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DEFENSE SYSTEMS MANAGEMENT COLLEGE

PROGRAM MANAGEMENT COURSE

INDIVIDUAL STUDY PROGRAM

THE ROLE OF THE STRUCTURAL AND
PSYCHOSOCIAL SUBSYSTEMS IN THE
PROGRAM MANAGEMENT ORGANIZATION

Study Project Report
PMC 76-2

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DEFENSE SYSTEMS MANAGEMENT COLLEGE

STUDY TITLE:

THE ROLE OF THE STRUCTURAL AND PSYCHOSOCIAL SUBSYSTEMS
IN THE PROGRAM MANAGEMENT STRUCTURE

STUDY PROJECT GOALS: The specific goals of this project were to investigate organizational structures and determine conditions under which various structures might be effectively employed. Specific emphasis was placed on the matrix structure concept and variations of this concept.

In addition, two elements of the organization's Psychosocial Subsystem, Motivation and Leadership, were researched. Specific emphasis was placed on the signifance these elements and implementation of various motivational and leadership theories.

STUDY REPORT ABSTRACT:
This report consists of an investigation of the management topics of organizational structure, worker motivation and group leadership. Background is provided which describes the basic significance of these topics in the management environment. In addition, the latest developments in these subject areas are discussed.

The report elaborates on the selection of an organizational structure and the tailoring of this structure to a specific program. Utilization of the matrix structure is emphasized due to its relatively recent incorporation into program management.

The analysis and selection of one of the motivational and leadership styles/techniques is reviewed and applications/examples discussed.

KEY WORDS: Organization Concepts, Organizational Structure, Motivation, Leadership

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THE ROLE OF THE STRUCTURAL AND
PSYCHOSOCIAL SUBSYSTEMS IN THE
PROGRAM MANAGEMENT ORGANIZATION

Study Project Report

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by

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tions of the author and does not necessarily reflect the official opinion of
the Defense Systems Management College or the Department of Defense.

EXECUTIVE SUMMARY

The modern or systems approach to analyzing the operations of an or-
ganization starts by breaking the organizational entity into related sub-
systems. While the exact number and description of these subsystems vary
widely in the literature, two are common to most organizational models.
These are the psychosocial subsystem, people interacting with people, and
the structural subsystem, the authority, responsiblity and communicative
relationships existing in an organization.

The significance of the psychosocial and structural subsystem is two-
fold. First, the program manager can take direct action to utilize these
subsystems to the organization's advantage. He has the authority of select-
ing and changing the organization's structure and he is in a position to
evaluate the effectiveness and efficiency of the structure being utilized.
He must also take the lead in assuring that the full potential of the psy-
chosocial subsystem is realized. The program manager's understanding and
implementation of the concepts of motivation and leadership are essential
to this effort.

The second point to be made is that the psychosocial and structural
subsystems represent tremendous forces which act in an organization. These
forces should be purposefully directed toward the accomplishment of organi-
zation goals. Ignored, the same forces can act in direct opposition, causing
almost certain project failure.

Another important consideration relevant to the above subsystem is that
there have been major developments in both areas in the past few years. New
organizational structures have been developed and proven and likewise

workable and tested models relating to motivation and leadership are available. The program manager must become informed in these subjects and select and implement those aspects of these new developments which apply to and can improve his management situation.

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CHAPTER I

INTRODUCTION

Purpose

The purpose of this project was two-fold; first to develop an understanding of the principles supporting the concepts of organizational structure and the psychosocial subsystem, and second, to examine various techniques of applying the above principles.

New concepts developed in the field of organizational structures combined with the recent implementation of these concepts by the Air Force Systems Command (AFSC) have developed a new sense of urgency for increased understanding of this aspect of military program management. In addition, the need to realize increased productivity from all personnel within an organization has matured. As noted by General William J. Evans, Commander, AFSC, in a recent _Aviation Week_ interview, "We must increase people productivity by improving their ability and as _importantly_, their motivation." (1-19)[1] Increased productivity is seen as even more urgent in light of a study recently completed by Lt. Gen. James T. Stewart, former commander of the Air Force's Aeronautical Systems Division. The study concluded that current defense budget estimates correspond to a continuing squeeze on Air Force Systems Command personnel, as much as 20% as compared to today's level. No decline in workload was forecast. (1-45)

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[1]This notation will be used throughout the report for sources of quotation and major references, the first number is the source listed in the bibliography. The second; where included, is the page number.

Based on the above information, it is apparent that managers, at all levels in the organization, must develop the ability to utilize both organizational structure and psychological factors as management tools capable of increasing productivity and mission effectiveness.

Specific Goals

The specific goals of this project were to investigate various organizational structures and determine conditions under which the various types might be effectively employed. Specific emphasis is given to variations of the matrix organizational structure. Additionally, the significance and implementation of two psychosocial factors, leadership and motivation were researched.

Project Scope

The material present in this report is intended to represent a summary view of important considerations in the areas of organizational structure, motivation, and leadership. The intent was to develop a basic framework of ideas which the manager could tailor to his skills and situation.

A brief historical perspective, covering each major area was presented to assist the manager in understanding the rationale for current developments. Due to to the vast amount of published material relating to motivation and leadership, it was not possible to present the view of all renowned authors. Instead, material was presented which would assist the uninitiated manager in developing a basic grasp of the concepts included and how these concepts might be applied.

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Organization

This paper is organized in two major sections. The first section presents material dealing with the subject of organizational structure. The second, treats the psychosocial subsystem in an organization and specifically, the topics of motivation and leadership.

CHAPTER II

ORGANIZATIONAL STRUCTURE

Introduction

This chapter addresses current status and recent developments in the area of organizational structure.

First, we will explain the significance of the concept to program managers. This will include a discussion on the importance of accurately applying this concept and the management benefits that can be realized through proper application.

Historical origins will next be explained. We will trace the development of this concept from the most primitive organization up to the line-staff structure.

Next, we will review the current status of knowledge developed by the major management theorists. This review is essential because organizational structure theories are in a constant state of evolution.

Based on these theories and the needs of modern organizations, we will explore the requirement for and use of the matrix organizational structure.

Finally, we will address a modification to the matrix structure which is streamlined to meet the needs of a modern organization being affected by the "continuing squeeze" on personnel.

Definition of Organizational Structure

In broad terms, organizations may be defined as systems of human relationships spelled out in terms of interdependent activities. (2-17) Various

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writers in the field of organizational theory stress different aspects of this definition. Kast and Rosenzweig, on the other hand, provide a more encompensating view of the organization. They indicate that organizations are comprised of: (1) a psychosocial subsystem - people working in groups with a purpose; (2) a goal oriented subsystem; (3) a technical subsystem - people using knowledge and techniques; and (4) a structural subsystem which dictates task accomplishment procedures, work flow, authority, and communication paths. (3-6)

A similar viewpoint of the organization is provided by John M. Gaus who wrote, "organization is the arrangement of personnel for facilitating the accomplishment of some agreed purpose through the allocation of functions and responsibilities." (4-66) The perspective being stressed here is the organizational structure or structural subsystem as defined by Kast and Rosenzweig.

Significance of Organizational Structure

The true significance of organizational structure often escapes those who should champion the issue. This is likely caused by over familiarity with the general subject of organization. That is, we tend not to see the forest (significance of organizational structure) for the trees (being members of organizations).

For most people, the topic of organizational structure triggers the image of an organizational chart. Still others relate structure with personal experience.

We have all experienced some effect of organizational structure. Just recall the last time your telephone inquiry was transferred from one department to the next. In our lives we are exposed to governmental structure when we pay taxes, traffic fines, attempt to acquire city services, etc. However the structure through which we are "processed" does not provide a true picture of what organizational structure is or what it is intended to accomplish. In the examples noted we are seeing only a portion or experiencing one aspect of organizational structure, we are not grasping the all-encompassing meaning and significance of the concept.

The intent of this chapter is to consider the subject of organization structure from an all encompassing viewpoint. Fox, in defining structure appropriately distinguished between formal and informal organizational structure:

> "The formal organizational structure of a company comprises the authority, responsiblity, and communicative relationships among functions, physical factors and personnel that are prescribed by the owners or their delegates for the achievement of organizational objectives. "Informal" organizational structure comprises the authority, responsiblity, communicative and associative relationships among functions, physical factors and personnel that are supplemental to the formal organization and structure and may be for, against, or neutral with regard to the achievement of organizational objectives." (5-66)

The formal organization as defined above represents a deliberate attempt to establish patterned relationships among organizational components. As such, the selection of an organizational structure requires an understanding of the work required to achieve the organizations goals. For the case of an Air Force system program office, the selection of the organizational structure is determined by an individual who has an understanding of the

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entire project, this person being the program manager. Air Force Systems

Command Pamphlet 800-3, states,

> Program Offices (PO) are organized to conform with
> the concepts of program management as prescribed in
> AFR 800-2 and supplemental guidance issued by Hq,
> AFSC. However, regardless of the nature of each
> individual program, the specific internal organiza-
> tional configuration for the PO is a prerogative of
> the program manager. (6-20.10)

The above paragraphs define and discuss the significance of the term

"organizational structure", they point out how we are affected by this entity

in everyday life situations and they note the fact that an individual

selecting a type of structure must be familiar with the overall organiza-

tional tasks/objectives.

The final point of interest is, "Why are these considerations inherently

important?"

First, let us recall that the organizations structure is considered by

Kast and Rosenzweig and other authors to be one of the primary factors in

organizational theory. It follows logically that lack of consideration of

this or any other major aspect of an organization's make-up would seriously

impair the effectiveness of the organization. In addition, however, we can

see how a subdivision of the organization which controls task accomplishment

procedures, work flow, authority, and communications must have a definite

if not paramount impact on the daily operation of an organization.

Next, we should analyze what specific goal we are seeking when we choose

to utilize a structured group.

The overall control or primary force within an organization which coor-

dinates the activites of the subsystems and directs these activities to a

goal is called management. (3-6) We can therefore surmise that if manage-

ment is the primary force, the organizational structure is the preestablished and hopefully most direct path along which to exert this force. The terminology "most direct" leads us to the conclusion that other paths are "less direct." This conclusion is accurate and herein lies the importance of matching an organizational structure and a program/project. The specific goal we are seeking is successful project completion; the desired path is the most direct, meaning a combination of successful, shortest time, least resources and most cost effective.

Selection of the most effective organization structure for a specific program at a given point in the program's life cycle represents a critical milestone and one which must receive adequate consideration.

A final but equally important factor which dictates the importance of organizational structure relates to its actual effect on the organization. Structure is the vehicle for introducing logical and consistent relationships among the diverse functions which comprise the organization. (7-Chap 10) Failure on the part of a program manager to provide the ground work for logical and consistent relationships within his organization will have a far reaching and deleterious effect on the efforts of his organization.

Historical Development

The concept of activity management and organizational structure are integral with the development of man. The social nature of man leads him to develop the first and most basic organizational structure that being the leader-group organization. (3-4) In this structure all direction flows from the leader to a group of equal status followers. In ancient times,

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challenges to the leadership were settled by physical confrontation, often resulting in a regretable loss of corporate memory.

As human endeavors became more complex the need for more responsive organizational structures became necessary. Man had initiated the development of speciality skills and to properly utilize these skills the line organizational structure was formed. This form of structure identified a position for everyone in the organization in accordance with his speciality and simultaneously at least one additional layer of hierarchy, hence, the created title, hierarchial organizational structure is attributed to this organizational technique.

The make-up of the line elements was based on either of two criteria. First, line elements might consist of concentrated skill areas, i.e., hunters, farmers, tanners, etc., or, in order to design several self sufficient groups the specialities might be distributed among the line elements. In either case the individual line elements tended to form their own internal layers of supervision or superiority and hence the line organization is commonly referred to as the hierarchial organization. Translating this type of organization into the world of modern business, we find that the line elements are functionally oriented or departmentalized. This type of organization responds well if the organization remains small, or if the tasks to be accomplished are uncomplicated or if there is little need for specialty skills not found in the functions.

