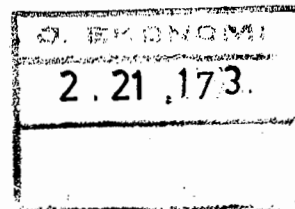


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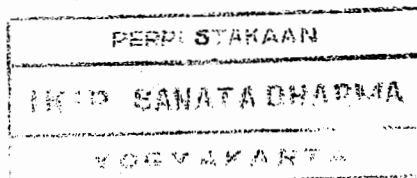
UNIVERSITAS INDONESIA

11344

**THE IDENTIFICATION OF POTENTIAL MIDDLE MANAGERS.  
A SYSTEMS APPROACH.**

DISERTASI :

UNTUK MEMPEROLEH GELAR DOCTOR DALAM ILMU  
PSIKOLOGI PADA UNIVERSITAS INDONESIA DI JAKARTA,  
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2.21.176

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Individual performance is a resultant of the continuous interactions of the individual with his physical as well as his social environment. The way he perceives and processes the stimuli from the environment determines the way he acts and reacts, determines his behavior and performance for which only he is responsible. The environment, especially the social environment, contributes significantly to his efforts in producing results.

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## I. INTRODUCTION

### 1. Background of the study :

#### 1.1. The industrial growth in Indonesia :

Indonesia, a predominantly agricultural country, is now moving towards industrialization. The government is stimulating and supporting the industrial growth.

In line with the Outline of State Policy (Garis-Garis Besar Haluan Negara) one of the longterm objectives is to bring about a fundamental change to the present structure of economic development so that there is a growing share of National production contributed by sources outside the agricultural sector and in which industry becomes the backbone of the economy.

Since the government issued the investment policies and laws in 1967 and 1968, a rapid industrial growth can be witnessed. The yearly significant increases of foreign as well as domestic investments, the significant increases of the number of new industries in various business sectors, and the growth rate of production are indicators of the rapidity of the industrial growth (REPELITA II, 1974/75 - 1978/79, Nugroho, 1972, Soeharto, 1976).

It is expected that the industrial sector will increase its contribution to the Indonesian Gross Domestic Product from 12.6% in 1973 to 24.4% in the year 2000 (Sumitro, 1975).

The industrial growth creates a significant demand for manpower, skilled and unskilled labor, administrative personnel and managers.

Although the supply of manpower is bigger than the demand, industries are still facing the problem to find the right people for employment, caused by the qualitative imbalance in the labor market. It is very difficult at the moment, to find the right technically skilled people and the right qualified managers (REPELITA II, p. 151).

#### 1.2. The need for managers.

Prior to 1942, upper and middle level management positions in wholesale trading, large-scale industries, government and plantations were held by the Dutch. Indonesians merely staffed the lower levels of management positions, owned and operated some small home industries.

After independence, Indonesians took over management positions in the government and industries. The large foreignowned enterprises began to hire more Indonesians for management positions. The need for Indonesian managers increased in the late 1950's and early 1960's when foreign-owned enterprises were nationalized.

Today there is a distinct demand in Indonesia for welltrained, capable managers. A foreign consultancy firm, Cresap, McCormick, and Paget (1971) estimated in their report that the number of managerial positions is expected to grow about 5 per cent per year during the 1970's.

The number of new managers required each year will increase to an average of 15,600. In addition approximately 7,000 persons will be needed annually to compensate for normal attrition of about 4 per cent among current managers, who are typically engaged in management positions for about 25 years.

### 1.3. The manager's role in an industrial society.

It is a recognized fact that managers play a crucial role in an industrial society. Megginson (1963, p. 97) pointed at the contribution of managers to the economic development of the United States by saying: "... it is becoming evident that one of the main reasons for this fantastic economic development has been the vitality, energy, and practical intelligence of the men who have managed American business."

The industrial growth contributes significantly to the economic developments and the civilization of a country. The industrial growth depends for a great deal upon the abilities and skills of the managers in managing their industrial corporations. Farmer and Richman (1965,p.1) state: "We view management as the single most critical social activity in connection with economic progress. Physical, financial, and manpower resources are by themselves but passive agents; they must be effectively combined and coordinated through sound, active management if a country is to experience a substantial level of economic growth and development. A country can have sizeable natural and manpower resources including plentiful skilled labor and substantial capital but still be relatively poor because very few competent managers are available to put these resources efficiently together in the production and distribution of useful goods and services."

## 2. Object and purpose of the study.

### 2.1. The middle manager

Middle management is a term that covers a variety of management positions between supervisors (lower management) and top management. The



middle management position is a position not belonging to the board of directors, reporting to a managing director or to a general manager, and is above the position of first line supervisors. Small organizations usually do not have any middle managers, but large organizations may have several layers of middle management.

As a consequence, a middle manager will have either a top manager or another middle manager from a higher level - in large organizations - as his superior. He will have one subordinate or more, but not in a large number. His subordinate is always a manager, either another middle manager from a lower level, or a supervisor (a manager from lower management positions).

The middle manager has been chosen as the object of this study because :

- a. the crucial and unique role of the middle manager. He has to translate objectives and policies coming from top management in operational terms, implements and supervises plans and decisions, compresses the data coming from lower levels of the organization and from outside the company in forms useful for upper level decision making, coordinates the available resources, sustains the effective functioning of the organization.
- b. the middle manager has the opportunity to be promoted to key positions and top management positions which have the responsibility in making crucial decisions concerning the adjustment and development of the business organization in the ambiguous and ever changing environment.
- c. there are only few companies in Indonesia who offer middle management positions to managers from the lower management positions. Indonesian companies generally use external recruitment for middle management

positions. Usually management candidates are hired for the lower middle management positions, such as section head or assistant manager.

## 2.2. The selection of middle managers.

The newspapers are frequently filled with advertisements of Indonesian, as well as foreign companies (operating in Indonesia) looking for candidates to hold their vacant middle management positions. Middle managers "ready for use" are very scarce. There is no school in Indonesia yet, educating professional managers for government and business. Companies still find it very difficult to find knowledgeable and experienced managers for the middle to upper management levels. With the government's Indonesianization program, the difficulties of finding good managers should become even more troublesome over the next few years.

Under these circumstances companies have to look for candidates with good potentials and management training programs for the new hires is a necessity.

Companies are generally looking for management candidates with university education (several years at the university, a Bachelor Degree, or a Master Degree). This is based on the assumption that people from the university have intelligence, a broad outlook, have been trained in logic and analytical thinking, an assumption that still needs to be proved.

There are two main methods or strategies used in Indonesia in the selection or identification of potential middle managers, the pure clinical, and the clinical composite method in the sense used by Campbell, Dunnette, Lawler, Weick (1970).

In the pure clinical method, management candidates are being assessed based on data collected through an interview or other behavior observations without using any objective information. The criteria to be used as the bases to decide whether to accept or to reject a management candidate are very vague and often not consistent, depending on the person who has to make the selection decisions.

In the clinical composite method data are collected through interview and objective instruments (such as aptitude tests). The data collected are interpreted and a personality description is made together with an estimation about the chances of success of the candidate on the job.

No significant research has been done in Indonesia to evaluate the effectiveness of those two selection methods.

From my observations and discussions with selection managers from different companies, foreign as well as domestic, it is apparent that there is a general dissatisfaction about the use of those selection methods and a mistrust towards the results of the selection. It should be added, that mistrust towards the results of the selection will be less when the clinical composite method is used. In other words there is a felt need to look for better selection or assessment methods to identify potential middle managers so badly needed by the companies.

Although there will always be a risk in hiring people, the risk in hiring middle managers should be kept to a minimum as far as possible. Decisions made by middle managers will have a great impact, either positively or negatively, on the further operations and development of the industrial organizations. One way to keep the risk in hiring candidates for middle

management positions small is to set up a sound strategy of assessment.

### 2.3. The purpose of the study.

Except for few small studies no comprehensive research on problems relating to the identification of potential managers has been done so far in Indonesia.

This fact has two main consequences, it determines the nature and the purpose of this study.

The literature will be studied. Theories and research results (including the few research results in Indonesia) relating to the assessment and identification of potential middle managers will be explored and analysed :

- a. to develop comprehensive research projects on the assessment of management candidates,
- b. to look for possibilities or alternatives in developing an appropriate strategy to identify management candidates with good potentials for middle management positions in companies operating in Indonesia.

### 3. Plant of the study.

Five management theories will be discussed shortly in the next chapter, the second chapter. Emphasis will be given to the systems approach to management. The systems approach views the industrial organization as an open socio-technical system, and considers all the primary subsystems and their interactions. Chapter II will provide general knowledge about management and serves as a general frame of the study.

The object of study in chapter III is the middle manager and his job. This chapter will be divided into two parts. The first part will discuss empirical studies about management jobs or positions, the second part will be devoted to a description of the middle management job using the systems approach.

Chapter IV will deal with managerial effectiveness. The concept of managerial effectiveness will be discussed, the difference between efficiency and effectiveness, the distinction of apparent, personnel and managerial effectiveness.

The main factors determining managerial effectiveness will be elaborated. Managerial effectiveness is viewed as the output of a management position.

Chapter III will focus on the middle management job as a dynamic entity interacting continuously with the other subsystems. Chapter IV will deal primarily with the output of the middle management job (managerial effectiveness), the criteria and the measures of output.

Managers should be leaders, but leaders need not be managers (Koontz & O'Donnell (1968)). Several leadership theories will be explored and analysed in Chapter V. Are there common personal attributes possessed by effective leaders in industry? What are the consequences of the theories and leadership studies to the identification of potential middle managers?

Chapter VI will deal with personal attributes required for effective managing. Personal attributes encompasses traits (intellectual, personality, attitudinal traits), knowledge, abilities and skills. On the basis of a description of a middlemanagement job a conceptual analysis will be

given about the possible personal attributes required for effective managing. Results of empirical studies about personal attributes will be discussed in another part of this chapter.

The objective of management assessment, the assessment tools, the problems of the validity of the tools using the conventional selection model, the assessment center method, and the role of the assessee or management candidate will be dealt with in chapter VII.

The last chapter, chapter VIII will discuss a selection model for Indonesia. On the basis of the analyses in the previous chapters a model for selection or assessment research will be presented. Apart from this the possibility to develop assessment centers for industries in Indonesia to identify and develop potential middle managers will be elaborated.

## II. MANAGEMENT

### 1. Introduction

Management is a new science with a long history. Koontz and O'Donnell (1968) quoted studies indicating the attention to, and recognizing the importance of management in ancient Egypt, China and Greece.

No doubt, managerial activities were executed in governmental institutions and industrial organizations since their existence. Management as science, however, was founded early at the beginning of the 20th century.

Why the delay ?

Of the several reasons mentioned by various management authors one seems to be the main reason. In the Middle Age business was held in low esteem, it was regarded as a degrading occupation (Koontz & O'Donnell, 1968; Kast & Rosenzweig, 1974). This unfavorable climate began to change in the 19th century. The Protestant ethic and the emerging spirit of capitalism contributed to the growing emphasis upon scientific investigation and technological applications in Western societies. At the beginning of the 20th century the climate was favorable for the development of management as science. After the civil war in the U.S. large scale industrial developments took place. The industrial revolution, with its emphasis on the technology of production, utilization of machinery, and the factory system, required the collective organization of men and resources.

After the work of Taylor and other members of the scientific management school, management became a subject of study to many scholars. After the Great Depression in 1929 and after the World War II, management theories developed like mushrooms.

In this chapter five management schools will be discussed in chronological order: the scientific management school; the administrative management theory; the human relations movement; the operation research or management science; and the systems approach to management. The last mentioned will be discussed more elaborately because much of this dissertation will be based on the systems concept.

In the second subchapter several definitions of management will be presented and one definition most valid for this study will be chosen.

The third subchapter deals with the clarification of the term organization and the interrelations to management.

The last subchapter attempts to clarify the use of the term manager in this study in relation with the terms entrepreneur, executive and leader.

## 2. The Management Schools

### 2.1. The Scientific Management :

Frederick W. Taylor (1856-1915) is recognized by most management scholars as the founder of scientific management. He began his career in the 1870s as an apprentice in a small machinery making shop in Philadelphia. As he later became a machinist foreman, the ambitious Taylor was anxious to see his men turn out as much production as possible, but he ~~knew~~ it would be difficult to arouse any enthusiasm among them. They had nothing to gain



if they worked harder, and it was common practice for them to do as little as they could and still get by. Having his superiors backing him up (at the Midvale Steel Company) Taylor attempted new work methods and introduced a new payment plan that he called "differential piecework".

The money unit paid for every piece of production above the standard performance is significantly higher than the money unit paid for every piece of production when the standard performance had been achieved.

On the other hand, when a worker did not reach the standard performance, he would be paid much less for every piece of product he turned in. In order to determine the standard performance Taylor made a series of studies of the motions used in performing the various operations and the time it took to perform each one. He was looking, scientifically, for the "One best way" of doing each task. Taylor had two basic thoughts:

1) work could be analyzed scientifically, 2) the workers could be motivated by greater economic reward. Evidences proved that workers could be motivated by factors other than economic. No man is entirely an economic man. He has other needs that may move him far more potently than the desire for money. One cannot expect the existence of a simple linear relationship between the motivation to work harder and the higher income. With the motion and time studies and the standardization of job performance, the workers felt that they were treated like machines and were required to operate according to mechanistic rather than humanistic principles.

Taylor made a major impact upon management practices, not only in the U.S. but in Europe as well. He and other followers of the scientific management school, like Gantt, the Gilbreths, Emerson spread their knowledge through countless speeches, articles and books, and imposed through various

research and implementation their scientific methods.

The main and often cited criticism to scientific management is that they looked at business organization from a highly mechanistic view and saw the worker as a rational profit-maximizing element of the system.

In spite of much opposition and criticisms scientific management developed further. Several other sciences had been born out of it: the industrial engineering and the operation research or management science.

The main contribution of Taylor and other members of scientific management as stated by Dale (1969), is the fact "that they have pointed the way to great increases in efficiency :

1. They focused attention on the need for a systematic study to discover better methods of performing work.
2. They were instrumental in introducing time study, which makes more accurate scheduling possible. If each job is timed, it is possible to predict when it will be completed and the next operation can be started; thus there will be fewer delays between operations because each shop will be ready to start its part of the work at the scheduled time." ( p. 145)

## 2.2. The Administrative Management Theory :

The founder of the administrative management theory or, as other authors call it, the traditional or classical theory of management, is Henry Fayol a French engineer and industrialist. From 1888 to 1918, he was working as chief executive at a large coal and steel combine. In this function, Fayol sought to develop principles for management,

and came to the conclusion that there was a single "administrative science" which principles could be used in all management situations no matter what type of organization was being managed. He published his book "Administration industrielle et Generale" in 1916.

Fayol studied the industrial organization as a whole entity and the administration processes. He found that all activities of industrial undertaking could be divided into six groups: (1) Technical (production); (2) Commercial (buying, selling, and exchange); (3) Financial (search for, and optimum use of, capital); (4) Security (protection of property and persons); (5) Accounting (including statistics); and (6) Managerial (planning, organization, command, coordination, and control). Most of his book is devoted to an analysis of the managerial activities.

Focusing on the organization, Fayol constructed his fourteen general principles. The following is quoted from Kast & Rosenzweig (1974, pp. 58 - 59) :

- " 1. Division of work. The principle of specialization of labor in order to concentrate activities for more efficiency.
2. Authority and Responsibility. Authority is the right to give orders and power to expect obedience.
3. Discipline. Discipline is absolutely essential for the smooth running of business, and without discipline no enterprise could prosper.
4. Unity of command. An employee should receive orders from one superior only.
5. Unity of Direction. One head and one plan for a group of activities having the same objectives.

6. Subordination of individual to general interests. The interests of one employee or a group should not prevail over that of the organization.
7. Remuneration. Compensation should be fair and, as far as possible, afford satisfaction both to personnel and firm.
8. Centralization. Centralization is essential to the organization and is a natural consequence of organizing.
9. Scalar chain. The scalar chain is the chain of superiors ranging from the ultimate authority to the lowest rank.
10. Order. The organization should provide an orderly place for every individual. A place for everyone and everyone in his place.
11. Equity. Equity and a sense of justice pervades the organization.
12. Stability of tenure of Personnel. Time is needed for the employee to adapt to his work and to perform it effectively.
13. Initiative. At all levels of the organizational ladder zeal and energy are augmented by initiative.
14. Esprit de corps. This principle emphasizes the need for teamwork and the maintenance of interpersonal relationships."

The above stated principles provoked supporting and controversial thoughts, and can, as such, be viewed as an fertile foundation for the further developments in management and organization theories.

The fourteen principles serve as basic thoughts in organizing business. Many of them, e.g. the unity of direction, unity of command, the scalar principle the departmentalization are currently still being applied in the design of many organizations.

Another contribution to the development of management theory is the

emphasis on management as a distinct field which should be observed, studied and improved.

Scientific management (Taylor et al.) was concerned with optimizing effort at the shop or operative level. Koontz and O'Donnell speak of shopmanagement (1968, p.21). It was thus a micro approach. Fayol used the macro approach. He puts more stress on the integrative functioning of the whole organization. He focussed on formal organization structure and the delineation of the basic processes of general management.

Kast & Rosenzweig (1974, pp.59-60) mentioned a number of other writers like Luther Gulick and Lyndall Urwick, who carried on Fayol's work in the development of principles based upon wide experience in industry and government.

One major criticism to this school mentioned by Kast & Rosenzweig (1974, 61) is their rigid approach to organization and their little recognition of human factors.

### 2.3. The Human Relations Movement :

Based upon the scientific management tradition, experiments were conducted at the Hawthorne Plant of the Western Electric Company. The impact of working conditions, such as the intensity of illumination, on productivity were studied. Although good research methods were used, including control groups, the experiment failed to show any simple relationship between intensity of illumination and rate of output. The experiments suggested that variables other than physical conditions might be affecting output. Elton Mayo and his Harvard colleagues, F.J. Roethlisberger and T.N. Whitehead, were called in by

the company to help establish more rigid controls for experimental purposes and to isolate these intervening variables. The basic studies of Mayo and his group took place over a five year period.

