and to maximize the results obtained from the methods proposed it was necessary to formulate a "plan of attack."

The "plan of attack" chosen consists of dividing this study into logical, manageable parts. Each part is considered in one chapter. Each chapter is a stepping stone from which to proceed to the next chapter. In Chapter I, introductory in nature, it has been proposed that from the broad field of management it may be possible to find a generality of thinking around which all management philosophy, principles and techniques evolve. The hypothesis has been introduced that Management by Objectives may be this common basis. In Chapter II, an attempt is made to discover if, or how, man's wants, needs and aspirations form the basis for all organizational undertakings. The objective of management as it relates to the content of management is analyzed. Chapter III explores the transition from man's wants, needs and aspirations to organizational objectives and how these objectives might be formulated in order that they may have tangible reality to all concerned. With objectives established, Chapter IV outlines the limitations with which the manager is faced in devising the means for attaining the
objectives. These limitations include both physical resources and intangibles such as moral, ethical and legal about which the manager must be knowledgeable. Chapter V analyzes the guidance that must be provided in order that all members of the organization may make maximum contribution toward the attainment of the common objective within the limitations prescribed. Chapter VI takes up the next logical link in the chain of managerial events—the selection of the plan, program, method, procedure or system that will maximize the attainment of the objective. Physical resources are required before any plan or program can be implemented. Chapter VII discusses the determination, acquisition and distribution of resources necessary for the attainment of objectives and the relationship of these actions to the limitations discussed in Chapter IV.

Chapters III through VII are summarized in Chapter VIII. Here the various aspects considered are integrated into an activity cycle. Activities as they are related to objectives are discussed. The criteria of quality, quantity, time, and the utilization of resources are analyzed as they relate to the objectives-activities concept.

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8 Resources include (1) manpower, (2) material and equipment, (3) facilities, (4) services, and (5) money—the common denominator.
Starting with Chapter IX the content of management is discussed as it relates to the activity cycle. Chapter X is an attempt to relate the functions of management to the attainment of objectives through performance of activities by people.

Chapter XI discusses observations related to the research, summarizes the findings of this study, conclusions reached, and makes recommendations as to how these findings may be used by managers.

There is one appendix which gives definitions of common management terms used throughout the study.

In summary, the study seeks to show how managers, through the utilization of personal skills, formulate the content of management to attain the objective of management—which is to maximize the satisfactions of wants, needs and aspirations of those who have associated themselves with organizations seeking a common objective and having a mutuality of interest.
CHAPTER II

THE NATURE OF ORGANIZED ACTIVITY

Whenever people gather to pursue a common and desired end, there is an inevitable necessity to organize minds, hands, materials and the use of time for efficient and contributory activity. The objective of management is to assure the maximum satisfaction of these common and desired ends with a given amount of activity. Since the purpose of this study is to relate the management function to the objectives of an organization, an inquiry into the nature of organized activity and a search for the basic source from which objectives arise seems appropriate.

Efficiency in management relates to how well the manager manages. Efficiency of the organization relates to how well the organization as a whole performs in the attainment of total organizational objectives. The discussion in this chapter concerns itself with the purpose or why of the organization rather than the efficiency of management.

Purpose of Organizations

Organized activities are performed by man and for man, and for the purpose of attaining some common objective. Many are the reasons given why man becomes associated with what are termed organizations.
Man joins organizations because he believes that his personal objectives can be more successfully attained by entering into a cooperative arrangement with others who have similar aims. To quote from one of Mary Cushing Niles' more recent publications:

An enterprise comes into being to accomplish an objective or a series of objectives which can be attained better by a group of people than by one person alone. People join the enterprise in order to satisfy their needs, desires and aspirations. They will not join unless they believe that the gains from association will outweigh the burdens they assume as members. The motive or motives with which they join call for a satisfaction of at least some of their needs and desires through the organization.

The first requirement for organization is the seeking of a mutual aim by man. Organization is the form of every human association for the attainment of a common purpose. Organization has as its first principle the coordinating of group effort to provide unity of action in the pursuit of a common objective. James D. Mooney, one of the pioneers in the study of organization, covers this point extremely well.

Community of interest is the legitimate basis of every organization. In searching for its psychic fundamentals we find that it can mean only mutuality of interest. This in turn implies mutual duties, which means the obligation to mutual service. This obligation is universal, transcending, therefore, the sphere of organization. As expressed in the ancient Roman juridical maxim do ut des (I give that thou mayest give), it is the manifest basis of all human relations...

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A true coordination must be based on a real community of interest in the attainment of the desired object. It is equally true that a community of interest that is real, not only in the objective sense but likewise in everybody's consciousness, can come only through a real community of understanding. This means not merely that administration and members must understand each other, but that each and all must understand that the real purpose is and, furthermore, that every group represented in the organization must understand how and why the attainment of this purpose is essential to the welfare of all.

The reason, we think, is obvious. Mutuality of interest or, let us say, a common interest, does not, so far as human consciousness is concerned, constitute an identity of interest. The only conceivable means of attaining a true integration of all group interests in organization is through administrative policies that will make this community of interest a more tangible reality to every member of the group. 2

Planning Objectives

The last statement of the quotation from Mooney brings out the nature of the manager's first planning situation. This situation involves the formulation of objectives that will maximize the satisfaction of wants, desires or aspirations. The organization objectives must be formulated in such a manner that they have tangible reality to every member of the group. This particular aspect of the manager's responsibility may have been given too little attention by managers or students of management. It may be the most important aspect. The author feels the sociological point 2

of view may now be missing in management's conceptual thinking. This calls for a re-examination by managers of some of the basic assumptions concerning the purposes and functions of enterprises. In the opinion of the author, managers are not inclined to philosophize. They feel no real aptitude for theorizing about what they do. They are essentially doers—as the word executive implies. They are accustomed to dealing with the practical realities of the shop and marketplace. But there are indications that some businessmen are looking beyond the factory and consumer.

The last 25 or 30 years have encompassed great changes in our way of life and thought and these changes have had a fundamental effect on the dynamics of management. A business is no longer purely a private concern. It is a social institution as well as a profit-making enterprise. For organizational objectives to have tangible reality to all members of the organization they must go beyond the objective of profit.

Benjamin M. Selekman has recently written a book entirely devoted to this subject. In the preface of his book he states:

Happily, the day is gone when business regarded labor as a commodity and the community as something outside its concern. As we advance into the
Twentieth Century, spokesmen for industry are increasingly articulating a philosophy of moral and social responsibility.\(^3\)

The changes in our American economy and in the role and function of management have taken place gradually and in some instances almost imperceptibly, but they are revolutionary in total. They have radically altered the manager's job.

**The Manager's Role**

A new look at the manager's role may well begin with bridging the gap between man's wants and the organizational objectives management has formulated. Dean Stanley F. Teele of the Harvard Business School has observed:

> A man's personal philosophy, his way of looking at the world and the men and women around him determine his success as a manager of things and people more than any other single factor. His basic attitudes are far more significant than the techniques he uses.\(^4\)

The knowledge that business organization has a social as well as a logical structure throws considerable light upon the satisfactions and dissatisfactions of people at work. Take, for example, the informal groupings of people which tend to develop around work routines. Far from being


undesirable and a hindrance to greater effectiveness, these informal groups provide the setting which makes men willing to cooperate. They give people a place, a feeling of "belonging," and a sense of importance. The manager should consider this social aspect of his job. Drucker says:

Managing a business has primacy because the enterprise is an economic institution; but managing managers and managing workers and work have primacy precisely because society is not an economic institution and is therefore vitally interested in these two areas of management in which basic social beliefs and aims are being realized.5

The society in America today has developed a very complex and intricate kind of administrative machinery for institutional and governmental operations. The complexity and interdependence of our society have forced our attention to social responsibility in administration to a greater degree than ever before. For management, the answer lies in creating conditions such that efforts directed toward the objectives of the organization yield genuine satisfactions of important human needs.

The manager's basic attitudes should include consideration of man's wants, desires or aspirations and how these are to be satisfied by the organization's activities.

Man's Basic Wants, Needs and Aspirations

The basic wants or desires of man are the basis or the motivating force from which personal objectives arise. We can look to the social economists, the sociologists, the psychologists, the philosophers, and the anthropologists for explanations of these basic wants or desires.

Man strives to meet his (1) physical requirements and (2) psychological requirements. He wants to be well off physically and secure and wanted psychologically. Here is an expansion of these basic requirements that was offered by Drs. Harry and Bonaro Overstreet in a discussion before the California Training Directors Association in 1953.

1. The need to be affirmed as a person, appreciated as a person, to be hoped about as a person.
2. The need for a number of basic skills:
   --Skill with materials (not a fumbler)
   --Skill with his own body (swimming, skating)
   --Skill in some field of work
   --Skill with tools of communication (not a bottled-up person)
3. The need for responsible sharing-contributing.
4. The need for imagination about others. Empathy--the ability to put ourselves within the point of view of the other person.
5. The need for imagination about the possible, about the "what may be." To be inventive, creative.
6. The need for perspective on the human situation. A "big picture" look at his job, his company, his world.
7. The need for the experience of contact with that which is immeasurably greater than himself. To sense and to build the kind of above-mediocre quality that makes a great individual.6

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6As reported in The Journal of Industrial Training, May-June 1953, p. 36.
Another list of motivating factors has been supplied by Professor Douglas McGregor. He puts them in "first-things-first" order.

1. Physiological or biochemical needs (food, shelter).
2. Safety needs (protection against danger, threat, or deprivation).
3. Social needs (belonging, acceptance, love).
4. Egoistic needs (self confidence, independence, status, deserved respect).
5. Striving for self-fulfillment (self-development and the sense of having fulfilled one's mission in life).7

McGregor makes two very important additional points:

- Once a need has been satisfied, it ceases to motivate.
- Some needs cannot be given or bargained for (social, egoistic, and self-fulfillment). These are up to the individual.

The importance of McGregor's points is this. Most of the needs that can be "given" (food, shelter, safety) have been given. The new horizon in motivation and morale is in helping people help themselves.

For a politico-economic definition of man's prime goals we can turn to two Yale economists:

The important prime goals of human beings in Western societies include existence or survival, physiological gratifications (through food, sex, sleep, and comfort), love and affection, respect, self-respect, power or control, skill, enlightenment, prestige, aesthetic satisfaction, excitement, novelty, and many others. These are the ultimate

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criteria by which we would like to test alternative politico-economic devices. But to use criteria of this kind would force one to a level of specificity that would require an encyclopedia of particular techniques.

On the other hand, there are seven goals that govern both the degree to which these prime goals of individuals are attained and the manner of deciding who is to attain his goals when indi­viduals conflict in their goal seeking. For most of the seven, conventional names despite the diffi­culty of dissociating them from the penumbra created by traditional usage. These seven instru­mental goals are freedom, rationality, democracy, subjective equality, security, progress, and ap­propriate inclusion.\(^8\)

The kinds of needs that motivate human behavior have been described in many ways. In fact, there are so many different views on the subject that leading psychologists and human relation experts do not agree on any one correct list of needs or on any single method of classifying them.

There is, however, one comparatively simple way to group human needs so that they may be studied effectively, and for our purpose, examined for their influence on employee behavior. Most human needs may be divided into three groups:

1. Physical needs
2. Social needs
3. Personal needs

The first group covers needs such as food, water, air, temperature control, sleep—all of the needs that exist as a result of the way our bodies are constructed. Physical needs

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are the things we take care of first with the dollar-and-cents pay we take home from work. We buy food, clothing, shelter, and the various other items that satisfy the most primitive of our needs—bodily comfort.

As soon as we are born we begin to develop what are known as social needs. A child must depend upon other people for the satisfaction of his physical needs, and because of this early conditioning, he continues to seek the company of others throughout life.

Mr. Marrow, as President of the Harwood Company, and a Professor at the New York School for Social Research, should be competent to speak on this subject. He states:

Man is essentially social, and lives in companies. Somehow, wherever an individual is, he needs to belong. Not belonging produces a personality shaky in all his relationships and prone to anxiety and indecision. He is like a child reared without the security of parental love. Group belongingness, on the other hand, gives him assurance of a secure place in the world around him. The color and tone and strength of his beliefs are borrowed from those around him: from his family, schoolmates, friends, fellow workers. Thus, he can be understood only in the framework of the groups of which he chooses to be a part.9

It is not difficult to find these social needs at work in determining behavior. They appear in our family circles, in our visits with friends, in our club and group affiliations, and in the many other ways we seek the companionship of others.

Anyone who has felt the pangs of loneliness will testify to the strength of this desire to fulfill our social needs. Perhaps the most graphic illustration of its power is the fact that solitary confinement is an extreme punishment for the rebellious prisoner.

We have seen that our social needs originate in the early satisfaction of our physical needs. In like manner the third group of human needs stems from our social contacts. This group, called personal needs, serves the ego or gives us satisfaction in achievement, position, and power. We attempt to gain recognition, to acquire possessions that give us status, to obtain control over a group or a situation.

In summary, human behavior is motivated by three groups of human needs:

1. Physical needs—those concerned with bodily comfort.

2. Social needs—those centering around relationships with other people.

3. Personal needs—those which serve the ego.

As we examine further the three groups of needs, it is apparent that the physical needs demand first attention. When jobs are scarce, we are happy to be working, and we do not worry too much about such things as good companionship or opportunity for promotion. On the other hand, when wages are high and jobs are plentiful, the satisfaction of our
physical needs and the demand for their satisfaction increases.

No strict rule ranks social and personal needs, since the urge to satisfy them varies with the individual. One employee, for example, may consider good working companions more important than the opportunity to use his own ideas on a job, while another may take the opposite view.

When we rank needs, therefore, our physical needs are primary, since they must be satisfied first. Social and personal needs are secondary, since they arise only after our physical needs have been met.

Man joins organizations to satisfy some want, need or aspiration. Furthermore, we can conclude that a system of motivation is an essential ingredient in any organization. It is a permanent feature of an organization and tends to reflect the nature of the organization, its goals, objectives, and underlying philosophy. This motivating force must be related to organizational objectives. That is the recommendation of Ben D. Mills, Vice President of the Ford Motor Company.

The strongest motivating force that exists in the human being, says Mr. Mills, is the pride of achievement. All aspects of management philosophy, he declares, must be aimed at tapping his powerful force. The first element of such a philosophy should be management by objectives, not authority.

He urges that industry make an effort to build in each worker a clear understanding of the organization's objectives as a way of fostering a personal identification with those objectives as the basis
for the individual to take personal pride in what he is doing.

To hold such a philosophy of management together, Mr. Mills says, an executive must be guided constantly by an effort to be truly objective and to maintain consistency. The only other alternative, he says, is continuation of the present tendency of most people to work out of a kind of fear of the person who supervises their efforts.10

People may belong to many organizations in the search for satisfaction of wants and desires. In each organization there will be common purpose among groups both within the organization and groups outside the organization but who have direct interests. Examples of the latter are customers, vendors and the community.

Whether for good or bad, people must increasingly depend for livelihood, urban amenities, recreation and social services upon a myriad of management institutions. These include factories, offices, schools, churches, merchandising units, governmental agencies, hospitals, hotels, railroads, airlines, social clubs and so on without end. Man may belong to 30 to 50 organizations and have relationships with thousands of others. The manager must understand the nature of the relationships among organizations.

10 From an article entitled "Executive Trends," Nation's Business, XLVI, Number 5, May, 1958, p. 97.
Environmental Aspects

All organizations must function within the environment of organized society. This environment consists of many aspects. Professor Michael J. Jucius sees many problems facing the manager who accepts the challenge of learning how to live and work together in greater harmony and with greater satisfaction to all concerned. He states:

Many problems beset this challenge. Their breadth and importance may be quickly seen in the following classification of who is interested in labor problems:

I. The efforts of labor to improve its economic, political, and social position by means of --
   A. The personal powers of the individual worker.
   B. Organized groups as contrasted with individual efforts.
   C. Industry-wide as contrasted with company-wide activities.

II. The efforts of employers to direct, utilize, and control labor in terms of --
   A. The individual worker.
   B. Organized groups of workers.
   C. The confines of a given factory, office, or other business enterprise.
   D. Industry in general as an institution of production and distribution.

III. The multilateral relations between labor, employer, government, and the general public in terms of --
   A. Economic aspects.
   B. Social aspects.
   C. Psychological aspects.
D. Political aspects.
E. Legal aspects.\textsuperscript{11}

Additionally, many organizational units are a part of larger organizations.

The manager in determining what the organizational objectives should be must thoroughly understand the environment in which the activities of the organization take place. In the military this is generally referred to as an "estimate of the situation."

Environmental factors change; organized society is a dynamic institution. To evaluate fully and utilize the forces within organized society the manager must not only understand the basis of these forces but he must be ever alert for changes. He must be able to forecast these changes with considerable accuracy. He must be able to make changes. In one area (economics) some managers have been aware of this need. As a result of this awareness many large organizations are seeking the assistance of economists and other social scientists in determining the nature of the environment, both currently and to look into the future.

Considering the nation as an organization we can refer to President Eisenhower's State of the Union message wherein he made it very clear that an understanding of the environment

is necessary adequately to formulate organizational objectives.

If progress is to be steady we must have long-term guides extending far ahead, certainly 5, possibly even 10 years. They must reflect the knowledge that before the end of 5 years we will have a population of more than 190 million. They must be goals that stand high, and so inspire every citizen to climb always toward mounting levels of moral, intellectual and material strength. Every advance toward them cannot do other than serve to stir pride in individual and national achievements. To define these goals, I intend to mobilize help from every available source.

We need more than politically ordained national objectives if we are to challenge the best efforts of free men and women. A group of selfless, able, and devoted individuals, outside of governments, could effectively participate in making the necessary appraisal of the potentials of our future.

The result would be the establishment of national goals that would not only spur us on to our finest efforts, but also would meet the stern test of practicality.

The committee I plan will comprise educators and representatives of labor, management, finance, the professions, and every other kind of useful activity. 12

Mr. Peter Drucker, one of the best known authors and consultants in the field of management, has recognized the need for long range planning that will incorporate social and moral responsibilities into organizational objectives.

Two important trends in American management in the last generation have been (1) the emphasis on long range planning and systematic organization

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12From the State of the Union Address of the President of the United States, January, 1959.
to achieve formulated objectives, and (2) the steady recognition of the social and moral responsibilities of management, calling for broader skills and higher performance standards.13

Relationship of Needs to Objectives

To formulate organizational objectives the manager14 must understand the basic needs of persons, both inside and outside the organization, who have associated themselves with the organization expecting to satisfy these needs (either directly or indirectly). He must understand group needs as well as personal needs; what motivates individuals and groups; and, communication systems through which he (the manager) can learn about and be responsive to these needs.

An attempt has been made in Figure 1 to portray the relationships of these individual needs to the formulation of organizational objectives considering the environmental factors or organized society.

Reference to this figure is made throughout the entire study. Each facet of management is given its proper niche. The performance of activities in a manner that will attain objectives which in turn satisfies man's wants, desires and


14The term manager is used here in its broadest sense—to include those responsible for formulating organizational objectives.
ORGANIZED SOCIETY and/or NEXT HIGHER LEVEL IN THE ORGANIZATION

OBJECTIVES

BASIC WANTS OR NEEDS FOR WHICH THE INDIVIDUAL SATISFACTION OF NEEDS
THROUGH THE ORGANIZATION MANAGEMENT
SEES
SATISFACTION

SATISFACTION OF NEEDS

CONTRIBUTIONS TO SOCIETY

Persons within the organization
Managers, Executives
Supervisors, Staff Workers, Owners, etc.

Persons outside the organization
Owners, Lenders
Vendors, Customers
Community, etc.

FIGURE 1
NATURE OF ORGANIZED ACTIVITY
aspirations—the objective of management—as it relates to the content of management is a basic tenet, utilizing Figure 1 as a graphic aid.

The study of values becomes an interesting part of management's understanding of human wants. What positive motivational tools will activate man is another area of consideration. However, an analysis of these areas is not the objective of this study, nor is a full explanation necessary, in an attempt to relate man's wants to organizational objectives.\textsuperscript{15}

\textbf{Social Versus Economic Responsibilities}

The temptation for the manager is to treat social responsibilities and economic responsibilities of his position as though they are separate and independent and have no connection whatsoever. This is very far from being the true situation. The manager's responsibilities are to people or groups of people and the problems that arise in relation to these people are both economic and social. All too many managers consider their social responsibilities, like their religion, something to do on rare occasions to soothe the conscience. The point is that both social responsibilities and economic responsibilities are factors in every business

problem, and they cannot be considered separately and apart from each other.

The mistake of separating the economic and social aspects of life strikes at the very heart of most of our social problems. We have made great strides and progress in technical skills but our social skills lag far behind. This is a point that is made often and its importance is pointed up in the following quotation from *Ethics in a Business Society*:

In his "Antropological View of Economics" Professor Ralph Linton of Yale University recognizes that the extreme stress on individualism in our time, and the consequent uprootedness and mobility to which rapid technological change has contributed, results in a breakdown of the close and continuing social ties coming out of the past. As Professor Linton points out, a considerable part of the modern industrial population in our age passes its life without any real roots and, therefore, with both the freedom for individual choice and the psychological insecurity which this condition means. Inevitably the values of power and prestige come to take precedence over all others. And the symbols of prestige tend to reduce themselves to such obvious tokens as mink coats and shiny automobiles. Yet Professor Linton is sufficiently optimistic to believe that in view of what we know of human behavior in general it is highly probable that the present phase of social disintegration is transitory.16

In the same book, Professor Donald Snygg points out that entirely too much emphasis is placed upon the motive of what he calls "greed" and not nearly enough stress is placed

upon the motive of service inherent in our society.\footnote{Professor Donald Syngg, \textit{ibid.}, p. 19.} Although it is always dangerous to generalize, progress in our industrial age over the last fifty years certainly has been highlighted by tremendous technical advancement, growth of the big into the gigantic organization, and the consequent mass production of almost every type of physical good. As a result of this overemphasis upon the technical, and lack of progress in social and human relations, individual differences have been relegated to an unimportant place in society and all types of social problems have emerged on the industrial scene. All progress has come to be evaluated in terms of economic gains to the dire neglect of moral and social aspects of our industrial life.

Business and social leaders are beginning to take a new look at the industrial situation and increasingly are recognizing that our social problems are not social problems alone but also include economic factors. There are economic problems likewise which carry with them certain social responsibilities. We may be able to build a business system of competition in other things than money and material rewards. The task for today is to preserve the element of competitiveness and at the same time to mitigate its direct consequences. We need above all to learn, and there are some signs that perhaps we are beginning to learn, competitiveness.
for things other than money and the material rewards; com-
petitiveness in serving others, in sharing, in extending to
more and more people the enjoyment of what is good and true
and beautiful.