We find however that as organizational growth occurs, task difficulty increases and additional full time speciality assistance becomes necessary since the chief executive can no longer effectively manage the organizations activities.

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The third major development in organizational structure was the line-staff organization. Staff members traditionally are specialists in a given area of expertise and provide advice and assistance to the chief executive and on his behalf to the line element chiefs. (2-28) Depending on the authority given the staff members over the line elements, the staff may also exercise a command role. The line-staff organization has been in existence for thousands of years and continues to run our government and manage our military forces and religious organizations. (8-145)

The above organizational structures were developed soley because of man's continuing desire to more effectively manage his activities. The historical descriptions of the organizational structures used by the tribes of Israel, the royal courts of Egypt, the christian church, the kingdom of Europe, and the American Indian culture represent the recorded history of organizational development.

A systematic body of knowledge covering organizational structure and management in general is a product of the late nineteenth and twentieth century. (3-52) The relatively sudden emergence of interest in this field of study results, as is normally the case, from necessity. Man found that historically evolution itself was not sufficient and that a concentration of effort was required if the projects of tomorrow were to be tackled successfully.

Systematic Body of Knowledge

Historically, organizational structure has been oriented to the work to be accomplished. In the writings prior to 1950, this orientation was

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almost exclusively one of work goals. (9-439) Fredrick W. Taylor's interest
in functional foremanship and planning staffs laid the basic groundwork for
this orientation. Taylor's theory, commonly referred to as scientific
management or the classical doctrine, viewed organizational structure as
the logical relationships of functions in an organization, arranged to accom-
plish the objectives of the company efficiently. Structure implied system
and pattern and under Taylor's doctrine it referred to the line, the staff
and the functional organizations. (2-30) The reference to system and
pattern will be addressed in later paragraphs. The solution to organizational
structure originally offered by Taylor was based on optimizing worker output.
We see therefore that the functional line/staff organizational structure will
fulfill Taylor's objectives which provided for a series of supervisors for
each worker, each supervisor being responsible for a separate function.
Theoretically the workers' job time is fully utilized by reporting to various
supervisors and productivity is maximized. While much of the scientific
theory of management was accepted (1890-1915) and is still utilized, Taylor
and his associates found some strong opposition. Management failed to accept
many of his ideas because they interferred with managerial prerogatives and
to Taylor's surprise, the worker, feeling like an adjunct to the machine,
also became alienated. In spite of these criticisms many of Taylor's ideas
and the basic organizational structure he proposed are utilized today. We
will address this type of structure again under the topic of Matrix Organi-
zations.

The desirability of structuring the organization from the top down would
appear to have merit and this was the approach taken by Henri Fayol. Fayol,
a leading French industrialist, approached management and organization from

a macro, top down, viewpoint. He viewed the <u>entire</u> corporate entity as the body to be affected by his theories. Known as administrative management, Fayol's theory defined administration in terms of five primary elements: planning, command, coordination, control, and organization. (3-58) All the managerial functions could be defined in terms of these elements and carried out by management in accordance with Fayol's fourteen principles. In keeping with the subject of this report, we will address only those principles that are related to organizational structure.

As translated from the original French text, the principles relating to structure are:

1. <u>Division of Work</u> - the principle of specialization of labor, used to concentrate activities for more efficiency.

4. <u>Unity of Command</u> - an employee should receive orders from one supervisor only.

5. <u>Unity of Direction</u> - one head and one plan for a group of activities having the same objectives.

8. <u>Centralization</u> - centralization is essential to the organization and is a natural consequence of organizing.

9. <u>Scalar Chain</u> - the scalar chain is the chain of superiors ranging from the ultimate authority to the lowest rank.

10. <u>Order</u> - the organization should provide an orderly place for every individual. A place for everyone and everyone in his place. (10-19)

Fayol's first principle, Division of Work, relates directly to Taylor's idea of functional organization. Both men believed that a more efficient organizational structure could be constructed by grouping individual expertise. This principle is utilized today in business and DOD procuring activities and will be discussed in the following sections of this report.

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Fayol's fourth principle, Unity of Command, and his ninth, Scalar Chain are in direct opposition to Taylor's idea of providing several supervisors for each worker in order to seek maximum efficiency. (2-30) The problem encountered when applying Taylor's theory indiscriminately is obvious in that we are placing on the lower levels in the organization the burden of determining what is most important and who is the boss. This problem will be addressed in the discussion of Matrix Organization which follows.

The remainder of Fayol's principle's concerning organizational structure were not addressed nor contradicted by Taylor. This illustrates again that Taylor approached organizational structure from the bottom up, thus receiving management's criticisms for interfering. On the other hand, Fayol gave managers the tools (principles) to work with and therefore received their acceptance more readily.

Fayol's principles relating to organizational structure and other aspects of administration were generally accepted in the early 1900's, as a major contribution to the developing science of management. Their real value can be seen today in that many of the administrative management theories championed by Fayol, Mooney, Reiley, Gulick, and other are firmly entrenched in modern business and government.

A contemporary of Fayol, Max Weber, was simultaneously developing what Weber called the Bureaucratic Organizational Model. As with Fayol's principles, Weber's bureaucratic model structured an organization relative to functions and controlled the organization via a rigid chain of command (8-145) Relative to the topic of organizational structure, little if any difference exists between the bureaucratic model and Fayol's organizational structure.

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The administrative managers Fayol and Weber and their followers were not without critics and criticism and as might be expected, these criticisms were the seeds of evolution.

From the post Civil War years through the industrial revolution of the late 1800's, the entire American industrial complex and the management of this industry was undergoing major changes. These changes were the direct result of advances in the disciplines of science and technology. Man was now able to undertake and successfully complete tasks which were never before possible. These tasks were more complex and generally required larger supporting organizations. At first, it was possible to implement the theories of Taylor, Fayol, and Weber, and form organizations which responded successfully to the program needs. However as programs became still more complex, it was found that the very essence of the administrative and scientific theories became the need for their modification. As discussed previously, the theories of Taylor, Fayol, and Weber were founded on the concepts of pattern, system, rules and regulations. The new science and technology programs they were supporting were based on innovation and creativity and required a flexible responsive organizational structure. What was required was a modification of existing organizational structures. There was a need to utilize the proven and effective aspects of the administrative management theories, but also, to supplement them with adaptations which would provide greater flexibility and responsiveness.

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Structure and Program Management

Causal Factors

Traditional organizations utilized the leader-group, line or line staff organizational structure and were basically successful in achieving their selected goals. The question, "Why is a radical change required to achieve program success in today's business senarios?", may be answered by the reply, "A change is <u>not</u> necessarily required." If, today an organization is involved in producing a stable product line, accomplishing repetitive services, has limited dealings with clients then, the <u>relatively</u> inflexible and unresponsive organizational structures discussed previously will provide an adequate management framework. Under the conditions stated, the firm's president and other chief executives can perform the required program management functions and still oversee the general operation of the company.

However, when dealing with new and complex programs involving development of new product designs, state-of-the-art technology, continual and aggressive coordination between in-house functions and support of possibly several product lines and customers, we find that the chief executive's office alone can no longer provide the necessary integration and management leadership. (11-400)

It is this specific circumstance which resulted in the initiation of the project management concept and the associated organizational structuring. This structure provides the management framework which is required to assure successful completion of programs in a modern expanding business scenario.

The Concept of Project Management

A project may be defined as an ad hoc team of human and nonhuman re-
sources pulled together in some authority and responsiblity relationships
to accomplish an end purpose. (12-71) Project management is defined as the
authority, responsiblity and subsequent accountability which pulls together
these resources. The project management organizational structure is the
framework which supports the concept of   program management.

The key to project management is the program manager himself. His ex-
istence frees the top executive's office from the overburdening task of
maintaining daily project cognizance. The program manager (PM) is respon-
sible, to the chief executive, for the overall outcome of the program. (11-401)
Relative to the military application, the PM's role is again to tie together,
to manage, to direct the development and production of a system that meets
performance, schedule and cost objectives defined by his service and approved
by the Secretary of Defense. The essence of the program manager's role is
to be the agent of the service in the management of the systems acquisition
process. (13-2) The Department of Defense (DOD) has used the concept of
project management successfully for years. DOD found in the Manhatten project
that project management was necessary to provide a unity of purpose and to
establish a focal point for pulling together the cooperative efforts of
literally dozens of relatively autonomous organizations. Again in the 1950s
during the ballistic missile system era, DOD again turned to project manage-
ment structure and has subsequently utilized this concept of management for
every major weapon system development.(9-71)

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It has been pointed out that the program management concept frees the chief executive from keeping daily accounts on a given program by appointing a full time project leader. In addition we have discussed the fact that a person intimately familiar with the work required must select and implement the organizational structure that matches the needs of a program at a specified point in the program's life cycle. Before we discuss the various types of program management organizational structures, we will discuss the specific benefits to be gained from utilizing this type of organizational structure.

As noted in the definition of organizational structure by Fox, "structure comprises the authority, responsibility, and communicative relationships among functions, physical factors and personal....for the achievement of organizational objectives."

The three important descriptors in this definition are of course authority, responsiblity, and communicative relationships.

It is reasonable to assume that the benefits to be realized from the program management structure result directly from these three descriptors. That is, the utilization of the program management structure permits the manager to clarify the sources of authority, the centers of responsibility, the communicative relationships between these centers and thus, the resultant program accountability. The inherent order of and ability to concentrate group efforts permits us to tackle and successfully complete complex multi-interfaced programs of today.

In summary, we see that project management organizational structure utilizes a body of skilled personnel whose efforts are totally dedicated to the successful accomplishment of a specific program. This is in contrast

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to allocating these same efforts to various corporate functional barons where this work may not receive sufficient and timely attention. The second major aspect is the appointment of a project leader, a program manager who is also dedicated solely to the specified program. He is the central point of the information decision system regarding program activities and is the natural focal point for interorganizational coordination. (3-234) This frees the chief executive from performing these tasks and permits him to concentrate on other corporate strategies as is appropriate.

Implementation of Project Management Structure

The actual techniques which have been utilized in the implementation of a project management organizational structure cover a vast continuum of options. We will discuss here options located at the midpoint and at both ends of the continuum.

The first step in the construction of a PM organizational structure is the determination of the need for same. This decision must be made by the chief executive who must consider the benefits to be gained versus the accompanying expenses. These expenses related directly to the manpower and material costs associated with concentrating corporate assets on a specific program and thus surrendering access to these assets for a given period of time.

Once the implementation decision has been made the next consideration is that of matching the project (size, period of life cycle) with a program management structure.

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The "Individual" Program Manager Organizational Structure

This type of project management organizational structure exists at the lean end of the continuum. The program manager himself is the only person actually assigned to the program office. The remainder of the organizational structure is personed by individuals who are permanently assigned to the various corporate functional organizations. (14-19)

This type of structure permits us to realize only a portion of the benefits which program management has to offer. Likewise the corporate expense involved is minimal. For example, a lone program manager (PM) will report directly to the corporate chief executive on overall program status. This permits the executive to basically manage by exception. He exercises project control through the functional departments who perform all project tasks. The actual control/authority that the PM has over the functional groups will range from providing only schedules and tasks, to that of acting in the chief executive's stead and with his full authority.

Generally the PM's official authority base will be limited. His greatest source of authority involves the manner in which he builds alliances in his environment - with his peers, associates, superiors and subordinates. (3-233)

To summarize the advantages of this type of structure, we find that the program is now benefiting from a full-time source of <u>authority</u> who in turn has placed the <u>responsibility</u> for accomplishing specific tasks on the appropriate functions. A clear scalar chain of command has also been established through all corporate levels. The corporation has incurred minimal expense and the functional areas have lost neither manpower nor corporate memory. The drawback is that a single manager can respond to a minimal number of problems and customer inquiries.