A series of studies were conducted to determine the effects on output of working conditions, length of working day, frequency and length of rest periods, and other factors relating to the physical environment. It was found that regardless of variations in these conditions, production increased. Even more astonishing, production remained high even after the experimental group (six girls) were returned to the original conditions. The girls themselves had no clear explanation of why they worked so much faster than they had at first. They were not conscious of any speed up. On the contrary, they "felt they were under less ~~pressure~~" than before and attributed much of their increase in output to the fact that there was "no boss or slavedriving". Mayo and his group hypothesized that the increased production was a result of changed social situations of the workers, modification in their motivation and satisfactions, and differing patterns of supervision.

The results of the studies at the Hawthorne Plant are marked as the birth of the human relations movement. Many other behavioral scientists, sociologists and psychologists became interested in the field and made their studies.

Koontz & O'Donnell (1968) mentioned sociologists as Weber, Bakke, Selznick, Homans, Dubin and Dalton, who contributed much to the understanding of the anatomy of organizations through their work on groups, cultural patterns, group cohesiveness, and cooperation. Psychologists as McGregor, Likert, Argyris, March and Simon, Leavitt, Blake, Sayles, Tannenbaum and his

associates, and Bennis, have contributed to management understanding through their illumination of the aspects of rational behavior and influence, the sources of motivation, and the nature of leadership. Kast & Rosenzweig (1974) mentioned two primary orientations of the "early human relationists". The first was industrial humanism. "Mayo emphasized the necessity for re-evaluating the traditional hypothesis of economic theory which considered society to be made up of individuals who were trying to maximize selft interest. He called for modifications in the industrial system to give greater recognition to human values" (p. 81).

The second major orientation was the utilization of the research methods of behavioral science in studying organizational behavior. The Hawthorne studies set the foundations for later investigations.

#### 2.4. The Operation Research or Management Science :

At the end of World War II another school began to develop. Koontz & O'Donnell (1974) spoke of the mathematical school, Kast and Rosenzweig (1974) tended to call this school of thought management science. They did not see any differences between operation research and management science. They cited Simon who summarizes his views as to the relationships between scientific management, operations research, and management science as follows :

"Except in matters of degree (e.g. the operations researchers tend to use rather high-powered mathematics) it is not clear that operations research embodies any philosophy different from that of scientific management. Charles Babbage and Frederick Taylor will have to be made,

retroactively, charter members of the operations research societies .....  
No meaningful line can be drawn any more to demarcate operations research  
from scientific management or scientific management from management  
science." (p. 88-89)

This school can be viewed as a descendant of the scientific management  
movement with the addition of more sophisticated (primarily mathematical)  
methods, computer technology, and an orientation toward other problems.  
The belief of this group is that, if management or organization or planning  
or decision making is a logical process it can be expressed in mathematical  
symbols and relationships. The focus of this school is the model, for  
through this device the problem is expressed in its basic relationships and  
in terms of selected goals.

Kast & Rosenzweig (1974) stated nine key concepts which permeate the field  
of operation research or management science :

- " 1. Emphasis upon scientific method.
2. Systematic approach to problem solving.
3. Mathematical model building.
4. Quantification and utilization of mathematical and statistical  
procedures.
5. Concern with economic technical rather than psychosocial aspects.
6. Utilization of electronic computers as tools.
7. Emphasis on total systems approach.
8. Seeking optimal decisions under closed-system assumptions.
9. Orientation to normative rather than descriptive models." (p. 89)

The actuarial emphasis, the ignorance of social and psychological  
aspects, and the use of closed-systems assumptions are the main critics  
to this school of thought.



## 2.5. The systems approach to management :

At present, in many countries all over the world, management is the catchword. Management became the focus of attention of many behavioral scientists; its importance has been recognized. Management studies and management literature increased by the day. Studying the literature, however, we will find such a diversity of views that it will confuse us. Taylor's scientific management has developed into several directions, to industrial engineering - with the focus on work efficiency and effectiveness - and to management science - where scientific methods are adapted as a framework for problem solving with emphasis on objective rather than on subjective judgment.

The behavioral scientists after the human relations movements have done much to modify traditional organization theory and management practice. Kast & Rosenzweig (1974) mentioned the following diversity of organization and management theories :

"As many more disciplines have become interested in organization and management, researchers have brought into consideration their own traditional preoccupation with certain selective subject matters.

Instead of developing a more simplified, less complex organization theory, the tendency has been in quite the opposite direction - toward greater complexity and consideration of more variables. The development of a "general theory" is becoming even more difficult." (p. 94)

Nevertheless, there is an attempt made by several scholars to develop the above mentioned general theory. They see that the probable answer lies in the general systems theory, because it provides a basis for understanding and integrating knowledge from a wide variety of highly specialized fields.

Kast & Rosenzweig in their attempt to contribute to the "general theory" present their contingency view as follows :

" The contingency view depends on a body of knowledge and research endeavors that focus on interrelationships among key variables and subsystems in organizations. It also emphasizes the role of the manager as a diagnostician, pragmatist, and artist. In terms of the model set forth above we can say that:

The contingency view of organizations and their management suggests that an organization is a system composed of subsystems and delineated by identifiable boundaries from its environmental suprasystem. The contingency view seeks to understand the interrelationships within and among subsystems as well as between the organization and its environment and to define patterns of relationships or configurations of variables. It emphasizes the multivariate nature of organizations and attempts to understand how organizations operate under varying conditions and in specific circumstances. Contingency views are ultimately directed toward suggesting organizational designs and managerial actions most appropriate for specific situations.

The essence of this view is that there is no one best way and that there is middleground between "universal principles" and "it all depends". This approach recognizes the complexity involved in managing modern organizations but uses patterns of relationships and/or configurations of subsystems in order to facilitate improved practice." (p. 21)

What is a system ?

A system is "an organized, unitary whole composed of two or more interdependent parts, components, or subsystems and delineated by identifiable boundaries from its environmental supra system" (Kast & Rosenzweig, 1974, p. 101)

It can be concluded from the above definition, that the term system covers a broad spectrum of our physical, biological and social world. Everything that functions as a whole, having interdependent parts and having identifiable boundaries is a system.

The industrial organization is an open, sociotechnical system, composed

of a number of subsystems, that receives inputs of energy, information, and materials from the environment, transforms these, and turns output to the environment.

Systems can be distinguished into closed and open systems. A closed system has no interaction with any element not contained within it; it is completely self contained (Ackoff, 1971). An open system is in continual interaction with its environment and receives various inputs, transform these in some way and exports outputs. The closed system has rigid, impenetrable boundaries, whereas the open system has penetrable boundaries between itself and a broader supersystem. All social organizations are open systems. In a social organization, the boundaries are not easily definable and determined primarily by the functions and activities of the organization. It is characterized by rather vaguely formed, highly permeable boundaries. Kast & Rosenzweig (1974) and Kats & Kahn (in Emery, 1969) mentioned also other characteristics of open systems :

- a) Negative entropy. Closed physical systems are subject to the force of entropy which increases until eventually the entire system stops. In open systems, entropy can be arrested and may even be transformed to negative entropy. This is possible because in open systems the resources utilized to arrest the entropy process are imported from the external environment.
- b) Dynamic equilibrium or steady state. The steady state for the open system occurs while the system can still maintain its functions and perform effectively. This concept is closely related to that of negative entropy. Under this concepts an organization is able to

adapt to change in its environment and to maintain a continual steady state. It is not an absolute steady state but rather a dynamic or moving equilibrium, one of continual adjustment to environmental and internal forces.

- c) Feedback Mechanism. The dynamic equilibrium can be achieved by the feedback mechanism. Through the process of feedback, the system continually receives information from its environment which helps it adjust.
- d) Growth through internal Elaboration. Open systems appear to move in the direction of greater differentiation and a higher level of organization. Social organization will often try to encompass within their boundaries additional activities in order to limit uncertainties and to ensure their survival.
- e) Equifinality. The concept of equifinality says that final results may be achieved with different initial conditions and in different ways. This view suggests that the social organization can accomplish its objectives with varying inputs and with varying internal activities. Consequences of this concept to management is that the manager can utilize a varying bundle of inputs into the organization, can transform these in a variety of ways, and can achieve satisfactory outputs. The management function is not necessarily one of seeking a rigid optimal solution but rather one of having available a variety of satisfactory alternatives.

The industrial organization is a socio-technical system, it is neither a social nor a technical system only. There is a close interaction between the two systems. In fact, Van Beinum et al. (1971) state:

"Het is een soort inter-relatie tussen deze twee systemen die bepalend is voor de effectiviteit van het bedrijf." (p. 6)

The industrial organization is a hierarchical system, it is composed of subsystems of lower order and is also part of a supra system. Large organizations are almost universally hierarchical in structure. People are organized into groups; groups are organized into departments; departments are organized into divisions; divisions are organized into companies; and companies are part of an industry and economy.

The industrial organizations as social organizations are contrived (Kast & Rosenzweig, 1974). They are not natural like mechanical or biological systems. They have structure, but it is a structure of events rather than of physical components, and it cannot be separated from the processes of the system. The fact that social organizations are contrived by human beings suggests that they can be established for an infinite variety of objectives.

By viewing the industrial organization as a system, attention could be given to the dynamics of the whole. The scientific management and management science emphasized the technical subsystems; the traditional management emphasized the structural organization and managerial subsystems; the behavioral scientists were more emphasizing the psychosocial subsystem. Thus each approach to organization and management has tended to emphasize particular subsystems, with little recognition of the importance of the others. The systems approach views the organization as an open, socio-technical system and considers all the primary subsystems and their interactions (Kast & Rosenzweig, 1974).

### 3. The concept of management.

One might say that there are as many definitions of management as there are management theories. Each theory is putting those elements in the definition as they view is appropriate and congruent to their theory. Another look at the various definitions, gave us another scale running through the definitions indicating the degree of generality and comprehensiveness.

Several definitions will be dealt with and at the end the concept of management as a system will be formulated.

The most frequently quoted definition of management is: "Management is getting things done through other people." The general characteristics of the definition give way to various (mis) interpretations. One could get the impression that the manager does not have to work, because others will get things done for him. According to Dale (1969) this wrong impression is elicited by putting the stress on the last part of the definition (through other people). If emphasis is laid on the first part (getting things done) then the definition will evoke another meaning. Dale quoted James L. Hayes, Dean of a school of Business Administration of Duquesne University who once observed:

"The man who is new at management hears it (the definition) this way: "Management is getting things done through other people". Now at last I have a kingdom and someone work for me ... Then he can sweep down to his subordinate all the nasty jobs he never has wanted to do ...

However, he later reaches the point of maturity when he hears the definition with a little different emphasis "Management is getting things done through other people". It is when he gets the sense of responsibility for accomplishment that he is a manager."

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Thus the manager should know what things should get done, how it should be done, and he should be able to get people to do what he likes them to do.

Because of the generality of the definition other meanings can be put into it and explained. To the idea that management is decision making, Dale argues that the definition given earlier also implies decision making. In getting things done through other people, the manager must decide first that he wants the people to do, then he must decide who can best do each part of the job and how he can ensure that each person does a good job.

Another definition, slightly more specific, is given by Hersey and Blanchard (1972). They define management as "working with and through individuals and groups to accomplish organizational goals." (p. 3)

Two new aspects can be found in this definition. The "getting things done" is changed to "to accomplish organizational goals." "The task of the manager is to get his men, for whom he is responsible, to work for the accomplishment of the organizational goals, not for individual or personal goals.

The other aspect is that "people" is differentiated into individuals and groups. The manager not only has to motivate individuals but he has to motivate the group of individuals as group. He is not only working toward the achievement of the organization goals through the efforts of his subordinates but by working together with them.

The definition given by Koontz & O'Donnell (1968) reflects the process of management. They speak of managing as "the design or creation and maintenance of an internal environment in an enterprise where

individuals, working together in groups, can perform efficiently and effectively toward the attainment of group goals. "Essentially, managing is the art of doing and management is the body of organized knowledge which underlies the art." (p. 1)

They argue that having a good command of management (the knowledge) is no guarantee for good managing, it gives the manager a sound readiness in doing his task. They say: "The most productive art is always based on an understanding of the science underlying it. Thus science and art are not mutually exclusive but are complementary. As science improves, so should art, as is the case in the physical and biological sciences. The physician without a knowledge of science becomes a witchdoctor; with science, an artful surgeon. The executive attempting to manage without a theory and knowledge structured by it must trust to luck, intuition, or what he did in the past; with organized knowledge he has a far better opportunity to design a workable and sound solution to a managerial problem. However, mere knowledge of principles or theory will not assure successful practice because one must know how to use them." (p. 8)

This comprehensive definition of management suggests several points:

- a. Management is a science (a body of knowledge), necessary for managers, but it is no guarantee for success.
- b. Several management functions can be derived; planning, organizing, directing, controlling.
- c. The business should not be seen as a static unity but as a dynamic whole. The manager should create and maintain an internal environment, where people can work effectively and efficiently in attaining the group goals.



The following concept of management represents the contingency view, the systems approach to management, which I support, is expressed by Kast & Rosenzweig (1974). They see the industrial organization as a system and management as a subsystem of this organization. The organization consists of five subsystems :

- a. The goals and values subsystem. The organization takes many of its value from the broader socio-cultural environment. A basic premise is that the organization as a subsystem of the society must accomplish certain goals which are determined by the broader system. The organization performs a function for society, and if it is to be successful in receiving inputs, it must conform to social requirements.
- b. The technical subsystem. This subsystem refers to the knowledge required for the performance of tasks, including the techniques used in the task requirements of the organization and varies depending upon the particular activities. It is shaped by the specialization of knowledge and skills required, the types of machinery and equipment involved, and the layout facilities. The technology affects the organization's structure as well as its psychosocial subsystem.
- c. The psychosocial subsystem. This subsystem is composed of individuals and groups in interaction. It consists of individual behavior and motivation, status and role relationships, values, attitudes, expectations and aspirations of the people in the organization.  
Obviously, this psychosocial subsystem is affected by external environmental forces as well as by the tasks, technology and structure of the internal organization. These forces set the "organization climate" within which the human participants perform their roles and activities.

- d. The structural subsystem. This subsystem involves the ways in which the tasks of the organization are divided (differentiation) and coordinated (integration). In the formal sense structure is set forth by the organization charts, by position and job descriptions, and by rules and procedures. It is also concerned with patterns of authority, communication, and workflow. The organization's structure provides for formalization of relationships between the technical and the psychosocial subsystems. However, it should be emphasized that this linkage is by no means complete and that many interactions and relationships occur between the technical and psychosocial subsystems which bypass the formal structure.
- e. The managerial subsystem. This subsystem spans the entire organization to its environment, setting the goals, developing comprehensive, strategic, and operational plans, designing the structure, and establishing control processes. The managerial subsystem is the means of linking other primary subsystems of the organizations. Its primary role is that of integrating activities toward the achievement of explicit or implicit goals.

#### 4. Management and Organization.

As is the case with management, we find many different definitions about organization. It is, like other terms in behavioral sciences, difficult to describe exactly the word organization. Porter, Lawler, and Hackman (1975) quoted March and Simon, who state that "it is easier, and probably more useful, to give examples of formal organizations than to define the term". However, they quoted another organizational

analyst, Waldo, who notes that "(he) who has not tried his hand at framing a one-sentence (or even one-paragraph) definition of organization has denied himself an educational experience of high value". They did not come out with a definition of organization, instead, they have studied a representative sample of some of the more widely cited definitions, and made a summary set containing the five major features :

"Organizations are :

1. Who : composed of individuals and groups.
2. Why : in order to achieve certain goals and objectives.
3. & 4. : How: by means of differentiated functions that are intended to be rationally coordinated and directed.
5. When : through time on a continuing basis." (p. 69)

Organization is the result of organizing, a function of management. It is a structured situation where people can work together for the achievement of the organizational goals. This structured situation is a product of the manager who performs the management function: organizing.

As organizations grow more complex, a vertical as well as a horizontal differentiation takes place. The necessity for differentiation of activities is inherent in organizations. Differentiation of functions along the horizontal dimension of the organization refers to the division of activities among individuals and groups all of whom occupy the same (or roughly the same) authority and responsibility level (Kast & Rosenzweig, 1974). This "division of labor" occurs in all types of organizations and at all levels within the organizations. There are three primary bases for departmentalization:

(1) function; (2) product; (3) location.

In large complex organizations a combination of these bases will be found in the departmentalization.

In the horizontal differentiation on the basis of function five groups of activities can be classified:

- a. Manufacturing and engineering activities.
- b. Marketing including selling activities.
- c. Financial activities.
- d. Industrial relations activities (including personnel).
- e. Office work activities.

At the lower levels of the organizational hierarchy those groups of activities can be distinguished sharply. The higher the level in the organization the more difficult to differentiate the position based on the classes of activities or on the functions.

The vertical division of labor establishes the hierarchy and the number of levels in the organization. In the formal business organization this hierarchy sets the basic communications and authority structure ("chain of command"). The vertical differentiation is based upon the degree of authority and responsibility. Porter, Lawler, and Hackman (1975) state: "We are dealing with differences along such dimensions as the amount of authority or power an individual has to influence organizational actions, and the number of individuals he supervises or manages. In other words vertical differentiation occurs with respect to the breadth of domain of a job, with higher positions involving greater breadth.." (p. 90)

We can distinguish four levels in the hierarchy of an organization, one non-managerial and three managerial levels :

- (1) Top management level.
- (2) Middle management level.
- (3) Lower management level.
- (4) Operating or productive level.

Each level can consist of more than one sublevel. The operating or productive level is concerned with the carrying out of specific task activities. On this level the output is the product(s) of the industrial organization. Porter, Lawler and Hackman called this level the rank-and-file positions. The lower management level is still a great deal involved with the production process. It is concerned with implementing the decisions and coordinating the work of the employees and workers on the operating level. The middle management level is concerned with the implementation of the decisions, setting unit objectives and coordinating the work in the levels below. This level, depending on the "tallness" of the organization, can consist of many sublevels, more than the sublevels in any of the other three levels. The top management level is concerned with the overall business goal formation and policy decisions.

Kast & Rosenzweig (1974) differentiate three levels of managerial tasks: the strategic-, coordinative- and the operating-level. The strategic level corresponds with the top management level, the coordinative level corresponds with the middle and lower management levels and the operating level is corresponding with the operative or production level.