Elton Mayo comes to the conclusion that every social
group has two basic problems of management. He says the
group must secure for its individual and group membership:

1. The satisfaction of material and economic
   needs.

2. The maintenance of spontaneous cooperation
   throughout the organization.\(^{18}\)

Mayo makes the point that social cooperation cannot
be left to chance and that historically and traditionally
our forefathers worked for this type of social cooperation.
He refers to the social research of LePlay to indicate that
in the simpler and smaller communities, where the chief
occupation is agriculture or fishing, there is a stability
of social order that has ceased to characterize highly
developed industrial centers. He attributes this condition
to a lack of skills on the part of members of large organiza-
tions to work together successfully. Primarily out of the
ordered security of the small community where the individual
grows up, he learns from day to day how to live with the
group and what is expected of him. Thus, the individual is

\(^{18}\)Elton Mayo, *The Social Problems of an Industrial Civiliza-
able and eager to subordinate his own desires to the interests of the group. In the large industrial organization the problem is nowise as simple nor has it received as much attention as in the smaller groups. This same point is well made in Management and the Worker.

An industrial organization may be regarded as performing two major functions, that of producing a product and that of creating and distributing satisfactions among the individual members of the organization. The first function is ordinarily called economic. From this point of view the functioning of the concern is frequently assessed in such terms as labor turnover, tenure of employment, sickness and accident rate, wages, employee attitudes, etc. The industrial concern is continually confronted, therefore, with two sets of major problems: (1) problems of external balance, and (2) problems of internal equilibrium. The problems of external balance are generally assumed to be economic; that is, problems of competition, adjusting the organization to meet changing price levels, etc. The problems of internal equilibrium are chiefly concerned with the maintenance of a kind of social organization in which individuals and groups through working together can satisfy their own desires.19

As our human enterprises have expanded in number and in complexity, we have added to our knowledge of some of the factors and phenomena entering into the process, but we have not gained a clear perspective and understanding of the dynamics of the process as a whole. Therefore, we have not been able to develop better techniques for the operation of that process which are required to effect needed improvements.

in human cooperation and permit more efficient human enterprise. The development of a managerial philosophy must encompass the social aspects of organizations. This must be a philosophy that is a real integration, a blending of everything that is important. Managers of tomorrow, to be successful must become statesmen, leaders of institutions of society rather than profit-making business. This does not imply that profits are not needed. The organization must survive. But profits will not be as important a tool for measuring success as they have been in the past. Mr. Dimock has stated that the, "Only philosophy of administration which promises relief from the deadening effects of bureaucracy is administration by objectives.\textsuperscript{20}

Management faces at the present time a crisis in respect to its national status and influence. Management has formal authority but is it exercising true leadership? Formal authority is of little effect without the ability to move men's minds and hearts, and for this there must be a common acceptance of purpose. Does management know what its objectives are? If it does, it is clear it has failed to get them across. Too frequently, it seems, it confines its efforts, to one point--the need to make a profit; there is, however, a further more basic objective of management. That

is to serve the community; provide a just reward to capital; reward and satisfy the members of the organization.

Much of what has been said in this chapter has dealt with business organizations, but it is equally applicable as an approach to understanding other formal organizations such as churches, clubs, schools, and so forth. For the purposes of this study the following definition of organization is given: A group of people in a cooperative task in which specific goals are given for the group as a whole. In its broadest sense an organization is any group of persons formally brought together to work toward a common objective.

**Characteristics of an Organization**

It is easier to describe than to define what is meant by organization. The following may be considered its principal characteristics:

1. An organization is a formal grouping of people. We are not concerned with spontaneous informal groupings except as they occur within the framework of a formal organization.

2. An organization has fundamental needs or goals under which it unites people in interrelated tasks.

3. An organization involves deliberate and purposeful actions among men in order to maintain the cooperative system.

4. An organization is a social system. It has a formal structure that designates the superior and subordinate relationship.
5. Every relatively permanent organization has a body of doctrines and techniques. While these may, in a broad and general way, be common to other similar organizations, they also are to a certain extent unique and they give each organization a synthetic character of its own.

6. Every relatively permanent organization develops its own internal life which tends toward a closed system. The organization develops needs of its own that are separate and distinct from the over-all goals. They deal with providing continuity in policy and leadership and the maintenance of continuous consent of the individuals who make up the organization as a whole.

7. In addition to its internal needs the organization has to adjust to a broader environment. It is subjected to a number of pressures from sources outside its immediate control.

**Summary**

Organizations are formed by man and for man, and for the purpose of attaining some common objective. Man joins organizations because he believes that his wants, needs, desires, and aspirations can be more fully satisfied by working with others rather than working alone.
The organizations objectives should be formulated in such a manner that they have tangible reality to every member of the group. The acceptance of these objectives by each member provides motivation. Man is motivated by his desire to satisfy his (1) physical requirements and (2) psychological requirements.
CHAPTER III

OBJECTIVES

In current thinking and writing, the starting point for either a philosophy or practice of management seems to center around objectives. This chapter will analyze the manager's role and the organization's activities as they relate to objectives. Also a proposal for classification of objectives will be given. Before we undertake to classify objectives or establish criteria for their formulation let us examine the relationships of objectives to activity.

Objectives--The Starting Point

Our next premise is that objectives are attained by performing activities. This can be shown graphically, as in Figure 2. What is depicted in Figure 2 is the meshing of each objective into an activity in such a manner that they seem to become an entity. Objectives are divided and subdivided to the point where each individual has an objective which is traceable to the total organizational objective. Each individual activity performed by the worker can be added with other activities until the summation of all activities results in the total organizational activity.
FIGURE 2
OBJECTIVES VS ACTIVITIES
For each activity there must be an objective. For each objective, if it is to be attained, there must be an activity. In the preceding discussion we said that "organizations exist for the attainment of objectives." These can be related one to the other. The objectives are divided, and subdivided until each member of the organization knows exactly that for which he is accountable. This, of course involves responsibility and authority which will be considered later. Here we are interested in the objective of management, and for emphasis this can be again stated (the objective of management is the satisfaction of wants—by establishing organizational objectives and attaining these objectives through performance of activities by people).

To carry our logic one step further:

1. Organizations exist for attainment of objectives.
2. Objectives are attained by performing activities.

Now we add:

3. Activities are performed in terms of quantity, quality and at a given time.

**Characteristics of Objectives**

*Quality-Quantity-Time*

This last premise the author accepts as a truth. Persons may not have been given predetermined quality, quantity and time criteria for what they are doing, but once the activity is performed these characteristics are factual and need only be measured. The fatalistic aspect of the latter
is that it is purely coincidental if the activity performed attains the objective.

We can say that to assure any degree of success in the attainment of objectives the objectives themselves must be given quality, quantity, and time characteristics. A strong case can be made (and is made later) that without giving objectives these characteristics the manager will be unable scientifically to determine the resources needed to perform the activity.

Borrowing from military experience the following example should exemplify this point.

<table>
<thead>
<tr>
<th>LEVEL OF ORGANIZATION</th>
<th>OBJECTIVE</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States Air Force</td>
<td>Deter enemy attack and Defend the United States</td>
</tr>
<tr>
<td>Strategic Air Command</td>
<td>To keep &quot;X&quot; number of heavy and medium bomb wings combat ready</td>
</tr>
<tr>
<td>&quot;X&quot; Air Division</td>
<td>To keep &quot;XYZ&quot; and &quot;XWY&quot; wings combat ready</td>
</tr>
<tr>
<td>&quot;U&quot; Air Force Base</td>
<td>To provide all services for &quot;XYZ Wing&quot;</td>
</tr>
<tr>
<td>Installation Office</td>
<td>Maintain all facilities</td>
</tr>
<tr>
<td>Airfield Maintenance Dept.</td>
<td>Maintain Runways</td>
</tr>
<tr>
<td></td>
<td>Remove Snow Activity</td>
</tr>
</tbody>
</table>

The question now facing the manager is how many and what types of snow plows and operators does the organization
need. Unless the manager knows how much snow must be removed (quantity), how thoroughly the runway must be cleaned (quality), and how long he has to do the job (time) his planning must, of necessity be based on assumptions. The objective may or may not be attained. The manager will have no firm basis for determining the resources needed. Neither will he be able to control the snow-removing activity.

Control of activities can only be done in terms of quality, quantity, and time (control of utilization of resources—cost—will be covered later). A part of control is measuring activities to see if objectives are being, or were, attained in accordance with the plan. Peter Drucker gives emphasis to this point:

The real difficulty lies indeed not in determining what objectives we need, but in deciding how to set them. There is only one fruitful way to make this decision: by determining what shall be measured in each area and what the yardstick of measurement should be. For the measurement used determines what one pays attention to. It makes things visible and tangible. The things included in the measurement become relevant; the things omitted are out of sight and out of mind. "Intelligence is what the Intelligence Test measures"—that well-worn quip is used by the psychologist to disclaim omniscience and infallibility for his gadget. Parents or teachers, however, including those well aware of the shakiness of its theory and its mode of calculation, sometimes tend to see that precise-looking measurement of the "I.Q." every time they look at little Susie—toward the point where they may no longer see little Susie at all.
Unfortunately the measurements available to us in the key areas of business enterprise are, by and large, even shakier than the I.Q. We have adequate concepts only for measuring market standing. For something as obvious as profitability we have only a rubber yardstick, and we have no real tools at all to determine how much profitability is necessary. In respect to innovation and, even more, to productivity, we hardly know more than what ought to be done. And in the other areas—including physical and financial resources—we are reduced to statements of intentions rather than goals and measurements for their attainment. 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 the key areas, on thinking through what should be measured and on fashioning the tools of measurement.¹

Included in this measuring scheme will be the characteristics of quality, quantity, time, and the utilization of resources.

These characteristics can be balanced—"traded off." Lower the quality, and the quantity can be increased or the time of delivery advanced. Reduce the quantity, and the quality may be bettered or the time of completion advanced. The opposite is true in increasing quality or quantity or extended time.

Quality, quantity, and time are the basic categories of action around which management evolves; around which decision making centers; and, should only be thought of in terms of

objectives. Each managerial action must be related to objectives if satisfaction of wants through the attainment of objectives is to be maximized.

Classification of Objectives

A review of some of the diversity and universality of current thinking about organizational objectives may contribute to a better understanding of their importance.

The goal of the organization must be this— to make a better and better product to be sold at a lower and lower price. Profit cannot be the goal. Profit must be a by-product. This is state of mind and a philosophy. Actually, an organization doing this job as it can be done will make large profits, which must be properly divided between user, worker, and stockholder. This takes ability and character.

If we were to isolate the one factor, above all others, that transformed the tiny company of 1902 into the industrial giant of 1952— while hundreds of competitors failed and are forgotten— I should say that it has been Texaco's settled policy of thinking first of quality of product and service to the customer, and only second of the size of its profit. To some of you, this may sound somewhat trite. But it is the starkest kind of business realism. In a highly competitive industry such as ours, the highest rewards are reserved for those who render the greatest service.

United States Steel Corporation statement of general company objectives: To make and sell quality products competitively and to perform those functions at the lowest attainable cost consistent...
with sound management policies, so as to return an 
adequate profit after taxes for services rendered. As a corollary objective, the corporation must be the low-cost producer of the product it offers for sale.4

The mission of the business organization is to acquire, produce, and distribute certain values. The business objective, therefore, is the starting point for business thinking. The primary objectives of a business organization are always those economic values with which we serve the customer. The principal objective of a business- man, naturally, is profit. And profit is merely an academic consideration until we get the customer's dollar.5

Numerous further examples of published and stated objectives of modern business management could be presented. However, all of them could be summarized as follows:

1. Profit is the motivating force for managers.

2. Service to customers by the provision of desired economic values (goods and services) justifies the existence of the business.

3. Social responsibilities exist for managers in accordance with ethical and moral codes established by the society in which the industry resides.

Developing a modern management philosophy for successful practice requires a combination of the above objectives in the correct proportion. Every decentralized organizational unit and essential function must contribute


to the realization of the general objectives. Unless pre-determined objectives are set and accepted, little or no basis exists for measuring the success and effectiveness of those who perform management functions.

The alternative methods for dividing the objectives of an organization for the purposes of designed the content of management are numerous. They include, traditionally, function, product, location, customers, process, equipment and time. These divisions are normally, if not in all cases referring to activities or work. In line with previous reasoning the division of objectives is the more appropriate. Activities are only performed to accomplish objectives.

In the early 1940's Robert Porter set out a technique for coordinating the basic functions in the field of industrial organization. He set up seven major categories for classifying industrial activities, with three subsidiary classifications for each. The seven basic classifications are reworded and placed in the context of the division of objectives as follows:

I. **Technical objectives**
   A. Policy objectives
   B. Performance objectives
   C. Compensation objectives

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II. Functional objectives
   A. Planning objectives
   B. Production objectives
   C. Inspection objectives

III. Jurisdictional objectives
   A. Administrative objectives
   B. Management objectives
   C. Operational objectives

IV. Organizational objectives
   A. Communications objectives
   B. Coordination objectives
   C. Control objectives

V. Leadership objectives
   A. The objective of executive capacity dealing with intellect
   B. The objective of executive capacity dealing with volition
   C. The objective of executive capacity dealing with ethics

VI. Institutional objectives
   A. Employee stimulation objectives
   B. Employee application objectives
   C. Employee discipline objectives

VII. Measurement objectives
   A. Expectancy objectives
   B. Efficiency objectives
   C. Control objectives
Mr. Porter claimed that this plan of division has the advantages of economizing staff services, improving communications, cutting down jurisdictional problems and providing better balance in general. He also hoped to determine if the method of division used was secondary to the communicating and acceptance of objectives by all members of the organization.

**Division of Objectives**

There has been little written on the division of objectives. However, this does not reduce the need for developing a basis for use in dividing objectives. The following criteria may be found useful in dividing objectives.

1. Objectives should be so divided that the incumbent of a position should be able to become a specialist and increase his knowledge and skill in the attainment of that objective.

2. Objectives should be grouped in order to fully utilize the capacities and capabilities of the resources available.

3. Objectives should be grouped into workable, homogeneous and clear-cut areas. The nature of the activities required to attain the objectives should be similar or complimentary.

Mr. Ernest Dale, well known in management, says there are three major criteria useful in the division of objectives—economic, non-economic and the size of the organization.7

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There are many approaches to the division of objectives. Some of the more common ones are discussed herein in order to provide a basis for management decisions regarding division of objectives.

The United States Air Force has divided its objectives in accordance with certain specific roles. The Strategic Air Command has for its objective the providance of an offensive striking force. The Air Defense Command has as its objective providance of a defensive capability. The Air University Command is responsible for attaining the scientific and professional educational objectives of the USAF. The logistics function of the Air Force is being divided, for management purposes, into "Weapon Systems." Weapon systems management is truly an example of management by objectives.

Most management texts discuss the functional approach to the division of activities. Usually, the three major divisions are finance, production, and marketing. Examples can be found in our large industrial organizations of the division of objectives, either geographically or by product.

The point the author wishes to emphasize is that the division of objectives should precede the grouping of activities. The grouping of activities is a logical follow-on of the division of objectives. The distinction between the division of objectives and grouping of activities may not be entirely clear to some managers. Logical reasoning of
whatever means used to divide activities should result in discovering the true relationship between objectives and activities—objectives preceding activities.

**Steps in the Attainment of Objectives**

Attaining the **objectives** of management involves the application of the **content** of management. The author has formulated a series of steps which he finds useful, and which may assist the manager in his actions in going from objectives to activities:

- Organization Objectives
- Division of Objectives
- Determination of Decision Centers (involves auth, responsibility and accountability)
- Determination of Information needed to make Decisions
- Information Flow
- Design of Organizational Structure
- Assignment of Resources
- Actuation
- Activities

These steps are discussed more fully in Chapter IX.

The thoroughness and clarity with which management can perform these steps and communicate its decision will have considerable impact on management in areas relating to--

1. Span of control.
2. Qualifications required of personnel.
4. Need for policy.
5. Types of controls used.
6. Centralization vs decentralization.

In larger organizations the manager must delegate decision-making powers to the lowest organizational unit possessing the ability and having access to the information required to make the decision. The sheer magnitude of the number of such decisions to be made makes this aspect of management philosophy mandatory. In order to make sound decisions, persons using these powers must know at all times where the organization is going (long-range objectives) and how their decisions affect not only the future course of their own organization but that of other organizations and organized society as well. The ability to operate efficiently and effectively under a decentralized management philosophy will vary indirectly with the ability to define specific objectives for each organizational unit. The probability of making sound decisions would appear to increase in direct proportion to the correct understanding of these objectives at any level of an organization.

**Importance of Objectives**

Literature in the management field more and more is stressing the importance of objectives and the need for adequate knowledge and understanding of them at all levels.
of the organization. In discussing "the principle of the objective," L. Urwick states:

There must be an objective. That sounds obvious. But if undertakings are analyzed in detail it is quite extraordinary how many undertakings and parts of undertakings are discovered which are just going along by their own momentum with only the vaguest and most hazy idea of where they are trying to go or why.8

Holden, Fish and Smith state:

There is nothing about an organization more important than its future. Owners, management and employees, and society in general are or should be, more concerned about where a company is going than where it has been. In any institution the responsibility for visualizing, initiating and achieving future objectives rests with its top management.9

It can be assumed that every logical person has an objective which coincides with the effort (or lack of) he exerts. Whether or not he can "define" his objective will depend on many factors: his intelligence, his philosophy of life, the abstractness or concreteness of his objective and many other variables. His objective may be to "get along and do the best I can" or to "do as little as I can."

Nevertheless, it may be assumed that he does have an objective and that his efforts are indicative of the direction which he wishes or does not wish to go.


When the person is considered as part of an organized effort, however, the picture changes. His personal objectives may bear no relationship to the objective of the organized effort. It is highly probable that his contribution to the organized effort is, to him, a means to an end and he will contribute so long as his personal objectives are served. The personal objective of the individual as related to the objective assigned to the individual as part of an organization permits him or provides him with a means to an end whereby his personal objective is attained.

The personal contribution of groups of individuals in an organized effort must stem from the need for their contribution in attaining the objective of the organization as a whole. In the management of organized efforts there should, therefore, be some method or system by which individual organizational elements are given their proper place and purpose in the total endeavor. This place and purpose must be continuously revised as the total objective (total objectives to include personal objectives) of the organization varies.

The statements by some of the more dedicated students of management support the premise of "management by objectives," but we must look further for the means of attainment of these objectives.
Ordway Tead\textsuperscript{10} has approached the division of objectives from six general classifications: (1) legal, (2) functional, (3) technical, (4) profit making, (5) personal, and (6) public.

There are many other approaches that could be quoted. The reader will be well rewarded by referring to \textit{Readings in Management}.\textsuperscript{11} Some of the more recent discussions are included in the portion of the book on "Objectives."

Much of today's thinking about management by objectives is centered around the search for the one right objective. This search is not only likely to be unproductive; it may well prove to be harmful.

The real difficulty lies not in determining what objectives we need but in formulating them in such a manner that they can be communicated to all concerned where they will be accepted and understood.

William Newman has summed up the problem in concrete terms.

\begin{quote}
Every business firm develops character, an individuality of its own. A sensing of this character is necessary for a member of the company--or an outsider--really to understand the enterprise as a dynamic entity. This character is shaped, not only by physical resources and technology, but also by the
\end{quote}

\begin{footnotes}

\end{footnotes}
basic objectives of the company. We can learn much about a company as a going concern by asking the following questions.

1. What particular role or niche does the firm seek in its industry? This may be defined in terms of the major function or functions the company will perform, the extent to which the company will specialize or diversify its activities, the quality range it will try to cover, and the size and scale at which it hopes to operate.

2. Does the firm want to emphasize stability or dynamics? This is a more intangible phase of business character in which the desire to be progressive and aggressive must balance against willingness to assume risks and perhaps to share ownership control with others. This disposition toward change will have a marked effect on how quickly and in what manner the company moves from its present position in the industry to the desired position, as outlined under the first set of basic objectives.

3. What kind of a business citizen does the company want to be? In working toward its desired position in the industry, a company will have many and continuing relationships with other groups. There will be need from some goals as to the desired relationships with the community, the government, competitors, customers, suppliers, stockholders, and employees.

4. What type of administration is desired? A long-range concept of the company is not complete without some sense of the basic management philosophy which will be employed. Important considerations are the extent to which decision-making will be decentralized, the quality of key personnel, the extent of advance planning, the manner of supervision, and the strictness of control. This set of objectives deals with the internal mechanism of the company, whereas the preceding set are concerned with external relationships.

These basic objectives cut across and permeate other phases of administration. They influence, directly or indirectly, the policies, the organization, the resources, and the operating
techniques. Few, if any, companies can achieve all these objectives within a limited period, and consequently the executives have a continuing task of adjusting their more specific plans so as to approach the basic objectives to the greatest practical extent.

The selection of the objectives themselves is an even more subtle process. Some gradually evolve out of long experience; others are influenced by the technology and practice of the industry; and many bear the stamp of dominant individuals who served the company, both past and present.

Insofar as objectives are chosen deliberately and rationally, top management should (a) seek something that really needs doing; (b) aim for things the company is qualified to do, in terms of technical skill, temperament, and resources attainable; and (c) strive for internal compatibility among its objectives.

No phase of management calls for more wisdom or a finer sense of values than the setting of basic objectives, and no actions of management have a more profound influence on the character and long-run success of the company.\(^\text{12}\)

Common Thread Regarding Objectives

In all of the literature analyzed regarding objectives there seems to be a common thread. The author proposes that this general thread is that (1) the objectives of the organization represent the aims and aspirations of the people who work with and for the organization; (2) objectives must be predetermined and formulated in such a manner that to all

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concerned they have **tangible reality**; and (3) prior to performance of activities, objectives must be given the characteristics of **quality**, **quantity** and **time**—and if resources are limited, they must be allocated—**the cost**.

Using this proposed common thread as a basis, we should, as a first step in formulating or classifying objectives, develop criteria for guidance in performing this important task of managerial planning. The following criteria have been found useful:

1. In any organized effort there exist two fundamental objectives, that of providing a service or value to meet a desire or requirement, and that of maintaining the existence of the organization over the time span the service or value must be provided. These two fundamental objectives are co-equal.

2. An organization is effective to the degree that objectives are attained, i.e., it provides a needed value or service and maintains itself over the time span the value or service is required.