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The individual program manager structure is best employed during the very early and ending phases of a program's life cycle and during any phase of a program which involves limited technical complexity and interorganizational interfaces.

Program Manager/Staff Organizational Structure

This project management organizational structure utilizes the services of approximately 5 - 35 individuals and represents the midpoint in the project management structural continuum. Here again a program manager (PM) is assigned to spearhead the project and report directly to the chief executive. The primary difference is that he now receives assistance from a staff in monitoring functional activities. In addition, some activities previously performed by the functions, which are program critical, may be absorbed into the program staff thereby affording them higher priority. (14-21)

The actual authority over the functional areas may vary from that of monitoring to full operational authority, including functional area budget control. The PM and his staff do provide guidance as to what tasks will be accomplished and when; however, the functional barons retain control over how the specified work is accomplished.

In summary, we find that the PM/staff project organizational structure has provided more of the possible advantages realizable from the program management concept. We have strengthened the concept of authority by enlarging the monitoring capability of the program manager and thus permit him to exercise additional authority over the functional areas. As before, unity of command and direction are maintained in the person of the PM.

Responsibility related to task accomplishment has been improved in that the PM's staff is now responsible for certain critical tasks.

One of the primary benefits of this structural arrangement has not been previously addressed. This is the synergistic effect resulting from a group identifying with a project and its associated labors. This effect is identifiable and in many cases quantifiable in terms of resources saved, project success, etc.

The staff structure obviously permits the undertaking of significantly more complex projects and offers the opportunity to expand interorganization interfacing including customer relations (sales).

Corporate expense, as expected, has increased. The corporation now has between 5 and 35 employees dedicated full-time to a single project. These assets are effectively lost for the remainder of the dedicated period. The functional area from which the staff was drawn can no longer utilize these lost skills and thus their operations may be impaired.

The PM/staff organization is most efficiently utilized in its lean configuration (5 - 8 people) at the beginning and end of a project. Depending on project complexity, the maximum manning level (35) may be sufficient to support program requirements during peak effort life cycle phases.

System Program Office Organizational Structure

This type of structure represents the pinnacle of program management organization and is found at the extreme of the continuum.

As before, a program manager (PM) is assigned to lead the effort and he reports to the chief executive. The primary difference is that now all the

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required functual assistance has been removed from the functional baron's control and placed directly under the program manager.

Using this structure we find that the authority over all phases of the program is maximized primarily because we have maximized the effects of unity of command and direction, and have centralized the overall program operations. Responsibility is directly assigned to personnel within the project organization. The scalar chain of communications has been shortened and thus made inherently more effective and responsive.

The system program office organization requires the full time support of between 100 - 2000 individuals and therefore results in corporate expense which often exceeds the resources of a company.

The effect of utilizing this type of structure has the maximum impact on the parent corporation. The functional areas of the corporation have experienced a substantial loss in manpower as have various corporate staff functions. The overall loss of corporate memory and resources are the principle drawbacks associated with the system program office structure.

This type of structure is utilized by many government departments and large corporations primarily because these organizations undertake large, complex, state-of-the-art projects which require extensive and thorough interfacing both intra/inter-organizationally.

Matrix Organizational Structure

Introduction

The "individual" program manager and the PM/staff types of organizational structure are frequently referred to as matrix organizations. A matrix organization structure can be defined as one in which there are two primary flows of authority; the vertical flow of authority from the various functional managers and the horizontal flow from the project authority. (3-233) A matrix organization can be efficiently employed when there are well established functional departments which have special skill capabilities and these skills are required on several programs. The project flows through the functional complex under the direction of the program manager and receives the services of the specialized departments as shown in Figure 1. (15-23)
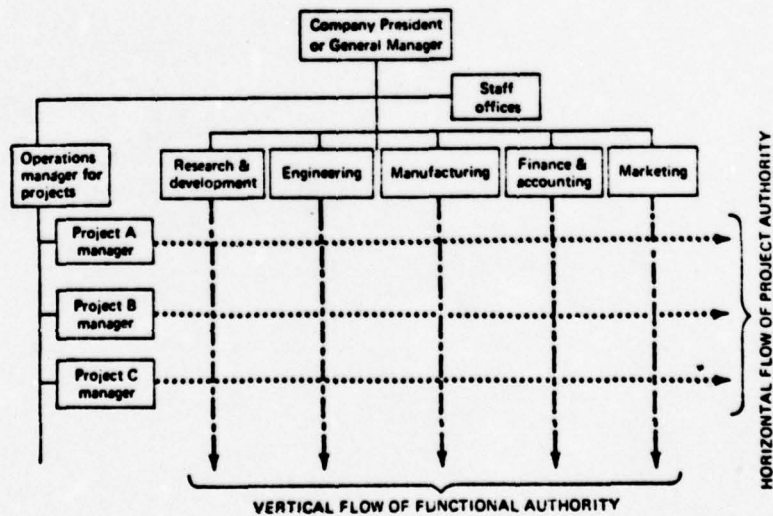

Figure 1. Matrix Organizational Structure (11-407)

The matrix organizational structure retains the functional departments with a high level of technical expertise and provides for the planning, coordination and control of each project through the project offices/program managers. This structure provides a flexible framework within which people and resources can be allocated. Herein also lies the primary disadvantage of the matrix structure.

The structure does not provide for an inherently simple managerial system and there is substantial role ambiguity and intergroup conflict. (11-408) The balance of power between the project and functional organizations must be watched closely by top management so that neither one erodes the other. In addition, the balance between time, cost, schedule, and performance must also be continually monitored so that neither group favors a specific para-meter thus creating unbalance in the project. (8-172)

Historical Perspective

As discussed earlier in this chapter, Fredrick Taylor professed the idea of providing several possible supervisory elements for every worker thus in-creasing the worker's potential efficiency. Also, as was noted previously this approach was in direct conflict with Fayol's principle of "Unity of Command."

We find in today's modern matrix structure that the primary cause of conflict is the dual sources of authority. It is interesting however to note that several aerospace firms employing matrix structure recognize this de-liberate or purposeful conflict as a mechanism for achieving good project trade-offs. Even though the organization is aligned in such a way that

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conflict is required, the chief executives expect the managers to work out these conflicts. (8-178)

Trend Toward Matrix Structure

A matrix organizational structure is used to establish a flexible and adaptive system of resources allocation intended to support several programs simultaneously. An overall divisional/corporate function of resources allocation determines which project(s) have priority and thus obtain the larger percentages of resources. The concept of resource allocation is the driving force behind the utilization of matrix organizational structure and therefore is receiving greater emphasis in this time of diminishing and costly resources.

Internal/External Matrix Organizational Structure

An additional distinction to be made with respect to matrix organization is the concept of internal and external matrix organizational structure. Any given matrix organization, depending on its size and location on the program management continuum line will have an internal, external, or combination internal/external organizational structure. The consideration of which structure actually exists is important to both a program manager and the respective functional managers.

An external matrix organization is characterized by Figure 1.

Here we find that the various projects are all discrete and likely un-
related efforts. The program managers report to a chief corporate executive
through an operations manager for projects. The functional managers respond
to inputs from the program managers and their relationships exist in the
conflict oriented arena discussed above. The individual projects are ser-
viced by functional groups external to the actual project office.

The internal matrix organization is shown in Figure 2. This organiza-
tion is representative of a contemporary large scale Air Force Systems
Program Office which would acquire a major weapon system. As can be seen,
the chief executive has been replaced by the system program director (SPD)
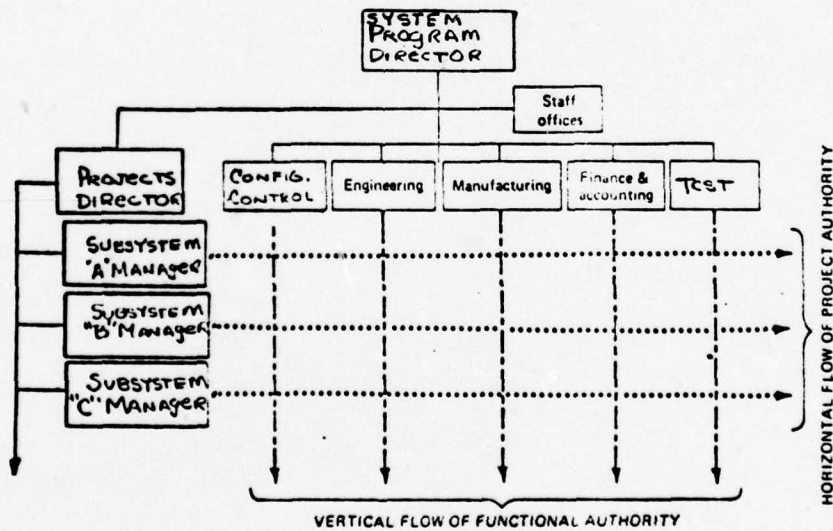

Figure 2. Internal Matrix Organizational Structure

and the project A, B, etc. managers have been replaced by subsystem program
managers. All the subsystem program managers report to the SPD via a direc-
tor of projects or his equivalent. This organizational structure is referred
to as "internal" because the entire project organization is totally self-

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contained and has hopefully developed the "Esprit de Corps" and unity of purpose which would likely not develop in the external matrix organization.

To the uninitiated, it would appear that the distinction between internal and external matrix structure represents unnecessary emphasis of a minor factor. This viewpoint is not shared by those who have served in the different organizations. (16-27)

From a practical viewpoint, the projects in an external matrix structure will not be treated equally in terms of priorities.... Those higher priority programs will enjoy the responsiveness of the functional barons while those with lower priority will find that their conflict oriented environment has become even more conflict oriented. Likewise those individuals serving in the functional specialties will be similarly affected.

The internal matrix organization represents a much closer knit organization primarily because of the unity of effort, the "Espirit de Corps" and the presence of a program manager (system program director (SPD)) who is in overall charge of and in daily contact with all phases of the program. The importance of a continuous integrative effort between subsystem program managers and the SPD cannot be ignored. This effort forms one of the most important, cohesive and meaningful forces within the organization.

An additional advantage achievable with an internal organization is

the ability to form subsystem program teams with relative ease. These teams

formed under the guidance of the subsystem program manager have representa-

tion from each of the functional areas. Because all functions within the

internal matrix organizaton are co-located and under centralized direction

and authority there is little or no objection from the functional barons

concerning formation of these teams because the barons recognize these working

groups for what they are; an attempt to achieve greater effort cohesiveness

and not a plot to dissolve the functional dominions.

Matrix Overview

American managers possess a proven record of ingenuity in creating new organizational schemes to adapt to changing technological and economic requirements. Although relatively new, the matrix organizational structure is responding well to the technological and limited resource scenario of today. (15-25) As might be expected, a new organizational structure brings not only its inherent advantages, but also its drawbacks. The inherent atmosphere of conflict resulting from the dual sources of authority represents the major disadvantage of the matrix structure. Both managerial and technical personnel will require new knowledge and skills as well as modified attitudes in order to effectively apply their skills in the matrix structure.

The utilization of an internal matrix organization for relatively large, high priority programs does alleivate to some degree the conflict atmosphere. In addition, the formation of program teams provides an additional mission-oriented link between the project and functional organizations ad aids in the establishment of a productive working atmosphere.

The trend in today's Air Force is toward the establishment of more external matrix organizations to support a wider spectrum of Air Force programs. Such a trend may in fact, be necessary from an asset allocation viewpoint alone. Nevertheless, the commanders and corporate executives must be aware of both the advantagous and detrimental aspects of this trend.

A major consideration concerning the incorporation of a matrix organizational structure is to assure that both the functional and project personnel understand their respective needs and the needs of their co-workers.