Mesarovic quoted by Klabbers (1975) distinguishes three strata in every complex social system: the causal stratum, the decision making stratum, and the norm stratum. We can consider the decision making stratum as the managerial subsystem. He describes the decision making stratum as the stratum defining the purposes of the causal stratum, and

describing the way the system responds to a changing environment in order to keep its goals. Klabbers further distinguishes several layers in the decision making stratum: a goal-, a policy-, a strategy-, and/or an implementation layer. The higher levels in the hierarchy deal with global and long term decisions, while the lower levels deal with more specific and short term decisions.

I will deal more elaborately with the hierarchical levels of the organization in the chapter about the job of the middle manager.

#### 5. Notes on the term: manager.

Some recurring questions such as the distinction between manager and the executive, manager and the entrepreneur, manager and the leader, will be dealt with shortly in this subchapter.

From what is mentioned in the previous subchapters we can say that a manager gets things done by working with human (individuals and group of individuals) and physical resources to attain the objectives of the system. He coordinates and integrates the activities and work of others. To accomplish his task, the manager should be analytical while recognizing relationships and the need to synthesize. Managers are needed to improve the organization of resources of men, machines, material, money, time, and space into a more useful and effective enterprise.

##### 5.1. The manager and the entrepreneur :

The term entrepreneur is often used to :

- a. describe a person who starts his own enterprise, the one who leads his own business or businesses,

b. reflect a certain type of management behavior.

Dale (1969) describes the entrepreneur as someone who starts a business of one's own and rises with it. In this sense the entrepreneur can be compared with the top manager, with the distinction that the entrepreneur has never a superior or a board above him to whom he is responsible, to whom he should report.

Luthans (1973) states the use of the term entrepreneur to describe models for management behavior especially in the decision making behavior. He cited the use of the term entrepreneur in the classical economic theory, as a synonym of the economic man; the use of the term the new entrepreneur by Mills to describe a manager representative of the opposite view of the classical economic man.

The term entrepreneur is used here typologically, it describes a certain kind or type of manager.

This study will not make this distinction.

#### 5.2. The manager and the executive :

This discussion will be very short. We find the use of the term executive as a synonym of manager. There is no distinction between the two. There is a trend to use executive to indicate the middle managers, and to refer to persons at the top positions as top executives. To prevent confusion, I will not use the term executive in this study.

#### 5.3. The manager and the leader :

Management is often confused with leadership. Most of the management authors agree that there is a difference between the two. However, there

seems not to be an agreement about what the differences are.

Hersey & Blanchard state that: "In essence leadership is a broader concept than management" (1972, p. 4). They see the difference between the two in the word "organization". In management organizational goals have to be accomplished, while in leadership, the goals to be attained do not necessarily have to be the organizational goals.

The different concepts of management and leadership by the different authors explains the disagreement about the distinction between management and leadership. I will discuss this in more detail in the chapter about leadership. I limit myself in this subchapter to supporting the view of several authors that management is considered to be a more broadly based function including activities other than leading.

In this connection Davis (1967) mentions: "Leadership is part of management, but not all of it. A manager is required to plan and organize, for example, but all we ask of the leader is that he gets others to follow."

Koontz & O'Donnell (1968) have the same view. Leadership is not merely a synonym of management. Leadership, as well as authority, is essential to managers. Managers should be leaders, but leaders need not be managers.



### III. THE MIDDLE MANAGER AND HIS JOB

#### 1. Introduction.

The industrial organization is an open socio technical system, composed of five subsystems: the goals and values, the technical, the psychosocial, the structural, and the managerial subsystem.

The managerial subsystem is the link between the industrial organization system and its environment. Through the managerial subsystem various adjustments and progress can be accomplished. Internally the main role of the managerial subsystem is coordinating and integrating the activities of the other subsystems in the achievement of the organizational goals.

Within the managerial subsystem, the levels of management can be distinguished: the top, middle and lower management level.

In literature on management we find elaborate descriptions of management functions. Fayol (in Dale, 1969, p. 168) mentioned planning, organizing, commanding, coordinating and controlling as the functions of management. Many authors introduce new functions, and others modify the functions. Dale (1969) suggests planning, organizing, staffing, directing, controlling, innovation, and representation as the primary functions of management. Koontz & O'Donnell (1968) agree with only the first five functions mentioned by Dale. There is no unanimous agreement among the authors on management about the primary functions of the manager.

One study is worth mentioning in this connection. Mintzberg (1975) studied five American Chief Executive Officers (CEO) of middle to large sized organizations, using what he called the "structural observation method". He wants to get away from Fayol's work and provides a new approach to describe managerial work.

He defines the manager as "the person in charge of an organization or one of its subunits" (p. 54). The manager receives formal authority and status and in performing his job he plays various roles - "organized sets of behaviors identified with a position" (p. 54). Mintzberg distinguishes ten roles classified as follows :

- a. interpersonal roles (Figure head, Leader, Liaison),
- b. informational roles (Monitor, Disseminator, Spokesman),
- c. decision roles (Entrepreneur, Disturbance Handler, Resource-allocator, Negotiator).

In explaining the roles, descriptions of various managerial functions can be recognized.

The ten roles form a "gestalt", they are inseparable. Every manager has to play the ten roles. They vary, however, in their times spent to each role according to their management jobs.

Aside from the small sample, it is a start to search for common dimensions in management jobs in order to make a comparative analysis.

Other studies have been done in this respect and three of them will be discussed in detail in the first subchapter. The results of the studies show the variety of middle management jobs, the differences between the management levels, and the possibilities to classify the management jobs into several job families.

In the second subchapter the middle management job will be described based on the systems approach :

- a) The impact of the supra system on the middle management job,
- b) The interrelations of the middle management job with other management jobs and
- c) The kind of inputs, activities, and output.

The description forms a general framework for all middle management positions, showing the dimensions in which they could differ from each other.

## 2. Differences between management position levels and functional areas.

Many studies have been made to analyse the managerial jobs. It is difficult to describe managerial jobs because they change from one setting to another. They are subject to time-, person-, and situation-determined changes (Campbell, Dunnette, Lawler, Weich, 1970, p. 71). A comprehensive summary of the studies of the managerial job has been written by Campbell et al. (1970, pp. 71 - 100). Three studies will be dealt with in this subchapter :

- Flanagan's study
- Hemphill's 10 dimensions
- Stewart's study

2.1. Flanagan's study (1951) shows that there is a different pattern of concern between management levels. In this study Flanagan used the critical incident technique to study the managerial job. This technique has apparently the same basic concept of Taylor's "exceptions principle"

(Dale 1969, p. 138) "the theory that in order to avoid getting emmeshed in too many details, the manager should concentrate on cases in which results are especially good or especially bad, since study of these cases will suggest possibilities for improvement". Flanagan (1951, p.29) states that the "critical incidents are reported by qualified observers of things people did which were especially effective or ineffective in accomplishing important parts of their job". Such incidents are actual behavioral accounts, recorded as stories and anecdotes and obtained from managers, job incumbents, and others close to the jobs being studied. The job behavior samples obtained by this technique are the critical job requirements.

Flanagan defines the critical job requirements as those behaviors that are critical in making a difference between doing the job effectively and doing it ineffectively. After a collection of nearly three thousand incidents from Air Force officer-executives, he abstracted and categorised them to form a composite picture of job essentials.

Listed below are the main classes of categories for all Air Force officers and for the colonels and generals.

The table III-1 shows the differences in the frequency of the reported incidents between the senior grade (colonels and generals) officers and the junior grade officers (about 86% of the whole officers group are junior officers).

Remarkable is the difference in frequency on the "Acceptance of Personal Responsibility" (35,5% vs. 11,7%). The points which are frequently observed in this class of categories for the junior grade officers

TABLE III-1

Relative frequency in per cents of incidents reported for each item on the Check List of Critical Requirements for Officer Evaluation, comparing incidents reported concerning Colonels and Generals with those reported for all officers.

<u>Item</u>	Per Cent for All Officers (N=2,907)	Per Cent for Col. and Gen. (N=412)
I. Proficiency in Handling Administrative Details	6.9	3.6
1. Understanding Instructions .....	0.2	0.0
2. Scheduling Work .....	0.3	0.2
3. Getting Information from Records .....	0.1	0.0
4. Getting Ideas from Others .....	0.1	0.0
5. Checking Accuracy of Work .....	0.9	0.5
6. Writing Letters and Reports .....	0.8	0.5
7. Getting Cooperation .....	2.0	1.5
8. Presenting Finished Work .....	0.5	0.2
9. Keeping Records .....	1.1	0.2
10. Keeping Others Informed .....	0.5	0.2
11. Rendering Effectiveness Reports .....	0.1	0.2
II. Proficiency in Supervising Personnel .....	13.6	29.6
12. Matching Personnel and Jobs .....	1.0	0.7
13. Delegating Authority .....	2.0	4.1
14. Giving Orders and Instructions .....	1.9	2.9
15. Insuring Comprehension .....	0.2	0.2
16. Giving Reasons and Explanations .....	0.6	1.2
17. Supporting Authorized Actions .....	0.6	2.2
18. Encouraging Ideas .....	0.3	0.7
19. Developing Team Work .....	1.3	4.4
20. Setting a Good Example .....	1.8	4.1
21. Assisting Subordinates in their Work .....	0.6	1.7
22. Evaluating Subordinates' Work .....	0.6	2.2
23. Looking out for Subordinates' Welfare .....	2.0	4.9
24. Maintaining Relations with Subordinates ...	0.6	0.2

<u>Item</u>	<u>Per Cent for All Officers (N=2,907)</u>	<u>Per Cent for Col. and Gen. (N=412)</u>
III. Proficiency in Planning and Directing Action ...	16.8	39.8
25. Taking Responsibility .....	2.3	3.4
26. Solving Problems .....	2.6	4.6
27. Making Use of Experience .....	1.9	8.3
28. Long-range Planning .....	1.5	5.1
29. Taking Prompt Action .....	1.0	2.9
30. Suspending Judgment .....	0.7	1.7
31. Making Correct Decisions .....	2.8	7.3
32. Making Forceful Efforts .....	2.8	2.4
33. Absorbing Materials .....	1.2	3.2
IV. Acceptance of Organizational Responsibility ....	13.0	9.2
34. Complying with Orders and Directives .....	1.8	0.0
35. Accepting Organizational Procedure .....	2.7	0.7
36. Subordinating Personal Interests .....	4.2	3.4
37. Cooperating with Associates .....	1.6	1.7
38. Showing Loyalty .....	1.9	1.2
39. Taking Responsibility .....	0.9	2.2
V. Acceptance of Personal Responsibility .....	35.3	11.7
40. Attending to Duty .....	6.7	0.5
41. Attending to Details .....	4.4	0.2
42. Reporting for Appointments .....	0.4	0.0
43. Meeting Commitments .....	0.5	0.0
44. Being Fair and Scrupulous .....	5.2	3.9
45. Maintaining Military Appearance .....	1.0	0.5
46. Adapting to Associates .....	5.0	2.4
47. Adapting to the Job .....	5.7	1.7
48. Conforming to Civil Standards .....	6.3	2.4
VI. Proficiency in Military Occupational Speciality.	14.4	6.1
49. Possessing Fundamental Training .....	3.5	1.7
50. Improving Effectiveness .....	1.5	0.7
51. Keeping Well-Informed in Specialty .....	1.1	0.5
52. Applying Training and Information .....	4.5	1.0
53. Showing Ingenuity in Specialty .....	3.0	1.7
54. Handling Related Assignments .....	0.8	0.2
TOTAL FOR ALL AREAS .....	100.0	100.0

Source: Flanagan (1951)

as compared with the senior grade officers are: Attending to Duty; Attending to details; Adapting to Associates; Adapting to the job; and Conforming to Civil Standards.

Another great difference can be noticed on the "Proficiency in Military Occupational Specialty" (Possessing fundamental training; Applying training and information).

On the other hand the senior grade officers are more involved in "Proficiency in supervising Personnel" (Developing teamwork; Looking out for Subordinates' Welfare) and in "Proficiency in Planning and Directing Action" (Solving problems; Making use of experience; Long-range Planning; Making Correct Decisions).

The senior grade officers seem to be more independent in structuring their work situation, while junior grade officers have to adjust themselves to the work situation.

Apart from the differences between the officers' levels, the results of this study also show common critical job behaviors of the officers.

The above results, however, have no external validity. Flanagan mentioned in the same article (1951) the results of another study, a study of critical requirements for research executives. He collected critical incidents from 500 scientists in 20 research laboratories. About 2,500 incidents were reported by supervisors describing something a research worker did which was especially effective or ineffective in getting his job done. Most of the categories constructed from the critical incidents differ from the categories obtained from those of the Air Force officer-executives. Only a few comparisons can be made. The data collected by the critical

TABLE III-2

The main categories obtained from critical incidents collected from Air Force officer-executives and Research Executives.

Air Force officers executives	Research executives
I. Proficiency in Handling Administrative Details.	I. Formulating Problems and Hypotheses.
II. Proficiency in Supervising Personnel.	II. Planning and Designing the Investigation.
III. Proficiency in Planning and Directing Action.	III. Conducting the Investigation.
IV. Acceptance of Organizational Responsibility.	IV. Interpreting Research Results.
V. Acceptance of Personal Responsibility.	V. Preparing Reports.
VI. Proficiency in Military Occupational Specially.	VI. Administering Research Projects.
	VII. Accepting Organizational Responsibility.
	VIII. Accepting Personal Responsibility.

incidents technique in the Air force and in the research laboratories show different patterns of job behaviors (see table III-2).

Those data are specific relevant job behaviors, but they are too job bounded, so that no general common pattern of job behaviors can be developed without the danger of loosing important specific job behaviors crucial for that particular job.

In other words, from the two studies above, no common fundamental dimensions of managerial job activities can be obtained to be used as a common basic frame for comparison.

This technique on the other hand has its values when it is applied to determine effective job behaviors for a particular job (Campbell, Dunnette, Lawler, Weick, 1970).



2.2. Hemphill's 10 dimensions. Hemphill (1959) asked 93 executives from five different firms, to complete a 575 items executive position description questionnaire (EPDQ). Each respondent had to report on an eight step scale, to what extent each element (of the 575) made out a part of his job. Each position description was correlated with each of the remaining 92 descriptions, then they were factor analyzed. Hemphill discovered :

- a) basic type of similarities and differences among management positions,
- b) the 10 dimensions of managerial activities :

1. Providing staff services in nonoperational areas.

The incumbent renders various staff services (in the areas of personnel, law, administrative procedures or special projects) to his superiors.

These services consist of gathering information, interviewing, selecting employees, briefing with superiors, checking statements, verifying facts, and making recommendations.

2. Supervision of work.

The incumbent plans, organizes, and controls the work of his subordinates.

His activities are in direct contact with workers and with machines, and he is concerned with the efficient use of equipment, the motivation of subordinates, efficiency in operation, and the maintenance of a work force.

3. Internal business control.

The manager's activities and concerns are in the areas of cost reduction, maintenance of proper inventories, preparation of budgets, justification of capital expenditures, determination of goals, definition of supervision responsibilities, payment of salaries, and enforcement of regulations.

4. Technical aspects of products and markets.

The incumbent is concerned with the development of new business ventures,

activities of competitors, and changes in demand for products or services.

5. Human, community, and social affairs.

The incumbent stimulates the good will of the company in participating in the community, maintaining the respect of important persons, speaking before the public, and "sizing up" people. He is active in community affairs, he nominates key personnel for promotion.

6. Long-range planning.

The incumbent's view is oriented toward the future of the company thinking about, and planning for, the future in industrial relations, management development, with long-range organizational objectives, solvency of the company, new pilot projects, new ideas, and new legislation relevant to the organization.

7. Exercise a broad power and authority.

The executive exercises broad power and has final authority in a number of areas. He attends to the relationship with the unions, capital expenditures, and the long-range solvency of the company. He has an unusual great personal freedom in action and in his position is considered to have a high status.

8. Business reputation.

This indicates a general responsibility for the reputation of the company's products or services. The incumbent is directly involved in product design, and quality, product improvement, complaints concerning products or services, delivery schedules, and the goodwill of the company in general.

9. Personal demands.

These are strict and severe demands on the personal behavior of the incumbent. He shows an unusually high concern with the propriety of his behavior, especially in his interactions with superiors. His activities involve analysing operations, defining objectives, and participating in decisions that are made at high levels.

10. Preservation of assets.

This includes activities and concerns directly associated with the preservation of the physical assets of the company. The incumbent supervises capital expenditures, expenditures of large sums in routine operations, taxes, preservations of assets, and the financial loss of the company.

The 93 executives who participated in this study were classified according to organizational levels and general business functions.

a. Position-levels.

- a.1. Upper Management (24 positions). These positions are within the upper three echelons of management.
- a.2. Middle Management (48 positions). These are positions at or above the third level of supervision but not at "top management".
- a.3. Beginning Management (21 positions). These positions are at the second level of supervision.

b. Functional areas.

- b.1. Research and Development (11 positions).
- b.2. Sales (24 positions).
- b.3. Manufacturing (22 positions)
- b.4. General Administration (26 positions).
- b.5. Industrial Relations (10 positions).

The following tables (III-3a + 3b) show the proportion of the positions classified by levels and by functions which measure relatively high on each of the 10 dimensions.

The tables show the differences between the management levels and the functional areas.

Remarkable to note is that in most cases the proportions of the middle management positions which measure relatively high on each of the ten dimensions are lying between the proportions of the Upper and Beginning Management positions. They really are middle positions in each of the 10 dimensions, except for the dimensions of Business control and Business reputation. In the other eight dimensions it is either the Upper or the Beginning Management positions which are the highest or the least. The highest proportion of the Middle Management positions is in the A dimension: Business control. They are less involved in this dimension, however, compared with the Upper Management positions. The table shows further the differences between : a) the Middle and Upper Management positions in the dimensions of Supervision of work, and Technical product markets; b) the Middle and Beginning Management positions in the dimensions of Human Affairs, and Broad Power.

TABLE III-3a

Proportion of positions (as originally classified by level) which measure relatively high on each of the ten dimensions.

Category of positions	Upper management	Level Middle management	Beginning Management
A. Staff service	.46	.54	.90
B. Supervision of work	.21	.54	.62
C. Business control	.71	.60	.62
D. Technical products & markets	.29	.54	.71
E. Human affairs	.55	.41	.19
F. Planning	.63	.47	.43
G. Broad Power	.55	.35	.14
H. Business reputation	.46	.39	.52
I. Personal demands	.46	.23	.19
J. Preservation of assets	.42	.31	.19

Source: Hemphill, 1959.