3. Each of the component objectives necessary to the attainment of the total objective must be assigned to one of the elements of the organization.

4. Parent organizational elements must provide their subordinate organizations with specific missions and must assign specific objectives (objectives specified in terms of quantity, quality and time) to these organizations.

5. Subordinate organizations must use specific objectives to determine the resources necessary to the attainment of the specified objectives and to manage their operations.

6. **Definition of objectives should be included as an important management function in addition to the**
normal management functions of planning, organizing, directing, coordinating and controlling.

7. Objectives must be given the characteristics of quality, quantity and time prior to the performance of the activity through which attainment of the objective is contemplated.

Authors have utilized various approaches in classifying objectives. The most common approach divides the organizational objectives into several groups:

I. Primary Service Objectives

A. The organization receives its authority to do business from the state, usually in the form of a charter which specifically specifies the nature of the goods and services that the organization is authorized to produce. The production of such goods and services represent the primary service objectives of the organization.

B. Primary Service Objectives of a business concern are represented by the economic values found in the products or services rendered the customer. It is impossible to reach the other objectives of the business concern, if the primary objectives are not met in an efficient and effective manner that leaves a reasonable profit with which to pay for other objectives.

II. Collateral Objectives

A. The Collateral Objectives of the organization represent the wants and needs of groups other than customers—investors, employees, and society in general. While a
goodly number of the collateral objectives involve an outlay of money, this is not to indicate that employees, investors and society in general are motivated solely by monetary remuneration of one sort or another, or by physical goods and comforts alone. Often a sense of belonging and recognition of a job well done will seem at the time more important to personnel than such rewards as high wages and excellent working conditions.

B. Collateral Objectives may be broadly divided into personal objectives of the groups concerned and the broader classification of social objectives demanded by the community in which the firm operates. In any event, the firm cannot provide the values represented by the collateral objectives until it has first of all satisfied the primary service objectives of the organization. Collateral objective may be defined as follows:

1. Collateral Objectives are those values that members of the organization want for themselves; or those values that society demands for itself. They include wages, good working conditions, recognition of a job well done, a sense of belonging, and a long list of social values, such as represented by Federal Unemployment Insurance.

C. Collateral Objectives represent the wants and needs of employees, investors, and society in general. They are not the primary consideration of the organization but
represent values that at least, in part, must be secured for the groups concerned or morale and effectiveness of operation is apt to suffer seriously. In a successful, well-run organization collateral objectives are reached only after the primary service objectives have been attained.

III. Secondary Objectives

A. The Secondary Objectives of the organization have to do with effective and efficient management and operation of the business firm. In order to meet the collateral objectives, the organization must be operated in an efficient and effective manner. It is entirely possible for an organization to reach its primary service objective; but to do so in a manner that does not result in the profits necessary to attain the collateral objectives of the organization. Thus Secondary Objectives become very important. Secondary Objectives may be defined as follows:

1. Secondary Objectives are the values that allow an organization to operate with efficiency and economy. They have to do with effective and efficient methods and procedures of administrative management and of operative management of the organization.

Thus, it is that the short run objectives and the long run objectives of the organization may all be classified under one of the above headings. There is an interdependency of these three basic types of objectives. For instance,
the economic values of goods and services produced by a manufacturer may be lowered from a very high ideal set of economic values to something less that will, however, enable the organization to operate in a more effective and efficient manner. Thus, the secondary objectives have an influence upon the primary service objectives. Likewise, all the costs of collateral objectives must be borne in the final analysis by the price of the goods and services produced, and so collateral objectives are in a very real sense a determining and limiting factor in the determination of the economic values to be established as the primary service objectives of the organization.

In Chapter II, Figure 1, it was shown that organizational objectives must be formulated for the purpose of satisfying the wants, desires and aspirations of three groups. These were (1) the persons within the organization, (2) the persons outside the organization but having relationships with the organization, and (3) the next higher level in the organization or to organized society. Also, it has been shown that objectives must be given the characteristics of quality, quantity, and time prior to the performance of the complementary activity.

Following the premises above it seems logical and appropriate to divide organizational objectives along these

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13See Chapter II, p. 30.
lines. Taking this approach the following classification is offered as a starting point from which to develop a useful basis for the classification of objectives. Additionally, management will develop its own administrative objectives relating to the content of management. A breakdown along these lines could be outlined as follows.

A Suggested Approach

I. Objectives for Organizational Contribution to Organized Society
   A. Quality       B. Quantity   C. Time

   OR

   Objectives Passed Down from the Next Higher Level of the organization:
   A. Quality       B. Quantity   C. Time

II. Objectives for Satisfaction of Wants, Desires or Aspirations of Personnel Within the Organization:
   A. Quality       B. Quantity   C. Time

III. Objectives for Satisfaction of Wants, Desires or Aspirations of Persons Outside the Organization but Having Relationships within the Organization
   A. Quality       B. Quantity   C. Time

IV. Objectives of Management to Assure Maximum Efficiency and Effectiveness in the Utilization of Resources in the Attainment of I, II, and III above
   A. Quality       B. Quantity   C. Time
This proposed method of classifying objectives will, it is believed, incorporate the ideas of most management students and will additionally provide—

1. A means of relating objectives to satisfaction of human wants, desires or aspirations.

2. A means of measuring the proficiency of management—by comparing completed activities with objectives which were stated in terms of quality, quantity and time.

3. A means for allocation of resources.

4. A framework against which all management decisions can be evaluated.

We can now add to our chart and show more closely the objectives and their relationships to wants, needs and aspirations and the activities which must be performed. In Figure 3 the author has attempted to portray graphically the relationships discussed in this chapter. The hoped for satisfactions are the factors which motivate people. How well these satisfactions are fulfilled determines the state of morale of the members of the organization. Also, in Figure 3 an attempt has been made to relate activities to objectives as they affect the different groups.

As stated earlier, this paper has as its objective the fitting together of the parts and pieces and not an evaluation of each technique or method. However, it may be appropriate here to point out that the method the manager uses to formulate objectives may be chosen from a wide
ORGANIZATIONAL OBJECTIVES

A. Objectives for Organizational Contribution to Organized Society
   1. Quality 2. Quantity 3. Time
   or
   Objectives Passed Down from the Next Higher Level of the Organization
   1. Quality 2. Quantity 3. Time

B. Objectives for Satisfaction of Wants, Desires or Aspirations of Personnel within the Orgn.
   1. Quality 2. Quantity 3. Time

C. Objectives for Satisfaction of Wants, Desires or Aspirations of Persons Outside the Orgn. but Having Relationships with the Orgn.
   1. Quality 2. Quantity 3. Time

D. Objectives to Assure Maximum Efficiency and Effectiveness in the Utilization of Resources in the Attainment of A, B, and C Above.
   1. Quality 2. Quantity 3. Time

FIGURE 3
NATURE OF ORGANIZED ACTIVITY - DEVELOPED
group. Knowledge of these methods may be found under many headings.

1. Dictatorial
2. Committee Management
3. Participative Management
4. Bottoms Up Management
5. Reaching Out Management
6. Group Dynamics
7. Operations Research

Restated, the manager may find that he is able to formulate meaningful objectives with little effort or he may find it one of the most difficult tasks he has encountered. The author has been unable to find any examples of organizations having followed this method of formulating objectives. However, there are many managers moving in this direction and thinking along these lines.\(^{14}\)

**Summary**

The starting point for either a philosophy or practice of management should center around objectives. Objectives should be subdivided from the top-management level to the worker. Activities should be combined from the worker level

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until the total activity of the organization is reached. Objectives can only be attained by the performance of activities.

In the division of objectives the manager must consider authority and responsibilities relationships. The manager must also consider the degree of span of control desired. The manager's performance is measured by comparing results with sought for objectives.

There does not now exist a formal means of classifying objectives. Most management students refer to primary, secondary and service objectives as a logical division. It is proposed that objectives might be classified in accordance with the groups seeking satisfactions from the organization. The common thread throughout the management literature is the fundamental fact that objectives are the basis for management decisions. The criteria of quality, quantity, and time must be considered by the manager in planning, organizing, and controlling the activities of the organization.

By firmly fixing the place and understanding the importance of formulating objectives, the manager must next consider the means, methods, techniques, procedures and systems to be utilized in building an organizational structure to accomplish objectives. It seems logical that the manager must fully understand the limitations within which he must operate if he is to scientifically proceed. The following chapter explores the nature of limitations.
CHAPTER IV

LIMITATIONS

The word *limitations* is not commonly found in manage­ment literature, and since one of the purposes of this study is to find a commonality of thinking, the word limitations seems to describe best what many management people mean when they talk about such things as: restrictions; boundaries; what is ethical or moral; within the law; and technologically infeasible. They are, it appears, discussing the parameters or the scope within which their actions must take place. The racketeer may be a good manager but his limitations as he saw them did not conform to those established by society. It is the purpose of this chapter to discuss the various limita­tions of which the manager must be aware, and which he must understand and respect in devising the ways in which objectives will be attained.

**Limitations Defined**

Webster's New Collegiate Dictionary, Second Edition, defines limit as follows:

Limit: (1) A boundary or boundary line; pl., bounds. (2) That which terminates, circumscribes, or confines; the utmost extent; as, the limits of knowledge. (3) Archaic. A region defined by bounds. (4) Games. In betting, the sum agreed
on as the greatest by which stakes may be increased at one time. (5) Math. A fixed value or form which a varying value or form may approach indefinitely but cannot reach.

Webster's definition is the basis for the discussion herein. Pictorially, we can visualize limitations in this manner:

<table>
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<tr>
<th>WANTS</th>
<th>ORGANIZATIONAL LIMITATIONS</th>
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<tr>
<td>NEEDS</td>
<td>OBJECTIVES LIMITATIONS</td>
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<tr>
<td>ASPIRATIONS</td>
<td>NON-PHYSICAL</td>
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</table>

**Limitations Classified**

The guidance or general path to follow in attainment of objectives must be within limitations. Guidance is discussed in Chapter V; here we are interested in limitations. In operations analysis these limitations must be specifically determined. Management at the highest level must determine limitations for the total organization. These limitations may be removable to attempt to do this or not is a decision management must make. Additionally, management may describe limitations for members within the organization. In order for management to appropriately consider these limitations perhaps they should be classified. A logical division seems to be along two major lines:

**PHYSICAL**
- Manpower
- Material and Equipment

**NON-PHYSICAL**
- Legal
- Social
PHYSICAL
Facilities
Services
Money

NON-PHYSICAL
Moral and Ethical
Technological

Resources as Limitations

Under the physical limitations we must ascertain what resources are available or can be made available. These must be determined in terms of quality, quantity, and time. These resources may not be available because of total scarcity within organized society as a whole or because of allocations and priorities. Often we have considered money as the standard, and for many resources the only limiting factor is money. There are, however, many limitations that money cannot remove. In war manpower becomes a limiting factor. Certain skills may not be available today. Types of machinery are limited by the state of the art or the cost is prohibitive because of the level of the start of the art.

Materials are limited in many cases because they are not known to exist in sufficient quantities. In fact, economics has been called the management of scarcity. This is true, at least from a macroeconomic point of view.

Technological limitations could be placed in either the physical or non-physical category. As used herein it seems to more appropriately belong in the latter.
Business has often been broken down into **finance**, **production** and **marketing**. In the financing stage we are really interested in our ability to overcome limitations. Lack of recognition of this fact has resulted in failures—a limitation on the amount of money the organization could obtain.

The manager must be aware of limitations of each of the resources in terms of quality, quantity and time. It might prove useful to devise a check list of the limitations within which the manager must make his decisions as to means of accomplishing the objective. Figure 4 is offered as a possible check list for the determining of limitations as they are affected by resources.

Resources can be classified in many ways since in reality resources consist of **people** and **things**. The classification "people and things" is too broad for managerial decision-making. The manager should use the classification most appropriate for his organization. The above classification was chosen as a logical one and appears to be appropriate for most organizations. Let us examine this classification. Organizations consist of men—so, we start with manpower. To produce a good or service effectively manpower requires material and equipment with which to work. Both manpower, material, and equipment must have facilities where they can be housed and in which they may perform their
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**REMARKS**

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Figure 4

A Check List

For the Limitation of Resources
activities (land and water are included in facilities). All four--manpower, material, equipment, and facilities--must be serviced. This accounts for the fifth subdivision--services. Money, the last, is the common denominator, the standard of value. It is included as a resource since it must be determined how much money is needed, money must be acquired, and money must be distributed.

The limitations on resources within which the manager must formulate the ways of accomplishing objectives need not be stated in specific detail. They should not, however, be considered in such general terms that they are meaningless.

William Brownrigg in his book The Human Enterprise Process, states, in different words, exactly what this author means:

The purpose of the statement of Terms and Conditions in the Enterprise Assignment and Specifications is twofold. First, the preparation of such a statement insures that both the enterprise-determining authority and the enterprise-administrator have thought through carefully the question of what the enterprise-administrator will need, and what the enterprise-determining authority is willing and able to provide in the way of funds, authority, personnel, equipment, services and other such matters, to accomplish the enterprise-administrative task. Second, such statements clearly understood and agreed to by both enterprise-determining authorities and enterprise-administrators will obviously avoid serious dangers of difficulties and failures of enterprises, and will also avoid misunderstanding, frustrations, and conflicts which so often occur for lack of such understandings.2

All managers realize that these limitations are a factor, but they do not always specify to what extent they are a hindrance or a help. In fact, they may not be considered by management except when they are extremely obvious, or after the plan has been formulated. Perhaps much too often they are not considered until after the plan has been implemented—then there are problems. These problems may be so serious that they result in complete failure to attain the objectives sought.

Research of the management literature reveals that little consideration has been given to this problem. Authors mention that such limitations exist but seldom elaborate. Most students of management do not consider limitations as an integral step in moving from objectives to activities. It is believed that the statement by Professor R. C. Davis is typical. He explains the principle of Limiting Factors as follows:

Failure to achieve satisfactory accomplishment of reasonable business objectives is due to ineffectiveness caused by mishandling of human or physical factors in the particular business problem, or by malperformance of functions or both. 3

Koontz and O'Donnell refer to limiting factors under their discussion of planning premises. 4 The purpose here is


not to evaluate in detail these most important considerations but to place them in their proper place in the sequence of actions a manager takes in going from objectives to activities.

The important point is the recognition by managers that limitations on resources do exist and must be considered in the formulation of plans. The manager should recognize these limitations by whatever name they may be described. These names may be different for the various disciplines. The operations researcher refers to limits, restrictions, matrices, parameters and others. Students of management refer to planning premises, limiting factors, forecast of conditions, scope of activities and similar titles. Again the "commonality of thinking" is apparent and in the last analysis the question remains the same—what resources will I be able to acquire, considering quality, quantity and time. Cost will influence the choice of alternate ways of doing things. But cost is not the only consideration. Efficiency may result from non-physical actions and there are limitations of a non-physical nature that must be considered.

**Non-Physical Resources**

What are these non-physical limitations? The following list is not all inclusive. This list can, and should be, expanded or narrowed to fit the situation.
1. Legal Limitations
2. Social Limitations
3. Moral and Ethical Limitations
4. Technological Limitations

These limitations vary from one situation to another and apply to some organizations more than to others. The manager should determine the degree that each should be considered. The most obvious of the non-physical limitations are those of a legal nature.

**Legal Limitations**

To cover the many legal limitations that should be considered by the manager is beyond the scope of this study. Each organization will be affected differently by these limitations. Each manager should assure himself that he is aware, and understands those restrictions placed on his organization by federal and state laws, municipal laws and ordinances, and by governmental policies and directives.

The area of military procurement is a prime example of a functional area completely surrounded by legal limitations. These limitations are in the form of Armed Forces Procurement Regulations which interpret the law as passed by Congress and approved the President. Armed Forces Procurement Regulations give specific guidance as to what can and cannot be done by armed services procurement personnel. Other legal
limitations involving both government and industrial procurement activities result from:

1. **Vinson-Trammel Act**
   Limits profits and provides for profit recapture.

2. **Buy American Act**
   Prohibits procurement of raw materials and finished products from foreign sources under certain circumstances.

3. **Neutrality Act of 1939**
   Gives the government control over manufacture, export, and import of arms, ammunition, or implements of war.

There are many other laws having impact on military procurement. The above examples are given only as examples and are not intended to be all inclusive.

Another area where a thorough knowledge of legal limitations is extremely important to the military manager is that of civil service personnel. The standards, rules, and practices outlined by the Civil Service Commission as a result of the Civil Service Act of 1933, as amended, limit the manager in a variety of ways. Some of which are:

1. How much an employee can be paid
2. Who can be promoted
3. Who meets job qualifications
4. Restrictions on separation
5. Veteran's preferences
6. Titles that can be given positions

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It is within this framework of legal limitations that the manager, utilizing civil service personnel, must plan his activities.

Managers are faced daily with limitations imposed by antitrust laws, labor laws, fair-trade laws, and laws dealing with interstate commerce. Regulatory bodies are issuing rules, standards, and practices almost daily. A good example of legal limitations and their dynamic nature can be seen weekly in U.S. News and World Reports' News Line, What You As a Businessman Can or Cannot Do. The manager of the small as well as the large business must be constantly aware of municipal and state laws and ordinances which affect his organization's tax structure, rights to sell, types of advertising, and marketing channels.

Vernon A. Mund has covered this area very well in a book whose purpose was to explain the many ways in which business and economic life are shaped and directed by government.7

Realizing that the subject of legal limitations is quite comprehensive the author of this study wishes to again point out that the above are only a few of the many legal limitations. Each manager should painstakingly review his own organizational objectives in order that appropriate

consideration can be given to legal restrictions affecting the plan or program which he formulates. The penalty for failure to observe legal limitations is more exacting than the penalty for failure to observe social limitations. The latter may be equally as important.

**Social Limitations**

Equally important are the social limitations placed on the manager. No longer can the manager disregard these social limitations. Managements vary as to the degree or emphasis which they place on the social aspects of the organizational activities. Those managements that are alert to the importance of social limitations in their decision-making have in some instances documented social objectives. For example, Alan Wool Steel Company has these fundamental social objectives:

To provide our employees with good working conditions, to pay wages and salaries in line with those prevailing in the steel industry for similar work requiring like responsibility, experience and skill, and to provide employment as secure and steady as possible, commensurate with the risks inherent in the steel business. To be a good neighbor in the communities in which we are located and to foster and promote civic activities directed toward the fundamental improvement of these communities.  

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Crown Cork and Seal Company, Inc. recognize their social obligations in their statement of beliefs and objectives:

1. Establish the view that our greatest assets are our human assets and these must be developed as a matter of moral obligation and material advantage.
2. Reward, encourage progress, fully inform, train and develop, and properly assign all employees in order that their lives and work be given meaning, dignity, satisfaction, and purpose both on and off the job.
3. Foster the Company's position as a good citizen in the communities where it is located and encourage employees to take an active part in making the community and nation a better place in which to live.
4. Cooperate lawfully with similar enterprises and industry generally for mutual betterment.9

Limitations encountered by the manager as a result of the character of the organization's social responsibilities should be considered. The author of *Social Responsibilities of the Business Man* defines rather clearly this social aspect of management. His definitions follow:

*Social responsibilities of business men* refers to the obligations of business men to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society—synonyms for social responsibility are "public responsibility," "social obligations" and "business morality."

The doctrine of social responsibility refers to the idea, now widely expressed, that voluntary assumption of social responsibility by business men is,

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or might be, a practicable means toward ameliorating economic problems and attaining more fully the economic goals we seek.¹⁰

Social limitations may be good or bad, may be helpful or constitute a hindrance. They may be included in organizational objectives, policies or other means of documentation. They may be formal or informal. It is not the purpose here to discuss the above facets. What is important is the recognition that the organization must establish (or practice has caused to be formulated) a set of social attitudes which must be considered in making decisions relating to the means to be utilized in attainment of objectives. The proper place for this consideration is preparatory to establishment of guidance to be followed in selecting a course of action.

**Moral and Ethical Limitations**

In this same process of selecting a course of action, managers are limited by the ethical and moral standards of the organization. The assumption here is that such ethical and moral standards exist in the organization. These ethical and moral standards may not be formalized but they exist in any organization. Ralph J. Cordiner, president of General Electric, expresses his opinions regarding the

necessity for understanding, acceptance, and practice of ethical responsibilities:

Every company should be managed in accordance with some workable, ethically responsible philosophy of management. That is, the managers of a company should be in general agreement on a set of underlying principles that will guide their work in providing leadership for the company.\(^{11}\)

Mr. Cordiner implies that there should be a company creed that might be thought of as the most basic sort of guiding statement of company objectives which also lays down the ethical practices to be adhered to in achieving these objectives. In adhering to these practices a manager is limited in his actions. These, the author feels, are in the nature of non-physical limitations.

To better understand the nature of non-physical limitations and to avoid semantics pitfalls the following definitions from Webster's New Collegiate Dictionary, Second Edition, may aid in pointing out the differences in the meaning of these terms:

I. Moral - relating to, dealing with, or capable of making the distinction between right and wrong in conduct. Moral implies conformity with the generally accepted standards of goodness or rightness in conduct or character.

II. Ethics - pertaining to a system, of ethics or morality, conforming to moral standards.

III. Ethical - implies conformity with an elaborated, ideal code of moral principles, sometimes, specifically, with the code of a particular profession.

Moral action is concerned with the human judgment of making a distinction between right or wrong conduct. Codes of ethics indicate proper moral standards of conduct and are usually set forth in a formal statement by professional organizations and trade associations. Codes of ethics are usually combined with other guidance and have been given various titles by different organizations. Some of these titles are:

1. Basic Objectives
2. Fundamental Principles
3. The Credo by Which we Serve
4. Management Philosophy
5. Primary Responsibilities
6. Our Basic Policy
7. What We Are Aiming For
8. Guiding Principles
9. This We Believe
10. Policies

Stewart Thompson, after reviewing the creeds of 103 companies says:

It becomes apparent that the company creed usually does one or more of three things: (1) It sets objectives, aims, and goals; (2) it lays down principles, policies, and ethics governing the manner in which the objectives or aims are to be achieved; and/or (3) it states responsibilities or obligations which are to be met.12

In laying down the principles, policies, and ethics governing the manner in which objectives are to be achieved the organization has placed limitation on the manager. One other limitation which may or may not be non-physical is

12Thompson, op. cit., p. 10.
that resulting from the state of technological progress. The author has placed this in the non-physical category realizing that there are physical elements involved in technology.