The "needs" of the functional and project managers are listed below. (12-349)

Functional Manager

<u>Needs</u> to be placed in chain of command - to assure an appeal route for conflicts with program manager.

<u>Needs</u> authority to hold subordinates responsible - to assure unity of command within his group.

<u>Needs</u> a job description which clearly states his authority and responsibility - to assure that he has a solid basis for authority both over his subordinates and within his peer group, and to assure that the functional manager clearly understands his program responsibilities.

<u>Needs</u> to have high degree of technical competence within his field of authority - to assure that he is competent to lead the functional group and can more firmly establish his authority base.

Program Manager

<u>Needs</u> to have a well defined, documented, and recognized base of authority - to assure his acceptance as the overall program director.

<u>Needs</u> to have a direct line of communication with the Chief Executive/System Program Director - to assure the availability of executive guidance and resolution of conflict with functional areas.

<u>Needs</u> to have a good general knowledge of management problems - to assure that he has the ability to lead the program team effectively, deal with functional managers and properly utilize their inputs. In addition, in dealing with the Chief Executive, the program managers must display overall program competence in order to sustain a base of credibility.

<u>Needs</u> to have an understanding of the psychosocial atmosphere of the organization - to assure that he is able to deal effectively with both the functional area managers and the program team managers.

Program Manager (Cont'd)

<u>Needs</u> the authority to select the assistance of specific
personnel from the functional areas on a limited
basis - to assure that his subsystem receives the
emphasis required during critical periods.

<u>Needs</u> to have the recognized responsiblity to award and
if necessary reprimand functional area team members.

<u>Needs</u> to have a strong voice in establishing and main-
taining program team membership - to assure con-
tinuity and minimum loss of program memory.

Matrix Structure and Corporate Memory

The final consideration relating to the formation of matrix organiza-
tions is the concept of maintaining "corporate memory." The matrix organi-
zational structure represents an organization which by definition has
limited longivity. That is, when the program is completed, the individuals
will be assigned elsewhere. If an external matrix structure is employed,
the individuals in the corporate functional orgaizations will simply be
assigned to new projects. With the internal matrix, the functional personnel
will likely be re-colocated to another internal matrix, i.e., large indepen-
dent project offices.

The undesirable aspect of moving personnel from one co-located
assignment to another is that these individuals are not afforded the
opportunity to interact, (share experiences) with their home office func-
tional co-workers. Thus, the corporate memory bank is not enlarged.

It is the author's opinion that far too much emphasis is placed on the
<u>actual</u> growth of corporate memory that <u>might</u> occur if the opportunity for
interaction was consciously afforded. The so called "lessons learned" from

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a given program are often more quickly learned via gossip then by confession.
If the retention of corporate memory is determined to be an essential pro-
gram benefit then the most productive method of transmitting and storing
this information would be via a series of short, concise reports on specific
areas. These reports would be prepared by the program and functional area
managers on a given program. Such reports would be retained by a cognizant
corporate staff function that would be responsible for retrieving and dis-
seminating the information to future program managers. Such retrieval
would be a required program "start-up" activity.

It is interesting to note that in todays "Freedom of Information" at-
mosphere, a collection of "lessons learned" reports would provide outstanding
material for various newspaper reporters and public officials who are more
interested in publicity then improvement.

Program Management Oriented Matrix Structure

The traditional matrix organizational structure is pictorialized with
the functional organizations holding the position of line elements and the
subsystem or project managers exercising horizontal authority across the
functions and simultaneously reporting to the chief executive through an
operations managers who is equal in status with the functional managers.

An alternate proposal to this organization is appropriate and is
entitled Program Management Oriented Matrix Structure (PMOMS). This title
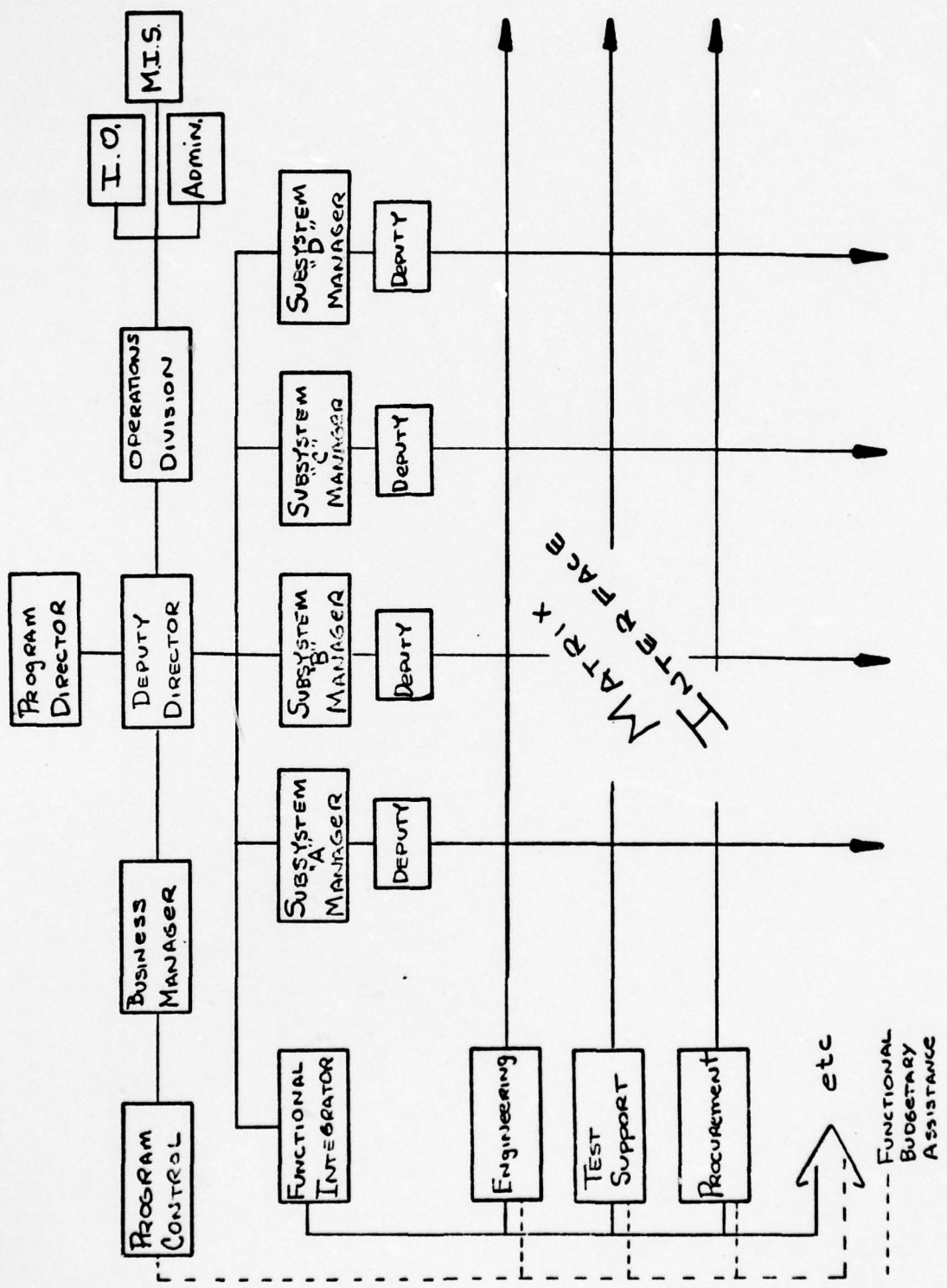is derived from the emphasis placed on program management rather than the
functional elements.

Figure 3. Program Management Oriented Matrix Structure (PMOMS)

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As seen in Figure 3 this organizational structure is oriented toward the internal matrix organization; one in which the entire organization is dedicated to the accomplishments of a single major project which in turn is subdivided into major subsystems/projects.

The primary reason for this type of structure is directly related to the initial reason for forming a program office. That is, we are dealing with a project which has high priority and will required the allocation of extensive and costly resources. This program therefore requires the total commitment of a dedicated group of individuals and a central point of authority, the program manager. Using this base of reasoning, it seems logical that we should likewise orient the internal workings of the organization toward the philosophy of program management rather than toward the functional viewpoint.

A benefit to be realized from this orientation is that the functional specialists should realize that the program manager is responsible for determining what will be done. The functional specialist is responsible for _how_ it is done - the how being his area of expertise.

Another benefit to be gained relates to the overall grade structure which would be employed in a PMOMS for a major Air Force program. A traditional Air Force System Program Office (SPO) would contain 10 major functional areas, each headed by a full colonel or GS-15. None of the individuals would have full program cognizance on any major subsystem.

In the PMOMS, there exists a high ranking subsystem program manager who can and does utilize the services of all functional chiefs and is current on all aspects of his subsystem as well as the interfaces of this subsystem. These subsystem program managers and their deputies are available to the SPO Chief to aid in solving specific problems, deliver required

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staff briefings, and to assist in the DSARC process and associated exercises. In summary, it is possible to assemble a small team of experts that covers all program topics rather than a large team of non experts.

Also, since the functional areas report through a functional integrator, a full Colonel, it is possible and desirable and cost effective to have a functional chief in the Major and Lt Col grades.

The subsystem/subprogram chiefs and the SPO deputy director, business manager, functional integrator would form what might be entitled the SPO Policy Guidance Council.

The structure as explained, PMOMS, would still retain the checks and balances of the standard functionally-oriented structure in that the functional managers do have access to the SPO chief as before.

The overall result is that we have formed a more flexible, effective, and project oriented structure which can react to the SPO chief and the environment in a more responsive manner.

Summary

The presentation of the above considerations is an attempt to bring the manager to the realization that organizational structure is an element or subsystem which he can control and should desire to control.

Organizational structure represents a framework that controls procedures, work flow, authority, and communications. These aspects of an organization affect the entire organization's efficiency, effectiveness, and therefore its productivity.

Proper selection and subsequent utilization of organizational structure provides the manager with the ability to optimize the basic tasks performed by his organization.

CHAPTER III

THE PSYCHOSOCIAL SUBSYSTEM

Introduction

Organizations are those entities established and operated by man to assist him in achieving various goals and objectives. Organizations in general have four common elements. They are (1) goal oriented - people with a purpose; (2) psychosocial - people working in groups; (3) technical - people using techniques and technology; and (4) structured - authority relationships and processes. (11-24) We view these elements as organizational subdivisions or subsystems. Each must work in harmony with the other to assure success in reaching the organizational goals. The primary objective in reviewing the definition of an organization is to emphasize the importance of the human element in the organization. In fact, the organization would not exist without the human element.

The social psychologist E. Write Blake emphasizes even more strongly the importance of thinking of human organizations in their social context. He states:

> "A social organization is a continuing system of
> differentiated and coordinated human activities
> utilizing, transforming, and welding together a
> specific set of human, material, and natural re-
> sources into a unique, problem-solving whole
> whose function is to satisfy particular human
> needs in interaction with other systems of human
> activities and resources in its particular en-
> vironment." (17-50)

The blending of the concept of management and specifically the manager into this human oriented "social organization" is our next goal.

The <u>concept</u> of management involves the coordination of human and material resources toward an objective, or goal accomplishment. The manager is of course the one who utilizes this concept. He is the individual who is expected to <u>convert</u> the disorganized resources of men, machines, materiel, money and time into a useful and effective relationship. (3-7) The manager accomplishes this conversion through his labors and the labors of his fellow organizational members, his employees and peers.

We see that the manager then is responsible for the outcome of organizational endeavors and that the human element in the organization is a most important resources he has at his disposal. Improper utilization of this resource will assure failure in realizing the organization's goals.