TABLE III-3b

Proportion of positions (as originally classified by functions) which measure relatively high on each of the ten dimensions.

Category of positions	Functions: <sup>x)</sup>				
	1.	2.	3.	4.	5.
A. Staff service	.91	.42	.68	.43	1.00
B. Supervision of work	.54	.16	.54	.54	.70
C. Business control	.55	.79	.67	.81	.00
D. Technical products & markets	.91	.62	.55	.31	.30
E. Human affairs	.27	.54	.18	.39	.70
F. Planning	.82	.29	.49	.46	.70
G. Broad Power	.00	.50	.36	.42	.20
H. Business reputation	.54	.21	.27	.62	.80
I. Personal demands	.27	.17	.27	.27	.60
J. Preservation of assets	.18	.21	.32	.39	.50

x) Functions :

1. Research & Development
2. Sales
3. General Administration
4. Manufacturing
5. Industrial Relations.

Source: Hemphill, 1959.

The middle manager tends to be in more direct contact with his subordinates than the top manager. He plans, controls their work, and solves the problems. He pays great attention to the company's product, their marketing, customer details and relations and is straightly in first-hand contact with customers of the company. More than the Beginning Manager, the Middle Manager is stimulating the company's goodwill in the community, he is active in community affairs, and he exercises greater power and has more authority.

Table III - 3b shows the different dimension profiles of the management positions in the five various functions :

- a. Research and Development have high proportions in Staff service, Technical products & markets, and Planning.
- b. Sales have high proportions in Business Control, and Technical products & markets.
- c. General administration have high proportions in Staff service and Business Control.
- d. Manufacturing has high proportions in Business Control, and Business Reputation.
- e. Industrial Relations have high proportions in Staff service, Business reputation, Supervision of work, Human affairs, and Planning.

### 2.3. Stewart's study (1967)

The aim of the study is to try to discover some of the similarities and differences in the ways managers spend their time. A further aim is to distinguish different job types on the basis of the ways their holders spend their time.

The diary method was used. Hundred and sixty managers (57 top and 103 middle managers<sup>1/</sup>), mostly from various manufacturing industries, different in management levels and functions, were asked to record all job behavior incidents of more than five minutes' duration on a recording form, developed and tried out before this study.

Her study could not comprise the whole management job. The emphasis was on the interaction pattern of the management job, expressed in terms of

- (a) time spent for the activity,
- (b) the kind of person contacted,
- (c) the nature of the contact, and
- (d) the subject of the activity.

---

<sup>1/</sup> Top managers are those who are on the board of directors or who report to the managing director, Middle managers are those below that level who have other managers or highly paid specialists reporting to them, or who are graded as middle management by their companies. Some of those described as middle managers in large companies have bigger jobs than some of those described as top managers in small companies (Stewart, 1967, p. 166).



After the diaries were scored, they were factor analyzed and Stewart discovered five clusters of groupings of jobs. The jobs in each cluster were relatively similar in the way their managers allotted time but different from the jobs in the other clusters. Tabel III-4 shows an overview of the percentage of total working time spent by each group according to the different place of work, the number of persons contacted, the different categories of people contacted, and the different activities.

The titles and characteristics of each of the five groups are summarized below.

#### I. The "Emissaries".

These managers traveled a great deal and made contacts mostly with customers and officials from other companies or public institutions. They also attended many conferences and exhibitions. They worked longer hours than managers in any of the other groups, but this was mainly due to the time spent on traveling and on entertaining. Fourty-four percent of the top managers in the sample fall under this job group (functional area: general management, sales & marketing), and nineteen percent of the Middle Managers, most of them working in the Sales & Marketing area.

#### II. The "Writers".

These managers spent more time by themselves on reading, writing, dictating reports, and figure work. They made fewer group contacts and tended to work with relatively specialised or technical matters. At the top management level many top managers of Accounting & Finance fall under this job group. At the middle management level a great deal of research and development managers can be found, beside the production managers.

TABLE III-4

Percentage of total working time spent by each group: where; alone, with one person or more; with whom; what activity.

	I The Emissar- ies	II The Writers	III The Discuss- ers	IV The Trouble shooters	V The Committee men	Mean
<b>I <u>Place of work (where).</u></b>						
1. Own establishment (own office).	52 (37)	85 (67)	84 (53)	84 (52)	86 (45)	75 (51)
2. External.	22	3	6	5	3	10
3. Traveling.	17	6	4	5	6	8
4. Other.	9	6	6	6	5	7
<b>II <u>Number of persons contacted.</u></b>						
1. Alone.	33	51	25	28	27	34
2. With one person.	30	28	39	36	23	32
3. With 2 or more persons.	37	21	36	36	50	34
<b>III <u>Categories of people contacted (with whom).</u></b>						
1. Subordinates.	24	22	22	36	32	26
2. Colleagues.	10	7	19	9	17	12
3. Fellow specialists.	5	6	9	5	22	8
4. Other internal contacts.	2	3	5	4	19	5
5. External contacts.	25	5	11	13	7	14
<b>IV <u>Activities.</u></b>						
1. Discussions (committees).	54 (8)	33 (4)	58 (5)	51 (7)	58 (20)	50 (7)
2. Paper work.	28	58	35	29	29	36
3. Inspection.	4	3	3	16	8	6
4. Traveling (not working).	14	6	4	4	5	8

Source: Stewart (1967).

### III. The "Discussers"

These managers spent the least time by themselves, they spent more time with the other colleagues at the same organizational levels, and they saw more often their boss than the managers of the other groups. At top management Level we find top managers of Accounting & Finance. At Middle Management level most managers of Production Planning & Control, Engineering, Accounting & Finance, and Staff services are found.

### IV. The "Trouble shooters".

These managers made shorter, more fleeting contacts than managers in other groups. They were called upon to cope more with crises, problems needing immediate solutions and actions. Their working time was highly fragmented, and they spent relatively more time on inspection and on seeking contact with their subordinates. Top Managers of Production and General Management fall under this job group. Middle Managers of Production are highly represented in this job group. Apart from them we also find managers of staff services.

### V. The "Committee-Men".

These managers spent most time on group discussions and on committee meetings, and their contacts were nearly all within their own companies. Membership of this group was determined partly by size; only managers who worked for large companies belonged to it. There was some indication that the method of production might also

be a factor in determining membership (Stewart, 1967, p. 123). Nine out of the eleven works and production managers, belonging to this group, worked in process industries.

Table III-5 shows the distribution of the managers in the five job groups, the top managers separated from the middle managers.

Stewart's results show :

1. The difference between middle and top management :
  - a) The middle managers tend to belong more to the "Discussers", "Writers", and "Committee men".
  - b) The top managers show more a tendency to the "Emissaries".
2. The differences between the managerial functions:
  - a) Most of the top as well as middle managers of Sales & Marketing full under the "Emissaries".
  - b) Production managers are found more in the "Trouble shooters" group.
  - c) Managers of Production Planning & Control, and Engineering are represented most in the "Discussers".
  - d) Managers of Accounting & Finance form the members of the groups "Discussers" and "Writers".
  - e) Research & Development managers are more classified in the "Writers" group.
  - f) Staff-services managers are either in the "Trouble shooters" or in the "Discussers" group.

TABLE III-5.

The distribution of managers in the five job-groups.

	I The Emiss- aries		II The Writers		III The Discuss- ers		IV The Trouble shooters		V The Committee- men	
	T	M	T	M	T	M	T	M	T	M
1. General Management (20 jobs).	10	-	2	-	2	-	5	1	-	-
2. Sales & Marketing (36 jobs).	13	13	1	4	3	2	-	-	-	-
3. Production (36 jobs).	1	-	-	7	1	1	6	13		7
4. Production Planning & Control + Engineering (15 jobs).	-	2	-	-	-	8	-	-	1	4
5. Accounting & Finance (24 Jobs).	1	1	5	5	4	7	-	-	-	1
6. Research + Development (11 jobs).		3	-	6	-	1	1	-	-	-
7. Staff-services (personnel, office, secretaries, etc.) (19 jobs).		1	1	2	-	6	-	7	-	1
Total number of jobs :	25	20	9	24	10	25	12	21	1	13
Percentage :		T <sup>x)</sup> 44		16		17		21		2
		M <sup>xx)</sup> 19		23		25		20		13

Source: Stewart (1967).

x) T = Top Management.

xx) M = Middle Management.

#### 2.4. Note on the studies.

It is not possible to compare the results of the three studies, because they differ in the starting-point of view, method, and sample. From the results, however, several main conclusions can be drawn :

- a. There are so many variations and qualitative differences in the middle management job in general. This variety has to be taken into account in the process of the identification of the potential middle manager.
- b. The middle management positions can be grouped into several job groups (as done by Stewart), each group having similar interactions, tasks, and time-span, but different from the other job groups.
- c. There is a possibility to project the management positions on a common set of dimensions (as demonstrated by Hemphill). Similarities and differences (in terms of degree of difficulty, complexity, frequency, and importance) between the management jobs could be analyzed through the dimension profile or dimensions structure.
- d) It can be hypothesized that there is a behavioral structure underlying and corresponding with the dimension structure of the management job. In other words, it can be hypothesized that for each dimension profile of a management job there will be a corresponding behavioral structure or a required-personal-attribute profile.

### 3. Describing the middle management job.

This subchapter will deal first with the boundaries of the industrial organizations as an open socio-technical system, followed by a description of the interactions pattern of the middle management job as a sub-subsystem of the managerial subsystem. The outputs, inputs and activities of the middle management job will be discussed at the end of this subchapter.

#### 3.1. The boundaries of the industrial organization.

Any open system has permeable boundaries between itself and a broader supra system. The boundaries of a closed system e.g. a physical system, are relatively easy to define in terms of their physical structure, whereas the boundaries of an open system have to be defined in terms of the activities and processes of the system. Kast & Rosenzweig (1974) make a note on the concept of open system. This concept should be conceived as "relatively" open systems. They state: "In fact, most biological organisms and social organizations are "partially open" and "partially closed". Open and closed are a matter of degree (p. 132). They further say: "The organization cannot respond to all possible environmental influences; it must be selective in the inputs it receives, the transformations it performs, and the output it produces. In effect it must establish a "domain" for its activities and boundaries which separate it from its external environment" (p. 132). The industrial organization as an open system selects its inputs (machines, other equipments, raw materials, manpower); transforms these through its production processes; and exports the products or services. The industrial organization is closed to inputs that could lead to disturbances within the organization. The continuous exchanges of information, energy and materials with its environment explain the possibility of negative entropy and growth of the industrial organization.

The screening of inputs and outputs is a vital function of the organizational boundaries. The boundaries of the system have to screen the inputs so that the system can deal with them more effectively.

For example the industrial organization sets up certain standards for raw materials used for processing, or sets up certain requirements for employment. The boundaries also filter the outputs of the system.

The products of the industrial organization have to be checked on their quality, so that they may be accepted by the environment.

This filtering or screening of processes occur also within the system itself, among the various subsystems.

Kast & Rosenzweig (1974) mentioned another vital function of the organizational boundaries. They provide the organization a degree of autonomy and independence from intrusion of environmental influences.

The industrial organization has autonomy in conducting its internal operations as long as it meets with its broad social goals.

As a consequence of the screening function of the boundaries of the system, we find, in the industrial organization, a set of functions dealing with the screening of inputs, and another set of functions dealing with the screening of outputs, called by Kast & Rosenzweig the Boundary-spanning Components. For example, at the input side the functions of purchasing materials, recruiting and selecting employees, and searching for market information are found and at the output side the selling of products and the feeding of information on the organization (the function of public relations).

In what kind of environment does the industrial organization operate ? What are the forces in the environment that affect the



operations of the industrial organization ?

Kast & Rosenzweig support the distinction in the environment of the organizations made by Hall (1972). They think of the environment in two ways :

1. The societal (general) environment which affects all organizations in a given society and
2. the specific (task) environment which affects the individual organization more directly.

The major environmental characteristics affecting all organizations are :

- (a) cultural; including the historical background, ideologies, values, and norms of the society;
- (b) technological; the level of scientific and technological advancement in society;
- (c) educational: the general literacy level of the population. The degree of sophistication and specialization in the educational system;
- (d) political: the general political climate of society. The degree of concentration of political power. The nature of political organization. The political party system;
- (e) legal: constitutional considerations, nature of legal system, jurisdictions of various governmental units, specific laws concerning formation, taxation, and control of organizations;
- (f) natural resources: the nature, quantity, and availability of natural resources, including climatic and other conditions;

- (g) demographic: the nature of human resources available to the society; their number, distribution, age, and sex;
- (h) sociological: class structure and mobility. Nature of the social organization and development of social institutions;
- (i) economic: general economic frame work, including the type of economic organization. The level of the investment in physical resources and consumption characteristics.

(Kast & Rosenzweig, 1974, p. 136).

The relevant components of the specific (task) environment for a typical industrial firm are :

- (a) the customer component: distributors and actual users of product or services;
- (b) the suppliers component: new materials, equipment, product parts, and labor supply;
- (c) the competitor component: competitors for suppliers and for customers;
- (d) the socio-political component: government regulatory control over the industry. Public political attitude towards industry and its particular product;
- (e) the technological component: meeting new technological requirements of own industry and related industries in production of product or service.

(Kast & Rosenzweig, 1974, p. 138).

The distinction between the two environments is not always clear and is continually changing.

What kind of impact do the environmental forces have on the job of the manager ?

A description in what kind of situation the manager has to work is given by Koontz & O'Donnell (1968, pp. 434-435). The managers often have to make decisions within a very short time span. While making the decisions the managers have to be aware of the many factors affecting the outcomes of the decisions. They say :

"The manager must recognise these elements, weigh them correctly, formulate sets of simultaneous equations, and often solve them while the person who requests the decision awaits the answer. And the answer had better be correct, because on it may hang profit or loss, an industrial strike or peace, a facilitated or blighted career of a subordinate, a bold or timid response to challenge, a helping or dead hand in making free enterprise work, an assist in achieving cultural values or a disregard of them which could help to destroy civilisation. All this factors are grist in management decision making." (p. 434)

They further compare the manager with the scientist :

"The scientist is able to exclude the influence of factors not currently being studied, either by creating a situation in which they cannot intrude or by permitting them to exert an unvarying influence. The manager cannot do this. His decisions must not only take into consideration such forces as the stage and trend of the business cycle, the political, economic, and social policies of government in its national and international phases, trends in the markets, and his immediate and future competitive situation, but he must also evaluate

all these forces simultaneously. For him there is no easy assumption as to 'other things being equal' or 'other factors remaining constant'." (p. 435)

It is clear from the description above that in doing the job, the manager is pressed by time. He is working under time-pressure. Campbell, Dunette, Lawler, Weick (1970, p. 73) and Mintzberg (1975) quoted Carlson's study. Ten managing directors were studied by Carlson using the diary method. He came to the conclusion that the executives:

- a. worked excessive hours,
- b. spent one third of their total working time outside the firm,
- c. had insufficient time for inspecting and overseeing their functions,
- d. had practically no time for reading or for contemplation, since they were subjected to constant interruptions.

Apart from the time pressure under which they have to work, the constant interruptions are another factor of the condition in which they have to work.

Still another aspect of the conditions in which the manager works, as can be observed from the description given by Koonts & O'Donnell above, is the changing character of factors in the environment, which have or will have a great impact on the operations of the company as a whole. Management has to operate in uncertain situations. Kast & Rosenzweig (1974), pp. 122-123) state that management "must deal with uncertainties and ambiguities and, above all, must be concerned with adapting the organization to new and changing requirements".

In chapter II are mentioned the various levels in the industrial

organization, the three management levels (the top, middle, and lower management levels) and the operating or production levels.

How big and how direct are the influences of the environmental forces upon the various levels within the organization ? On what level do we find the boundary-spanning components ?

These questions will be discussed in the analysis of the interaction pattern of the middle management job.

### 3.2. The interactions pattern of the middle management job.

We can view management as a continual cycle of planning and implementation. Implementation includes organizing, assembling resources, motivating, and controlling. Managers at all levels of the organization are engaged in all the basic functions of the management process. The higher the manager is at the hierarchy of the organization the more time he has to spend to planning than to implementing. On the other hand the lower the manager is at the hierarchy of the organization the more time he has to spend to implementing than to planning.

Figure III-1 shows the interactions pattern between the various hierarchical levels within the organization and between the various hierarchical levels of the organization with the general and specific environment.