**Technological Limitations**

The consideration of technological limitations has been vividly brought to the forefront in the past decade. Can metals be manufactured that will withstand temperatures encountered in space travel? Can computers be built that will be able to "think?" These questions have been asked and the assumptions made concerning their solution have posed limitations on the means to be undertaken in the attainment of objectives.

The heterogeneity of technological limitations prohibits a detailed discussion in this study. This heterogeneity does not lessen the importance of proper considerations as they may affect the capability to attain objectives or the influence they may have on the decision as to activities that can be performed.

Catheryn Seckler-Hudson recognizes the impact of technological change on administration and management decisions when she states:

Equally important as a part of the dynamic setting for administration is our changing technology. Such technical advances as the creation of new submarines, atomic bombs and the practical release of nuclear energy, the discovery of radar and the proximity fuse of the Army and Navy,..., and
hundreds of other advances which defy understand-
ing by the ordinary mind continually condition admini-
stration.¹³

Managers are conditioned according to Seckler-Hudson to consider the state of technology in their role as deci-
sion-makers. As an example, P. W. Blye, Vice President in charge of Research at Bell Laboratories, told the author that the decision by American Telephone and Telegraph Company to continue to plan the use of telephone poles and lines was based on Bell Laboratories' estimate on when a technological break through would allow phone systems minus lines and poles.

The armed forces are faced with technological limita-
tions each time a decision is made to produce a new weapon—should the chemical bomber be built or will the nuclear bomber cause the chemical bomber to be obsolete before it can be built. Consideration of technological limitations may well provide the basis for such decisions.

From a broader point of view we can consider as a part of technological limitations the socialist problems in measuring future behavior patterns of groups and individuals. Also the economists' inability to accumulate and process timely data in a manner that will enable him to forecast business trends. These inabilitys at the present "state of art" certainly deserve proper consideration.

Summary

The objective of this chapter has been to establish certain physical and non-physical limitations which may assist or handicap the decision maker in formulating the means to be utilized in the attainment of organizational objectives. The importance of the manager's understanding of the nature of these limitations was discussed. Later it is pointed out that decision-making and controlling have direct relationships to these limitations. The next chapter is addressed to the establishment of guidance, within limitations, for the purpose of assuring that all activities are proceeding along the same path in the maximization of the satisfaction of basic wants—the purpose of organized activities.
CHAPTER V

GUIDANCE

In moving through the activity cycle there will be, in most organizations, many personnel involved in the formulation of plans, procedures, projects, systems, and methods. If maximization of the satisfaction of basic wants, desires, and aspirations of personnel is to be reached and the organizational objectives attained, all members must be following the same path or utilizing similar approaches. This is well recognized by most managers. However, the method of insuring that all are pulling together has not been so clearly defined. It is the purpose of this chapter to bring together some of the current thinking and place it in appropriate perspective.

What Is Meant by Guidance

What is meant by guidance? Webster's New Collegiate Dictionary, Second Edition, defines guidance as follows: "A guiding; direction; also, a guide." The author accepts this definition.

In management literature we find reference to policy as a "guide to action." "Policy, then, is the result of unified thinking at the top which permeates the organization,
welding it together for one purpose, directing it toward one goal."1

Stanley Vance refers to the principle of direction and control. This he defines as follows:

The organization's leaders, at every level, must indicate the course of action to be taken by the group members. Control is the exercise of the directing, restraining or guiding power by the leaders over the group members to secure a close adherence to designated course of action.2

The author defines guidance as the communication of a general course to be followed in the formulation of activities required to attain objectives. To continue step by step from objectives to activities we are now ready to add a step—guidance. This is graphically shown in Figure 5. Terms being used to describe guidance are varied. Some of these terms are defined in the appendix to this study. An attempt is made in Figure 7, page 108, to show the relationships of these terms in communicating guidance.

The Need for Guidance

In the formulation of plans, procedures and projects a path is followed. If guidance is not provided to personnel in the organization, then these personnel will develop their

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FIGURE 5

ACTIVITY CYCLE
own guidance. Development of guidance implies interpretation. Personnel interpret things differently. As a result of different interpretations organizational units may not all be moving in the same direction. This results in conflicts, inefficiencies, and failure to maximize the organization's objectives. Guidance should be provided to each lower organizational unit. With the objectives clearly defined, the limitations fully understood, and appropriate guidance provided, all personnel should move toward accomplishment of objectives in a coordinated manner. Without guidance, planning may not mesh and problems will arise. Management cannot measure or control adherence to guidance unless guidance has been provided.

McNichols of Northwestern University considers guidance formulation as the second step in administration:

The second step in the basic processes of administration is the executive function of formulating plans and strategies for actions. Once the basic objectives have been determined and reviewed, management must chart a course of action to direct the firm toward its predetermined goals through maximum utilization of its skills and resources.3

Guidance is vital to effective management for a number of reasons. With policies clearly understood, a busy manager can delegate responsibilities to subordinates with confidence that these responsibilities will be carried out along the

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general lines he desires. Each member of the management team knows how others will act and this makes coordination easier to achieve. There will be a consistency of action taken by different members of the firm, and consistency from time to time.

Guidance also has a bearing on the decision-making authority of personnel throughout the organization. The more specific the guidance the more restricted are the alternate courses of action available to subordinates.

Guidance is the leaven that works individuals into teams, that replaces doubt with certainty, that transforms objectives into activities.

Sources of Guidance

Objectives properly formulated and given the criteria of quantity, quality and time, certainly provide guidance to all personnel in the organization. So the first source of guidance is objectives. This implies the necessity for proper communications and acceptance of organizational objectives.

Limitations may be considered as the second source of guidance. Limitations properly formulated, communicated and accepted give direction as to what can or cannot be done. As with objectives, the more specific and detailed the limitations the narrower will be the path to be followed.
The guidance itself need only give the direction of the path. Policies are the most frequently used source of guidance. Not all authors agree, however, as to exactly what policies are, or are meant to be. To emphasize this divergence more clearly, we can refer to two definitions of policy that appear most frequently in the management literature.

Policy - A general statement as to the action to be taken relative to a basic tenet of the organization's philosophy. Policies serve as broad channels to guide the efforts of the group toward the desired objectives.4

Policy - A code or guide for action which stipulates, in a general way, the preferred method of handling a situation or responsibility.5

Policy as a means of providing guidance is used in the former, and broader, context in this study. Policy not only points out the path to be followed—the "how"—but it should include the "why." Because guidance, like objectives, is a working tool of the business, it should form a realistic, known, and accepted link between the objectives and the way activities are performed to reach those objectives.

Guidance may also come from strategy. Rear Admiral H. E. Eccles, USN, Retired, has defined strategy as follows:

Strategy may be described as the comprehensive direction and control of power toward the

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attainment of broad objectives or aims. This includes the selection and time-phasing of that minimum of specific objectives whose collective attainment will accomplish the whole. Thus, strategy is primarily concerned with objectives. 6

We see references to strategy almost daily in periodicals and newspapers, particularly in relation to negotiations. What path will be followed, or what guidance has been established, is referred to as the strategic plan.

To be successful, business strategy must be based on a searching look within to identify the strengths of the business that can be capitalized on and the limitations that must either be overcome or recognized in realistic planning.

a broad look around to be sure that planning takes cognizance of the external factors affecting business success and adequately balances the company's obligations to customers, employees, owners, suppliers and the community. Those businesses that have geared their policies to the dynamics of the economy, the market and social trends have made the best adjustments to stresses and opportunities for expansion.

and finally, while far-sighted planning has always paid off, today the increasingly long-term nature of business commitments also makes a long look ahead almost a necessity. 7

There are many other sources of guidance and it is not the intent here to explain fully all of the sources, but to


show that by whatever name or under whatever guise guidance must be provided.

**Relationships Between Objectives, Limitations, and Guidance**

The terms objectives, limitations, and guidance are interrelated. There is certain information that all personnel in the organization must have before they can formulate a scheme of activities to attain objectives.

They must fully understand the objectives in terms of quality, quantity, and time. They must understand the limitations within which they must work. And, they must know the general path to be followed. The important point that managers should consider is that all three—objectives, limitations, and guidance—are communicated and accepted. The means of communicating are secondary.

There is a certain amount of information concerning the path to be followed that should be disseminated. This information can be covered in great detail in organizational objectives which lessens the need for specific limitations and guidance. As shown in Figure 6, the amount of information remains constant. This information could all be called guidance. Objectives could be written with enough specificity to provide the necessary guidance. The semantics involved should not be allowed to become a barrier to the
FIGURE 6

RELATIONSHIPS OF OBJECTIVES - LIMITATIONS - GUIDANCE
understanding of the importance of communicating adequate information to provide guidance to all concerned. The design of the means is not as important as the ability of the system to produce the results desired.

**Guidance at Various Levels of Organization**

It was shown in Figure 5 that guidance must be provided at all levels of management and ultimately to the worker. The guidance discussed herein has been primarily concerned with providing a path to follow for those in the organization who will formulate more detailed schemes for attaining the objectives.

Guidance at various levels of the organization may be called by many names. This is covered more fully in later chapters. For clarity, the following is offered as a possible classification of various means of obtaining guidance throughout various organizations levels.

**Philosophy**

**Objectives**

**Limitations**

**Plans**

**Programs**

**Procedures**

**Projects**

**Practices**

**Precedents**
Many factors will affect the nature and specificity of the guidance needed at various levels:

1. Nature of the business
2. Qualifications of management personnel
3. Organizational philosophy on delegation of authority and responsibility
4. Need for timely decisions
5. Impact or penalty of wrong actions

The above factors are given to emphasize that each organization will have a different pattern of providing guidance. The pattern is not so important as the assurance that the guidance is being provided.

It is theoretically conceivable that top management could provide guidance of such a nature that in even the largest organizations there would be no necessity for staff or intermediate levels of management. Total automation is an outstanding example. As organizations more fully realize the capabilities and limitations of electronic data equipment in handling information the need for objectives, limitations and guidance will be forcefully brought to the surface.

Kozmetsky and Kircher have recognized the need for guidance:

Automation, like integrated business-data systems, requires that the production plant be studied as a whole. It has been found necessary to consider the product, its design, the components which compose the product, its functional use, and so on. The requirements must be analyzed to determine
what can be combined, simplified, or eliminated, using automatic equipment. The whole system must be geared to its purpose, in the same sense that the design of a bridge or the architect's plans for a building are based on the purpose of the structure.

Attempts to introduce automation have uncovered the need for development of a body of knowledge to bridge the gap between automation engineering and managerial planning and control. Otherwise, for example, automation has sometimes solved the production problem so well that it created new financial or marketing problems. Poorly planned automation has unbalanced the production line when applied only to a part of the production system...

Automation usually has resulted in substantial reduction in the labor force and in needs for middle management, with all their supporting functions.  

Objectives, limitations and guidance must be provided the computer as in automation. Once this is done, the need for intermediate levels of management and staff no longer exists for the activity performed by the computer.

Guidance as Related to Authority, Responsibility and Accountability

The more specific the guidance the more constrained is the decision maker at lower levels. The authority of subordinates can be almost completely taken away by the issuance of guidance for every situation. There appears to be a trend in this direction as systems engineers, operations

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research personnel, and methods experts improve the ways of outlining each activity and the manner in which it will be performed. The author does not commend or condemn this movement but wishes only to show that such a trend exists.

Mr. Morris Janowitz in researching this situation in the military detects this trend:

Throughout this analysis it has been assumed that the military establishment as a social system is no longer a major point of resistance to technological change—at least no more resistant than might be expected by an elite involved in a very dangerous task. Organizational adaptations to these technological changes have been analyzed mainly in terms of the requirements of the military system of authority. The result has been a transformation of military authority from one based on domination to one employing more and more techniques of manipulation....

Finally, these processes by which organizational authority is being transformed in the military are present in all types of large-scale bureaucracies. The movement from domination to manipulation seems to be a general pattern of social change. The fact that it is present even in the military is of particular theoretical importance. 9

When command authority gives way to procedural and systems authority traditional thinking concerning responsibility and accountability must be re-examined. In many activities personnel are no longer responsible only to a boss, they also are responsible for achieving an objective. They are held accountable for the attainment of the objective.

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in addition to reporting to a superior. This places more and more responsibility on the person performing the activity. He no longer can work alone for the boss but must work toward the over-all objective. In Men Against Fire, Marshal places emphasis on this point.

The philosophy of discipline has adjusted to changing conditions. As more and more impact has gone into the hitting power of weapons, necessitating ever widening deployments in the forces of battle, the quality of the initiative in the individual has become the most praised of the virtues.10

As we approach the time when activities will be performed to accomplish an objective which contributes to the over-all organizational objectives, we will be forced to re-evaluate our ideas and concepts regarding delegation of authority and responsibility and the holding of subordinates accountable.

Summary

The motive power of the management machine is greatly influenced by the manner in which objectives, limitations, and guidance are formulated, communicated, and accepted.

It seems inevitable that guidance, which integrates all aspects of the business and is based on a searching look within, a broad look around, and a long look ahead will play an increasingly important role in meeting the challenges

and problems of our dynamic society. Equally important, this approach enables top management to define organizational objectives, consider limitations, and provide guidance to all members of the organization. Members can thus coordinate their individual efforts toward the attainment of these objectives, measure their results, and derive motivating satisfactions from group achievement.

Having fully formulated objectives, conscientiously considered the limitations, and provided realistic guidance, management is now in a position to study the "scheme of activities" that will maximize the attainment of objectives.
CHAPTER VI

SCHEME OF ACTIVITIES

There are many words one could use to describe what is presented in this chapter. Some of the more common ones are systems, tactics, operations, plans, and programs. The understanding of the development of "ways to do things" or "means to an end" is the more important. The semantics problem needs to be solved, but if we each understand the meaning of the terms used, the terms themselves are really not too important.

This chapter attempts to show the actions managers must take in order to set the stage for the performance of activities necessary for the accomplishment of objectives.

What Is Meant by the Scheme of Activities

The term "scheme of activities" as used herein concerns itself with the arrangement of activities by predetermining the manner in which they shall be performed. The author realizes that the scheme of activities becomes guidance to the workers. The guidance discussed in the preceding chapter encompassed that which is necessary for the manager or his technical staff, to formulate a scheme of activity. This scheme of activities is closely related (in
fact so closely related that they are inseparable) to the
determination, acquisition, and distribution of resources.
Using military terminology we can say that tactics and
logistics provide the scheme and the means for the per­
formance of activities.

Previously determined objectives, limitations, and
guidance will be the controlling factors in the formulation
of a scheme for assuring that activities performed will
attain objectives. The formulation of this scheme has an
impact on organizational structure and staffing, and it
involves the functions of management planning and controlling.
These relationships are explained in Part II of this study.

Before we explore the area of "things to do" and
their relationships to "things to do with" it may be advis­
able to define certain terms used throughout. Especially is
this important when so many terms are currently in use.

Definitions¹

A. Plan - A detailed course of action by means of
which activities are outlined that should, if properly per­
formed, attain the objectives sought. A plan shows the
"how." Plans give meaning and realism to the broad, general
and even idealistic organizational philosophy and objec­
tives. Every organization of any size plans—whether it is

¹See Appendix I for a more complete listing of
definitions.
an educational institution, a church, a business, or a governmental establishment. As L. Urwick writes:

If decisions are to bear any relation to reality, they must be based on some forecast of what the future holds. If action in accordance with the forecast is to be methodical and orderly, purposeful, and not at the mercy of each new circumstance, there must be a plan.2

Urwick goes on to say that the characteristics of a good plan are:

(a) That it is based on a clearly defined objective.
(b) That it is simple.
(c) That it provides a proper analysis and classification of actions.
(d) That it is flexible.
(e) That it is balanced.
(f) That it uses available resources to the utmost before creating new authorities and new resources.3

In order to appreciate the nature of plans one should note the variety and types in use today. The following are not meant to be all inclusive, but are given as examples.4

Objective's Plans - The basic plan is the enterprise objective or objectives. This is the goal of the firm.

Policies' Plans - They are general statements, or understandings, which guide or channel the thinking and action of subordinates in an enterprise or one of its departments.

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3Ibid.

Procedures Plans - Procedures are also plans, for they involve the selection of a course of action and apply to future activities.

Budget Plans - A budget is essentially a plan, a statement of results expressed in numerical terms.

Programs - Are a complex of objectives, policies, procedures, and budgets.

These samples are given only to emphasize the importance of a thorough understanding of the meaning given to terms. Without a mutual understanding communicating becomes difficult. There is no evidence of this mutual understanding today.

If we could graphically show the relationships between the terms involved in the "how to" and those concerned with the "why," progress might be made. The author has been unable to arrange the various terminologies, with their innumerable definitions, into a logical schematic order. This lack of understanding of terms makes it important that a scheme be formulated, communicated and accepted if the organization is to proceed toward attainment of its objectives in a coordinated manner.

So the reader may observe some of the divergency in definitions, the author has defined, in Appendix I, those terms that are most commonly used by various authors and students in describing a scheme of activity at some level of organization. Since some of these same terms are used to label "the vehicle" which is used to communicate the objectives, limitations, and guidance of organizations it was
felt to be appropriate to define other terms. These other
definitions are contained in Appendix I.

After analyzing these definitions it is believed
that there is a commonality of thinking but not a common
usage of the terms. And, furthermore, it may be possible
to show this commonality of thinking by portraying it
schematically. Figure 7 is an attempt to show this
relationship.

**Relationship of Scheme of Activity To**
**Attainment of Objectives**

Inspection of Figure 7 will reveal a separation into
an administrative and an operative scheme of activity. This
breakout is further supported in Chapter IX where the con­
trolling function is discussed.

For control purposes we must clearly understand this
separation. One, the operative function has reference to
the physical manner in which the activity shall be per­
formed. The other, the administrative scheme, has reference
to the administrative manner in which the activity is to be
performed.

Professor R. C. Davis discusses this separation of
administrative versus operative scheme in different words
but in somewhat the same context.

*Business procedure is a basic factor in the per­
formance of organizational functions. It is a
relationship of complementary functions that is
### Scheme of Definite Activities

<table>
<thead>
<tr>
<th>Explanation</th>
<th>Objectives</th>
<th>Limitations</th>
<th>Guidance</th>
<th>Scheme of Definite Activities</th>
</tr>
</thead>
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**Communication Actually Required From Highest to Lowest Level of Organization**

**Relationship of Scheme of Activity to Attainment of Objectives**

*Figure 7*
set up as a basis for the execution of a project. The latter may be managerial or operative.\textsuperscript{5}

An example may further clarify the meaning of the above. The objective of a given organizational unit may be that of irrigation of a given quantity of land in a qualitative manner at a given time. There will be designed an operative system of pipes, valves, and gauges. Additionally, there must be an administrative scheme which will provide detailed guidance as to where and when and who will perform the activity.

The operative scheme pertains to the physical, how the activity will be performed; the administrative scheme to the human involving the worker. These two schemes must be meshed and should be so closely entwined that they become an entity. These two schemes provide the means for accomplishment of activities to meet the desired ends.

Administratively the scheme of activities shows the sequence in which the worker shall go about his tasks. Operationally, the scheme shows the physical processes necessary to successful completion of the task.

As objectives are divided and subdivided a point will be reached where activity must be performed. As stated earlier the activity is performed quantitatively,

qualitatively, at a given time and there is a cost in terms of resources. Each objective has a corresponding activity.

The manner in which these activities are related both administratively and operationally is the scheme of activity. Thus, it seems plausible that some echelon above the place where the activity is performed must design this scheme of activity. If each worker is left alone to design his own scheme of activity there can be no assurance that the total activity will be coordinated. In fact, lack of coordination would logically be expected.

This point is well covered by Professor Schull in his recent *Selected Readings in Management*.1

First, there is the broad general objective for the company as a whole.... It is usually established by the board of directors, through approval of the objective proposed either by general management or originated by the board itself.... It is not enough to establish the general objective. As a matter of fact, that concerns mostly the first and second zones of management. To be really successful the cooperation of every person in the organization is needed. The general objective must therefore be translated into terms of each and every department.... These departmental objectives may in turn be broken down to divisions, locations, and individuals. The final test is to have every single person with his own particular objective, all being coordinated to produce successive cumulative results leading to the general objective for the company as a whole. The devising of methods or procedures to be followed in achieving purposes provides the "how," "when," and "where" content of direction. This requires decisions...to avoid unnecessary duplication in decision making managers have developed numerous devices or tools to be used in providing guidance for repetitive action. In practice these devices are variously referred to as "budgets,"

Theoretically, if the scheme of activity were perfectly designed, there would be no need for supervisory coordination. This theoretical perfection is approached in the use of electronic equipment where each step in the process or procedure and its relationship to the prior and subsequent steps are "programmed." Only maintenance is then required.

Inability or unwillingness to design schemes of activity with the specificity required in automation, plus the introduction of "human behavior," makes supervision a requirement.

The degree that specificity is needed and provided will affect such things as

1. amount of supervision required.
2. degree of span of control desired.
3. responsiveness of control systems.
4. limitations for decision makers.
5. type of personnel required.
6. organization structure.
7. ability to measure performance.

Summary

The intent here has not been to explain the various methods, systems, techniques, procedures, and other terms which are defined, described, and discussed in most management literature.

The intent has been to show that the scheme of activity, by whatever name it is called, must be communited, understood and accepted. The schemes must show both the administrative and operative manner in which activities must be performed to attain objectives. The name or title given to the "vehicle" used to communicate the scheme is insignificant when compared with the importance of the communicating, understanding, and accepting from the highest level of organization to the level where the activity is performed. Furthermore, the scheme of activity must be so designed that it follows guidance, respects limitations, and if actuated successfully, will accomplish objectives.

We now have moved through the ACTIVITY CYCLE as follows:

Formulation of objectives
Consideration of limitations
Provision of guidance
Designation of a scheme of activities

OBJECTIVES
LIMITATIONS
GUIDANCE
SCHEME OF ACTIVITIES

The results of the management efforts so far will be negative unless the last step in the "Activity Cycle" is
culminated. The last step is the performance of the activity itself, but activities cannot be performed or schemes actuated without necessary resources. In the next chapter we shall consider the determination, acquisition, and distribution of resources.
CHAPTER VII

RESOURCES

Basically, there are two classes of resources, "people" and "things." For effective management these categories are too broad. Organizations may prefer to classify resources in different ways. This should be done where the situation so warrants. People are the basis of all organizations, and management has often been described as "getting things done through people." Koontz and O'Donnell support this point of view, along with Jucius, Davis, Newman, and others. The definition of management generally accepted is as follows:

Where cooperation of individuals toward a common goal becomes organized in a formal association, the fundamental and essential component of this association is management—the function of getting things done through people.1

The author agrees that management must ultimately get things done through people. But, the many management decisions that must be made regarding other resources certainly play a most important part in the ability of the organization to attain its objectives.