Effective utilization of the human asset will provide the manager and thus, the organization with every advantage, under his control, relative to goal achievement. Successful utilization of the human asset is addressed through the four organization subsystems described above. First, the manager must set goals for the organization. Second, the manager must provide the tools and equipment, i.e., the technological hardware required, <u>and</u> hire properly trained/educated personnel. Third, the manager must be aware of the intricacies of the psychosocial subsystem. And fourth, the manager must select the appropriate organizational structure to support the group's activities.

To say that a manager must "strive to effectively utilize the human resources at his disposal" or face almost certain failure is a true, but, unfortunately vague statement. To be more specific, we should remember that the primary managerial functions are planning, controlling, organizing, coordinating, and motivating. (9-4) (3-58) These are all basically people-

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oriented tasks and thus affect the individual worker's attitude, his pro-
ductivity, and in turn, the organization's total output.

A manager needs to understand the significance of these management
functions. Planning involves the development of a road map for the organi-
zation. Organizing involves the orientation of organizational resources
toward the accomplishment of goals along or at the end of the selected road.
Controlling and coordinating are those sustaining management activities re-
quired to assure continued, proper resource orientation. Motivating is that
management function which instills in the worker the "will to accomplish"
or reach the organization's planned goals. In other words, the management
function of motivation is intended to directly influence the workers'
behaviors via the workers' motives - the "whys" of his behavior and conduct
on the job.

This then is the significance that the psychosocial subsystem has for
management. This subsystem provides management with the key to worker
satisfaction, effectiveness, productivity, and in turn, organizational pro-
ductivity and effectiveness.

Historical Development of Psychosocial Factors

As discussed in Chapter II of this report, the so-called Scientific
Management Movement was the first well-publicized and accepted body of
management doctrine. (9-492) This doctrine is traceable to Fredrick
Winslow Taylor's (1856-1915) interest in functional foremanship and admini-
strative planning and as such was technological in nature. The thrust of
the movement was the optimization of worker efficiency through such tech-
niques as time and motion studies.

An unfortunate outgrowth of Scientific Management was that management and managers became obsessed with the concept of efficiency and divorced themselves from human affairs and emotions. The function of the leader under the scientific or classical management theory was to set-up and enforce performance criteria to meet organizational goals. The emphasis was on the organization's needs and the needs of the individual were placed second at best or totally ignored. (18)

As is commonly observed, this overlooking of the human/psychosocial subsystem was soon addressed by Taylor's critics. The so-called human relations movement or neoclassocial theory of organization embarked on filling this need. The neoclassic approach accepted the basic postulates of the scientific theory but redefined these postulates with respect to the human element in the organization. (9-494) That is, the function of the leader under the human relations theory was to facilitate cooperative organizational goal attainment among his followers while providing opportunities for their personal growth and development. (19-70)

The first significant thrust in the development of the neoclassical theory was accomplished by Mary Parker Follett. She was among the first writers to utilize terminology such as "co-action rather than coersion." (20-13)

The sustaining inspiration of the neoclassical approach was the Hawthorne Studies. These studies were actually a continuation of earlier investigations based on the scientific management concept of maximizing worker productivity. The studies, conducted at the Western Electric Company Hawthorne Plant, represented an attempt to correlate the intensity of work area illumination with worker efficiency. The experiments were conducted under the supervision of Elton Mayo and his colleagues F. J. Roethlisberger and T. N. Whitehead.

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The Hawthorne experiments represent a milestone in the field of psycho-social experimentation even though the merits of the techniques and experimental controls that were used and the results are still being debated today. The basic results are clear - social and psychological factors were seen as being of major importance in determining worker satisfaction and productivity. (21-185) Mayo and his colleagues hypothesized that the increased production realized during the experiment resulted from the changed social situations of the workers, modifications in their motivation and satisfactions, and differing patterns of supervision.

This experiment led to a break with the principles of scientific management which held that illumination, work conditions, rest periods, fatigue and other physical and physiological variables combined with strong monetary incentives were the primary factors influencing output and productivity. (3-79)

The neoclassic or human relations movement was supported by many authors of the era. These included Pareto, Carl Rogers, Kurt Lewin, Follet, Freud and others. These individuals had two primary orientations. First, there was the basic concern for man's role in the organization and second, there was the utilization of behavioral science research methods in the study of organizational behavior. (3-81) As might be expected, these basic concerns were initially at least overemphasized by the human relationists in their attempts to fill the lack of concern for man in the organization. Nevertheless, the impact of the human relationships movement on organizational theory has been profound and continues today as a topic which receives primary emphasis in most organizations.

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Key Psychosocial Factors

Two key factors in the psychosocial subsystem are motivation and leadership. Before the manager can begin to utilize and subsequently benefit from the "management significance" of the phychosocial subsystem he must first acquire an understanding of the meaning and application of both motivation and leadership.

The Concept of Motivation

For the purpose of this discussion, motivation will be defined as the managerial leadership act of making desired incentives or goals reasonably attainable to employees. (9-701) The manager's primary task then is to first identify those motives of significance to the workers and then to match these with incentives that will satisfy the worker. A closer look at the terms "motives" and "satisfy" is appropriate to this discussion.

Motives are the "whys" of behavior. They arouse and maintain activity and determine the behavior or conduct of an individual. Motives are sometimes defined as needs, desires, or impulses within the individual and as such are directed toward conscious or subconscious goals. The goals, frequently called incentives, can be referred to as "hoped for" rewards towards which motives are directed. (19-11)

This concept of motivation, motives, and goals is the issue which should captivate the imagination of every manager. This concept addressed in conjunction with the concept of leadership (the manager aspects) is acknowledged to be the key to worker effectiveness and productivity.

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Motivation Theories

As in the case of many developing sciences, the field of psychology
has not as yet defined a single universally acceptable _theory_ of motivation.
In fact, there is widespread disagreement between and among most business-
men, academicians, and theorists as to what does constitute motivation.
Nevertheless, the elements of the various theories do provide an insight
into the subject of motivation and several sill be presented.

Maslow's Hierarchy of Needs

The "Hierarchy of Needs" is one of the oldest theories of individual
motivation and was developed by Abraham Maslow. Basically, Maslow said that
man's actions, his work and play, are directed toward the goal of satisfying
various needs. These needs are ranked in a given hierarchy which is assumed
to be constant from most individuals.

Maslow stated that man's efforts are first directed at satisfying his
physiological needs (air, food, shelter, rest), then the drive to satisfy
the safety and security need which from a business viewpoint refers to being
free from arbitrary, unfair managerial actions. Next, man will seek to
satisfy his social needs, the need to belong, to associate with people,
be accepted. The desire to satisfy man's ego needs is next. This represents
man's self-esteem and reputation. (22-104) The last need to be satisfied
and the one which is least understood is that of self-actualization.
Generally, this need can be said to correspond to man's desire to recognize
himself as being competent and an achiever. (19-35)

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Application of Maslow's Theory

The topic of interest to the manager is the actual application of Maslow's Theory to the everyday operations of the organization. The item of primary importance relative to this application is the present standard of living of the employees. Generally speaking, most of today's workers enjoy a high standard of living and almost certainly, the worker employed in a modern program organization is well educated and more sophisticated than his counterpart of years past. In an attempt to externally motivate today's employee, the manager must strive to develop an environment for the worker where the worker can satisfy his higher level needs. Some specific items of interest follow.

● The manager striving to satisfy higher level employee needs must maintain a firm basis of support for lower level needs. This includes continued attention to salary incentive plans, medical benefits, and so forth. Removal of these items will generally prevent successful satisfaction of higher level needs.

● Satisfaction of the social or affiliation needs should be of partiular importance to the manager of large aggregate organizations. The employee will generally have difficulty satisfying the need in a large organization affiliation because of difficulty identifying with it. By establishing smaller goal-directed working groups within such an organization the manager provides the employee the opportunity to identify or affiliate with his particular group. The synergistic effect of combining a project and a specified group of workers serves to benefit both.

● The manager's principle responsiblity relating to the employee's ability to satisfy ego and self-actualization needs is that of providing the employee the opportunities to satisfy these needs. The manager's style should be geared to the subordinate's current level of maturity with the overall goal of helping him to develop, to require progressively less external control and to gain more and more self control. Under these conditions,

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the employee achieves satisfaction <u>on-the-job</u> at the levels of ego and self-actualization, at which the employee is <u>most motivated</u>. The primary difficulty for the manager is overcoming his feelings of "I can probably do it better" and then simultaneously delegating the responsibility to his subordinates. Failure to do so will result in an organization of totally dependent, uncreative employees.

● A final item of importance relative to Maslow's Hierarchy is that the manager must be able to recognize the employee's behavioral patterns which typically result from deprivation of higher level needs. The man whose needs for safety, association, independence, or status are thwarted is sick and can be expected to display passivity, hostility, or refusal to accept responsiblity. The manager's job is to recognize the symptoms and then to seek the cause of need deprivation. (23-39)

The worker whose needs are not safisfed on the job will at best produce at a less-than-average level and depending on his behavioral pattern, may well be the cause of significant work slow-down. This worker will likely seek to satisfy his needs via off-the-job activities. In any case, the organization's productivity suffers.

Theory of Psychological Advantage

The <u>"Psychological Advantage"</u> theory attempts to explain human behavior by saying that "people constantly seek to serve their own self-interests." Psychological advantage refers to what the individual believes constitutes his own best interests. This theory explains, to some degree, why monetary incentives do not necessarily increase productivity of workers if they feel that their "advantage" lies in achieving different goals such as maintaining a congenial relationship with fellow workers. The same analysis can be applied to a worker's refusal to accept a promotion.

Application of the Psychological Advantage Theory

It is relatively difficult for a manager to apply the theory of psychological advantage on a daily basis because of the variations in the theory with employee age, I.Q., and mental and moral background. (22-106) However, there is one clear lesson to be learned which can be utilized by the manager in the motivation of employees.

> The management task of planning and establishing organizational goals is crucial to the success of an organization. It is almost inconceivable, that the mangement of a large or small firm could establish organizational goals which would be totally compatible with the individual worker's goals. Yet, without a minimum degree of compatibility, organizations could not exist. (3-168) It is therefore the manager's responsibility, assuming he is worker _and_ productivity oriented, to select goals which satisfy to the maximum extent possible the desires of both the organization and the workers. This reciprocation between employer and employee can develop a strong bond based on the mutual desire to accomplish common goals. This psychological contract or bond between the individual and the organization which leads to mutual goal satisfaction is referred to as reciprocation. (24-39)

Motivation-Hygiene Theory

A third school of thought about motivation of man is called the hygiene or motivation-hygiene school. This theory, developed by Professor Frederick Herzberg, has been successfully applied in several industrial and governmental organizations under the title of Orthodox Job Enrichment. (25 - Chapter 7-8)

The theoretical basis for job enrichment or job motivation begins by viewing man as a creature with two distinct natures, each with its own

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active need system. One nature is concerned with the need to avoid pain and the second is directed toward experiencing psychological growth. (26-2) The two natures of man professed by Herzberg relate very closely with the five step hierarchial structure proposed by Maslow. The primary difference between the two theories is that Herzberg stated that the needs of both natures of man are simulateously pursued at all times whereas Maslow indicated the necessity to satisfy lower level needs first. (22-110)

The management importance of the hygiene theory does not lie in its similarity or difference with Maslow's work. The significance lies in the fact that it has been successfully employed by several large organizations and therefore warrants review by management.