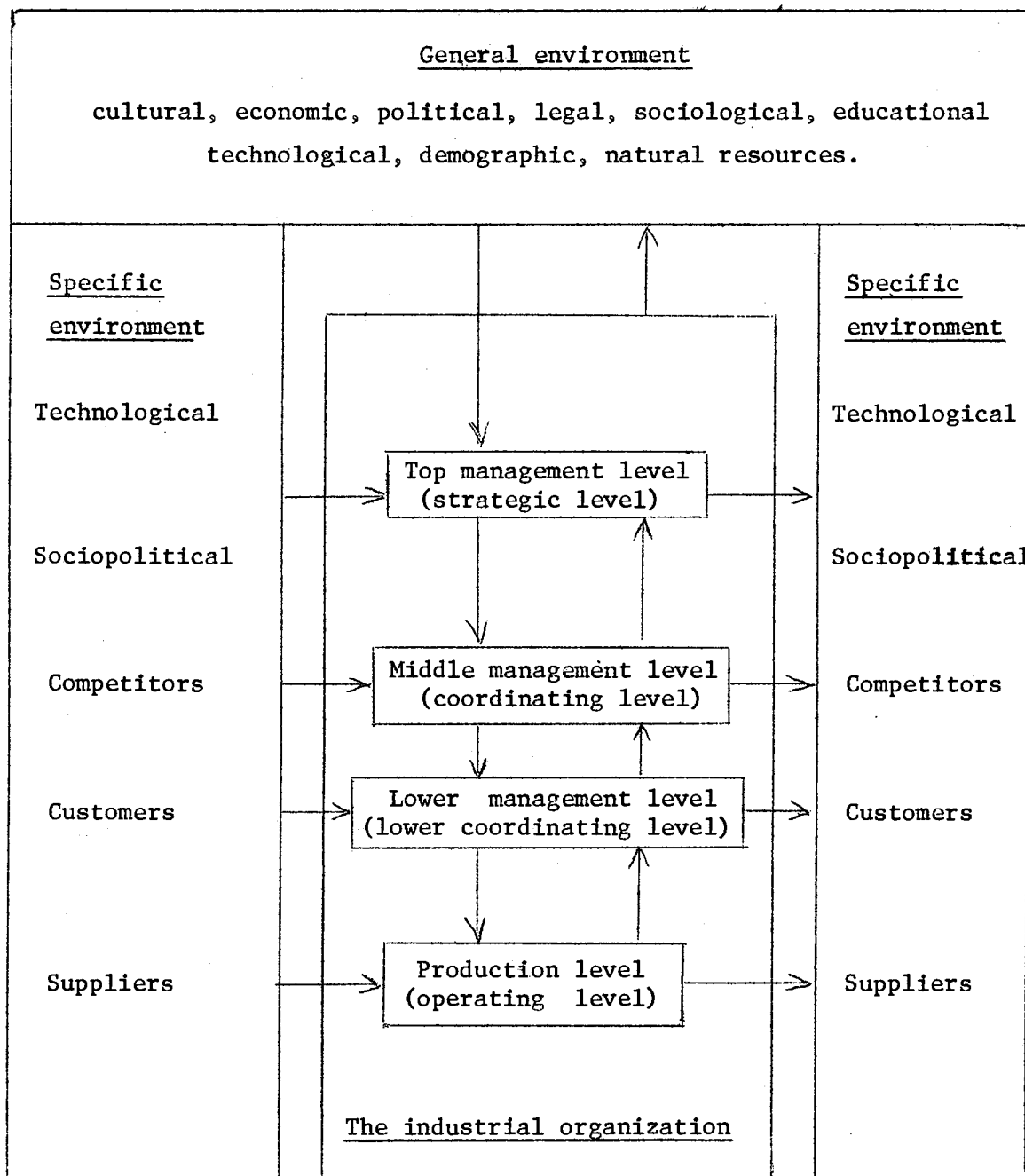


Figure III-1 : The interactions pattern between the organizational levels and between the levels and the environment or suprasystem.

The top management level has to deal with the uncertainties and ambiguities in the general and specific environment. Management at this level, therefore, should concentrate on adaptive and/or innovative strategies. Top management has to devote most of its time to planning, particularly long-range planning. Effective planning requires the input from the environment as well as from all levels in the organization. Kast & Rosenzweig state that the "primary function of top management planning is one of systems design, which involves (1) the establishment of objectives, policies, procedures, and organizational relationships on a systematic basis for guidance of decision making and planning at various organizational levels and (2) the provision for the flow of information to and from these planning and decision making centers" (1974, p. 440).

The objectives at this level are broad and provide substantial flexibility as to the means for their attainment.

The middle management level translates the broad goals developed at the top management level into more specific operational goals. The general plans developed at the top management level has to be transformed into more specific plans by each operational or functional management area. At this level two kinds of plans will be developed :

- (1) Single-use plans, which set forth a course of actions to fit a specific situation and which may be obsolete at the time the goal has been reached.
- (2) Standing plans (plans for repetitive actions), which are designed on continuing-use basis.

These plans will be passed to the lower management level. At this level more specific operational plans will be developed, and after being approved by the middle management these plans will be implemented at the operating level.

Data about the actual task performance at the operating level will be observed by the lower management level, or will be reported by the production workers to the lower management level, who will report to the middle management level. Problems arising during the implementation process at the operating level will be solved by the lower management level or, when this level does not feel competent to solve those problems, these will be reported to the middle management level.

The middle management level evaluates the reports, integrates the data, makes the necessary recommendations, and pass as their reports to the top management level.

Problems reported by the lower management level will be solved at this level. Only those problems of which the solutions will have a significant impact on the major general plan of the organization will be passed on to the top management level.

Figure III-1 shows that each hierarchical level of the organization has relations with the environment. The main characteristic of these interrelations is a task performing interrelationship. In the implementation of the plans, in the performance of particular tasks at each level, there is a contact with the environment.

At the operating level for example, the buying of goods or the selling of products. At the lower management level and middle management level



the selection of suppliers, the salestalk with representatives of the same level from other companies.

Aside from the performance of tasks, within the frame of the implementation of organizational plans, data are collected for the development of new plans and for the adjustment of the existing plan. This activity is a part of the feedback mechanism from the environment to the system.

From the descriptions above, it will be clear that the environment forces are captured and processed by the top management level. The boundary-spanning component at this level determines the degree of autonomy and independence for the organization in conducting the internal operations. The environment, the supra system, will not have a direct impact on the middle management level. At this level, and the other lower levels of the organization, we also find boundary-spanning components. Their function however, is that of filtering or screening the inputs and outputs of the industrial organization.

Focussing at the middle management job, the middle manager has a interactions pattern as shown in figure III-2.

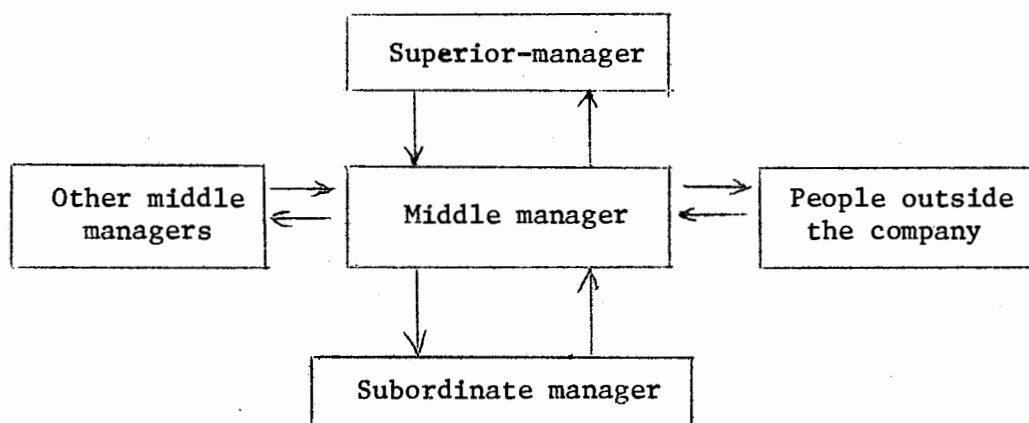


Figure.III-2 : The interactions pattern of the middle manager.

The middle management job is a job not belonging to the board of directors, reporting to a managing director or to a general manager, and is above the job of first-line supervisors. In "tall" organizational structures more than one level of middle management jobs can be observed. As a consequence hereof a middle manager will have a top manager or another middle manager at a higher level as his superior, and as subordinate(s) an (some) other middle manager(s) at a lower level, or one or more first-line supervisors (lower managers).

In executing his tasks, the middle manager has to interact with his

- (a) superior manager,
- (b) subordinate manager(s),
- (c) other middle managers, and
- (d) people outside the company (such as suppliers, customers, government officials e.c.).

The middle manager receives his duties and formal authority from the organization. The degree of independency and the actual authority however, depends on the personality and the management style used by his superior manager. He should be rendered respect and be trusted by his superior thus given full opportunity for effective managing.

On the other hand the middle manager has to create an effective team work with and among his subordinate managers. He has to deal effectively with subordinates he has not chosen himself.

Relationships with peers and people outside the company are of great influence too in the efforts of the middle manager to perform his tasks most successfully.

The interactions of the middle manager within the context of the input-activities-output of the middle management job will be discussed again in the following parts.

### 3.3. The output of the middle management job.

In determining the output of the middle management job we have to know the various kinds of outputs of the business organization. Based on the results of their survey Campbell et al. (1970, p. 9) have stated that the results of outputs, expended on the firm, include "Maximizing profits, maintaining organizational efficiency, promoting high employee morale, and producing (selecting, training, developing) effective subordinates who will be capable of taking on added responsibilities and of maintaining the firm in the years ahead".

These outputs are not controversial with the diagram of nine major activities for which objectives should be set given by Cullen. In explaining the total concept of management by objectives, Cullen indicates what corporate objectives should be put in the following nine major areas of corporate activities :

1. Public responsibility.
2. Profit.
3. Growth.
4. Productivity of resources.
5. Availability of resources.
6. Management performance and development.
7. Employee performance and motivation.
8. Market standing.
9. Innovation.

We can easily put the results mentioned by Campbell et al. in the above nine major areas.

The company objectives should be defined by operational objectives, they should include (quantitative) criteria and a time span. Cullen puts forward an example of an inadequate vague objective and a clearly stated satisfactory corporate objective.

The vague objective: "to improve and increase our profitability in future years" modified into a clearly stated objective: "to increase our profitability before tax return of 12.8 per cent on capital employed of \$18,5 m. to 16.5 per cent on \$22,5 m. by 1973".

The corporate objectives should be converted into a set of subobjectives consisting of a hierarchy of unit and personal objectives. Porter, Lawler, Hackman (1975, p. 84) give an illustration of a hierarchy of objectives, which they call the Means-End chains. Except for the broadest, most encompassing objective, the highest on the hierarchy, each goal developed in an organization can be considered to be both a goal in itself and a means of reaching some other goals (see figure III-3).

The middle management job objectives then are :

1. Objectives falling within the nine major areas mentioned above, depending on the management operational areas in which the middle management job is functioning (the production, sales & marketing, finance, personnel and office areas).
2. Objectives that, at the same time, can be considered as means in reaching the objectives of the higher level of the organization.

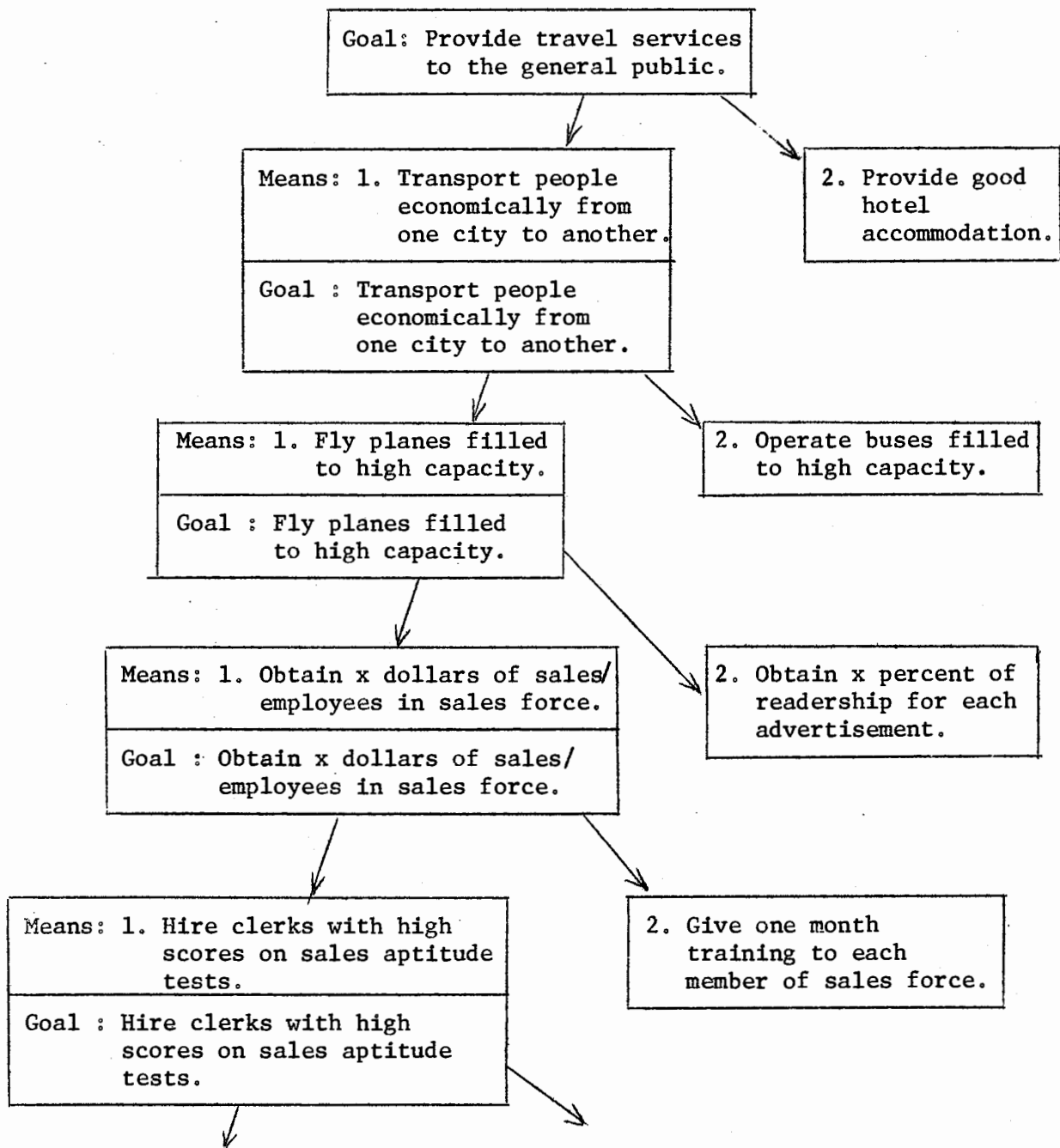


Figure III-3 : Part of the example given by Porter et al. (1975, p.84)  
Organizational goals and subgoals.

Besides the content-formulated hierarchy of objectives, the objectives can be distinguished into three classes of objectives, as is done by Odiorne (1973): the regular, on going, recurring objectives, the problem-solving objectives and the innovation objectives. These objectives reflect the kind of activities involved in reaching the objectives. The regular, on going, recurring objectives are results or products achieved by performing the repetitive daily administration tasks of the manager, such as acknowledging the daily report data of his subordinates, signing labor contracts, signing venture letters, etc.

The problem solving objectives are results or products achieved by solving the anticipated or non-anticipated problems that arise during the course of activities within the working unit of the manager. The problem is here defined as the significant deviation of the actual results from the expected or desired outcomes.

These two kinds of objectives, the regular ongoing and the problem solving objectives, are objectives which enable the business organization to maintain his operations. They, practically, do not contribute to the growth of the business organization. It is the set of innovation objectives which really contribute to the growth of business organization.

The innovation objectives are results or products achieved by introducing new products, new procedures in the working unit of the manager, improving the efficiency and effectiveness of the working unit and the business organization. The innovation objectives enable the system to adapt itself to the changing environment and to expand its operations.

The top management level is more concerned with the innovation objectives. At the middle management level the emphasis is put on the problem

solving objectives. The middle manager has the responsibility to supervise and to correct the activities of this working unit in the implementation or execution of the decisions made by the top management. This view is supported by the findings of Hemphill (1959), Stewart (1967) and Munandar (1975).

#### 3.4. The inputs of the middle management job.

For a great deal inputs of the middle management job originate from internal resources and for a relatively small part from external resources. The kind of inputs that the middle manager has to deal with are mainly information presented in oral, written or visual form. They can be stated facts (such as opinions, statements, numbers, statistics, etc.) or problems (including questions).

The middle manager does not only receive information, but he has to search too for relevant information necessary for the attainment of his work-unit objectives, or for the realization of his work-unit plans.

In receiving and gathering information the middle manager has to interact effectively with resource persons inside and outside the company. To secure the needed information, the middle manager should maintain good relations and always be in close contact with his superior, subordinates, peers, and persons outside the company. His effectiveness in the job is not only determined by his capacities or personal qualities but depends a great deal on the available information, that should be complete reliable and valid. The middle manager should set up and maintain a good communication network. It is wellknown that good interpersonal relations support the effectiveness of the communication process. On the other hand bad interpersonal relations cause distortion in communication. The middle

manager is at the same time the receiver and the sender, he plays the roles of a monitor, a disseminator, and a spokesman (Mintzberg, 1975, p. 56).

In his relations with his superior the middle manager is more passive. The nature of relationship is mainly determined by his superior, his contribution is small or negligible, he has to adjust himself to his superior, whose authority he has accepted, or he has to accept. On the other hand in his relations with his subordinates the middle manager play the active role in determining the nature of his relationship with his subordinates. He could use different management or leadership styles to create an intimate confidential atmosphere, securing information and the cooperation he needs from his subordinates. Depending on his appearance, behavior and social skills, the middle manager will succeed in creating a trust-relationship with his peers, other persons inside and outside the company, securing not only their cooperation, but also their willingness to give him the reliable and valid information.

### 3.5. The activities of the middle management job.

There are many ways leading to Rome. Analogously to the saying we could say there are many activities leading to the attainment of the desired outcomes. The activities of the middle manager are determined by the results or objectives he has to achieve and the information and means available to him.

As it is shown above, the middle manager deals with information and with people.



In handling with information, he could monitor or, process the information or he could just pass the information on to other persons.

We may distinguish two main classes of activities the middle manager has to perform: the planning and the implementation activities. The planning activities of the middle manager are short, medium, and long range plans (the longest covering 5 years) for his work unit. The planning activities involve.

- a. determining the objectives (quite often together with his superior) of his work units;
- b. breaking down the objectives into intermediate objectives to be achieved within certain time periods;
- c. determining the means, strategies and procedures to achieve the objectives, taking into account the available men, money, materials and time (organizing and staffing);
- d. deciding the criteria for success, the tools for measuring the success and the check points during the activities;
- e. identifying potential problems when the plans are being implemented and deciding on the preventive and contingency actions to be taken.

The implementation activities involve :

- a. Ordering assignments to, and discussing them with the subordinates.
- b. Assisting, guiding the subordinates in planning their activities.
- c. Observing the subordinates' performance and needs to motivate them and to improve the work relations and cooperation.
- d. Checking and evaluating the subordinates' performance.
- e. Solving problems that occur during the activities in his work unit.

- f. Discussing problems, viewpoints, results with peers, superior informally or in formal meetings, committees.
- g. Discussing, negotiating, bargaining with, or selling products, offering services or suggesting ideas to people outside the company.
- h. Searching, gathering information from people outside the company.
- i. Evaluating the performance and results of his work units.
- j. Recommending steps to be taken to improve the efficiency and effectiveness of his work unit and of the company in general.
- k. Reporting to his superior the performance, results of his work unit together with the recommendations.