Many eras ago people did accomplish objectives with little but their hands. Soon came the club, spear, bow, arrow, gun, cannon, rocket, and now the space missile. People have learned that they are much more productive when they have "things to do with."

**Things To Do With**

The need for "things to do with"--the resources other than manpower--seems to follow a somewhat logical pattern. Manpower, to be effective must have material and equipment with which to work. Both manpower and the material and equipment with which they perform activities must have a place to work--they need facilities. All three, men, material and equipment, and facilities must be maintained and serviced. So, the fourth grouping may be called services. Services are made up of manpower, facilities, material, and equipment. Should one attempt to regroup resources the ultimate regrouping would be people and things. In most instances the above resources can be related to dollars, and since dollar needs must be determined, dollars acquired, and dollars distributed, money is included as a fifth resource.

Since these terms are used in different context by various authors, a more detailed discussion may prevent any misunderstanding as to the author's point of view.

**Manpower.** Manpower includes the total personnel needs of the organization. These needs arise as a result of
planning for the performance of specific activities to attain specific objectives. Total manpower needs are related to specific objectives.

Manpower, when considered as a resource, is needed with a certain quality, in a certain quantity, and at a given time.

Manpower needs, with its qualitative and quantitative aspects, will depend on the decisions made regarding other resources and on the "scheme of activities" that has been chosen.

This total manpower concept has not been fully understood. Managers should consider manpower needs for the "whole" organization. This consideration includes numbers of people, skills, and the time they are needed. The importance of understanding the total manpower requirements and how they related to other resources cannot be overemphasized.

Professors Keith and Gubellini make this point very succinctly:

No business can prosper unless it can obtain and maintain a productive labor force. In spite of the developments in modern machinery, which in many instances reduce the importance of skilled labor, no process has been developed to operate without manpower.2

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Only when all personnel in the organization are included, regardless of how they may be classified, can it be said that the total manpower approach is being utilized.

Material and equipment. The methods utilized today to classify materials and equipment are quite numerous. As used in this study, material and equipment, as a term, is all inclusive. It includes tools, raw materials, furniture, spare parts, machinery, and equipment of whatever nature. The correct quality and quantity and the time they are needed is the subject of much of the operational research work today. The author does not intend to cover the many aspects of this subject. The point of interest here is the necessity for determining the quality, quantity, and time needed for material and equipment, balancing this need with other resources and choosing that scheme of activity that will be most effective and efficient in attaining objectives.

As used herein, material and equipment plus facilities would be analogous to the economist's use of the term capital. Mr. Roscoe in his recent book on Organization for Production uses capital in the economic sense:

Capital is an inclusive term embracing plants, equipment, tools, inventories of materials, work in process, finished goods, and financial resources for conducting business.3

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The above definition covers material and equipment as used herein with the exception of plants and money.

**Facilities.** Facilities as used in this study includes the buildings and grounds necessary to house manpower and material and equipment. The terms buildings and grounds are used very broadly and include roads, power plants, electrical lines, sewerage, water lines and other *fixed* equipment. This is somewhat analogous to the term fixed capital as used by accountants and comptrollers.

The distinction between material and equipment and facilities is not clear-cut, nor need it be. The important thing for the manager is that both be considered.

**Services.** The term "services" is used in its broadest sense and includes those things that are required to maintain manpower, material and equipment, and facilities in an effective working condition. Some authors have used the term "maintenance" to describe this group of activities.

Listed below, as an example, are the services normally provided at an off-base⁴ site of a United States Air Force organizational unit.

<table>
<thead>
<tr>
<th>Food Services - Operations</th>
<th>Medical Service:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bakery</td>
<td>First Aid Facility</td>
</tr>
<tr>
<td>Dental Service</td>
<td>Dispensary</td>
</tr>
<tr>
<td></td>
<td>Medical Technician</td>
</tr>
<tr>
<td></td>
<td>Doctor/Flight Surgeon</td>
</tr>
</tbody>
</table>

⁴Off-base is a term used in the military to denote a site that does not have the normal base structure. Radar on top of a mountain would be an example.
Security:
Gate Guards
Perimeter Guards
Sabotage Alert
Restricted Area Security
Classified Document Control
Defense:
Passive
Ground
Ground Safety Program
Fire Prevention Program
Communication Service (Non Ops)
Internal (Public Address - Tel)
External (Tel and Tel)
Transportation - Commercial-Personnel
Laundry - Personal
Laundry - Organizational
Dry Cleaning
Tailor and Shoe Repair
Housing
On-Site Dep. Housing
Barracks
Transient Facility
Military Trailer Park
Food Service Supervisor
Mess Officer
Site Administration:
Authority Files (AF, Com'd, Base)
Site Regs and Directives
Site SOPs
Reproduction
Admin. Boards and Committees
Manpower Justification
Personnel Accounting
Unit History
Officer Effect. Reports
NCO Effect. Reports
Airmen's Deposits
Mil. Records Mgmt.
Site Administration (contd.):
Courts Martial Exc. Art. 15
Courts Martial, Art. 15
Postal Administration
Voting
Re-enlistment
Decorations, Awards, Honors
Safeguarding Government Property
Casualty Reporting Ass't.
Escorts, Military
Finance
Statistical Services
Audit
Budget
Management Analysis
Exchange - Admin. & Operations
Clothing Sales Store
Commissary
Chaplain and Religious Services
Welfare Funds (Non-App.)
Officers Club
NCO Club
Service Club
Trn, OJT - Technical 3 to 5
Trn, OJT - 5 to 7 Level
Transportation - Comm.
Household Goods
Packing and Crating - Household Goods
Legal Assistance
Claims
Mortuary Services
Special Services:
Athletic Program
Motion Picture
Hobby Shop
The above list of services is quite extensive. It was included herein in order to give special emphasis to this most important area. Many managers do not give appropriate attention to this area. It may be costing more in terms of resources than most accounting systems reveal. Additionally, it may not be given enough recognition in organization structuring. The total services must be considered if organizations are to maximize attainment of objectives.

Money. This resource needs little further definition. It is the standard of value and the medium of exchange. Managers today are generally aware of its qualitative and quantitative aspects. The fact that money is needed at a given time is also well understood. The techniques used to forecast money requirements and methods of acquiring money are receiving additional attention. The field of accounting is under a searching analysis concerning its adequacy, in its present form, to clearly portray the performance of an organization.

A summary of resources as used herein, with some of the facets management should consider, is given in Figure 8. The author has found this figure of particular value in clarifying the exact nature of resources. From Figure 8 we see that the need for resources must be determined, resources must be acquired and distributed. The art and science of
<table>
<thead>
<tr>
<th>ECONOMIC TERM</th>
<th>RESOURCES</th>
<th>LABOR</th>
<th>VAGES</th>
<th>CAPITAL</th>
<th>RENT</th>
<th>INTEREST</th>
<th>PROFIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristics of Resource</td>
<td>Limitation - Restriction</td>
<td>Standard of Measure</td>
<td>Tool for Allocation of Resources</td>
<td>Storehouse of Value - Future Resources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Requirements of Resource</td>
<td>a. Determine</td>
<td>b. Acquire</td>
<td>c. Distribute</td>
<td>In terms of other Resources</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Results from Resource</td>
<td>The results are expressed in terms of values in form of manpower, facilities, material, and services</td>
<td>Results of use are dependent on leadership, development, training, and human relations</td>
<td>Results of use are dependent on actions of people, systems, techniques, and procedures utilised in its application. Preservation is important</td>
<td>Results of use are dependent on utilisation of manpower, material, and equipment. Preservation is important</td>
<td>Results of use are dependent on the increase in efficiency or economy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Obsolescence Factor</td>
<td>No obsolescence - Both long and short range fluctuations</td>
<td>Obsolescence Factor can be remedied - Training - Development</td>
<td>Short and long term obsolescence Factor</td>
<td>Long term obsolescence</td>
<td>Lack of A Requirement for service can obsolete the service</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Generates Requirements for other Resources</td>
<td>Generates requirements for other resources only in terms of its determination, acquisition, distribution</td>
<td>Generates distinct requirements for other resources in creating other values. (Most Services)</td>
<td>Generates distinct requirements for other resources in its own right dependent on application and use</td>
<td>Generates distinct requirements for other resources in its maintenance and operation</td>
<td>Generates distinct requirements for other resources</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**FIGURE 8**

RESOURCES - RELATIONSHIPS AND CRITERIA
determining, acquiring, and distributing can be combined within the term logistics.

**Logistics**

The term logistics has been used by the military for many years. Its usage in other than military organizations has increased in the last few years. Logistics may be defined as the art and science of determining, acquiring, and distributing those resources necessary for the successful attainment of organizational objectives. An analysis of this definition shows considerable similarity between it and a definition of economics. What shall be produced? Who shall produce it? And, to whom shall it be distributed? Logistics has been aptly described as: "The military element in the nation's economy and the economic element in its military operations."

Looking back at the definition of logistics, it can be seen that the term is applicable to any organization. The manager must assure himself that the need for resources are determined, and resources are acquired and distributed only for the accomplishment of organizational objectives. Resources have been defined and organizational objectives

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5 This definition was developed and used by the United States Air Force, School of Logistics, Wright-Patterson Air Force Base, Ohio, 1957.

have been discussed. To complete the analysis of resources we now must discuss what is meant by determination, acquisition, and distribution.

**Determination.** Determining the need for resources is an integral part of the decision-making process when management is deciding on a scheme of activities. This determination takes place within limitations that have previously been postulated by management. The determination may be in general or specific terms when evaluating various schemes of activity. The environmental situation will control the amount of detail deemed advisable.

After a "scheme of activity" is decided upon then it is necessary for management to determine with preciseness the resources needed. This determination must consider quality, quantity, and time and must be within limitations.

The nature of the resource will dictate to some extent the terminology used. In determining manpower requirements from a quality point of view, one might encounter such terminology as

1. skilled
2. semi-skilled
3. managerial
4. technical
5. engineering

Also, the communicating of these requirements may be in the form of

1. job specifications
2. job qualifications
3. skills list
4. others
Quantitatively, manpower needs may be reflected in schedules, in manpower forecasts, in manning tables, and in future turnover expectations.

There is a lack of proper determination of future manpower needs in many organizations. Concerning this weakness, Professor Jucius has this to say:

In many companies, advance preparations are not made to ascertain how much labor various kinds will be needed. Only after vacancies occur or their occurrence is a certainty are steps taken to find replacements.

...Although this method of ascertaining the quantity of labor needed is simple to follow, it possesses little else to commend it. On the contrary, its use aggravates interruptions to production; tends to result in hurried and hence poorly considered selections; and is wasteful of executive time. Therefore, its continued use can probably be condoned only when the replacements that have to be made are few and far between.7

Determination of the need for material and equipment follows the same general pattern as the determination for other resources. Different classifications may be used but the basic characteristics are the same. The need for material and equipment must be determined considering quality, quantity and time. The need for this resource must be based on the objectives sought.

The military services have done extensive research into techniques and methods of determining requirements for resources. Several tools are being used:

1. Probability tables
2. Simulation techniques
3. Actuarial methods
4. Gaming techniques
5. Waiting-line theory (technically called queuing theory)

In current management literature one can find references to this facet of management in many fields. Books on finance consider the need for capital expenditures. Industrial engineering and engineering economics are concerned with this problem. Man-machine studies are a refinement used by some. The purpose here is not to explore these many different approaches but to point out the "commonality of thinking" behind them all and to place this function in proper perspective.

In the determination process the need for material and equipment must be balanced with the need for other resources. Any decision as to what is needed must be within the limitations previously discussed. Determination of facilities required to attain objectives will be conditioned by previous decisions concerning the need for manpower and material and equipment.

Facilities needs must be determined qualitatively and quantitatively, and the time they are needed must be specified. The situation of the particular organization and the
nature of the objectives will influence decisions in this area. Questions will be asked and must be answered concerning the following:

1. Architectural design
2. Type of construction
3. Plant layout
4. Work-flow
5. Plant location

Any manager could add to the above list. Each manager should make his own list of characteristics to be considered.

In determining the need for services, the variables are quite extensive. The basic premise is common to all managerial thinking. Based on the organizational objectives, the environmental situation, the philosophy of the organization, the limitations imposed, and the guidance provided, it is possible to determine with some scientific validity those services required.

Money, being the medium of exchange, can be used to acquire most other resources. A determination must therefore be made as to the quantity of money needed and the timeliness of the need. The literature on accounting and financing adequately covers this area and no attempt is made here to duplicate these studies.

Once the complete and total determination is made, a balanced program assured, and a check made to see if the program is within limitations, resources must be acquired.
Acquisition. Resources must be acquired in terms of quality, quantity and time. Logically, those resources currently available to the organization will be the first source of supply. There are many methods of acquisition and in specific situations each method has its place.

Generally speaking, an organization can acquire those resources needed (after considering what is on hand or in stock) from several sources. They can be purchased, produced, modified, built, rented, or borrowed. As we consider the various resources we find different terminology but the "commonality of thinking" is apparent.

Figure 9, page 130, may assist in more fully appreciating this commonality of thinking. Figure 9 further shows this commonality of thinking in the determination and distribution function.

Distribution. By distribution is meant those actions necessary for assuring that the resource is at the right place at the right time and in the right amounts in accordance with the scheme of activity (plan or program). These actions include--

I. Transportation
   A. Air
   B. Sea
   C. Land
      1. Motor
      2. Rail

II. Warehousing
III. Inventory

IV. Disbursement of funds

V. Assignment of facilities

VI. Assignment of personnel

VII. Packaging

VIII. Materials handling

IX. Disposal

Any attempt to cover the above is beyond the scope of this study. The lesson for managers should be that decisions must be made and resources acquired in terms of quantity, quality, at a given time, and within limitations. Many wars have been lost; many businesses have failed; many organizations have become ineffective because the logistics of the business had not been properly considered.

**Balanced Program—Trade Off**

The manager must continually seek to trade off or substitute one resource for another until he has a balanced program. The objective should be optimum utilization of all resources. Resources may be traded-off, one for the other, in order to minimize cost for a certain level of attainment or to maximize attainment at a given cost.

Economists have explored this area extensively. Total value analysis, marginal costs, and incremental analysis are terms familiar to most managers. Terms not so familiar but increasing in popularity are linear programming,
dynamic programming, queuing theory, game playing, and simulation techniques. These are tools of the operations researcher and when properly used, can, in some situations, provide optimum solutions.

A perfectly balanced program may be unattainable. Managers should not hesitate to do everything in their power to approach this theoretical perfection in a balanced program of resources.

**Summary**

Perhaps the best method of summarizing this chapter is to call attention again to Figure 9, page 130. Resources must be considered as an integral part of organizational activity. The need for each resource must be determined, the resources acquired and distributed. This is done in terms of quantity, quality, and time, and within previously determined limitations. The need for each resource should be specifically related to an activity. And, each activity should be related to a specific objective.

Now that we have developed a scheme of activity, and resources are in place, the organization is ready to perform activities and attain objectives which will satisfy human wants and desires. In the next chapter of this study the nature of these activities is discussed.
<table>
<thead>
<tr>
<th>FUNCTION</th>
<th>MANPOWER</th>
<th>MATERIAL &amp; EQUIPMENT</th>
<th>FACILITIES</th>
<th>SERVICES</th>
<th>MONEY</th>
</tr>
</thead>
<tbody>
<tr>
<td>DETERMINATION</td>
<td>Job specifications</td>
<td>Specifications</td>
<td>Plant location</td>
<td>Personal maintenance</td>
<td>Budgets</td>
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<tr>
<td></td>
<td>Manning tables</td>
<td>Standards</td>
<td>Design</td>
<td>Utilities</td>
<td>Working capital</td>
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<td></td>
<td>Skills lists</td>
<td>Plans</td>
<td>Life expectancy</td>
<td>Repairs</td>
<td>Seasonal</td>
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<td></td>
<td>Retirement</td>
<td>Schedules</td>
<td>Plant layout</td>
<td>Communication</td>
<td>Payrolls</td>
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<td></td>
<td>schedules</td>
<td>Materials list</td>
<td>Work-flow</td>
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<td>Financial plan</td>
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<td>Operation capability</td>
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<tr>
<td>ACQUISITION</td>
<td>Hire</td>
<td>Buy</td>
<td>Build</td>
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<td>Employ</td>
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<td>Educate</td>
<td>Produce</td>
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<td>Draft</td>
<td>Borrow</td>
<td>Rent</td>
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<td>Commission</td>
<td>Modify</td>
<td>Lease</td>
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<td>Recruit</td>
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<td>Produce</td>
<td>Substitute</td>
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<td>Develop</td>
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<td>DISTRIBUTION</td>
<td>Assignments</td>
<td>Transportation</td>
<td>Assignment</td>
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<td>Transfers</td>
<td>Warehousing</td>
<td>Utilization</td>
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<td>Allocations</td>
<td>Inventory mgt.</td>
<td>Priorities</td>
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<td>Priorities</td>
<td>Materials</td>
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<td>Promotions</td>
<td>handling</td>
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<td>Transportation</td>
<td>Packaging</td>
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<td>Disposal</td>
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<td>Salvage</td>
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<td>Schedules</td>
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<td>Cafeterias</td>
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<td>Phones</td>
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<td>List almost unlimited</td>
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</tbody>
</table>

**FIGURE 9**

DETERMINATION, ACQUISITION AND DISTRIBUTION OF RESOURCES
CHAPTER VIII

ACTIVITIES

All functions of management precede the actual performance of the activity and have previously been analyzed and discussed in this study. This chapter is concerned with the actual performance of the activity. With the performance of the activity the activity cycle will have been completed. The performance of the activity is the operative work that results from previous management actions.

Definition of Activity

The word activity can easily be replaced by one of the reader's own choosing and the philosophy proposed herein should not be altered. Many are the nouns and verbs used to describe the performance of activities: activity; production; operation; task; job; doing; work; play; construct; build; duty; and perform.

Management literature uses all or many of these terms interchangeably.

The term activity refers to observable behavior of people as they go about their daily work. Some of the behavior of people in a business situation is no doubt random and insignificant, but even untrained observers note the tremendous amount of physical activity going on in an organization. Individuals are moving about, carrying papers or objects or nothing at all. Some speak into
dictaphones, others do not. Some stand behind counters or windows, responding to requests or demands from others. Some write letters, some read letters, send bills, count money, or keep books and records. The amount of activity is very great and the range of things needing to be done is virtually unmeasurable.

To the human relations specialist, all activity has meaning, and he is interested in discovering this meaning in order to judge its relevance to the work situation. Activity also reveals something about the employee's attitudes. Psychologists teach us that all behavior is caused, so that the activity of workers can often be explained through careful analysis. It becomes important to: (1) describe the activity in scientific terms; (2) understand its causes; and (3) study and predict the kinds of results produced by different kinds of activity. In studying activity, direct observation is the chief technique. In industry it is possible for us to observe significant and interesting events, and to record or describe these specific events. It is a well-known fact that observation is a skill which an observer can acquire and in which he can improve through practice. Human relations researchers become especially well-qualified to observe activities in a business organization because of their unique training and experience. Activity that is not directly observable can be indirectly observed through questioning informants about their observations, and can also be obtained quantitatively through questionnaires. The data collected by records or questionnaire methods is usually statistical rather than clinical in nature. Such activity as quantity of output may be obtained in this manner, as may data on number of employees absent or tardy. However, there is much direct activity that comes within the purview of supervisors and other managers as they carry out their responsibilities.1

Everett Laitala defines production as follows:

The production function transforms the shape or condition of materials with the aid of plans prepared by the design function. The production function takes engineering ideas as recorded in plans and gives them meaning by physically embodying them in real things. Thus materials are converted, removed, joined, cast and formed by this function.\(^2\)

Ralph C. Davis defines operative functions as follows:

Operative functions may involve minor, local, and limited responsibilities for planning, organizing and controlling one's own work. They do not include any rights of decision or command with respect to the work of others. They consist chiefly of work that enters immediately and directly into the creation of values representing some accomplishment of business objectives. It is the work of the clerk, the salesperson, the machine operator, and other operatives.\(^3\)

Anderson and Schwenning define an operation as: "A completed step in the production process, regardless of who or what performs it."\(^4\)

An almost endless number of authorities could be cited but the author feels the above examples are sufficient. The point to be made is that regardless of the terminology used there is a "commonality of thinking." More appropriate than the word activity might have been "doing

---


things," or, one might use a symbol to represent this function. The understanding and a common basis for communicating are the important aspects.

One might further classify activity according to relative scope. If one were to go from a basic hand movement to a movement of the body, combine the movements into an operation, group the operations into progressively larger segments, one would arrive at the total activity of the organization. Again we run into the semantics problem. The following classification is generally accepted.

Mission
Project
Work Center
Job
Task
Operation
Motion
Therblig\(^5\)

The definition is secondary to the understanding that objectives are attained by doing something.

**Relationship of Activities to Objectives**

Each activity must have a corresponding objective.

This statement, in the author's opinion, cannot be repeated

\(^5\)A *therblig* is a fundamental hand motion. This term, coined by Gilbreth, is Gilbreth spelled almost backwards.
too often. Activities are performed in terms of quality, quantity, and at a given time. Activities utilize resources. Hence, to maximize attainment of objectives each activity must contribute to the over-all objectives of the organization. Each activity must add some value; provide some service; and, must be traceable to some known, understood, and accepted objective. This latter is what motivates individuals and groups to produce more effectively and efficiently.

Activities themselves have unique characteristics. Managers may transfer skills in planning, organizing, and controlling; in developing objectives; determining limitations; providing guidance; and, formulating schemes of activities, but the skills involved in performance of activities are too complex and too numerous to be mastered by one individual. This, then, is one of the contributors to the requirement for technical staffs. Activities have another differentia in that they must be supervised. It is at this point that leadership and human relations qualities are brought to bear. The supervisor is the link between the worker and management. Supervisors are considered by some as a part of management, by others as a part of the work force. In this study we are interested in the supervisory function as one necessary to complete the activity cycle.
Supervision of Activities

In a large manufacturing plant the largest single managerial group is one that spends relatively little time in the "front office," and for that reason alone is often scarcely considered a part of managerial organization. That group comprises the foremen, bosses, supervisors, inspectors, and so on, whose work is directly concerned with the supervision of workers or "operators." The uncertainty concerning the position of the first-line supervisor in management is symbolized by the distinction between the offices and the shops, but has much wider ramifications for the operation of industrial concerns. The foreman represents the last stage in the managerial hierarchy and thus stands in a crucial position with regard to the continued flow of production, the interpretation of executive orders, and the relations between management and the worker.