Basically, Herzberg's theory is founded on the results of interviews with two hundred engineers and accountants. Available data indicates that these results, are applicable to all groups of skilled and semi-skilled workers. The results of the study showed that various job factors were sources of satisfaction or dissatisfaction for the interviewees. Five factors stood out as strong job satisfiers: achievement, recognition, work challenge, responsibility, and advancement. The strong dissatisfiers were company policies, supervision, salary, supervisory relationship, and working conditions. More important is the fact that both the satisfiers and the dissatisfiers were unidirectional, relative to the employee's attitude toward his job. That is, the satisfiers were mentioned as providing positive feelings toward the job and lack of the satisfiers generally did not result in a negative attitude. In contrast, the dissatisfiers were generally seen as the cause of negative job sentiments but the elimination of the dissatifiers could not in itself provide job satisfaction. (22-113) Herzberg noted

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that the dissatisfiers applied to the job environment and therefore entitled them "hygiene factors." The satisfiers, applicable to the job itself, were called motivators. (23-57)

Hygiene Factors	Motivators
(ENVIRONMENT)	(JOB)
Company Policy	Achievement
Supervision	Recognition
Salary	Work Challenge
Supervisor	Responsiblity
Relationship	
Work Conditions	Advancement

Table 1. Motivation and Hygiene Factors

Hygiene needs, when satisfied, tend to eliminate dissatisfaction and work restriction, but do little to motivate an individual to superior performance. Satisfaction of the motivators will permit an individual to grow and develop in a mature way, often implementing an increase in capability.

Application of Motivation-Hygiene Theory

The application of motivational techniques to a job situation provides the necessary but not sufficient conditions for the manager to expect motivated performance. Likewise, in the application of the hygienic theory, the manager must assure that the basic ingredients exist.

First, the manger must assure that the personnel hired to perform a given job are neither underskilled or overtrained for the job.

Second, the manager must assure that the hygiene factors, identified by Herzberg, have been addressed. A common error on the part of the

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manager is to assume that an air conditioned office provided for a high salaried employee with whom he has good rapport, will guarantee job satisfaction. In reality, the employee may be quite unhappy about the company policy relating to working hours or the requirement that every employee take one full hour for lunch when he "brown bags" and takes only fifteen minutes. The manager must be attuned to signs of dissatisfaction among his subordinates and address the causative factors at the earliest opportunity.

If the hygienic factors have been satisfied at a reasonable level and the employee's skill levels match the requirement of their respective jobs, then, a lack of performance is likely due to a deflated, unchallenging job. Here, job enrichment can be the remedy.

The application of the motivators, is the manager's third task. The manager is expected to review his employees' respective jobs and determine if these motivators are absent, and if they are, to work towards establishing more of them in those "deflated" jobs.

Some of these principles are: (26)

    a. Direct Feedback. The employee should know directly and as quickly as possible whether his performance is acceptable or not. This feedback should come from the worker's evaluation of his own finished product.

    b. Client Relationship. The worker should recognize that he is ultimately satisfying a customer, not his supervisor.

    c. New Learning. A job should offer the person an opportunity to gain new learning. An important point here is that real growth occurrs only from exposure to new concepts and not repetitous exposure to old concepts.

    d. Scheduling. The opportunity to schedule his workload as only he knows is best is a key element. This may include, if conditions permit, the use of flexible work schedules and lunch periods.

e. <u>Unique Expertise</u>. Since each worker has individual abilities, it is not desirable to <u>make</u> him perform as everyone else by routinizing jobs down to minute details and timing.

f. <u>Control Over Resources</u>. Place responsibility for costs, maintenance, etc., on the employees who utilize the resources.

g. <u>Direct Communication Authority</u>. Permit, where possible, and insist that the employee deal directly with the customer.

h. <u>Personal Accountability</u>. Take all possible steps to place accountability for the work on the shoulders of the employees. This will assure that the responsible individual receives the credit, and, where necessary, the blame in each specific case.

The manager's <u>fourth</u> responsibility is that of realizing that between 10-15 percent of his work force will likely reject the additional responsibility required under Orthodox Job Enrichment. These individuals for one reason or another do not want or cannot withstand the additional pressures related to an employee centered and controlled job situation. The manager must decide whether to accomodate these employees by providing typical management-directed jobs or to remove these individuals from the organization. This topic is mentioned here only because of its possible effect on the overall organization relative to presenting a de-motivating situation.

Hackman's Job Characteristics Model

The fourth and last motivational theory discussed here is Hackman's Job Characteristics Model. Hackman's theory is presented here <u>not</u> because it is substantially different from the previous theories, but because it is

a step-by-step cookbook technique which is more easily applied on a greater basis than the hygiene or hierarchy of needs theories. A diagram of Hackman's Job Enrichment Model is shown in Figure 4. (27-58)

Hackman's theory is based on the results of recent research which indicated that in general, a job capable of motivating the employee has five basic characteristics or core dimensions. Hackman utilized the presence or absence of these core dimensions to first, determine if a job under evaluation has motivational potential, and second, to revise or revitalize a job which is lacking in these five areas.

The five core dimensions relate directly to the workers' psychological state of of mind. Hackman's theory is that the "psychological state" experienced by the worker is critical in determining the workers' motivation and satisfaction. It is the "what" that "turns the worker on" to his job and is therefore the basic influence of productivity.

The relationship between the core dimensions and the psychological states will now be discussed. The reader should reflect on the similarities between these factors and the hygiene factors and motivators of Herzberg's theory.

Three of the five core dimensions: skill variety, task identity, and task significance, contribute directly to the employee's experience meaningfulness of his work. Skill variety refers to the performance of challenging tasks. A greater variety has more potential of appearing to more of the whole person. Task identity refers to the ability to complete a whole or identifiable piece of work such as completing an entire radio rather than just putting together one subassembly. Task significance relates to the perceived impact of the task on the operations of the organization's mission.
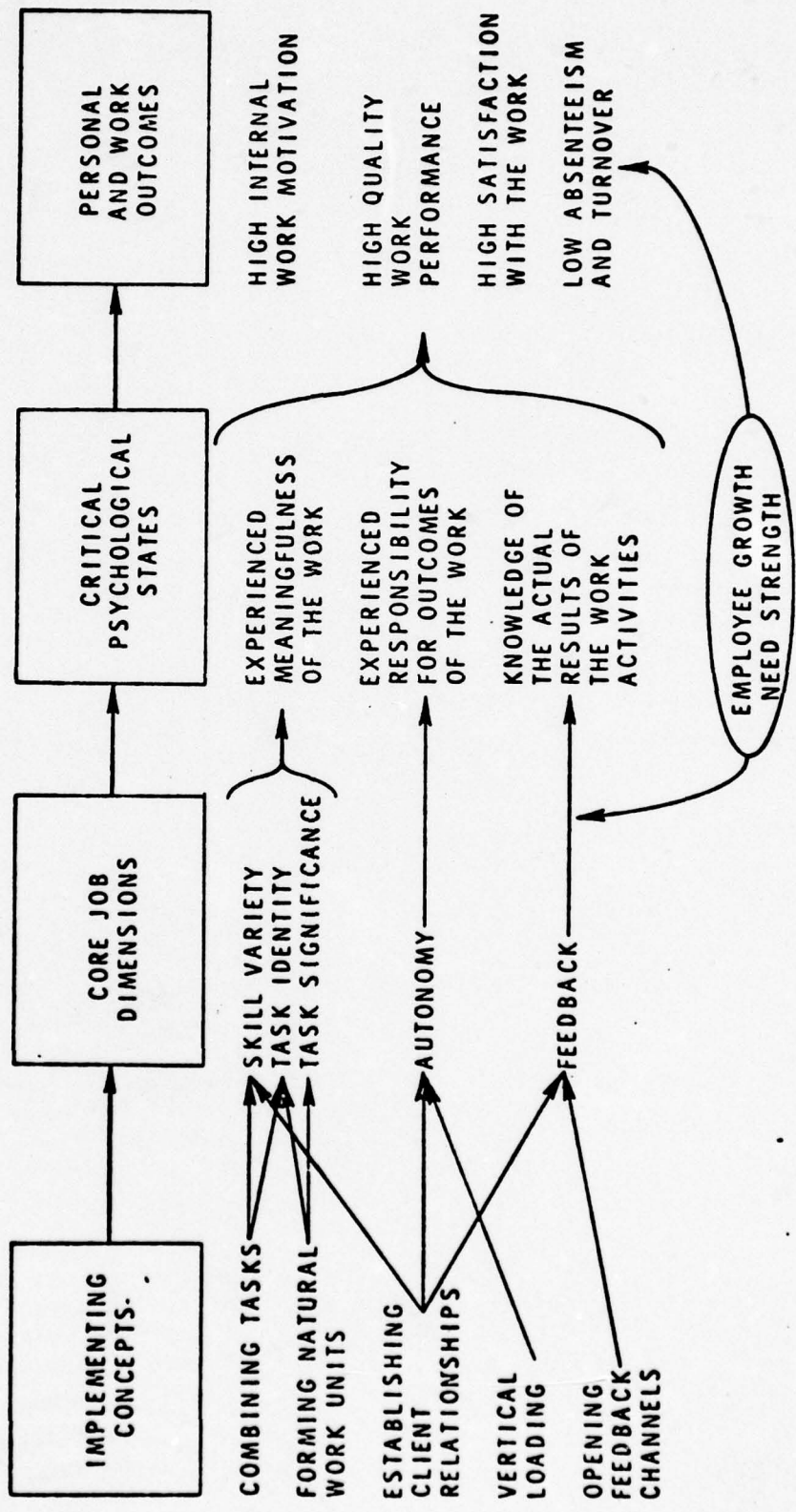
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CRITICAL
PSYCHOLOGICAL
STATES

CORE JOB
DIMENSIONS

PERSONAL
AND WORK
OUTCOMES

IMPLEMENTING
CONCEPTS.

HIGH INTERNAL
WORK MOTIVATION

HIGH QUALITY
WORK
PERFORMANCE

HIGH SATISFACTION
WITH THE WORK

LOW ABSENTEEISM
AND TURNOVER

EXPERIENCED
MEANINGFULNESS
OF THE WORK

EXPERIENCED
RESPONSIBILITY
FOR OUTCOMES
OF THE WORK

KNOWLEDGE OF
THE ACTUAL
RESULTS OF
THE WORK
ACTIVITIES

EMPLOYEE GROWTH
NEED STRENGTH

SKILL VARIETY
TASK IDENTITY
TASK SIGNIFICANCE

AUTONOMY

FEEDBACK

COMBINING TASKS

FORMING NATURAL
WORK UNITS

ESTABLISHING
CLIENT
RELATIONSHIPS

VERTICAL
LOADING

OPENING
FEEDBACK
CHANNELS

Figure 4. Hackman's Job Enrichment Model

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For example, the worker making a final adjustment on an astronaut's life support system may view his task as being more significant than a mechanic who tunes automobile engines, yet in fact, the expertise involved may be the same.

Each of the three core dimensions discussed above can individually or collectively provide the "meaningfulness" required to motivate the worker and permit him to satisfy his ego and possibly his self-actualization needs.

The fourth core dimension, autonomy, relates to the worker's prerogatives on the job. How much freedom does he have scheduling and performing the actual tasks? A great deal of autonomy will provide the worker with the feeling that the finished product is the result of his efforts, his success and failures.

The fifth core dimension, feedback, is an essential ingredient to a motivational situation. Feedback provided by the job environment is the third psychological state, knowledge of the actual results of the work activities. This feedback could be provided by a supervisor, a quality assurance check list completed by a co-worker or, it could come directly from the worker's evaluation of the completed task. The worker's evaluations provides both the quickest and most meaningful evaluation especially if the previous core dimension, autonomy, is present. (27-59)

The synergistic combination of the core dimensions and the critical psychological states provides us with the personal and work outcomes shown in Figure 4. As was true with Herzberg's theory, not everyone can or will respond by becoming internally motivated. Many older, more experienced workers familiar with the traditional scientific management methods may

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find it extremely difficult to change. The manager must realize that there is a place for these individuals and that this type of worker will always exist in the population. It is management's responsibility to utilize these individuals in positions where their skills and individual psychological make-up permit them to be productive.