#### 4. Concluding remarks.

Various methods and concepts have been used in the study of the management jobs. Mintzberg (1975) used the structural observation method and described the ten roles of the manager. Flanagan (1951) used the critical incident method and found areas of critical behavior of the managers at various levels. Hemphill (1959) constructed a questionnaire with items about possible job activities performed by managers and found ten job dimensions. Stewart (1967) using the diary method studied the ways in which managers spent their time. After the factor analysis of the collected data she found five clusters of grouping of jobs.

The studies show a great variety of middle management jobs. Significant differences can be observed between various management levels and between managerial positions in different sectors. Apart from the differences, however, common dimensions can be noticed. The middle management jobs can be distinguished from each other through

their particular dimensions structure or dimension profiles. It can be hypothesized that there is a particular personal attributes profile underlying a particular dimension profile of a middle management job.

Using the systems approach, the middle management job has been analyzed. The environment of the industrial organization system has no direct impact on the middle management jobs. The boundary-spanning component of the top management level not only serves as a filter but also as a shield against the environmental forces in this way securing a certain degree of independence in the execution of the internal activities. The boundary spanning components of the middle management jobs serve mainly as a selector of input and output of the industrial organization system. The middle management jobs have a task-performing-relationship, within the context of the implementation of plans, and a data-collecting-relationship, within the context of the development of new or adjusted plans, with the specific environment.

The middle management jobs differ from each other in their :

(1) outputs in terms of :

- a. content (depending on the managerial function or operational area),
- b. degree of generality of the objectives,
- c. kind or nature of the objectives.

(2) Inputs in terms of frequency, degree in complexity, urgency and importance, and kind of information (stated facts and problems) the middle manager has to deal with.

(3) Activities :

- a. Planning activities (single-use plans, standing plans) in terms of the degree of broadness of the scope, the time span, and the flexibility.
- b. Implementation activities (organizing, assembling resources, motivating, and controlling) in terms of the degree in complexity and composition of the tasks to be performed; the number of the direct and indirect subordinates; the kind and number of peers and people-outside-the-company contacted; the frequency and the time spent in communicating with the subordinates, peers, and people outside the company.

Using these three main dimensions, a dimensions-profile of a middle management job can be determined.

#### IV. MANAGERIAL EFFECTIVENESS.

##### 1. Introduction.

The middle manager is placed in a situation where he has to function effectively.

Viewing the job of the middle manager as a sub-sub-system, two kinds of input can be distinguished, the raw and instrumental input. Information is the main raw input of the middle managerial position. The middle manager receives information or has to search for relevant information, information which he should process. The instrumental inputs are instruments or resources - human and non-human resources - which should be utilized by the middle manager or which will assist him in processing the raw input to become output.

The output of the job of the middle manager has been determined for him by his superior, or has been determined together with the middle manager. The middle manager then has committed himself in the process to accomplish the output of his job.

The degree to which he achieves the output is a measure of his effectiveness. The concept of managerial effectiveness will be treated in the next section.

In his effort to attain the output of his job, the middle manager has to utilize the available instrumental input, the human and non-human resources. He has to build up favorable interdependent relationships with the human instrumental input in order to achieve

the output or the objectives of his job. The interdependent relationships with his superior, subordinate manager(s), peers, and people outside the company, play a very important role in determining his effectiveness, and will be discussed in section three of this chapter. Finally the last section of this chapter will deal with the measures of managerial effectiveness and the methods to evaluate managerial effectiveness.

## 2. The concept of managerial effectiveness :

### 2.1. Efficiency vs. effectiveness

Effectiveness is often confused with efficiency. Drucker (1974) made a clear distinction between the two concepts. According to him effectiveness is the ability to get the right things done, whereas efficiency is the ability to do things right.

A manager can be efficient but ineffective. He can do the job activities with less effort achieving higher results, but he is not executing the right or necessary job activities. He could for example set up a filing system so that within a few seconds he can find the file he needs at that moment. Setting up a filing system, however, is not a necessary job of a manager.

Drucker states that efficiency is important for the manual workers. A manager, on the other hand, should be effective. To be effective is the job of the manager. He should know what he should do, he should be confident that the product of his actions is valuable to the company he works for.

Reddin (1970) elaborates the distinction between efficiency and effectiveness. The efficient manager is easy to identify, he prefers to :

Do things right	rather than	Do right things
Solve problems	rather than	Produce creative alternatives
Safeguard resources	rather than	Optimize resource utilization
Follow duties	rather than	Obtain results
Lower costs	rather than	Increase profit.

(Reddin, 1970, p. 6)

Efficiency is more concerned with the process in doing things. It is looking for better ways in doing things. Effectiveness is associated with output. It indicates the extent to which a manager has succeeded in achieving the objectives of his unit.

## 2.2. Apparent, personal and managerial effectiveness :

Reddin (1970) makes a distinction between apparent, personal and managerial effectiveness.

Apparent effectiveness refers to behaviors that seem to be effective. For example: "Usually on time", "Makes quick decisions", "Answers promptly", etc. These kinds of behaviors unfortunately may or may not lead to managerial effectiveness.

Personal effectiveness is the extent to which a manager achieves his own private objectives. A manager who has the ambition to become the Vice President of the company could sabotage the work of other possible candidates in order to achieve his private objectives. Managerial effectiveness is the extent to which a manager "achieves the output requirements of his position" (Reddin, 1970, p.9)

Apparent effectiveness can be more easily identified than personal effectiveness. Those behaviors should be evaluated in terms of whether or not they are appropriate to the achievement of the objectives. "Answers

promptly" for example could be an appropriate behavior for a sales manager in order to win the confidence and satisfaction of the customer. In other situations, however, those behaviors have no connection to the attainment of the objectives.

It is more difficult to distinguish personal effectiveness from managerial effectiveness. It is difficult to separate personal private objectives from the managerial objectives. The ambitious manager can work hard not for the sake of the company but for his own sake. Important in managerial effectiveness is that the manager makes an optimal contribution to the company.

### 2.3. Successful and effective Leadership :

Managerial effectiveness has to be defined in terms of output rather than input, by what a manager achieves rather than by what he does. Effectiveness is best seen as something a manager produces from a situation by managing it appropriately.

Hersey & Blanchard (1972) make a distinction between successful and effective leadership.<sup>1/</sup> A manager can be successful but ineffective. Manager A could influence his subordinate B to do a job. Depending on the extent that B accomplishes the job, A's attempt will be considered successful. If B does the job only because of A's position power, i.e. the ability to induce another individual to do a certain job because of his position in the organization, then we can say that A has been successful but not effective. On the other hand, if B does the job because he wants to do it

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<sup>1/</sup> To Hersey & Blanchard management is thought of as a special kind of leadership in which the accomplishment of organizational goals is paramount. While leadership also involves working with and through people to accomplish goals, these goals are not necessarily organizational goals (p. 97).



and finds it rewarding, then we can say that A has been effective.

"Success has to do with how the individual or group behavior. On the other hand, effectiveness describes the internal state or predisposition of an individual or a group and this is attitudinal in nature."

(p. 94)

Being successful means that the influence over the behavior of the other is short. On the other hand being effective means an influence on the behavior of the other leading to long run productivity and organizational development.

They distinguish between causal, intervening and output variables.

Causal variables are those factors that influence the course of developments within an organization and its results or accomplishments.

Intervening variables represent the current condition of the internal state of the organization. Intervening variables are concerned with building and developing the organization and tend to be long-term goals. Managers are often promoted, however, on the basis of short-run output variables without concern for long-run organizational development. (p.97)

Odiorne (1973) who represents the M.B.O. states that the long-term objectives, as part of the long-term plan, should be broken down into intermediate objectives, as part of the short-term plan. In other words the long-term objectives may not be considered apart from the short-term objectives. The attainment of the short-term objectives should lead to the accomplishment of the long-term objectives.

Odiorne classifies the objectives into regular, problem solving and innovations objectives. The regular objectives are short-term objectives, while problem solving objectives could have also a long term effect.

A relative simple problem could be solved right away.

A more complex problem, e.g. tensions in interpersonal relations within,

the group, can only be solved over a period of time. Problem solving objectives are short-term as well as long-term objectives, they aim at restoring normality and bringing back the status quo. Innovative objectives include improvements and an individual's commitment to those improvements, even though no problem exist. They are the substance of growth in organizational development.

Based on this concept, no distinction will be made between successful and effective leadership.

#### 2.4. Individual and group or unit objectives :

It should be recognized that in the accomplishment of the organizational objectives, the manager does not work alone. It was discussed in the preceding chapter that the organizational objectives should be broken down into more specific operational objectives. Each work-group or work-unit has his own objectives. The manager, as the head of his unit, is responsible for the accomplishment of the unit objectives. In his effort to achieve the objectives, he has to utilize the available and potential resources (human as well as non-human resources).

Campbell, Dunnette, Lawler, and Weick (1970, p. 105) state: "The effective manager is an optimizer in utilizing all available and potential resources - material, human, and financial - both within and without the organization, toward its sustained long term functioning."

The group objective achieved are products or results of the manager's and the subordinates(s)' efforts. The individual objectives of the manager are the optimal utilization of the available and potential resources. How should the manager utilize the resources (instrumental input) to process the raw inputs in order to produce the outputs expected from him.

The individual objectives should reflect the results of the manager in dealing with the human as well as with the non-human resources. Managerial effectiveness, then, is the extent to which a manager achieves his individual objectives in his effort to accomplish the unit objectives he is responsible for.

### 3. The interdependent relationships :

#### 3.1. General remarks :

Authors in management and in business leadership agree that managerial effectiveness is a result of the continuous interactions between the manager and his environment.

Fiedler & Chemers (1974) state: "effective leadership is a result of a matching of attributes of the leader with the demands and constraints of the leadership situation".

Hersey & Blanchard (1972) indicate effectiveness by this formula:

$E = f(l, f, s)$ , in words: Effectiveness is the function of the leader, follower and situation. An effective leader, according to them, is able to adapt his style of leader behavior to the needs of the situation and the followers.

The managerial situation has been given in more detail by Reddin (1970), expressed as :

$E = f(st, f, c, s, o, t)$  or: effectiveness is the function of style of the leader, followers, coworkers, superior, organization, and technology.

Organization refers to "all those factors which influence behavior within a social system that are common to essentially unrelated positions. It is sometimes referred to as "exterinsic job factors",

"culture", "climate", "values", or simply "the way we do things around here." (p. 65)

Technology "refers to the way the work may be done to achieve managerial effectiveness." (p. 65)

In my view, effectiveness is mainly the result of the interdependent relationships of the manager with his superior, subordinate(s), peers, and people outside the company. There is no direct interaction with the "organization". The organizational climate is reflected in the behaviors of the people. The policies, rules, written or unwritten rules, are communicated and, eventually, explained by people.

All information is coming from and going to human beings. Technology cannot be seen apart from human effort.

The following parts of this sub chapter will deal with the interdependent relationships between the middle manager and his superior manager, his subordinate manager(s) his peers, and with the people outside the company.

### 3.2. The middle manager and his superior manager:

Due to the position power of the superior manager, the middle manager is more dependent on him than the reverse. He could be "rewarded" or "punished" by his superior manager. Because of this interdependent situation (unequal dependency) the middle manager is in no good situation to take the initiative at the beginning of the relationship. Even after a lapse of time, he will not have the same or greater influence to the superior, if his superior is an effective manager himself. The middle manager has to adjust himself to his

superior manager, to the personality and style of the superior manager. Mulder (1965) found in his study five kinds of interdependent relationships between the manager and his superior:

Expertise relationship (deskundigheidsrelatie) The superior manager is seen as an expert in his position by the manager. On the reverse, the manager is seen as an expert too by the superior manager. They will influence each other on the basis of expertise. The influence of the superior manager upon the manager is greater than the reverse. There is a mutual trust.

Internalisation relationship (Internalisatierelatie) :

The manager sees that within the organization the tasks and responsibilities are distributed as such that one obtains more responsibilities than the other. He thinks that he himself has a greater influence on his peers than the reverse, and thinks also that it is "natural" to submit himself to the influence of the superior.

The superior manager sees the manager as an expert on the manager's activity areas. He thus will undergo a certain influence from the manager.

Reference relationship (Referentie relatie): The superior manager is seen by the manager as an example. What the superior manager does the manager will do. Anything the manager has to do, he will do it in a way the superior manager would do. The influence upon the manager is very large. The manager is seen by the superior manager as having a pleasant personality with an expertise of lower degree.

Positive sanction (Positieve Sanctie): The manager sees his superior manager as someone who has the power to give rewards to him, if he

performs his job well. On the other hand his superior manager sees him not as an expert in his function. The manager will not have any influence upon his superior.

Negative Sanction (Negative Sanction): The superior manager is seen as someone who has the power to "punish". He can take away assignments from the manager, he may correct him, he may resist him. The manager will avoid having contact with his superior. The superior has a negative opinion about the manager too. The influence of the superior upon the manager is based on negative sanctions.

The above described superior-subordinate interdependent relationships are diagnosed by Mulder in an organization. They illustrate the various possibilities of interdependent relationships. It is a dynamic process colored by the perceptions and expectations of the superior manager as well as the manager.

It should be clear that the nature of interdependent relationship can change. It requires a special skill from the manager to change the negative relationship into a more positive relationship.

The attitude and perceptions of the superior manager limit the effectiveness of the manager. In the eyes of the superior manager he is and will always be either an ineffective or an effective manager.

### 3.3. The middle manager and his subordinate manager(s) :

In this interdependent relationship the middle manager has the position power. He could to a certain degree demand the adjustments of his subordinate(s) to him. The subordinate manager(s) could have an influence upon him, but the middle manager is in the position to control

the influences, he can decide the kind and the degree of the influences of his subordinate managers upon his behavior. If he wants to be effective, however, he has to make a careful assessment of the personality, the needs and expectations of each of his subordinates, in order to adjust his style of leadership.

In describing the concept of adaptive leader behavior Hersey & Blanchard (1972, p. 80) state :

"The more a manager adapts his style of leader behavior to meet the particular situation and the needs of his followers, the more effective he will tend to be in reaching personal and organizational goals."

The middle manager, then, is at the same moment a subordinate and a superior. What the influences of these opposite roles on each other are is not known.

#### 3.4. The middle manager and his peers :

With "peers" is meant those middle managers whose unit outputs serve as input to the middle manager or who use the outputs of the middle manager as their input. In other words peers are those other middle managers within the company with whom he has input-output work relationships.

The interdependent relationship is characterized by cooperative teamwork. There is a balanced interdependency. They have to work together, with each other. They have to adjust to each other and they are in equal position to take the initiative to improve the relationships between each other.

These interdependent relationship situation, however, can be used (or misused) by one or more members of the group to play a bigger role

in the decision making processes, having a bigger influence upon his fellow members of the group. Not his position power, but his personal power determines the kind of role he plays within the group of peers. If the middle manager has a bigger personal power than the other middle managers of the group, he could be accepted or rejected by them. The extent to which he will be accepted or rejected by the other members of the group depends a great deal (aside from his other personal attributes) upon his interpersonal relations skills.

The superior manager has to recognize this dynamic process, and has to lead further developments into positive directions.

(This group process has to be recognized and managed by the middle manager himself within his unit, if it happens between his subordinate managers).

In his interdependent relationship with the peers, the middle manager has to assess his fellow members of the group, adjust himself to them in order to be accepted by them, creating a condition to become effective.

### 3.5. The middle manager and the people outside the company :

With the people outside the company (such as suppliers, customers, government officials etc.) the middle manager has also an input-output work relationship. The interdependent relationships, however, are rarely balanced. They are mostly imbalanced. In certain situations, the middle manager is more independent, in other situations he is more dependent. In relation to suppliers, the middle manager (purchasing manager) has a bigger influence upon them than the reverse. In relation to customers the reverse is true. A personnel manager exchanging information on wage and salary administration with other personnel managers of other companies has a balanced interdependency. To be effective, however, the middle manager has to secure a trust



relationship between him and the people outside the company. He has to assess them and adjust himself to them in order to be able to improve the relationships that will lead to the achievement of his unit objectives.

### 3.6. Concluding remarks :

The interdependent relationships between the middle manager and his superior manager, subordinate manager(s), peers, and people outside the company play a very important role in determining his effectiveness.

The interdependent relationship pattern of the middle manager reflects various degrees of dependency or independency (see table IV-1). The degree of independency in his relationship with other persons within as well as without the company indicates also the middle manager's possibility to change the relationships towards more favorable relationships which will facilitate him in the attainment of the objectives.

TABLE IV-1.

The interdependent relationships pattern of the middle manager.

Relationship with :	high degree of dependency	independency	balanced dependency
Superior manager	x		
Subordinate manager(s)		x	
peers			x
people outside the company	x	x	x

The ability to develop and maintain effective interdependent relationships is a required personal attribute for effective managing and will be discussed in more detail in chapter VI.

#### 4. Measuring managerial effectiveness :

##### 4.1. Measures of managerial effectiveness :

The performance of managers in Indonesia is usually evaluated periodically by their superiors. Different tools, methods, and measures of managerial effectiveness are being used. The popular methods being used are: ranking, rating and the checklist methods.

In the application of the ranking method a global measure of effectiveness is used. The superior compares the total behavioral performance of the subordinate manager to each other. Such rankings have merit in that they constitute a single index encompassing a sort of overall impression or Gestalt of a manager's total "success".

Campbell, Dunnette, Lawler, and Weick (1970, p. 108) mention a number of additional potential advantages :

"(1) A manager is compared directly with his peers, who presumably are responsible for optimizing similar resource possibilities; (2) the global impression probably encompasses a broad sampling of managerial behaviors, extending over a span of time and - if the ranker has known him in previous settings - over managerial jobs he has held previously; (3) the impression is likely to be affected most by what the manager himself is doing or has done and to be relatively free of job "successes" due to organizational or societal factors; (4) the impression probably samples reasonably well the effects a manager may have had on the full range of organizational units for which he may be either fully or partially responsible; and (5) the impression is likely to be based on many behaviors rather than only a few."

"Even so", they further state, "such judgments may also be contaminated to unknown degrees by factors such as appearance, education, experience,

acquaintance, or liking and disliking, which may or may not be correlated with, or relevant to, actual criterion performances."