The foreman like the worker, is a human being seeking human satisfaction. Economic motivations are no more dominant for the foreman than they are for the worker. Therefore, if we are to understand the foreman and his problems, we must study the system of human relations in which he acts.... He is a member of a social system, a system made up of parts so interdependent that a major change in one part of the system inevitably has repercussions throughout the system.6

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What is this system of human relations? There are as many definitions as there are books on the subject, and a good many books are written on the subject nowadays. Unfortunately, all of them are not good books, so the first job is to define what human relations is not. Despite the views of some writers and some speakers on this subject, human relations is not just being nice to people. It is not just keeping subordinates or bosses happy in the belief that that will make them efficient. Neither is human relations a short-cut to getting people to do what one wants them to do. Human relations is a field of study and action aimed at two goals: first, to achieve the maximum understanding of why people act the way they do in their relationships with each other, and second, to make the greatest possible ethical use of that understanding in our dealings with individuals, groups and situations.

There are two extremes in the philosophy of handling people. The old military tradition of fifty years ago leaned very strongly toward one extreme—certain radicals in social science have leaned rather heavily toward the other extreme in recent years. The truth probably lies in between somewhere. The traditional old military extreme was centered on motivation through fear. It was based on the idea that people are lazy by nature and won't do anything worth doing unless they are driven to it—driven by fear of the consequences if they do not comply. It is the system of
drivership, the philosophy of "give them an inch and they'll take a mile," the theory of "people are no good," the procedure of "catch 'em young, treat 'em rough, and tell 'em nothing." This system works--let there be no question on this matter. In the hands of a strong man it gets a lot of work done. It requires a lot of forcefulness on the part of the leader; it does not require superior intelligence; with sufficient drive, it assures compliance. But it does not result in cooperation. The other extreme in handling people is based on the philosophy that people all want to do the right thing, and that all that is necessary is to give them the opportunity to express themselves. This theory is best known in certain extreme school systems, where it is, quite improperly, called "progressive education." The children do only what they want to do.

Between these two extremes there lies a broad zone of operation which is infinitely preferable to either extreme. Managers, or supervisors, accomplish most by working within this middle zone, sometimes leaning in one direction, sometimes in the other, depending on the particular situation and the particular people involved. Effective practice of this middle philosophy of human relations involves the acceptance of four rather fundamental principles. These are: first, people differ a lot from each other and so cannot be treated the same; second, one can get more work out of a man by helping him to feel important than by making him
afraid; third, actions result more often from habit or emotion than they do from logic; and fourth, one has to like people to do a good job on a human team.

The first principle is that people differ a lot from each other and so cannot be treated the same. Every man and woman is the result of the combination of his heredity and his environment. Today the socialists are inclined to weigh much more heavily in the direction of environment as a source of personality than previously. And no two people have had the same environment. Each person is to a very great extent what his experience with this world has made him—and no people have had the same experience. So people are different from each other. The world recognizes that some men are taller while others are shorter, some fatter while others are thinner, some stronger while others are weaker. It even recognizes, in a general sort of way, that some are more intelligent than others. But it usually fails to recognize that men differ from each other in many other significant ways, and more often than not it assumes that what works successfully with one man will work successfully with all; often it even works up to the extreme that it is not fair to treat one man one way and another man another way.

It may be helpful to consider a few ways in which people differ from each other significantly. Intelligence has already been mentioned. Let us consider sensitivity to praise and reproof: in this area people vary from the
elephant-hided individual, who has to be practically knocked down to get it into his head that his behavior leaves much to be desired, to the extremely sensitive little typist who cries if one suggests that he would prefer a semi-colon in the place where she put a comma. Does a sound practitioner of human relations treat these two people the same? Another significant personality trait is willingness to accept responsibility. One can pick the extremes out of one's own experience: from the empire-builder, who will take the job away from his friends if given half a chance, to the completely dependent creature who wants to be told every detail of how as well as what to do. Should not one go on pushing the empire builder back into place, while at the same time trying to build a little backbone into the dependent subordinate who wants someone to do all his thinking? Still another trait is energy. People vary from the human dynamo, who wears one out just listening to him for very long, to the drone who drags to work, drags through the day, and drags home. Is not there maybe some sense in putting a brake on the human dynamo and a booster charge on the drone? One might go on and on, and consider such things as tact, emotional stability, willingness to see the other fellow's point of view, and education. The point is that no member of the human team can afford to treat the other members of that team as if they were all alike, because they are not. In the average supervisor's job there are perhaps a dozen people
with whom he must work closely and often: perhaps a boss, three or four associates, six or eight immediate subordinates. Acceptance of this first principle of human relations means that he should watch how each of these people responds to praise, to reproof, to added responsibility, to assistance and request for assistance, to good luck and to easy going, to rough luck and to hard going. They should be watched, studied, and treated accordingly.

The second principle is that one can get more work out of a man by helping him to feel important than by making him afraid. From the historical point of view, this is rank heresy. Not only in the military, but throughout the world of work, in the school, even in the family, it has been traditional with our kind, until the last fifty years, to motivate by fear. Bad little boys obeyed parent and schoolmaster for fear of the switch or the razor-strap; men worked for fear of losing their jobs; soldiers governed their lives under a strict and rigid military discipline. This time it was industrial experimentation that showed there was an alternative and more effective method of motivation. The Hawthorne studies conducted by Western Electric in 1927 showed beyond question that by far the most outstanding factor in getting more work out of people is giving them a chance to feel important. There are a number of reasons for this. Today, man lives in a culture that lays heavy emphasis on prestige. Man has pretty well whipped the problem of
bodily necessities such as food, clothing, and shelter. Much of man's energy is devoted to having something a little better than the fellow next door: more bathrooms, a longer car, a better-looking wife. Then there is a cultural disease that each man has to a greater or lesser extent—usually greater—the so-called "inferiority complex." Almost everyone realizes he has feelings of inferiority, but he does not usually realize that the same thing is true of everybody else. So each person needs to bolster his ego by managing to feel important—to feel important in the eyes of the group he works with, and, even more vital, to feel important in his inner self.

If this need to feel important is the outstanding need of modern man—and it looks as if it is—then supervisors should take account of it in their practice of human relations. There is no force which will bind a person to his supervisor as firmly as assistance in helping him to feel more important. How does one set about raising a man's prestige? By praising him in public? Yes, sometimes. But praise overdone is like flat beer, and underserved praise bounces back like a tennis ball off a concrete wall. There have to be other ways. Recognition is one—and participation. Asking his advice, and taking it is another.

The third principle warns us that much of human behavior results from past training, or from habit, or from desire, or from emotion, and not from logical consideration.
This is important if it is true, because it follows that one will not be able to solve emotional problems with logical solutions. Most of the things that people do, and even more of the way they do them, are a result of habit. This is not necessarily bad—it is just true, and so needs to be taken into account. Most attitudes toward ideas are the result of habit or emotion. A strike occurred in a mine out West basically because ketchup was not served in the miners' mess. Feelings of inferiority play a large part in emotional behavior.

What does a recognition of this principle mean to managers in terms of something to do about it? It warns them not to be satisfied with observing what the other fellow does, but to be on the lookout for habit-conditioned and emotional behavior. It warns them that they need not expect a wrought up man to see the sense in a logical solution. Above all, it warns them not to let the emotion shift over to them, for two angry people have no hope of arriving at a sensible decision.

The fourth principle says in essence that one cannot hope to handle people in accordance with the principles of human relations if they do not like people. If one really feels that people are no good, they cannot administer prestige motivation with any sincerity at all. One has to be pretty enthusiastic about people to study them enough to do a decent job under the first principle. Some men prefer
things to people, some prefer ideas to people. This does not mean that they are inferior in any way to those who like people best, but it does mean that they should be working with material or research, or in some area where their dealings with others are of lesser importance. Managers should not overlook the fact that it is not a bit hard to like people if they really want to. Here is something the author believed for a long time before he found it was good psychological theory: you see the things you look for in this world. If one expects to find a world where the cut throat rule is each for himself and devil take the hindmost, they will find that kind of a world. If they expect a world mostly filled with decent people, they will find that kind.

After having considered these four basic principles, it seems perhaps that two general ideas emerge as a result of the detailed consideration.

The first of these is that there are not, and there never will be, rules governing the business of getting along with people--rules, that is, in the sense of formulas or rules without exception. Since people differ from each other, so must managers differ in the way they handle them. The most that can be hoped for are principles--part time rules, sign posts that point out the general direction to the answer, but do not give the answer.

The second generalization that may perhaps be derived from the consideration of basic principles is that there is
one central procedural principle: to treat people as people. This means that supervisors must school themselves to avoid thinking of people in mass, of thinking of people as machines, that they must train themselves to think of every person involved in a human relations problem as an individual different in small but significant ways from every other person.

During this discussion the author has attempted to give some meaning to the expression "human relations," and to consider a few principles basic to its effective practice. These principles are:

1. People differ a lot from each other and so cannot be treated the same.

2. Managers get more work out of men by helping them to feel important than by making them afraid.

3. Man's actions result more often from habit or emotion than they do from logic.

4. One has to like people to get along with people.

The job of the supervisor is obviously complex. It will vary in different organizations and even among different supervisors. It is in this area that the social scientists have moved most rapidly. Here we find studies of group dynamics; participative management; bottoms-up management; multiple management and many more. But to explore these most interesting aspects of human relations, supervision, and leadership, is to wander too far afield from
the objectives of the study. What we are primarily interested in are: what activities are required to attain objectives? Who determines the scope of the activity and how it is to be performed? For answers to these questions we turn to the industrial engineer or at least to the tools and methods usually ascribed to him.

The Role of the Industrial Engineer

The industrial engineer, by whatever title he may be labeled, is the "expert" on translating objectives into activities at the performance level. Whether he be called a works analyst, methods improvement technician, management analyst, or "efficiency expert" the industrial engineer is essentially trying to determine the most effective and efficient utilization of resources in the attainment of objectives. He works in specifics— he measures in minutes, seconds, or pounds— and uses other tools of analysis which require preciseness in quality, quantity, and timeliness of objectives sought.

His tools as known to us today are:

1. work methods
2. work measurement
3. work simplification
4. operation research techniques
5. time and motion study
6. standards
7. specifications
8. statistics

The industrial engineer's tools of tomorrow will be more specialized and require a higher degree of analytical
ability. According to Bowman and Fetter tomorrow's industrial engineer must be familiar with

1. statistical methods
2. probability and management decisions
3. the concept of quantity planning
4. investment analysis
5. information handling

Bowman and Fetter conclude that:

In view of the increasing interest in the quantitative analysis of management problems and the increasing complexities of business planning and control, the future will be marked by an increased use of such methods as well as much more research aimed at development of newer and better methods. Increased facility with mathematical models will be beneficial to future managers, for this seems the most promising avenue toward better decisions. Significant research into human behavior must certainly not be overlooked in the development of the management sciences, but effort here will be directed toward the exposition and application of the models whose background has been so briefly traced here. The future use of such methods offers great promise in the satisfaction of human wants. Knowledge concerning the search for new methods and more fruitful applications of present methods is becoming a necessary part of the equipment of successful management.

The manager should discover and list the methods and techniques being utilized in his organization to translate objectives into activities. He should also ascertain their

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8Ibid., pp. 20, 21.
adequacy and, if found lacking, new ones should be utilized.

The reader, it is hoped, has begun to fit the many techniques, tools and functions of management (what was called the content of management earlier in the study) into the activity cycle, which if successful will result in the attainment of objectives which will satisfy human wants and desires. We have completed the activity cycle and it seems appropriate that we gather the pieces together into a unified entity and attempt to "close the cycle."

**Completion of Activity Cycle - Summary**

We started with the thesis that all organizations exist for the attainment of objectives. People join organizations to satisfy wants, needs and aspirations. Management has an objective—to see that activities are performed which will maximize attainment of organizational objectives. The content of management includes the principles, systems, techniques, and tools the manager utilizes in attaining the objective of management. The objective of management parallels the objectives of the organization.

Next we discussed limitations, both physical and non-physical that must be communicated, understood and accepted from the top level of the organization to the worker. This was true also of objectives. It was pointed out that guidance—a path to follow should be available to all within the organization.
To attain objectives, keeping within limitations, and following guidance, a scheme of activity must be formulated. This scheme of activity must include both the administrative and operative ways of "doing" or of performing activities.

Lastly, we discussed the performance of activities themselves. Throughout, an attempt was made to ferret out the commonality of thinking—to wade through the semantics barriers. Quality, quantity, time and use of resources were considered at every step of the activity cycle. We digressed once—to discuss the determination, acquisition and distribution of resources.

In figure 10 the steps in the ACTIVITY CYCLE are graphically portrayed. The author believes this graphical presentation is self explanatory.

With the completion of the activity cycle and a summary of the objective of management we shall attempt in the following chapter to relate the content of management to the objective of management.
## Steps in the Activity Cycle

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<td>Guidance for Individual Worker</td>
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</tr>
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**Figure 10**

The Complete Activity Cycle
CHAPTER IX

THE CONTENT OF MANAGEMENT

The study so far has been concerned with the objective of management—the maximization of organizational objectives by the performance of activities. This maximization of organizational objectives will also maximize the satisfaction of human wants, desires and aspirations. How does the manager proceed in attaining management's objective? This chapter is concerned with the content of management. The literature of management abounds with principles, functions, tools and techniques for management's consideration and use. The purpose here is not to describe and define these many aspects, but to relate them to the objective of management. In studying the content of management, there are many potential approaches. These approaches have been given many names; however, the author feels that there are three types of management which encompass most of the approaches.

Types of Management

With the emergence of management as a recognized vocation, we might select three different approaches in an attempt to understand it more fully. Each in its own way
looks upon management as the art of getting things done through people.

**Practical management.** First, we have the practical school of thought. This approach emphasizes management practices. It says in effect that management is what "good" managers do or, more correctly, it is what those men considered successful say they do, or attribute their success to. This is sometimes called the status approach to management study. What is becomes the model for what ought to be. An example of this approach appears in the article, "Who is an Executive?" by Perrin Stryker. Based upon his interviews and questionnaires from 1,100 individuals, Stryker lists ten broad categories of executive actions:

1. Achieving the company's overall objectives
2. Planning and setting policies and objectives
3. Mapping decisions, thinking, analyzing
4. Coordinating functions and people
5. Organizing and developing subordinates advising other executives and managers
6. Handling subordinates, controlling operations
7. Improving own capacities, leading, setting an example
8. Delegating, giving orders, working through orders
9. Exercising business judgment, performing a specialty
10. Dealing with the public

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This approach indicates trends and utilizes the best ideas and practices of the best managers. The difficulty comes in deciding who and what is best and whether what is best today or better yesterday, will ever be good tomorrow. Experience and ability are valuable, it is true, but they alone will not do unless they fit the needs of the times. The approach above is too narrow for effective management.

**Human behavior approach.** Second, is the emerging concept that management is involved in people. Understanding people is the answer to greater productivity. This might be called the social science, or behavioral science, approach. The social scientists claim authority by virtue of their professed understanding of human behavior.

They point out that managers work with groups or with associations. Since associations are composed of people, a manager's understanding of people and of their behavior is essential for success. Decisions, according to this approach, are frequently best made by a group or in a group. The role of the manager is to produce a climate in which the group will come up with the best decision. The manager will increasingly become a catalyst, rather than a carrier of authority, a problem stater rather than a problem solver.

Ohmann in describing the philosophy of one successful executive, explains the human-behavior approach:

> As hear as I can piece it together, he believes that this world was not an accident but was created by God and that His laws regulate and control the
universe and that we are ultimately responsible to Him. Man, as God's supreme creation, is in turn endowed with creative ability. Each individual represents a unique combination of talents potentials. In addition, man is the only animal endowed with freedom of choice and with a high capacity for making value judgments. With these gifts (of heredity and cultural environment) goes an obligation to give the best possible accounting of one's stewardship in terms of maximum self-development and useful service to one's fellows in the hope that one may live a rich life and be a credit to his Creator.

This executive also assumes that each individual possesses certain God-given rights of self-direction which only the individual can voluntarily delegate to others in authority over him, and that this is usually done in the interest of achieving some mutual cooperative good. The executive therefore assumes that his own authority as boss over others must be exercised with due regard for the attendant obligations to his employees and to the stockholders who have temporarily and voluntarily yielded their rights in the interest of this common undertaking. (Notice that he does not view his authority as originating with or derived from his immediate superior.) This delegated authority must, of course, be used to advance the common good rather than primarily to achieve the selfish ambitions of the leader at the expense of the led.

He further assumes that the voluntary association of employees in industry is for the purpose of increasing the creativity and productivity of all members of the group and thus of bringing increased benefits to all who may share in the ultimate use of these goods and services. What is equally important, however, is that in the course of this industrial operation each individual should have an opportunity to develop the maximum potential of his skills and that the working relationships should not destroy the individual's ability to achieve his greatest maturity and richness of experience. As supervisor he must set the working conditions and atmosphere which will make it possible for his employees to achieve this dual objective of increasing productivity and maximizing self-development.
These goals can best be achieved by giving employees maximum opportunity to exercise their capacity for decision making and judgment within their assigned area of responsibility. The supervisor is then primarily a coach who must instruct, discipline, and motivate all the members of the group, making it possible for each to exercise his special talent in order to maximize the total team contribution. Profits are regarded as a measure of the group's progress toward these goals, and a loss represents not only an improper but even an immoral use of the talents of the group.

There is nothing "soft" about his operation. He sets high quality standards and welcomes stiff competition as an additional challenge to his group. He therefore expects and gets complete cooperation and dedication on the part of everyone. Incidentally, he views the activity of working together in this manner with others as being one of life's most rewarding experiences. He holds that this way of life is something which we have not yet fully learned, but that its achievement is part of our divine destiny. He is firmly convinced that such conscientious efforts will be rewarded with success. He manages with a light touch that releases creativity, yet with complete confidence in the outcome.2

From the philosophy so adequately described by Mr. Ohmann, the problems of management are seen to fall into four categories:

1. knowledge of individual behavior
2. the theory of groups
3. the theory of communications
4. a rational basis for decision making

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The assumption is that when a manager's actions spring from one or more of the four categories, he is operating in a way common to all management, regardless of the institutional affiliation. In other words, people individually and in groups are the universal materials of management. The author feels that this approach alone is not enough.

The pendulum swings. During the twenties it had swung far to the left and the "efficiency expert" was busy tearing down the work of Taylor and others. Next we had the human relations, behavioral science approach, and currently the trend is back to the scientific approach. The mathematicians and operation researchers are active in this movement.

**Scientific approach.** Thirdly, we must consider the scientific movement. The literature quite adequately covers the history of the scientific movement. *Factory Management and Maintenance* magazine, in an editorial entitled "A Fresh Look at Scientific Management" summed up the present acceptance of the scientific approach to management as follows:

...The application of basic industrial engineering concepts of control and measurement has gone so far and grown so important that there is no longer any question as to the professional status of the management specialist. Yet we suspect that the field is still so new that many management men in the production and maintenance fields may not see themselves in proper perspective. That's regrettable, because, when seen in perspective, the art and science of managing is exciting and rewarding. Its relative youth means that many paths are open
to management specialists for innovation, improvement and experimentation. Most importantly, minds are still open, thus accounting for the remarkable variety of new approaches to organization, measurement and control that have made management engineering such a vigorous field.3

The work to be done in the field of management, through the application of the methodology of the scientific approach, is being recognized by managers and teachers of management. Kozmetsky and Kircher cover this point very well:

As long as management must deal with risk situations, with large areas of uncertainty, a straight engineering approach will not be adequate. Yet, at the same time, so many tools and methods for better decision making are being developed that the intuitive hunch player in management should usually be at a serious disadvantage in most situations.

It appears that a new type of training may be required for future managers. This poses a serious problem for our educational system. There are inadequacies at all levels. Some experts are coming to believe that a completely fresh look at our system of education may be required...

...A new curriculum may be required, one designed to meet the different demands that a different type of society imposes. The combination of electronics and data processing, of mathematics and management decision making, and automation, all bring together in an integrated system signifies nothing less than a bringing together of the social, the life, and the physical sciences. This is a new concept, one which is only beginning to be recognized...

Much of the "art" of management will always remain, presumably, but now we have the hope of developing whole areas of descriptive, predictive, and decision models. Model building can be taught. From

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these models further progress can be made so that, as in the other sciences, one generation can build on the work of its predecessors.

Education may have to be changed, as the student pursues the life, social, and physical sciences. But a more productive economy should be able to support students both out of and in the plant for an additional period. College education may be as common as high-school education is today.  

Other approaches could be cited but they would be similar to the three discussed. The author feels that no single approach will suffice. The most efficient manager will have a balanced approach.

A balanced approach. In any approach to the study of management one must remember that certain things must be done in order to attain objectives by performing activities. The approach, by whatever title, must be inclusive. A balance of the three approaches discussed above would have the best chance of being successful. Without such a balance some of the steps in the activity cycle will be ignored, or if not ignored, they will not receive the attention necessary.

One can cite examples of successful leaders and executives who have favored one of the approaches above others. This is to day that managers who excel in, say, leadership qualities may be successful. Managers who are

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adept at principles, procedures, and techniques also may be successful. Managers who practice the scientific approach may be successful. The question one might ask is, "How successful could they have been using a blend of all three approaches?" Much research must be undertaken before questions of this type can be answered. The author realizes that the above statements cannot be proven.

**Relationship of Content of Management to the Objective of Management**

When we speak of the objective of management and consider performance of activities as the means of attaining objectives, we can use the activity cycle as a way of analyzing how the content of management can be applied. Remembering that the activity cycle included the steps necessary to go from objectives to activities, and the objective of management was to maximize the attainment of objectives, we are now in a position to relate the content to the objective.

In formulating objectives the manager should understand people. The wants, desires and aspirations which motivate people are important. He should understand the objectives of the supplier, the owner, the customer, and the community. The manager should be aware of historical changes in the institutions of society. He should understand political and governmental relationships. He should
be able to predict future courses of events with some
degree of validity.

group these forces and factors into four categories:

1. **State of the economy**: Fluctuations in the
   physical, technological, scientific or financial
   structure of the economy are inevitably reflected
   in stresses, strains and adjustments in our total
   economic system.

2. **Manpower needs and utilization**: Population
   characteristics and projections, prevailing ways
   of viewing human lives, development of people as
   a natural resource—all belong in this category.