Application of Hackman's Theory

The first phase in the implementation of Hackman's theory is investigative in nature and consists of surveying the present organizational and job environments. Using the Job Diagnostic Survey, workers, supervisors, and outside observers rate the motivational potential of each job by evaluating its core dimension. (28-159) Also in the first phase, the present levels of motivation, satisfaction, and worker performance are measured, once again by using the Job Diagnostic Survey. The last step in the first phase is the determination of which employees would be most receptive to the concepts of job enrichment and which may require help in adapting to a new enriched job. (27-61)

Phase II, the analysis phase, consists of determing the actual need for additional job enrichment, seeking out the causes of organizational problems and determining what specific aspects of a job may be the cause of problem areas. For example, by using the results of Phase I prepared questionnaires, the investigative team can determine if a lack of productivity is the result of a motivational deficiency or faulty plant or office equipment. If a job has high ratings in all five core dimensions and the employees holding this job are unproductive and dissatisfied, then, job enrichment will likely have

little if any affect on improving the situation. In this case, the manager should reflect back on Herzberg's hygienic factor for a possible solution to his problem.

Following the identification of those specific jobs where enrichment has been determined to be appropriate, we can enter the final phase of the program, the implementation of concepts. Five concepts are used to improve both the individuals experience on the job and his productivity. The links between these concepts and the core dimensions and psychological states is shown in Figure 4.

The five implementing concepts are:

a. <u>Combining of Tasks</u>. This concept dictates that management should attempt to combine all fractionalized tasks into one large work package. This would represent having one worker assemble an entire radio rather than subcomponents. Combining of tasks is directed at improving the skill variety and task identity core dimensions.

b. <u>Forming Natural Work Units</u>. This concept refers to the distribution of work in such a manner that the worker maintains a sense of authorship or identity with the product. For example, assigning a janitor to "his own" area of a plant would in reality identify him with cleanliness in that area. This concept is directed at the core dimensions of task significance and identity. A conscious effort should also be made to equitably distribute work among the employees.

c. <u>Establishing Client Relationship</u>. This concept emphasizes the importance of helping the employee understand who is the real "boss." The employee can no longer hide behind the company name. He now becomes a real person who deals with real customers. His own name and reputation goes out with each piece of equipment or report. Thus we see a direct impact on the core dimensions of feedback, autonomy, and skill variety.

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d.   <u>Vertical Loading</u>. The concept of vertical loading refers specifically to closing the gap between the doing and controlling of the job. Give the employee the opportunity to plan, organize, obtain the resources, complete the task and check his own work. The core dimension of autonomy is addressed here.

e.   <u>Opening Feedback Channels</u>. Implementation of this concept is aimed at providing the worker with direct and rapid feedback about the quality of his labors. Feedback obtained directly from the worker is the most rapid and private, and simultaneously increases the worker's feelings of personal control. Some techniques which open the feedback channels would be worker self-imposed quality control, direct customer communication with worker and giving worker access to plant productivity records with which he can compare himself. The core dimension of feedback is addressed. (27-62)

Hackman's research indicates that the implementation of the above concepts does have a positive effect on the founding or strengthening of the core dimensions. Once again our goals are increased productivity and worker satisfaction resulting from motivation.

Summary

Motivation

We have discussed motivation as a key factor that the manager must learn to utilize in his overall dealings with the psychosocial subsystem of his organization.

Motivation has been viewed as managerial action external to the employee which will hopefully ignite the employee's internal motivational mechanism, thus increasing his desire to produce and his satisfaction from having produced.

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Four basic motivational theories were discussed primarily because each approaches the subject of motivation from a different perspective.

Leadership

Introduction

Leadership has been defined in many ways and it is virtually impossible to settle on one generally accepted definition for all circumstances. However, for purposes of this discussion leadership shall be defined as the management activity of influencing individual or group efforts oriented toward goal achievement in a given situation.

After reading this definition, the unknowing manager might say that he accomplishes the leadership task daily and apparently, successfully. The appropriate question is, has the manager achieved the goal by influencing or coercing the group. The topic of motivation again comes to mind. The previous chapter presented several theories of worker motivation. Analysis and understanding of these theories is necessary, but the real value is the application and controlling worker behavior, i.e., influencing the worker's on-the-job behavior. This is defined as leadership. Leadership can be viewed as the application of motivational theory.

The successful manager is thought of as one who achieves his organizational goals. If, in addition, he accomplishes these goals via motivated workers, then, his leadership efforts can also be termed as effective. If successful and effective, he will have achieved his goal through the efforts of motivated, highly productive workers and will therefore greatly

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increase the chances of program completion within schedule, under budget and over performance. (19-94)

So we see that leadership is a management parameter which is evaluated by both management and workers. Both can benefit from successful/effective leadership whereas only management benefits from successful/ineffective leadership and then only until the worker's productivity decreases. The manager's goal then is to develop both an understanding of the concepts and application of motivation and leadership. Successful accomplishment of this goal will permit the manager to achieve the organizational goals and fulfill workers expectations and needs.

Manager's Dilemma

The manager striving to develop an understanding of leadership principles will find himself involved in a quagmire of literary resources. He will uncover the principles of scientific management which stress production optimization often while sacrificing worker's morale. He will read about the human relations or neoclassical management theory which is employee centered, often to the extreme of sacrificing the total organization.

Other areas of confusion will relate to the selection of an appropriate leadership style, what style does the manager actually project, what style is most appropriate in relation to the work being controlled, is he familiar with the work under his cognizance, which leadership styles have been proven to be successful in the past.

The two pressing problems facing the manager will likely be first, continued success in achieving organizational goals and second, his perception of his role in the organization.

Top management generally rates the manager's "successfulness" by his ability to achieve short term organizational goals. (29-126) The manager therefore views achievement of these goals as top priority and will be reluctant to adopt a new leadership style which may yield long term gains while possibly sacrificing short term goals.

The manager's perception of his role in the organizational structure is a key factor in his decision to take positive leadership initiatives. The rapid growth of technology and organizations and the emergence of new organizational forms such as matrix structure have made it difficult for a manager to gather a clear understanding of his role. Considering the matrix structure, the middle manager finds that he is working for someone, someone else is working for him, other employees are working for another manager and for him and still other employees are working on his program but in reality, reporting to a functional baron.

Determining the composite leadership style appropriate to this situation may be more of a task than most managers are willing to undertake, while simultaneously striving to satisfy short term organizational goals. (30-41)

Leadership Information Base

Selection of a leadership style should be initiated by an information gathering exercise. Only by having reached an understanding of himself, the job, and environmental variables can the manager expect to conduct a meaningful leadership style selection process.

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A possible series of steps which the manager can utilize in forming this Leadership Information Base is presented below.

The first of these is the manager himself. He must obtain an understanding in depth of his managerial strengths and weaknesses, his attitude to the job and his employees, his overall goals on the job and off, and an understanding of techniques he has used in the past along with a measure of their successfulness and effectiveness. A key point to remember is that effectiveness of a manager's style is measured in the minds of his workers. Therefore, external feedback is required in order to quantify effectiveness. In short, the manager must understand himself and more importantly, how others see him.

Second, a manager must have a thorough knowledge of his employees, cultural backgrounds, personalities, education, job expectations, growth need and long term goals. Specific information such as employee "A" enjoys repetitious work, employee "B" prefers to be creative, and employee "C" desires to work alone can be invaluable when the manager is attempting to maximize both productivity and employee satisfaction.

The third area of consideration relates to the manager's in depth, understanding of the tasks being performed by his employees. It is not necessary that the manager be able to perform the tasks, but he must understand the type of skills, training and education required and the basic nature of the work, i.e., creative, repetitious, team oriented, etc. This information is necessary if the manager is to achieve the correct employee/job, job/goal, job/growth, and job/skills matches.

Fourth, the manager must diagnose the job environment of his employees and himself. Job environment is defined here to consist of the

organizational structure and its impact on daily operations, the influence of superiors on the behavior of the manager and the workers, the goals of functional groups and organizational atmosphere. In short, the manager must develop a _feel_ for the overall organization.

For example, consider the position of a middle echelon manager in an internal matrix organization (see Chapter II). The matrix structure requires that the manager report to the company/program manager and simultaneously interface with functional chiefs and other corporate level staff members. The manager must acquire an understanding of the expectations of all these individuals and groups and develop effective techniques to deal with them simultaneously. He must evaluate the influence that these groups and individuals can exercise and just as important, he must determine what goals they will use this influence to attain.

Specific criteria to be considered in the diagnosis of the employee's job environment would be Herzberg's hygiene factors. Utilization of these factors as an analysis checklist can provide the manager with a thorough and current knowledge of this area.

Fifth, the manager must acquire a thorough understanding of the organization's goals. These goals must be compatible with his personal goal and the goals of his work group, if he is to function effectively as a manager. This fifth point relates directly to the manager's responsibility of transforming organizational goals into employee goals to the greatest extent possible. The employee in a machine shop may not understand the company's need to develop a new product line, but he would relate to the manager's request that he cross-train on new shop equipment, which produces new product components, thereby providing the employee with job enrichment.

The <u>sixth</u> point relates to the theories of motivation. Since leadership may be viewed as the application of motivational theories, it stands to reason that the manager must first acquire an understanding of these theories.

The <u>seventh</u> point relates to the manager's understanding of his sources of power or authority over the various individuals he interfaces with in the job environment. These sources are:

a. Formal authority   - that received from official sources.

b. Reward Power   - power provided the manager by others because they value the rewards he is able to administer.

c. Punishment Power - opposite reward power.

d. Expert Power   - power provided the manager by others because of their respect for his expertise.

e. Personal Power   - power provided the manager by others because they identify with the manager's personality, position, or both.

In general, a manager's potential for success is increased as his formal authority base increases. (31-19) In contrast, his overall effectiveness potential increases if he tends to rely less on formal authority. Obviously, a specific mix of formal authority and the various power bases is optimal for each organizational contact. It is the manager's task to determine and utilize this correct mixture in each relationship.

In evaluating the authority or power which can be exercised, the manager must utilize the information obtained in step two, knowledge of his

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employees. Employees, or followers are vital, not only because they individually accept or reject the leader, but because as a group they actually determine the personal power he may have. (19-115)

The <u>eighth</u> and final area of consideration to be investigated before selecting a management style consists of the manager developing an understanding of one or more proven leadership models. These models will assist him in evaluation of his overall situation and thereby enable him to select a more effective management style.

<u>Leadership Style Selection Considerations</u>

The manager is now ready to evaluate the data in his leadership information base. The use of a proven, structured technique will greatly assist in conducting this evaluation. Two techniques will be discussed here. The first is the continuum of Leader Behavior Theory which was developed by Robert Tannenbaum and Warren H. Schmidt and the second is the Tri-Dimensional Leadership Effectiveness Model originally proposed by William J. Reddin and developed by Paul Hersey and Kenneth H. Blanchard. (19-83) (32) (33-8)

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Tannenbaum and Schmidt's Leadership Continuum

The Continuum of Leadership Behavior Theory can be used by the manager in developing a manager/employee relationship by assisting the manager in analyzing his own behavior. (32-4)
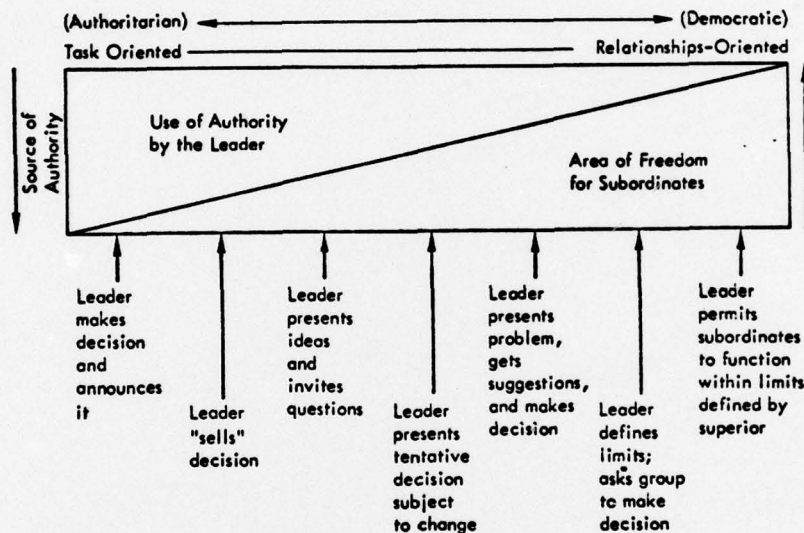

Figure 5. Continuum of leader behavior.