In the application of the rating and checklist methods, measures of effectiveness are traits and/or job behaviors.

Leadership and management studies show that the sets of traits used to evaluate the performance of the managers are unreliable measures of managerial effectiveness.

The job behaviors could be appropriate behaviors leading to managerial effectiveness. They could be behaviors "believed to be requisites for optimal resource allocation" (Campbell et.al., 1970, p. 106). They also could indicate apparent effectiveness instead of managerial effectiveness, behaviors that have no relation to the accomplishment of the objectives. Flanagan's critical incident method has been used to determine the appropriate behaviors leading to managerial effectiveness. Campbell et.al recommends the use of the critical incident method in combination with Smith and Kendall's retranslation method. This will be presented in the next part of this chapter.

For research purposes other global measures of managerial effectiveness has been used. The commonly used global measures are salary and organizational level indices corrected statistically for age or length of time in an organization. These measures are in fact consequences of the evaluation done by the superiors using the global measures mentioned above. They therefore incorporate the same advantages and disadvantages of the total impression of the behavior, the sets of traits, and the job behaviors.

#### 4.2. The standardized job behavior rating scale :

Campbell et.al proposed to combine the critical incident method with Smith and Kendall's retranslation method to develop a standardized job behavior rating scale "possessing necessary psychometric characteristics which will also be completed accurately and enthusiastically by relatively untrained observers of managers' job behavior" (1970, p. 119).

Below is a summary of the steps taken by Dunnette, Campbell, and Hellervik (1968) in developing job behavior observation scales for use in describing the job effectiveness of store department managers working for a large, nationwide retailing chain.

- Step 1. A two-hour workshop session was held with 20 store managers. The major dimensions involved in department managers' effectiveness were defined.
- Step 2. A second two-hour session was held with the same group. Critical incidents or unusually good or unusually poor department manager behavior were collected and discussed.
- Step 3. During two weeks the critical incidents were studied and categorized by the researchers.  
Some new definitions of the dimensions had been written and some new dimensions identified.
- Step 4. A third session with the same group was held.  
The managers were asked to sort the incidents into the appropriate dimensional categories and to "scale" each incident on a nine-step "effectiveness" continuum ranging from grossly ineffective to highly effective.
- Step 5. During the third session incidents showing low consensus among managers were eliminated. Dimensions also were eliminated or modified according to the content of incidents assigned to them.

	Could be expected to exchange a blouse purchased in a distant town and to impress the customer so much that she would buy three dresses and three pairs of shoes.
Could be expected to smooth things over beautifully with an irate customer who returned a sweater with a hole in it and turn her into a satisfied customer.	
	Could be expected to be friendly and tactful and to agree to reline a coat for a customer who wants a new coat because the lining had worn out in "only" two years.
Could be expected to courteously exchange a pair of gloves that are too small.	
	Could be expected to handle the after-Christmas rush of refunds and exchanges in a reasonable manner.
Could be expected to make a refund for a sweater only if the customer insist.	
	Could be expected to be quite abrupt with customers who want to exchange merchandise for a different color or style.
Could be expected to tell a customer that a "six-week-old" order could not be changed even though the merchandise had actually been ordered only two weeks previously	
	Could be expected to tell a customer who tried to return a shirt bought in Hawaii that a store in the States had no use for an Hawaiian shirt.

Source: Dunnette, Campbell, and Hellervik (1968)

Figure IV-1. Department manager job behavior rating scale for the dimension: Handling customer complaints and making adjustments.

Step 6. A workshop was held with a different group of 20 store managers and assistant store managers located in a different city. They also were asked to categorize the incidents into appropriate dimensions and to scale them on the nine-step effectiveness continuum.

Step 7. The same retranslation procedure was undertaken in a workshop session with store managers and their assistants from a third city. Results from the last two groups has been used to develop a final set of department manager job behavior scales. These scales were pretested for actual use by store managers of a fourth city.

They ultimately have developed a set of job behavior scales for department managers, comprising nine dimensions. One scale is illustrated in Figure IV-1.

Dunnette et al. see as strengths of those scales :

- 1). The high degree of realistic and actual behaviors used as anchors in the rating scales. Those behaviors are derived directly from the various facets involved in the department manager's efforts to allocate and utilize internal and external resources in an optimal way.
- 2). The use of the spoken language of the company. The behaviors are defined according to the language of the persons who will be asked to use them in recording their observations of various department manager's patterns of job behavior.

Apart from the two above mentioned virtues the behaviorally based rating scales share the other virtues of Smith & Kendall's anchored rating scales:

- 1). The components of performance for the job are considered in detail,
- 2). The rating scales are developed through extensive participation by the people who will use them.

Campbell, Dunnette, Arvey, and Hellervik (1973) found in their study that compared with a summated ratings technique, the behavioral rating scales yielded less method variance, less halo error, and less leniency error. They recommend the use of the scales for selection research, promotion, performance improvement, and training.

The main differences between Smith & Kendall's rating scales and the behaviorally based rating scales lie in the determination of the components of the job and in the use of the critical incidents. The original Smith & Kendall procedure calls first for the (rating scale) development group to name and define the major components of performance for the job in question. Using these definitions as guides, the participants then are asked to describe specific behaviors that illustrate effective and ineffective performance within each of the performance components. This procedure has been modified by Campbell, Dunnette et.al. The performance components for the job are determined through the critical incidents collected from the participants.

The rating scales developed with the use of critical incidents are limited in their applicability. The critical incidents are so job specific that the rating scales can only be used for one particular job. Another disadvantage is that a large number of people supervising the same kind of job have to be involved in the development of the behaviorally based rating scales. This would be an impossibility for small and medium sized industries.

The people who participated in the development of the rating scales are the superiors who will use the scales to evaluate the performance of their subordinates. The chances are that effective behavior as perceived by the superiors can be perceived as ineffective or irrelevant behavior by the subordinates.

The subordinate does not know what kind of behavior is expected from him.

If the difficulties in developing the rating scales can be overcome the use of those scales to measure managerial effectiveness would be appropriate.

Another method to evaluate managerial effectiveness is the method used by Management by Objectives. Here the subordinate himself is actively involved in the evaluation process.

#### 4.3. The Management by Objectives Approach :

Humble (1972) describes Management by Objectives (M.b.O.) as a dynamic system "which seeks to integrate the company's need to clarify and achieve its profit and growth goals with the manager's need to contribute and develop himself" (p. 31).

Managerial effectiveness as a result of managerial performance should be appraised regularly. The process of reviewing or appraising performance is part of the integration process of the company's and manager's need.

Odiorne (1972) explicitly emphasizes the active role of the manager in the integration process. He describes M.b.O. as "a process whereby the superior and subordinate managers of an organization jointly indentify its common goals, define each individual's major areas of responsibility in terms of the results expected of him, and use the measures as guides for operating the unit and assessing the contribution of each of its members" (p.55).

Each manager will have his own individual objectives which is determined and discussed together with his superior. The individual objectives are derived from the unit, divisional or functional objectives,



which in turn are derived from the company objectives. They not only reflect the manager's possible contribution to the company's growth but they reflect also his personal development within the company.

The regular performance review (together with the manager's potential review) stress the development aspect of the manager. According to the M.b.O. approach all managers have the need for development beside other basic needs. Humble (1972) states the following manager's need:

- a. Agree with me what is expected of me.
- b. Give me the opportunity to perform.
- c. Let me know how I am getting on.
- d. Give me guidance where I need it (Help, guide and train me).
- e. Reward me according to my contribution.

In the performance appraisal interview the following points will be discussed by the manager's superior as an effort to meet the manager's need :

- 1). The manager's achievements within the period under review.
- 2). The factors (environmental as well as factors within the individual) which had a major influence on the manager's performance.
- 3). The manager's short term career potential.
- 4). The manager's ideas about his future, including obstacles for further advancement as seen by the manager.
- 5). The manager's job improvement plan and personal development.

It is evident from the above that a comparison of managerial effectiveness between the managers is not considered as relevant by the M.b.O. Important is the individual progress of each manager.

As a consequence the technique used by M.b.O. to measure managerial effectiveness will give no comparable results in managerial effectiveness. Each manager will have his own criterion of effectiveness. It is therefore not appropriate to use these different criteria for selection research purposes.

The M.b.O. approach, however, in measuring managerial effectiveness includes the following benefits to the individual manager as stated by Humble (1972, p. 36) :

- a greater opportunity to make a personal contribution and to accept more responsibility.
- improved interpersonal relations through involvement in task forces to solve problems outside his own authority.
- less frustration as the "framework" of company objectives and the limits on his authority are clarified.
- better, more purposeful communication about things that matter with his boss, colleagues and subordinates.
- increased opportunity for personal growth, strengthened by the knowledge that the company is systematically planning training and succession.
- recognition of achievement by himself and his boss through clearer performance standards and sharper management controls.
- more equitable material rewards and promotion plans.

Management by Objectives may become a powerful tool for companies in Indonesia in gaining mutual commitment and high productivity.

## V. LEADERSHIP IN INDUSTRY

### 1. Introduction

There are many different definitions of leadership. Stogdill (1974) who reviewed more than 5.000 studies on leadership mentioned that "there are almost as many different definitions of leadership as there are persons who have attempted to define the concept" (p. 7).

Management is a particular kind of leadership. A manager is a leader, but a leader, on the other hand, need not to be a manager.

A manager is a knowledge worker, "the man who puts to work what he has between his ears rather than the brawn of his muscles or the skill of his hands" (Drucker, 1966, p. 5).

The manager has all kinds of information as his raw inputs, that should be processed. His individual products are various forms of information too, such as ideas, solutions, decisions etc. In achieving the objectives, of his work unit he is responsible for, however, he has to utilize the resources - human as well as nonhuman resources - available to him. In the utilization of the human resources - especially his subordinates - he functions as a leader. He has to influence the behavior of his subordinates directed to the achievement of the unit objectives.

The leadership theories are therefore applicable to the manager in this respect. Management can be seen as leadership in industry.

Leadership as such is a general term encompassing all kinds of dynamic situations within it :

- (a) a leader, having the responsibility and authority to lead,
- (b) followers to be led,
- (c) goals or objectives, that have to be attained by the leader together with the followers.

This chapter will deal with leadership theories that can be classified roughly into theories accentuating :

- (1) leader's traits or personality,
- (2) environmental factors,
- (3) leader behavior.

The leadership theories will be dealt with in the next two subchapters. The last suchapter will present concluding remarks on the leadership theories, and their consequences to my study.

## 2. The Great Man theory and the Environmentalists.

The history of the leadership concept shows a shifting of focus in theoretical orientation. Several early theorists attempted to explain leadership on the basis of inheritance. They assumed that leadership effectiveness is determined by the leader himself. The leader is endowed with superior qualities that differentiate him from his followers.

Dowd, quoted by Stogdill (1974), maintained that there is no such thing as leadership by the mass. The individuals in every society possess different degrees of intelligence, energy, and moral force, and in whatever direction the masses may be influenced to go, they are always led by the superior few. The above mentioned concept of leaders with superior qualities question the value of training individuals to assume leadership positions. It implied that if we could discover how to identify and measure those effective leadership traits (which is assumed are inborn in the individual), we should be

able to select leaders from non leaders; leadership training would not be necessary or will not play an important role.

Guided by the assumption that leaders have inherent superior personal qualities, that leaders are born, for many years the most common approach to the study of leadership concentrated on the identification of leadership traits. Those studies generally proved none too fruitful.

Gouldner (1950) who reviewed some of the empirical and conservatively interpreted evidence relating to "universal traits", concluded that :

"At this time there is no reliable evidence concerning the existence of universal leadership traits." (p. 34)

Jennings (1961) came to a similar conclusion: "Fifty years of study have failed to produce one personality trait or set of qualities that can be used to discriminate leaders and nonleaders."

A word of caution should be mentioned here. Stogdill (1974) who reviewed 124 leadership traits studies from 1904 - 1947, stated in his report:

"In analyzing data obtained from various groups and by various methods the question arises as to the extent to which results may be influenced by differences in social composition of the groups, differences in methodology, and differences in leadership criteria." ( p. 35 )

In the above review Stogdill found leaders characterized by several clusters of items that could be classified as capacity, achievement, responsibility, participation, and status. He also found that the traits of leaders tend to differ with the situation.

The various reviews of leadership traits studies done by Gouldner (1950), Jennings (1961), Jenkins (1947), and Stogdill (1948) have been cited frequently as evidence in support of the view that leadership is entirely situational in origin and that no personal characteristics are predictive of leadership.

It is the environment who creates the leader. The emergence of a great leader is a result of time, place, and circumstances. This view encourages the development of the idea that effective leadership can be learned and trained. According to Drucker (1966) managerial effectiveness can be learned through practices. Hersey & Blanchard (1972) state that "most people can increase their effectiveness in leadership roles through education, training, and development" (p. 69)

It is as accepted fact, however, that people have their own unique personalities and potentials. Rewording Hersey & Blanchard's statement above, we could say that not all people can increase their effectiveness in leadership roles through education, training, and development.

Some inborn personal qualities - not yet identified - are still required. Several psychologists, a.o. Ghiselli, Korman, Stogdill, are of the opinion that there are some personal attributes related with leadership effectiveness in all kinds of situations.

Korman stated (1971): "Despite the fact that psychologists have for some" years disputed the hypotheses of "effective leadership traits", it appears that this criticism might have been misdirected. That is, it seems as though there are some personal characteristics associated with leader effectiveness and that these operate in a relatively general fashion" (p.29)

Stogdill (1974) after reviewing 163 leadership studies from the years 1948 - 1970, recommended not to overemphasize the situational and to underemphasize the personal nature of leadership. He further states: "Strong evidence indicates that different leadership skills and traits are required in different situations. The behaviors and traits enabling a mobster to gain and maintain control over a criminal gang are not the same as those enabling a religious leader to gain and maintain a large following.

Yet certain general qualities - such as courage, fortitude, and conviction - appear to characterize both." (p. 72)

From the above we may conclude that :

- a. several psychologists still believe in the existence of a set of personal attributes required for effective leading, that operate in a general fashion.
- b. different leadership situations required different leadership traits and skills.

A word should be added in stating the importance of the personality of the leader. It is recognized that the personal attributes considered singly hold little diagnostic or predictive significance. We have to see them in combination, "it would appear that they interact to generate personality dynamics advantageous to the person seeking the responsibilities of leadership." (Stogdill, 1974, p. 82)

This view does not neglect the role of training and development. Apart from inborn personal qualities, other personal attributes have to be learned. Leadership is a dynamic process. In this process, through continuous interactions, learning processes take place. The leader improves his effectiveness through practices or through formal training. Not all will succeed.

For the identification of the "right" manager - the manager with the required personal attributes - it is important to know what personal attributes we have to look for. By knowing this we could prevent loss for the company and frustrations for the "wrong" candidates.

### 3. Theories on Leader Behavior: The best managerial style

The inconsistent and different results in the identification of the effective leadership traits have contributed to the study of the leadership processes. The focus is on the observed behavior of the leader.

How should the leader behave in order to be effective ?

In this subchapter three theories on leader behavior will be presented :

(1) the authoritarian - democratic leader behavior, (2) the Ohio State leadership studies, (3) the managerial grid. All these theories believe in a best or ideal managerial style. Three other theories, rejecting the notion of a best style, supporting the view that a style could be effective in one situation but could be ineffective in another situation, will be presented in the next subchapter: (1) the contingency theory, (2) the 3-D theory, and (3) the Life-Cycle theory.

#### 3.1. The authoritarian - democratic leader behavior

It is generally agreed that there are two ways in which a leader influences his followers.

- (1) He can tell his followers what to do and how to do,
- (2) He can involve his followers in the planning, problem solving and decision processes.

The former has been associated with the authoritarian style, which emphasizes task concerns. The latter, stressing more the concern for human relationship, has been related to the democratic style.

The authoritarian and democratic styles were viewed as the two extremes of a leader behavior continuum, having a wide variety of styles of leader behavior between them. Tannenbaum and Schmidt (1967) depicted a broad range of styles on a continuum moving from authoritarian



leader behavior at one end to democratic leader behavior at the other end (see figure V-1).

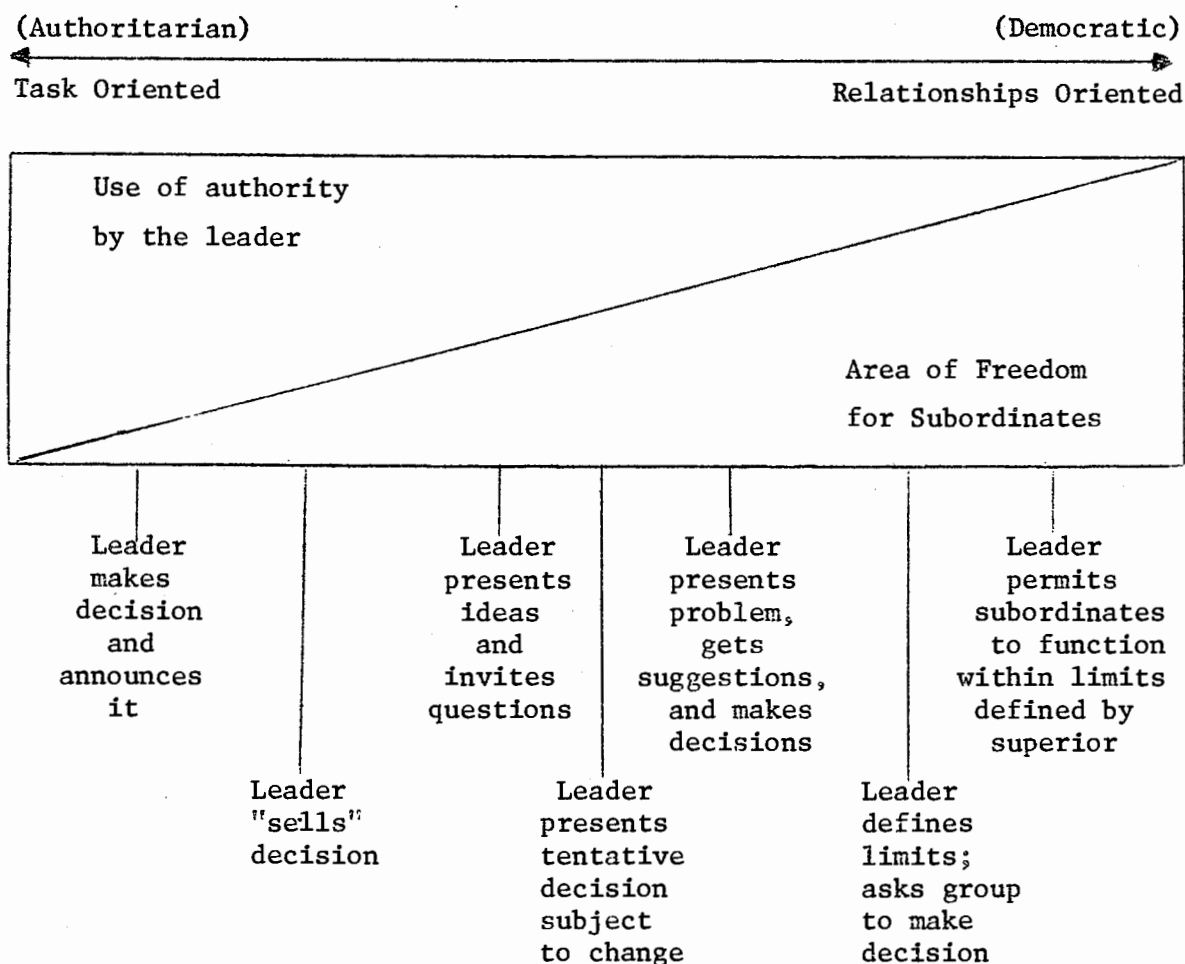


Figure V-1. Continuum of Leadership Behavior

Leaders using the authoritarian style emphasize their position power, they stress the dependentness of the followers upon him. The democratic style of leadership on the other hand, tries to minimize the feeling of dependence of the followers to their leader. Those two styles are often seen as results of the values and perceptions of the leader toward his followers or subordinates, and are associated with

Mc Gregor's theory X and Y. This theory is essentially a set of two types of assumptions managers have about people.