3. **Demands for goods and services**: Trends in
   tastes, patterns of consumption, the "market"
   in the broad sense as a determiner of the kind
   and quantity of the output of one's enterprise
   are all included here.

4. **Patterns of thought, belief, and value**: Under-
   lying the ways that people relate themselves to
   one another and the ways they organize themselves
   for manifold activities are the patterns of
   thought, belief and value which give form to
   their motivations, aspirations and commitments.
   They give expression to views about the nature of
   the world and of man, human destiny, and the
   limitations and potentialities of human nature.
   People have assumptions and expectations concern-
   ing human growth, development, learning thinking
   and knowledge. They have loyalties to certain
   religious and moral beliefs, engage in rituals and
   ceremonies, appeal to various authorities and
   sanctions, communicate through distinctive language
   and symbols, create and enjoy aesthetic expressions,
   and display certain manners and customs.5

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5Daniel R. Davies and Robert T. Livingston, *You and
Management* (New York: Harper and Brothers, Publishers,
From Davies and Livingston it would seem that the manager must have a breadth of knowledge as a basis in formulating organizational objectives. Also, since he must make decisions at all stages of the activity cycle, he must have knowledge of rational decision making.

In determining limitations, the manager must understand the availability of resources from a quality, quantity, time point of view and what these resources will cost. He must know the financial trends, interest rates and other aspects of the financial program. The non-physical limitations must be communicated to all in the organization. This involves a knowledge (1) of legal restrictions, (2) of moral and ethical considerations, (3) of social responsibilities, and (4) of the state of technological progress.

In developing and providing guidance the manager must understand strategy and policy. He must understand the tools with which guidance can be communicated.

He must be able to explain and gain acceptance of the organization's objectives. In all of this he must be thoroughly familiar with the theory of communication.

Next, in devising a scheme of activity, the manager must be able to utilize industrial engineering techniques. Technical processes come into the picture in the operative scheme of activity. Here is where the manager brings to bear the skills found in the scientific method approach.
And lastly, the manager must be able to supervise and lead in the actual performance of the activity. Here the human relations and leadership qualities of the manager have their greatest impact.

For a manager to be able to consider all of the facets of management listed so far in this chapter seems an almost insurmountable task. However, the techniques and methods now found in so many forms and shapes contribute unnecessarily to the complexity of management.

A manager must have a philosophy in order to relate these various aspects of management--one to the other. Dean Stanley F. Teele of the Harvard Business School has observed:

A man's personal philosophy, his way of looking at the world and the men and women around him determine his success as a manager of things and people more than any other single factor. His basic attitudes are far more significant than the techniques he uses.... As we look ahead, we have reason to believe that this will be increasingly true. In short, the time may come when an evil man or one who has no clear sense of values simply cannot be an effective administrator.6

Summary

The manager is faced with rapid advances in managerial technologies (content of management). Scientific management in its earlier years was largely limited to problems of

production and shop. Gradually its application has been
extended to all aspects of organizational activity, including
general management operations. The concentrated efforts to
produce during World War II and the increasing complexity of
the large industrial corporation stimulated efforts to apply
science to the whole management system. The advent and fast
development of computers has encouraged experimentation with
methodological thinking. A whole new quantitative approach
to decision making is in the making which promises to reduce
the need for managerial decisioning by hunch and trial and
error.

Management techniques, systems, and practices are so
plentiful in current literature that the manager may become
lost if he does not have a philosophy wherein he can relate
the content of management to the objective of management.
If there is any doubt as to the complexity of the content of
management the reader should check the following, taken from
recent management articles.7

1. Boolean algebra  10. Operations research
2. Role shifting  11. Unseen committee
3. Game theory  12. Group-unit operations in
4. Pecking order  hierarchical systems
5. Gerriac  13. tripartite origin of order
7. Minimal  15. Binary number systems
9. Integration  17. Qualitative imputation

7Adapted from Daniel R. Davies, "The Impending Break­
through," Phi Delta Kappan, April, 1956, pp. 275-281; and
George Kozmetsky and Paul Kircher, Electronic Computers and
The knowledge of the content of management (above list included) is of lesser importance than the ability to relate what is known to the objective of management.

Now that we have taken a look at the over-all approach to the content of management as it relates to the objective of management we can be somewhat more specific. The next chapter will consider the functions and principles of management (as a part of the content) as they relate to attainment of objectives.
CHAPTER X

FUNCTIONS OF MANAGEMENT AS RELATED TO OBJECTIVES

The literature of management has adequately covered the functions of management. During the last fifty years management students have been concerned with the identification and naming of the executive functions. Unfortunately, there has been a significant lack of agreement with respect to those activities which are deemed exclusively managerial in nature, the way in which these several functions should be classified, and the terminology to describe the groups. Writers and businessmen alike have tended to ignore one another in dealing with this subject. Finally, there has been a failure to use common terms to describe the same concept. Of course, writers are not required to use common terms, but scientific progress depends in large measure upon this practice.

The author of this study prefers to consider planning, organizing, and controlling as the functions that are all inclusive, realizing that authors differ as to the division of management functions. The reader may refer to many texts

which describe the management task as some combination of the principles of plan, organize, assemble resources, coordinate, delegate, operate, represent, direct, make decisions, follow-up, review, control, improve, motivate, administer, discipline, assign, report, and train.²

There is no lack of material on functions and principles. What is lacking is the relating of these functions and principles to the performance of activities. The performance of the activity is the real payoff—not how well managers understand management principles and functions.

One of the wisest things said on the subject in many years comes from Mary Parker Follett:

Those who are giving their time and thought to national planning are performing one of the most needed services in the world at the present moment; but I think that in their preoccupation with what needs to be done, they are not always giving enough attention to how it shall be done.³


Managers should consider the how (activities) concurrently with what (objectives). This involves one of the most important functions of management— that of planning.

Planning

Planning is a basic characteristic of executive action. Planning is an intellectual process involving creative thinking and an imaginative juggling of many complex variables. Skill in planning is needed by all administrators or managers. Planning is a part of management and some have said that management is decision making. Terry agrees:

The importance of decision making in management is indicated by the oft-repeated statement "the power to make decisions is the power to manage." Decision making is required in carrying out each fundamental management function. One cannot perform planning without decision making. And it is equally impractical for the manager to carry out the functions of organizing, actuating and controlling without making decisions. ⁴

Planning is the function of making decisions regarding future activities. Planning includes the what, when, where, and who concerning the performance of activities as well as the how and why.

Planning as a function is performed throughout the complete activity cycle. The manager plans objectives, limitations and guidance. In formulating a scheme of activity the manager is involved in planning. The

supervision and leadership of the performance of activities must be planned. The determination, acquisition and distribution of resources involves planning. Planning permeates the entire managerial job. Planning does not precede organization and control—it encompasses them.

Building an organization is a form of planning. Moreover, controls can only be exercised in conformance with a plan. Planning, then, is concerned with the utilization of resources, considering quality, quantity, and time in a manner which will be the most effective and efficient in the attainment of objectives by performance of activities.

There are certain generalizations concerning the characteristics of planning that the manager should consider. Managerial situations are usually dynamic, day-to-day combinations of many variable elements. Resources must be manipulated day-by-day to solve the problems presented by each day's peculiar combination of variables. What planning does is to bring the tools of management to bear on the objective of management. It is through the function of planning that research and activities are brought together and made to march along in a united manner.

With tools of scientific method, planning analyzes the cumulative experience of the enterprise and seeks to discover the elements in the experience that are constant, what are variable and repetitive, and in so far as possible what are variable and fortuitous. For those that are constant it
arranges routinized controls. For those that are variable and repetitive it arranges ways of detecting them. Those that are variable and fortuitous it handles as exceptions, focuses accumulated administrative and technological knowledge on each new such experience as it appears, and promptly makes to order a treatment to fit the circumstance.

Because it is a function of the management of dynamic situations, planning must be a continuous process. Planning must operate to the greatest possible extent in terms of standards. Planning for any enterprise of substantial scope must operate at various levels, each of which has its standards, which must interlock with--be multipliers or divisors of--the standards of all other levels. As examples, there are strategic plans on the highest level, tactical plans at the intermediate levels, blueprint plans at the level of detailed execution, and individual worker's plans at the individual work place. The planning at any level fits within--fills in the details of--the planning at the preceding level. And at every level there is the responsibility for keeping objectives, limitations, and guidance within the confines of socially desirable limits.

Within this wide scope of its activity planning helps to plan objectives at one extreme, plans detailed execution at the other extreme, and has a finger on the pulse of actual execution. Between the two extremes mentioned above comes that portion of planning concerned with organization.
Organizing

Organization is a term that has been used so loosely that one cannot be sure what meaning it connotes. Urwick recognizes the weaknesses in the use of the word:

This looseness in using the word "organization" is merely a special case of a general lack of precision in thinking and talking about social groups.  

We usually look at a chart to determine what type of an organization a certain group is using. The organization chart is a picture or "still" of the scheme of relationships at any given moment. But the organization is not static, or still, it is dynamic, always changing as relationships change—which in most organizations is continually.

To organize then is to develop a scheme of relationships. If the organization is dynamic, then organizing must be a continuous process. Without this continuity managers may not be aware of the current relationships existing in the organization.

Referring again to Terry's excellent book on the Principles of Management, we find his statement of the Principle of Dynamic Organization: "Organizing should be dynamic; it should take into account changes in the enterprise."  

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6Terry, loc. cit., p. 242.
Organizations, when portrayed in organizational charts, are blueprints of how the scheme of relationships should be—like the specifications of a motor. If the motor will not start, we go to the blueprint or operating procedures, but only for guidance as to where to look for the cause of the trouble. Changing the specifications will not start the engine. Neither will changing an organizational chart remove causes of organizational problems.

Managers attempt to organize activities in such a manner that maximum attainment of objectives by performing activities may be expected which is the objective of management. Sheldon, one of the pioneers of management study, explained organization as follows:

Organization is...the process of so combining the work which individuals and groups have to perform with the faculties necessary for its execution that the duties so formed, provide the best channels for efficient, systematic, positive and coordinated application of the available effort.7

This definition compliments the author's scheme of activity.

The process of organizing involves planning. It may be more appropriate to use the terminology organizational planning in relating the function to the objective of management. Organization is the result of planning the scheme of activity.

A survey by personnel of Kaiser Aluminum and Chemical Corporation of organizational planning throughout the nation leads to the following findings and conclusions.

1. Organization planning, as a formal function, is relatively new in American business. Attention to it in recent years is growing by leaps and bounds.

2. It is now in the formative stage—about where management inventory and development programs were ten to fifteen years ago.

3. What is done in the name of organizational planning varies tremendously. Few common definitions and approaches were found.

4. As a national pattern, organization planning seems literally to be whatever you may want to call it, and an organization planning man is whomever the firm chooses for the job—his previous experience is typically unrelated to organization planning. Finally, organization planning seems to consist of whatever these people decide to do....

5. In summary, it was found that what one organization planning department does might differ as much from what another does as there is a difference between manufacturing and accounting.8

Organizational planning covers an extremely broad field. Organizational planning means organizing to attain objectives through performance of activities. It means taking all organizational objectives—formulating activities which will attain each objective—identifying them and

placing them in some form of array which will coordinate the total activity toward the total objective.

This involves: authorities; responsibilities; lines of communication; systems of checks and balances; adequate procedures to measure and control activities; and span of control.

Immediately we find ourselves involved in devising a scheme of activities, staffing, and establishing control mechanisms. Thus, the functions of planning, organizing, and controlling seem to merge. And, in reality they do.

The statements often heard in the Military

Plan the plan
Plan the organization
Plan the controls

Organize the plan
Organize the organization
Organize the controls

And

Control the plan
Control the organization
Control the controls

are really quite sensible statements.

To return to the activity cycle, which encompasses the objective of management, and to relate the functions of management thereto we shall use the same approach as with the planning function to bring in the organizing function.
Organizing must be done with the full realization of the limitations which have been determined. Organizing must be in line with the guidance formulated by management. Organizing involves, in a direct manner, the scheme of activities. And lastly, organizing must consider the actual performance of the activities, including the leadership and supervision that will be required. As mentioned earlier in this study\textsuperscript{9} the author has formulated a step-by-step approach to organizing:

1. Establishment of objectives
2. Division of objectives
3. Determination of decision centers
4. Determination of information needed to make decisions
5. Information flow
6. Organization

This approach has been used by the author and found to have considerable merit.

Number one, establishment of objectives, has been discussed previously. Number two, division of objectives, is done in somewhat the same manner as prescribed in standard texts for dividing activities. Number three, determination of decision centers, involves span of control, delegation of authority, responsibility and accountability. The

\textsuperscript{9}See Chapter III, p. 52.
difference here is the emphasis on delegation and responsibility for attainment of objectives rather than management of functional areas. This also involves staff and line. Which objectives does the manager wish to hold specialists or staff members accountable for? Number four, information needed to make decisions. If decision making authority is clearly and specifically formulated, understood, and accepted, it can be determined with some validity what information is needed to make the decision. Number five, information flow, is the devising of an administrative scheme of activity that will provide the information needed to the decision maker. This involves reports, records, chain of command, centralization vs. decentralization, span of control, and other aspects of organization. Number six, organization, is the resultant of the manager taking the actions outlined in one through five.

Organizing involves people and supporting factors and facilities. Organizing is concerned with a scheme of relationships that will enable the organization to attain objectives; organization results from planning; organizing establishes the mechanism for controlling.

- Controlling

The manager controls activities in relation to objectives. This requires standards of measurement and systems of measurement. The manager must evaluate what has been
measured. He then takes corrective action to bring the activity back into conformance with the objectives or revises the objective.\textsuperscript{10}

Management controls activities in terms of quality, quantity, time, and the utilization of resources. In lecturing to several hundred top managers in the United States Air Force the author has not found any disagreement with the above statement. If this be true, all control systems should be designed with a consideration for quality, quantity, and time and must be operated within limitations both physical and non-physical. Activities must be in conformance with guidance. Control is the function contained within the content of management that assures this conformance.

From the \textit{Essence of Management} we can find confirmation of this point:

Changes are continually taking place both in the internal system of the organization and in the outside environment. The need for both continuity and adjustments requires control and adaptation. Control maintains a balance in activities directed toward a goal or set of goals. It adjusts activities to secure the desired results.\textsuperscript{11}

Control is built into the scheme of activities and activities must be controlled to assure that the scheme is


being followed. Both administrative and operative control is required. This point is well made by William Flanagan:

For the purpose of clarity, it is convenient to distinguish between these types of actions:

1. Administrative control is that division of the function of control which assures that plans are capable of producing the objective.

2. Operational control is that division of the function of control which assures that operations conform to plans.12

The control system that does not control one or a combination of factors (quality, quantity, time and utilization of resources) may in reality be a "historical reporting system."

Controlling then, is concerned with the objective of management and coordination should be considered a part of control. The activity cycle can be used to ascertain the adequacy of control by relating the activities to the objectives. Control systems should be so devised that this comparison is possible. The activities must be controlled and this encompasses the supervisory function.

Summary

Planning, organizing, and controlling are abstract managerial processes. They are not ends in themselves but means to ends—ends in this study being the objective of management. Planning, organizing, and controlling are

functions performed by the manager in moving from objectives to activities. The manager in performing these functions should continually check to see if he has considered the activity in terms of its corresponding objective. And further, the manager should assure himself that the criteria of quality, quantity, and time have each been considered.

Planning, organizing, and controlling require standards. The more adequate the standards the more efficiently can the functions be performed.

The function of command, actuating, or directing (as the reader may prefer) has not been overlooked. It has been purposefully omitted since it is concerned with the actual performance of activities. The author does not mean to imply that the function of directing is not important. The author of this study does feel very strongly that if each step in the activity cycle has been efficiently completed the function of directing will be considerably easier to perform.

Managers differ as to which function should be given emphasis. The effort may, in the end, be approximately the same. However, the more emphasis on planning, the lesser need for control and the more assurance that performance of activities will attain objectives.
CHAPTER XI

SUMMARY, CONCLUSIONS, RECOMMENDATIONS

Observations

This summary is divided into two parts. In the first part general findings of the research are set forth. The second part summarizes the conclusions reached and present recommendations resulting from this study.

From the current management literature and discussions held with approximately one hundred industrial and governmental managers, and educators in business and allied fields the following general observations were made:

1. There is an increasing amount of discussion and writing concerned with management by objectives.
2. Managers are not now managing by objectives.
3. The manager of tomorrow must be more knowledgeable of quantitative tools for decision-making.
4. Schools of business have not developed curricula that will give the graduate a basis for a true management philosophy.

The current thinking of some, regarding management by objectives, has been quoted throughout this study. There are many examples of this current thinking. During the last
year there have been published three books containing selected readings in management. The first, edited by Richards and Nielander, presents five articles dealing with management by objectives. These articles are written by well recognized students of management—Drucker, Mee, Newman and Watson.¹

Next was the book by Professor Shull. This book carried three articles on objectives written by Alvin Brown, Ordway Tead, and Burleigh Gardner.²

The latest in this series of books was edited by Koontz and O'Donnell. They felt it appropriate to present selected readings concerning management by objectives. Selected as authors were Mee, Drucker, and Huston.³

The author was unable to find any books on management written prior to 1958 which gave as much emphasis to objectives as found in the three mentioned above. The subject of objectives along with measurement of management are the current topics of the day in most management periodicals.

Two American Management Association courses offered in 1958-59 were addressed specifically to the subject of


management by objectives and measurement of management. American Management Association's survey of 700 companies to ascertain the degree to which objectives were being considered is another example of the trend. The USAF, School of Logistics, Wright-Patterson Air Force Base, Ohio, in conjunction with The Ohio State University Research Foundation is exploring in some depth the subject, management by objectives. The author feels that managers and academicians will continue to pursue the study of objectives.

Managers are not now managing by objectives. Management has not organized activities based on a subdivision of objectives. As a result many activities cannot be related to specific objectives. In a recent survey of over 700 Air Force organizational units, with 77 per cent responding, the research group concluded that only 9.5 per cent are managed in terms of objectives. From the one hundred business and governmental managers interviewed, not one felt he was truly managing by objectives.

Persons interviewed were almost unanimously of the opinion that the manager of tomorrow must be knowledgeable of the quantitative tools for decision-making. The capability of electronic equipment to handle mass information has

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opened avenues for use of quantitative tools not previously available to managers. The following quotes are examples of current thinking.

Increasing interest in statistical techniques for the field of management engineering is apparent from the many articles concerning these techniques which are appearing in current management engineering literature. It is probable that increased use of the tools of statistics would promote greater precision in the analysis of many problems....

The subject matter at management conferences and seminars indicates a growing interest in what is being called management science.

The Institute of Management Science (TIMS) will conduct two meetings in 1959. The first National (U.S.) Meeting is to be held in Chicago at the Congress Hotel on June 4-5-6, 1959. The Sixth Annual International Meeting will be in Paris, France, on September 7-10, 1959.

Both meetings will present programs of papers by qualified experts in the fields of management planning and control which are encompassed in the new techniques known as the management sciences.

Scheduled sessions include management economics, organizational theory, management games, decision processes, computer systems, production and inventory management, behavioral sciences, simulation, research and development management, measurements in management, and long-range planning.

The author detects a growing awareness on the part of managers that the use of quantitative tools will assist them


in more accurate decision-making. We must be extremely careful not to use quantitative tools alone, ignoring the social aspects of organization.

Fourth, educators and businessmen feel a need for a philosophy of management and think schools of business are the appropriate place for developing and teaching such philosophy. The author admits it is a controversial subject with some academicians as to whether their school is not now performing this task. Some recent thinking is cited here to support the author's belief that there is a need for searching analysis of schools of business' curricula.

What was once an emergent, often consistent body of administrative theory has been fractured by new approaches such as human relations, operations research, and democratic management. Concurrently the role of the executive in facilitating organizational unity has been diluted, with the result that organizations have become increasingly effective instruments of production and increasingly impossible places to live and work. It would seem that the former cannot continue indefinitely in defiance of the latter. There is a need for a cogent theory of organization. It is conceivable but improbable that a comprehensive decision theory can emerge in the present chaos of organizational theory.7

A recent article in Business Week8 gave the opinions of six outstanding deans of business schools. Dean Ross M.


Trump, School of Business Administration, Washington University:

We are not as concerned with teaching a student where to make the right entries in a book as we are in making sure he understands the theory of what he is trying to do.

In discussing the problem the deans' views were not in complete agreement. The author does not wish to imply that their views should have been the same. The point being stressed is that the problem must be discussed, researched, and discussed some more. Referring again to the article in Business Week we can point to the diversity in thinking.

Dean Emanuel Saxe, Baruch School of Business and Public Administration, City College New York states, "we take care of the basic education of the individual as a person and train him for business and for a specific niche in business." This statement is quite different from that of Dean Winn of the Wharton School of Finance and Commerce, University of Pennsylvania who said, "today almost any student of ability can get a job, so we are putting more emphasis on a more broadly based education." Which approach is correct is not nearly as important as is the fact that these men are concerning themselves with the problem.

Dean Weimer has stated very clearly, in an article on "Business and General Education," the direction that business schools should take in teaching management.

Too much emphasis appears to have been placed on the processes of administration rather than on its substance. (This is not to discount the
importance of processes, since they have great value in their own right.) Recent studies have stressed the processes of decision-making and have attempted to isolate the major considerations involved in arriving at decisions. Work in game theory and probability theory has had wide theoretical implications, but again the emphasis seems to have been on processes. The author's judgment is that greatest progress in the broad field of administration is likely to come through studies of objectives, both of society as a whole and of administration-studies of power relationships and studies of motivation. The development of a clearer understanding of the objectives of our society—the essential characteristics of our institutions and of our people and their relationships to administrative processes—would seem to be of basic importance. Comparisons of our objectives, institutions, and characteristics with those of other cultures may be helpful in understanding the ways in which administrative processes may be carried out to advantage under varying conditions. Thus, studies of the interrelationships between the broad objectives of a society and the programs which various administrators are called upon to carry out may have important implications for understanding the administrative processes or for development of general administrative theory.\footnote{Arthur M. Weimer, "Business and General Education," \textit{Business Horizons, Indiana Business Review}, Vol. 32, No. 6, June 1957, p. 10.}

These general observations have been given as a "setting" for the summary of this study. What is needed is a philosophy of management. This study has sought to find some basic understanding upon which a philosophy might be built.

\textbf{Summary}

Organizations exist for some purpose. Wherever people gather to pursue a common and desired end there is an
inevitable necessity to organize minds, hands, materials, and the use of time for efficient and contributive activity. Organizational objectives, with which managers are concerned, must be formulated in such a manner that they have tangible reality to every member of the group.