This leadership behavior model stresses two major implications. First, the successful leader is one who has a thorough knowledge of all three leadership elements, the follower, leader, and situation. He has therefore taken the time to develop a detailed and current leadership information base as previously described. In other words, he understands the situation, his strengths, and weaknesses in this situation, the readiness for growth of his subordinates and the implication of employing a given point in the

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leadership continuum. He must evaluate specifics for each case. For example:

- How strongly does the manager feel that subordinates should share in this decision?

- Can the employee in question handle this situation on his own?

- Can the manager function effectively in this case if the subordinate makes this decision?

- Does the subordinate desire the responsibility?

- Will the organizational structure accomodate the subordinate's efforts in this instance or will he be overpowered?

- How can the organizational/employee goals best be served?

- How much time is available to solve this problem?

- What special skills are required?

- What sources of authority and power are available?

Tannenbaum and Schmidt state that the above diagnosis is not enough. The successful leader is also able to behave appropriately in light of these perceptions. (32-10) If direction is in order, he directs, if employee participation is called for, he arranges this freedom.

In summary, the successful manager is one who maintains a high average of assessing and subsequently utilizing the appropriate leadership style or behavior. He has insight into the problem, the ability to act, and the flexibility to adapt to varying situations. Therefore, the continuum of leadership behavior theory says that there is no one best style for all circumstances, but that the combination of leader, follower, and situation determine the appropriate style. The manager must be able to adapt to the combinations of these three variables if he is to be truly effective.

Tri-Dimensional Leadership Model

The Tri-Dimensional Leadership Model is a composite of the two dimensional managerial grid and the third dimension of effectiveness (Figure 6).
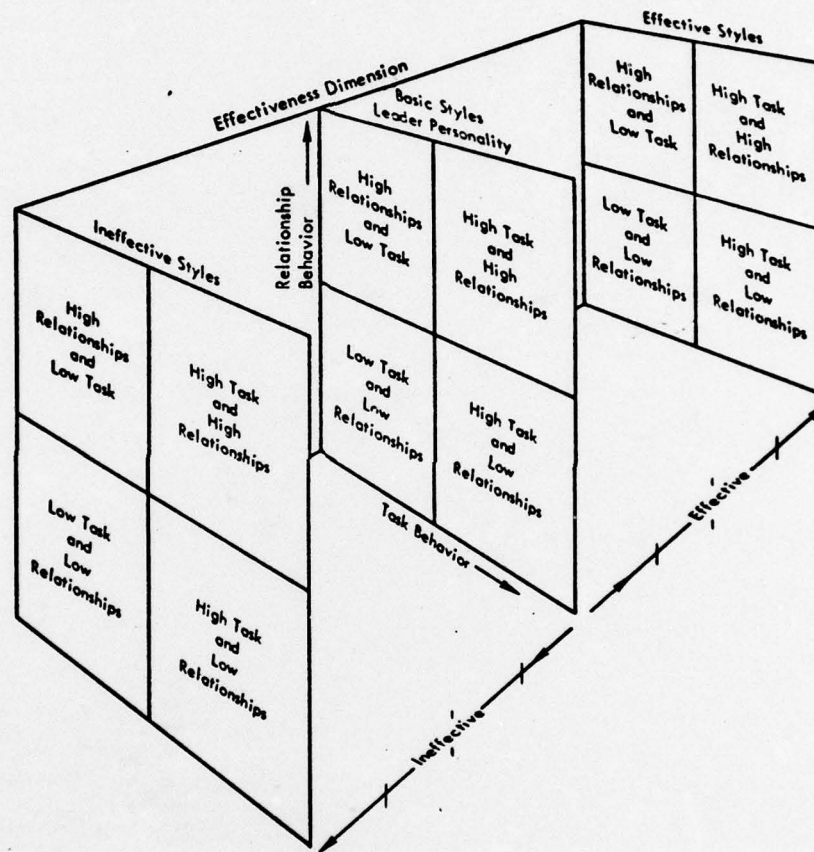

Figure 6.   The tri-dimensional leader effectiveness model.

The two dimensional grid developed from studies initiated by the Ohio State University faculty in 1945 and was developed into a popular management/ leadership theory by Robert R. Blake and Jane S. Mouton. (34)

The vertical dimension on the two dimensional Ohio State grid represents a measure of how the leader's interpersonal relations (relationship behavior) are perceived by his employees. This perception is measured via

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a Leader Behavior Description Questionnaire (LBDQ) which is completed by the employees. This dimension on Blake and Mouton's "Managerial Grid" represents the same interpersonal relationship but is evaluated by the manager himself, thereby making this value subjective but more easily obtainable.

The horizontal axis of the grid represents the manager's inherent concern for task completion (task behavior) or production. The value is once again determined by completing a prepared questionnaire.

The essence of this theory is again related to the three basic leadership elements; the leader, the follower, and the situation. The two dimensional grid permits the manager to evaluate his current or innate style of management and it provides him the opportunity to adopt a more suitable style as the conditions dictate. (33)

The third dimension, effectiveness, attempts to integrate the concepts of leader style with the situational demands of a specific environment. When the leader's style is appropriate to the situation, it is termed effective and when inappropriate, it is termed ineffective. (19-83) As can be seen, the third dimension of the model relates directly to the leadership element of situation, and stresses leadership adaptability as in the previously discussed continuum theory.

What then can this theory tell a manager about choosing a specific leadership style? Exactly this, do not choose one. For the manager working in a modern complex organizational structure the choice of one style would simply assure his effectiveness only where that style was appropriate. Consider a new project manager whose organization consists of the following groups.

Group A - Highly educated advanced product research
            team. Prefers to work at their own pace
            and basically needs little emotional support.

Group B - Skilled factory workers, desire job en-
            richment capability, production oriented,
            continually striving to meet production
            deadlines, benefits greatly from being
            congratulated and enjoys manager's high
            expectations.

Group C - Shipping department employees. An all
            union, close knit informal group. Their
            work is acceptable but basically they
            stay apart from the rest of the coworkers.

Let us also assume that the new manager has conducted a two dimensional

grid self-analysis and finds that he is basically high on relationship and

low on task behavior; a (1,9) manager according to the grid (see figure 6).

We can now examine our new manager's relationship with each group assuming

he uses the (1,9) leadership style on all groups.

Group A is opposed to a manager who is production or task completion

oriented and simultaneously needs very little emotional support in their

work. They are extremely independent and may work for years before achieving

a "success." They would find the new (1,9) manager somewhat repulsive in

that he is continually trying to bolster their ego when this is not necessary.

Group B, on the other hand, enjoys the (1,9) manager's continual com-

plements for getting the job completed on time. But, in reality Group B

dislikes the (1,9) manager because he doesn't share the need "as they see

it" to stick to the schedule. The new manager's goals and their goals are

not aligned and very likely production will soon start to slip.

Group C is not especially task oriented so they view the new manager

initially as acceptable. However, eventually he provides them with more

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relationship behavior than they were accustomed to experiencing. They have, in the past, formed a close knit informal group, being the only union group in the company, and have developed their own performance standards. (35-125) At first, they view the new manager as an outsider but, later they tend to accept him and enjoy his attempts to show his confidence in their abilities. Worker productivity is not affected in either direction.

From the examples provided, it is seen that the new manager was not effective in any of his initial group contacts because he tended to use the same, inappropriate style on each group.

It is apparent that the manager did not take the time to develop a Leadership Information Base and therefore does not understand the background, needs, and goals of the individual groups.

It should be emphasized, that the interchange of the new manager with the three groups could just as easily have been effective had the groups responded to a (1,9) personality. The conclusion then, as supported by the Three Dimension Grid, is that a given style of management (leadership) can be effective or ineffective and this is determined solely by the situation.

Summary

Emperical studies tend to show that there is no normative (best) style of leadership; successful leaders do adapt their leader behavior to meet the needs of the group and of the particular situation. Effectivenss depends upon the leader, the followers, and the situation. The leader/manager

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desiring to increase his success must give serious thought to these behavioral

and environmental considerations. (19-87) An effective technique which the

manager can utilize in keeping abreast of the situational variables is that

of developing a complete and current Leadership Information Base.

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STUDY PROJECT PLANNING FORM

PARTICIPANT: MAJ FRANK TUBBESING	ADVISOR: LTCOL FUJII	DATE: 17 September 1976

STUDY PROJECT TITLE: THE ROLE OF THE STRUCTURAL AND PSYCHOSOCIAL SUBSYSTEMS IN THE PROGRAM MANAGEMENT ORGANIZATION

OVERALL PURPOSE OF PROJECT: (What plan to learn and Why) Analyze types of organizational structures relative to their characteristic advantages and disadvantages. Investigate the psychosocial subsystem relative to leadership styles and motivational techniques.

SPECIFIC STUDY PROJECT GOALS: (to be achieved or questions to be answered)
1. When and why does a PM utilize a certain organizational structure.
2. What does the matrix structure offer and how can it be implemented.
3. Significance and Utilization of psychosocial subsystem factors.
4. Application psychosocial subsystem; motivation; leadership.

REPORT OPTION: FORMAL REPORT

STUDY METHODS TO BE USED AND DATA SOURCES:
I.   Study Methods - Literature Search, Interview, Reflection
II. Data Sources - DSMC Library
                     Fairfax County Library
                     6 1/2 years SPO experience
                     DSMC Course Material
                     DSMC Faculty

TENTATIVE OUTLINE OF PROJECT REPORT: (Be as specific as possible.)

I.   Introduction - Purpose, Goals, Definitions, Scope
II.   Background   - Management's purpose, subsystem definition, historic development. This subject incorporated into III.
III. Structural Subsystem - Definition, development, types, matrix, modification of matrix.
IV.   Psychosocial Factors - Background, motivation, leadership.

KEY MILESTONES: (Update as necessary.)

Week	Task
5	Submit SPPF.
8	Submit SPPF, Revision and rough of III.
10	Submit draft of IV.
14	Submit to typist

Progress review milestones: Weeks 8, 10, 11 . (Include schedule to typist.)

DEFENSE SYSTEMS MANAGEMENT COLLEGE

STUDY TITLE:
THE ROLE OF THE STRUCTURAL AND PSYCHOSOCIAL SUBSYSTEMS
IN THE PROGRAM MANAGEMENT STRUCTURE

STUDY PROJECT GOALS: The specific goals of this project were to investigate organizational structures and determine conditions under which various structures might be effectively employed. Specific emphasis was placed on the matrix structure concept and variations of this concept.

In addition, two elements of the organization's Psychosocial Subsystem, Motivation and Leadership, were researched. Specific emphasis was placed on the signifance these elements and implementation of various motivational and leadership theories.

STUDY REPORT ABSTRACT:

This report consists of an investigation of the management topics of organizational structure, worker motivation and group leadership. Background is provided which describes the basic significance of these topics in the management environment. In addition, the latest developments in these subject areas are discussed.

The report elaborates on the selection of an organizational structure and the tailoring of this structure to a specific program. Utilization of the matrix structure is emphasized due to its relatively recent incorporation into program management.

The analysis and selection of one of the motivational and leadership styles/ techniques is reviewed and applications/examples discussed.

KEY WORDS: Organization Concepts, Organizational Structure, Motivation, Leadership

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