In the last three decades there has been a big change in the business of management. Owner-management has practically disappeared except in small enterprises. Organizations are the concern of many groups: those inside the organization—employees, managers, executives; those outside the organization—vendors, owners, customers, the community; and, organized society as the ultimate group interested in the organization.

Managers' attitudes and beliefs about their roles are changing. More and more managers are realizing their responsibilities to society and to those persons dealing with the organization. Man's wants, desires, and aspirations are receiving more of management's attention.

Man's physical wants are generally being satisfied in the United States today. Motivation must come from the satisfaction of man's social and personal needs. Managers, realizing this, are seeking ways to satisfy these social and personal needs as a means to greater productivity. These personal and social needs change. Organized society is a dynamic institution. To understand the dynamic nature of this
changing environment, managers must consider the economic, social, psychological, political, and legal aspects of the situation.

Organizational objectives can be designed which will encompass the common purposes being sought by all members. Such objectives should have as their basis the common goal of three groups:

1. People within the organization.
2. People outside the organization but receiving satisfactions from the organization.
3. The next higher level of the organization or ultimately organized society.

For each organizational objective there must be a corresponding activity or activities which, when performed successfully, will attain the objective. Activities are performed in terms of quality, quantity and time and resources are utilized, so, to assure attainment of objectives the objectives themselves must be given the characteristics of quality, quantity and time prior to the performance of the activity.

There are limitations as to the way organizations can proceed in the attainment of objectives. These limitations are both physical (resources) and non-physical. The non-physical include legal, social, moral and ethical, and technological. These limitations must be communicated, understood and accepted by all members of the organization if the total effort is to be maximized.
Guidance—a path to follow—must be provided each member of the organization. This guidance must point the way to the objectives and must be within limitations.

Guidance, limitations, and objectives are considered in many management texts and by many organizational managers. They are discussed under the titles of strategy, policy, creeds, philosophies, and many others. There is not a clear understanding of their relationships to objectives. The importance of communicating, assuring understanding, and gaining acceptance of all members of the organization is not receiving the attention it should. It seems inevitable that guidance, which integrates all aspects of the organization and is based on a searching look within, a broad look around, and a long look ahead will play an increasingly important role in meeting the challenges and problems of our dynamic society.

After formulating objectives, determining limitations, and providing guidance, managers must devise a scheme of activities. This scheme will specifically relate the detailed activities to be performed to attain detailed objectives which, in summation, will comprise the total activity for attainment of the total objective.

This scheme of activities must show both the administrative and operative aspects of the activity and their relationships as well. It is from this scheme that the organizational structure is built and control mechanisms
exercised. And finally, to complete the activity cycle (objectives - limitations - guidance - scheme of activities), activities must be performed.

The performance of activities is related directly to the attainment of objectives and without this performance no wants, desires or aspirations are satisfied. Performance of activities involves leadership, human relations, and supervision. Unfortunately, these most important aspects could not be fully developed in the scope of this study.

Before activities can be performed the manager must determine the need for, and acquire and distribute the resources necessary for the attainment of objectives. These resources are manpower, material and equipment, facilities, services, and money. Resources have the characteristics of quality, quantity and time. The resources must be balanced and consideration must be given to the limitations previously imposed. The determination of resources is enmeshed with the development of a scheme of activity.

In maximizing satisfactions through performance of activities there are many principles, functions, techniques, and tools available to managers and the manager must fully understand the relationships of these facets of management to the attainment of objectives.

In the study of management there are many approaches. There are three that seem to be broad enough to encompass the others. These are the practical, human behavior, and
scientific approaches. To be most successful a manager should use a combination or balance of the three. In each of the approaches managers utilize the functions of management, namely, planning, organizing, and controlling. Planning encompasses all aspects of the management process. Organizing brings out the scheme of relationships resulting from planning. Planning and organizing consider control mechanisms through which the controlling function is exercised.

In performing these functions managers have a myriad of tools which they may utilize in decision making. Just as a surgeon studies and understands the capabilities, limitations, and proper use of his tools so must the manager do likewise. Management is not a formal science because it involves too large a factor of human qualities and relationships. But over the years it has acquired its own principles and techniques. These must be used to attain organizational objectives.

Management is the art and science of applying managerial principles and techniques, and of utilizing managerial tools, to maximize the attainment of organizational objectives through the performance of organizational activities. Managers must proceed through an activity cycle which includes:

Formulation of objectives
Determination of limitations
Provision of guidance
Construction of a scheme of activity
Performance of activities

Managers' decisions should all be relatable to objectives and, where activities are involved, the characteristics of quality, quantity, and time must be considered. With these thoughts in mind the author has reached certain conclusions as a result of this study.

Conclusions

The conclusions that the author believes may be the most important to management in the future are included.

1. There is a "commonality of thinking" in management study and actions (but no semblance of agreement on use of terms).

2. There is a trend toward more managerial consideration of the social, moral, and ethical responsibilities of management.

3. Generally, objectives are not being utilized as a basis for managerial decisions.

4. University curricula, management texts, and management studies, during the last decade, have been concerned with the content of management (principles, functions, techniques, procedures).

5. There is a trend in the literature and in progressive schools of business to give more attention, thought, and research time to the objective of management.
6. Philosophies of management as developed will continue to give more emphasis to objectives as the universal aspect of management.

7. New quantitative tools will force managers to consider their decisions in terms of quality, quantity, time, and utilization of resources.

8. Human relations as studied in the past—the superior-subordinate relationships—will be gradually replaced with a team concept. Both the manager and the managed will be working toward objectives, not one for the other.

9. Hierarchical authority will be replaced by manipulative authority.

10. Management is emerging as a profession.

These conclusions are far-reaching and should be given thoughtful consideration by all managers. Conclusions in themselves are of little value unless some action is taken—some activity performed. There are certain areas where action is needed.

Recommendations

The following recommendations are based on the findings of this study. These recommendations are concerned with those areas where a clear course of action has not been formulated. They are areas where there is controversy, speculation, and much discussion. They are areas where the
answers will have to be found if management is to attain the professional status which it is seeking.

1. Schools of business should give careful consideration to building a solid theory or philosophy of management around which all courses dealing with principles, procedures, techniques, and tools could be related. Should more of the quantitative tools be taught? Should the business school curricula include more of the "liberal arts?" Should the traditional functional approach to the study of business be discarded? From the several thousand possible courses which 50 to 60 should be chosen for the business school curricula? These are the type questions academicians are being called upon to answer. Without a theory or philosophy of management it becomes difficult to know which are the right answers.

To follow the author's thinking, there must be formulated objectives for schools of business, limitations must be considered, and guidance provided. This will enable department heads and professors to develop courses (schemes of activity) designed to teach knowledge, skills, or attitudes as may be desired. Some schools are working more adamantly toward developing a philosophy of management than others. The recommendation here is that more research and analysis be given to this subject.

2. Further research should be conducted to ascertain the degree to which managers' decisions are being made on the
basis of organizational objectives. The author realizes that for this research to be productive much needs to be accomplished on the formulation of objectives. The lack of specific organizational objectives should not become a barrier but an incentive to further research in this area. One of the most difficult questions for managers to answer is, "Why did you make that decision?" There are thousands of articles written on "how" to make decisions, but few of them are addressed to the "why" in decision making. The author proposed the answer to the "why" may be in organizational objectives.

3. Research should be instigated on methods of formulating and communicating organizational objectives. The search should be pointed toward some system wherein organizational objectives would have tangible realism for all concerned. This research should further seek to discover means and ways of giving objectives the characteristics of quality, quantity, and time. The results expected in this type effort should provide a clearer understanding of the relationships existing between objectives and activities. There has been considerable effort expended in the field of communications. This research should attempt to apply "information theory" to the communicating of objectives.

4. Organizational theory should be re-evaluated in terms of management by objectives. General E. W. Rawlings, USAF, Retired, told the author, in June 1959, that what the
United States Air Force needed was an organizational theory that would explain the organizational pattern of the Air Force. He felt very strongly that hierarchal organizational structure was no longer appropriate to the business portion of the Air Force. Some chain of command must always exist; but, (1) the relationships of superior-subordinate must be closely analyzed; (2) profits are necessary but are they the "end" that business organizations should seek? The themes which occur most frequently (centralization-decentralization, authoritarian vs. democratic leadership, control, "two-way communications," and the like) do not seem to include many of the central problems. Conversely, critical factors such as topology of decisions, models of various decisional processes, the function of ideology, and the basis of power and its generation receive only infrequent and inadequate attention. Organizational theory should be researched in the context of the real world situation.

5. Research should be conducted in the field of "measurement of management." Realizing that, the Institute of Management Sciences is vitally researching this subject; the Ford Foundation has granted money for research in this area; the Chrysler Corporation has attempted to formalize a method; and, there have been many articles published on the subject in recent months, the author can find little evidence that any formal system or means exist for measuring the efficiency and effectiveness of managers. The author feels
that the conventional approach to performance appraisal stands condemned as a personnel method. The manager must not be left in the untenable position of judging the personal worth of his subordinates, and of acting on these judgments. Judgments should be made based on the degree of attainment of objectives. It is toward this aspect of the problem that the author feels research should be directed.

As a concluding remark, the author of this paper hopes that the reader may have been provoked into some deep thinking concerning a philosophy of management, and that he may have been enabled to consider his own views on management with a little more understanding.
APPENDIX
DEFINITIONS OF MANAGEMENT TERMS

The definitions given herein have been taken from several sources. In certain instances definitions are a combination of two or more definitions given in other sources.

The following have been the primary sources:

1. Unpublished Glossary of Management Terms, Indiana University, School of Business (no date).

ACCOUNTABILITY: A requirement or condition under which each member of the organization renders a report on his discharge of his responsibility.

AIM: Determination of objective in terms of area of job to be changed, and establishment of criteria for evaluating the preferability or success of solutions.

ALLOCATION: The act of distributing; allotment or apportionment; in accounting; apportionment of business expenses to the account of the particular departments.

ASSIGNMENT: A duty or piece of work allotted as the responsibility of a particular person or group.

AUTHORITY: Those rights that are received by delegation from ownership to enable organization members to discharge their responsibilities. Can be managerial or operative.

a. Managerial: Those rights of decision and command that enable executives to perform their leadership responsibilities. They are the rights that enable them to plan, organize and control the activities of others in the accomplishment of the organization's objectives.
b. **operative**: The right of the operative employee to perform assigned duties without undue interference, so long as he follows directions satisfactorily. It includes the right to plan, organize and control one's own job, within designated limits, but not the work of others.

**BALANCE - ORGANIZATIONAL**: A functional condition in which the development and expense of the various organizational elements conforms as closely as practicable with the importance of their contribution to the accomplishment of the organization's objectives.

**BUDGET**: An estimate of future needs, arranged according to an orderly basis, covering some of all the activities of an enterprise for a definite period of time.

A plan which converts objectives established in administrative and operative plans into a monetary denominator.

**COMPARISON**: The function of determining the degree of agreement between actual and planned performance, for completed projects, programs or phases thereof. A sub-function of control.

**CEILING**: A maximum price, wage, salary, rent, fee, or the like, fixed by government authority as the upper legal limit.

**CODE**: Any system of principles or rules; as, a code of ethics.

**CONSTRAIN**: To confine.

**CONSTRAINTS**: In a business sense usually a limitation which confines activities to certain courses of action. To limit the alternatives under certain conditions.

**COORDINATION**: Some process for relating the activities of organization members.

a. **of thought**: The relation of ideas, leading to a meeting of minds concerning plans and their application.

b. **of action**: The relation of the activities involved in the execution of the plan with respect to time and the correct order of their importance.
CORRECTIVE ACTION: The function of correcting deviations of actual from planned performance. A sub-function of control.

CREED: A summary of principles or opinions professed or adhered to in science, politics, business, etc.

DIRECTIVES: Any oral or written communication that initiates, orders, or governs action, conduct of procedure or that provides a plan of action in case of certain contingencies.

DECISION: A definite determination of a managerial question. The right of decision is basically the right to plan.

DECREE: An authoritative order or decision deciding what is, or is not to be done; edict.

DELEGATION: A managerial process whereby certain of the executive's responsibilities and authority are released and committed to designated subordinate positions.

ETHICS: Deals with personal conduct and moral duty and concerns human relations with respect to right and wrong.

The field of moral obligation in the conduct of business activities. It has to do with question of "right" and "wrong" as they enter into the development and maintenance of sound business relations.

END: The object aimed at in any effort; purpose.

FORMULAE: A prescribed or set form, a fixed or conventional method.

FUNCTION: Business: Any phase of the work of the business organization that is necessary for the accomplishment of business objectives. It must be possible to recognize it clearly and separate it distinctly from other phases of the organization's work.

Complementary: Those functions that are related through their interdependencies in the accomplishment of a specific project.

Managerial: The work of planning, organizing and/or controlling the activities of a group of people encompassing an organization, or a component part of one.
**Organic Management:** The basic functions of executive leadership—planning, organizing and controlling the work of others.

**Similar:** Those functions that have like objectives and work characteristics. The elements and groups of an organization should be based on groupings of similar functions as far as possible.

**Operative:** The work that constitutes one's personal assignment, but not involving the direction and supervision of others.

**Organic Business:** Those functions that are so vital that business activity will cease, and the organization will fail, if they are not performed in some minimum degree. They have to do with the creation and distribution of utilities in our goods and services. All functions of the business, both line and staff, develop from these organic functions.

**Function:** Any phase of the work that can be distinguished clearly from other phases.

**FUNCTIONAL ANALYSIS:** Any technique for breaking down work into its component parts to facilitate their investigation and study.

**GOAL:** The end to which a design tends; objective; aim.

**IDEALS:** Those ethical criteria by which a company may judge the propriety of its acts in achieving its objectives.

**INDOCTRINATION:** Any process that inculcates a doctrine in the minds of individuals or groups.

**INSTRUCTIONS:** Precepts usually written and giving information or knowledge on a satisfactory and recommended manner in which a particular kind of task can be performed.

That which instructs or is imparted in order to instruct; especially, a lesson or teaching; a precept; also a direction; an order.

**INTEGRATION - FUNCTIONAL:** The process of recombining functions in the parent organizational elements.
JOB: The term may refer to any general work assignment, either executive or operative.

An assignment of work calling for a set of duties, responsibilities, and conditions that are different from those of other work assignments.

JOB ANALYSIS: A common technique for analyzing general work assignments.

The process of studying critically the duties and operations of jobs.

JOB DESCRIPTION: A written description of an individual job and includes the duties, responsibilities, work performed, and the equipment used.

LAW: A relationship between cause and effect which will give, so far as existing experience goes, always the same result. It has been proved to be valid. It states a fact.

LIMITATION: That by which something is limited; restriction; qualification; as, has limitations as a writer. (See also CONSTRAINT.)

MANUALS: Organization: A set of organizational specifications, including organization charts.

Policy: An official compilation of those principles and rules that have been set up for the guidance of an organization in the accomplishment of its designated objectives.

Standard Practice: An official compilation of the procedures that have been authorized for the handling of various kinds of programs and projects.

MATERIAL FLOW: To establish the relationship to the assembly. The over-all objectives of material flow study is to plan the movement of raw materials in as direct a path as possible through the plant. (See PLANT LAYOUT.)

Flow Diagram: A schematic diagram used for the analysis of the travel of man or flow of material. Can be used to record the events occurring in the processing of materials.

MATRIX: A place or enveloping element within which something originates, takes form, or develops.
MISSION: A definite task or errand assigned to an individual or unit.

Any particular business, service, or duty assigned to be accomplished by a person, organization, office, detachment, or the like, with the object of contributing functionally to an over-all objective.

MEASUREMENT: The ascertainment of the quantity or capacity of a well-defined entity.

METHOD: The determination of the manner of work performance of a task giving adequate consideration to the objective, facilities available, and total expenditure of time, money, and effort.

MOTION: Movements; actions. Act, process, or instance of changing place or position.

MOTION AND TIME STUDY: A technique for functional analysis. It breaks down the work involved in a step in a procedure to also determine what are the required conditions and methods for effective, economical performance.

OBJECTIVES - BUSINESS: Any values in the business situation that should be created, acquired, preserved, or distributed.

OPERATIONS: That general field of business activity which has to do with the development and maintenance of proper relationships between functions, facilities, and physical factors of environment in a particular business situation, relative to the effective and economical completion of specific projects.

ORDER: As a directional device, an order is understood by businessmen to be a command of a superior requiring a subordinate to act or to refrain from acting in a given circumstance.

Operational: An order may be a delegation of responsibility and authority for the performance of a function. An operational order authorizes action.

Technical: A technical order authorized the use of specified methods under prescribed conditions, using whatever criteria are indicated. It does not authorize action for the application of these methods, conditions and criteria.
ORDINANCE: A prescribed practice or usage. An authoritative decree or direction, especially as promulgated by governmental authority.

PARAMETER: A constant having a series of particular and arbitrary values. In psychological use, a criterion that has shifting values.

PHILOSOPHY: A system of thought concerning certain problems that is based on certain general objectives, principles, functions, factors, points of view, and methods of attack which are believed to be fundamental and true.

PLAN - BUSINESS: A business plan is a specification of the factors, forces, effects, and relationships that enter into and are required for the solution of a business problem.

Plan - Operative: This plan is concerned with the bases for action for specific projects or undertakings. The periods of time involved in these projects or undertakings are usually shorter than those covered by the administrative plan.

Plan - Administrative: Characterized by its scope and temporal considerations.

PLANNING: Considering and establishing related facts in advance to achieve desired results.

PLANT LAYOUT: A form of production planning wherein the arrangement of machines within a factory is determined. There are two different ways in which machines can be arranged: (1) process layout and (2) product layout.

Planning the path each component part of a product is to follow through the plant, coordinating the paths of the various parts so that the manufacturing processes may be carried out in the most practical and economical manner.

PRACTICE: Repeated or customary action, usage, habit. Usual mode or method of doing something.

PRECEDENT: Something done or said that may serve as an example to authorize or justify a subsequent act of the same or analogous kind.
**PRINCIPLE**: A general proposition sufficiently applicable to a series of phenomena under consideration to provide a guide to action.

**PRIORITIES**: The relative position assigned something in terms of an arbitrary order of precedence. The status of something that gives it precedence over something else.

**PROCEDURE**: A structure of concurrent and sequential relationships between functions, facilities, and physical factors of environment, underlying the completion of a specific project, or kind of project, together with specifications for the effective and economical performance of the work.

A type of plan usually specific in nature involving the selection of the manner in which a specific course of action may be accomplished.

Procedure - Business: A relationships of complementary functions, and the physical and human factors entering into their performance, that is set up as a basis for the execution of a specific project or type of project.

**PROCEDURAL ANALYSIS**: Any technique for the determination of the general requirements for the effective, economical operation of a process, method or procedure. Another technique for functional analysis.

**PROCESS**: A series of actions or operations leading to an end.

**PROGRAM**: A complex of policies and procedures, ordinarily supported by necessary capital and operating budgets and designed to put into effect a course of action.

**PROJECT - (PROGRAM)**: A complex of policy and procedure which is ordinarily supported by necessary capital and operating budget.

A plan of procedure phased over time; an administrative course of action specific as to quantities, amounts, dates, and locations.

Any specified undertaking that has definite, final objectives.
POLICY: A body of principles and rules of action that serve as a directive, guiding the organization in the achievement of its objectives with proper regard for its business ideals.

A type of plan which is usually relatively general and serve as standing plans which guide action within the enterprise toward the predetermined objectives.

It is essentially a principle or group of related principles, with their consequent rules of action. They condition and govern the successful achievement of certain business objectives toward which they are directed. They relate work to the values that should be created by it.

A verbal, written, or implied basic guide to action that is adopted and followed by a manager.

PURPOSE: The object or result aimed at. The immediate subject or action. To intend; resolve.

PURPOSE CLASSIFICATION: In fiscal usage the classification of an obligation or expenditure in terms of the purpose.

QUALIFICATION: A condition that must be complied with for the attainment of a status. Any endorsement or acquirement which fits a person for a place, office, or employment; also a requisite; an essential.

REGULATION: The act of governing, controlling, or directing, or the state of being governed, controlled, or directed. An official order setting forth or prescribing rules, procedures, policies, or the like considered general in application and permanent in nature.

RESTRICTION: A limitation, a regulation which restricts or restrains.

RESPONSIBILITY: The obligation of the individual to perform properly the functions and duties that have been assigned to him, to the best of his ability and in accordance with the directions of the executive to whom he is accountable. It is an obligation created by the contractual process of employment.

RULE: A specific guide for action; established authoritatively, and utilized in order to inform employees of conditions under which designated activities are to be performed.
SCHEDULE: A time-table of related actions, specific as to quantities, amounts, locations, and dates.

SPECIFICATION: A statement containing a minute description or enumeration of particulars.

A detailed statement, especially in a contract, that sets forth the requirements or standards for a piece of equipment, a material, a service to be performed, etc.

STANDARD: An established measure, something to strive toward, a model for comparison, a means by which one thing may be compared with another.

STANDARDS - BUSINESS: Any criteria that enable us to relate functions, physical factors and personnel to business objectives by means of policy.

STANDARD PRACTICE INSTRUCTION (SOP): A permanent record of the practice in handling a particular type of situation, usually recurring.

STANDING ORDER: An order of relative permanance.

STRATEGY: The guide of the complex acts which unite and utilize the resources of a state.... Note: (Applied to business it could read...resources of a business to assure the successful attainment of ultimate objectives of the firm.)

Strategy in the business sense is the shading of plans and policies to meet the changes of plans and policies of others.

STATUTES: A law enacted by the legislative branch of a government. An act of a corporation or of its founder intended as a permanent rule.

SYSTEM: That which enables management to fulfill organization purpose.

SYSTEMS: The mechanics by which and through which any given clerical function is performed; including the personnel, forms and forms distribution, machines, equipment, furniture, working conditions and sequence of operation.

TACTICS: The detailed steps by which strategy is effected.

TASK: An undertaking; work; a piece of work to be accomplished.
In a general sense, any limited undertaking imposed by another or by one's own sense of duty; an undertaking requiring labor and effort.

TECHNIQUE: The mechanical or physical manner in which a tactic, maneuver, manipulation, or other action is carried out.

Manner of performance.

TIME AND MOTION STUDY: The method of functional analysis that investigates the economy of time utilization in the performance of one's general work assignment.

THERBLIG: A basic element of accomplishment or elementary action (created by spelling the name Gilbreth backwards, except the "th"). Gilbreth names seventeen therbligs.
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