Theory X has the following set of assumptions :

- Work is inherently distasteful to most people.
- Most people are not ambitious, have little desire for responsibilities, and prefer to be directed.
- Most people have little capacity for creativity in solving organizational problems.
- Motivation occurs only at the physiological and security levels.
- Most people must be closely controlled and often coerced to achieve organizational objectives.

The following are the set of assumptions of theory Y :

- Work is as natural as play, if the conditions are favorable.
- Self-control is often indispensable in achieving organizational goals.
- The capacity for creativity in solving organizational problems is widely distributed in the population.
- Motivation occurs at the affiliation, esteem, and self-actualization levels, as well as physiological and security levels.
- People can be self-directed and creative at work if properly motivated.

The theory X assumptions lead to centralized decision making, tight control procedures, and marked status and power differences. They also lead to the belief that people are motivated either by material gain or punishment. The style associated with theory X is the authoritarian style, while theory Y is associated with the democratic style. Of the two styles it is believed that the democratic style is the most ideal leadership style.

### 3.2. The Ohio State Leadership studies

In 1945 the Bureau of Business Research at the Ohio State University initiated the leadership studies to identify various dimensions of leader behavior. To gather data about the behavior of leaders, the Leader Behavior Description Questionnaire (LBDQ) was developed, an instrument designed to describe how a leader carries out his activities (Stogdill & Coons, 1957). Out of over 1800 statements descriptive of various aspects of leader behavior, 150 was left after the selection by expert judges, who then classified them into nine dimensions :

(1) Initiation, (2) Organization, (3) Domination, (4) Recognition or Evaluation, (5) Production or stress on production, (6) Membership or Fraternity, (7) Representation, (8) Integration, and (9) Communication.

To obtain behavior descriptions of managers, the 150 items LBDQ were administered in many job settings and were scored according to the nine dimensions listed above. The intercorrelation of the dimension scores were factor analyzed. It became evident that the nine dimensions were not independent. Two relatively more fundamental dimensions of leadership behavior were found by means of factor analysis : consideration - involving predominantly the behaviors of membership, representation, integration, and communication -, and initiating structure - involving predominantly the behaviors of initiation, organization, domination, recognition, and production.

The descriptions below is taken from Fleishman & Peters (1962, p. 130):

"Consideration reflects the extent to which an individual is likely to have job relationships characterized by mutual trust, respect for subordinates' ideas, and consideration of their feelings.

Initiating structure reflects the extent to which an individual is likely to define and structure his role and those of his subordinates toward goal attainment."

With those two independent factors, leader behavior was plotted for the first time on two separate axes. Four quadrants were developed to show various combinations of Initiating Structure and Consideration as illustrated in Figure V - 2.

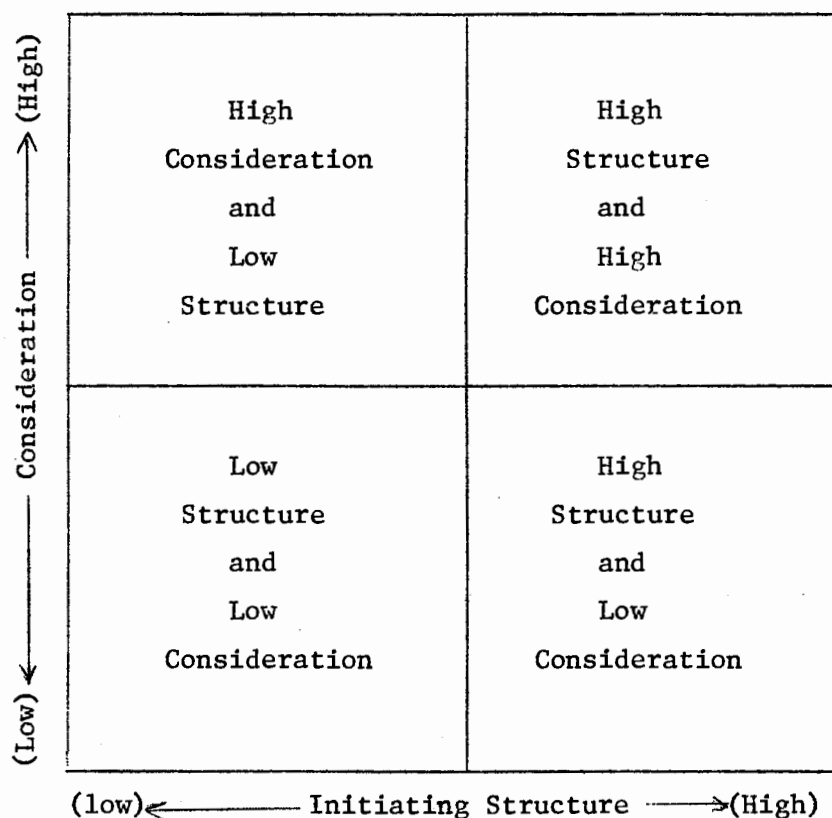


Figure V-2. Quadrants of the dimensions: Consideration and Initiating Structure.

The two sub-scales - Consideration and Initiating Structure - have been used extensively in research.

Korman (1966) reviewed the research in which consideration and Structure scores of industrial supervisors were related to various criteria of

supervisory effectiveness and work group performance. He came to the following conclusion :

"Despite the fact that "Consideration" and "Initiating Structure" have become almost bywords in American Industrial psychology, it seems apparent that very little is now known as to how these variables may predict work group performance and the condition which affect such predictions. At the current time, we cannot even say whether they have any predictive significance at all." (p. 360)

Stogdill (1974) based on the studies done untill 1970, concludes that: Research in a variety of situations indicates that leaders are rated as more effective when they score high in both consideration and initiating structure." (p. 140)

He further found that :

- (a) group productivity is somewhat more highly related to structure than to consideration,
- (b) member satisfaction is somewhat more highly related to consideration than to structure,
- (c) group cohesiveness is related about equally often to consideration and structure.

### 3.3. The managerial grid

Other leadership studies have identified several forms of person-oriented and work-oriented leader behavior. Democratic, permissive, participative, follower-oriented, consideration, employee-oriented are all forms of person-oriented leader behavior. The various forms of work-oriented leader behavior are autocratic, restrictive, distant, directive, and production-oriented.

The two dimensions, person-oriented and work-oriented leader behavior, have been used by Blake & Mouton (1964) in the development of the managerial grid theory. The vertical axis is used for concern for people, the horizontal axis for concern for production.

Blake & Mouton use numbers as a notational device rather than names.

A leader with a rating of 9 on the horizontal axis has a maximum concern for production, while a leader with a rating 9 on the vertical axis has a maximum concern for people. In the managerial grid (see figure V-3), five different types of leadership are located, the 1,1, 9,1, 9,9, 1,9 and 5,5 style.

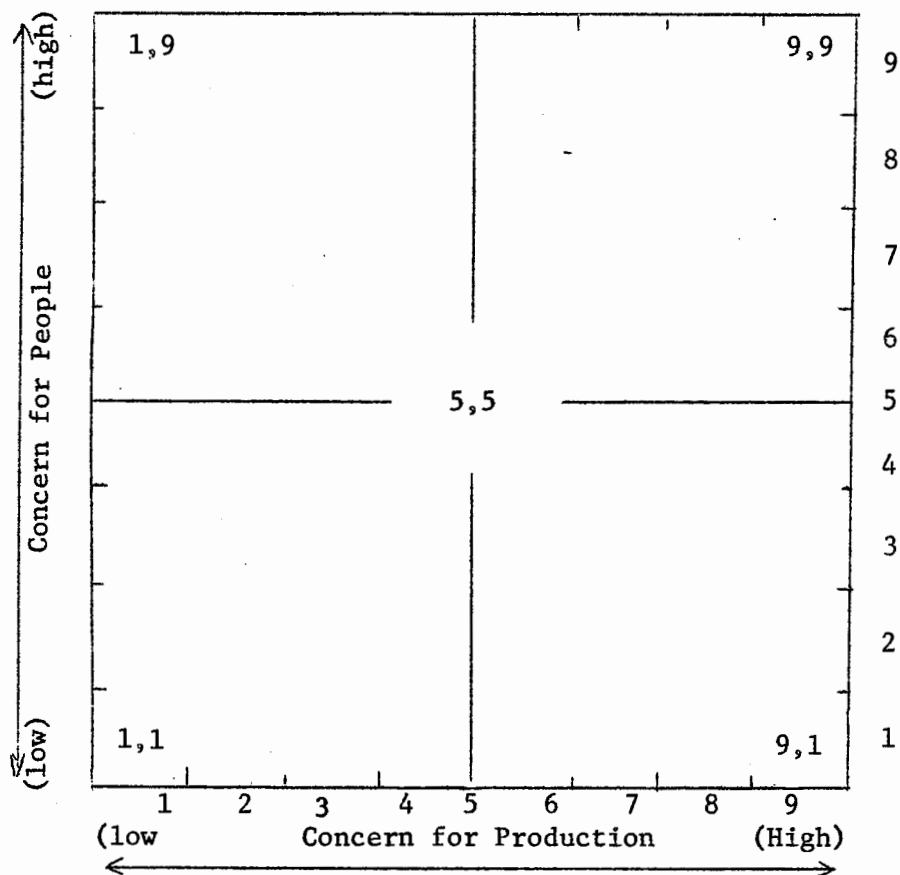


Figure V-3. The managerial grid.

Summaries of the five leadership styles are described as follows :

- 1,1 : Exertion of minimum effort to get required work done is appropriate to sustain organization membership.
- 9,1 : Efficiency in operations results from arranging conditions of work in such a way that human elements interfere to a minimum degree.
- 9,9 : Work accomplishment is from committed people; interdependence through a common stake in organization purpose leads to relationships of trust and respect.
- 1,9 : Thoughtful attention to needs of people for satisfying relationships leads to a comfortable friendly organization atmosphere and work tempo.
- 5,5 : Adequate organization performance is possible through balancing the necessity to get out work while maintaining morale of people at satisfactory level.

The 9,9 is their ideal style. Blake & Mouton later (1967) introduced their third dimension of which they say: "The third dimension of the managerial grid represented is the thickness or depth of a given style.... It deals with how long a managerial style is maintained in any given situation of interaction, particularly under pressure from tension, frustration or conflict."

The difference between the managerial grid and the Ohio State model of leadership is that the former tends to be an attitudinal model, which measures the predispositions of a manager, while the latter tends to be a behavioral model which examines how leader actions are perceived by others.

As mentioned above, both theories have a strong preference for a particular style, which is regarded as the best managerial style, the 9,9 style and

the High consideration-high initiation structure style.<sup>1/</sup>

Both fall in the same quadrant, the upper right quadrant.

Leadership is a dynamic process, varying from situation to situation with changes in leaders, followers and situations. Effectiveness depends on a style's appropriateness to the situation in which it is used.

Research, reviews of research results done by psychologists like Coch and French Jr. (1947), French Jr. et al (1960), Anderson (1959), Sales (1966), Likert (1961) and Stogdill (1974) proved the non-existence of a single style which is naturally more effective than others.

The managerial grid has been used extensively in organizational and management development programs. The popularity of the theory stems a.o. from the ease with which the basic idea can be grasped, the positive approach to to managing suggested by 9,9.

#### 4. Leader behavior: contingency theories

##### 4.1. The contingency model

The contingency model of leadership effectiveness has been developed by Fiedler (1967). According to this model "the performance of a group is contingent upon both the motivational system of the leader and the degree to which the leader has control and influence in a particular situation, the "situational favorableness". "(Fiedler, 1974, p. 73).

To assess the motivational system of the leader, the leader has to complete a 16 item bipolar scale (a semantic differential scale). The score reflects the psychological distance the leader perceives between himself and

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<sup>1/</sup> Kerr et al. (1974) recently developed a contingency theory of leadership based upon Consideration and Initiating Structure literature.



his least preferred coworker (LPC). A High LPC score indicates that the person perceives his least preferred coworker in a more favorable, more differentiated manner. He has as his basic goal the desire to be "related" (relationship oriented).

A low LPC score indicate the degree to which the person is ready to reject completely those with whom he cannot work. His basic goal is to accomplish the task (task-oriented).

Situational favorableness is determined by three situational variables:


1. Leader - member relations: The personal relations of the leader with the members of his group. This variable is being assessed by means of leader's responses to 10 to 20 semantic differential scales used to rate the concept of "group atmosphere". The end points of each scale are defined by a pair of bipolar adjectives, and the group's atmosphere is rated according to where it falls on the continuum (see Figure V-4)

1. Friendly	: 8 : 7 : 6 : 5 : 4 : 3 : 2 : 1 :	Unfriendly
2. Accepting	: ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Rejecting
3. Satisfying	: ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Frustrating
4. Enthusiastic	: ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Unenthusiastic
5. Productive	: ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Nonproductive
6. Warm	: ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Cold
7. Cooperative	: ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Uncooperative
8. Supportive	: ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Hostile
9. Interesting	: ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Boring
10. Successful	: ___ : ___ : ___ : ___ : ___ : ___ : ___ : ___ :	Unsuccessful

Figure V-4. Group Atmosphere Scale

2. Task structure: The degree of structure in the task that the group has been assigned to perform. This characteristic is assessed by means of four a priori rating scales, originally developed by Shaw.
3. Position power: The power and authority that his position provides. It is measured by an 18-item checklist filled out by an independent judge.

Fiedler used these three situational variables to produce an eight - type model of situations, which have been arranged on a continuum defined as "favorableness", or the degree to which the leader's job of influencing his group will be easy or difficult. The complete ordering is shown below:

Situation	Leader-member relations	Task structure	Position Power	Degree of favorableness.	
I	Good	High	High	most favorable	
II	Good	High	Low		
III	Good	Low	High		
IV	Good	Low	Low		
V	Poor	High	High		
VI	Poor	High	Low		
VII	Poor	Low	High		
VIII	Poor	Low	Low		most unfavorable

In a reexamination of old leadership studies and an analysis of new studies Fiedler found out that :

- (1) Low LPC leaders (= task oriented leaders) tend to perform best in group situations that are either favorable or very unfavorable to the leader.
- (2) High LPC leaders (= relationships oriented leaders) tend to perform best in situations that are intermediately favorable.

The conclusions above are mainly valid for interacting groups.

Fiedler distinguished between interacting, coacting and counteracting groups. The interacting groups require the close coordination of the team members in the performance of the primary tasks. The group members are interdependent in the sense that "it is not easily possible in such teams to identify the degree to which a particular groupmember directly contributed to success (Fiedler, 1967, p. 19)".

The coacting groups also work together on a common task. Each groupmember is, however, on his own, and his performance depends on his own ability, skill, and motivation.

The counteracting groups consist of individuals who are working together for the purpose of negotiating and reconciling conflicting opinions and purposes. The group of subordinate managers the middle manager has to deal with is more a coacting than an interacting group. Each subordinate manager does his job relatively independently of other subordinate managers. It is still a question whether Fiedler's theory can be applied by the middle manager. Moreover, considering the fact that the middle manager often has to deal with his subordinate managers individually. The middle manager will face difficulties in completing the Group Atmosphere Scale (the measure of leader-member relations) if he has an extreme positive and an extreme negative relation with two of his subordinates. The average of those relations will not have the same meaning as when he has moderate relations with his two subordinates.

Another point is that the leader-member relations are susceptible to changes as a consequence of the continuous interactions between the middle manager and his subordinates. The relationships could change from negative to positive and the reverse. To Fiedler Leader-member relations is one of the situational variables determining the degree of favorableness. It is an input of the

leadership situation requiring a particular style. To me, here I support Reddin's view, that leader-member relations should be seen as an output, as a consequence of the style used by the manager. The subordinates, their nature and condition, should be one of the situational variables determining or demanding a particular leadership style and not the leader-member relations.

#### 4.2. The 3-D Theory

Reddin (1970) developed his 3-D theory by adding a third dimension to the dimension of task-orientation (TO) and relationships-orientation (RO). The third dimension is the effectiveness dimension. Using the RO on the vertical axis and the TO on the horizontal axis he identified the four basic styles of managerial behavior :

- (1) Separated: the TO and RO behaviors are used to a small degree.
- (2) Related: only the RO behavior is used.
- (3) Dedicated: only the TO behavior is used.
- (4) Integrated: both the TO and RO behavior are used to a high degree.

The four basic styles of behaviors could be effective in certain situations and not effective in others. Their effectiveness depends on the situation in which they are used.

By adding the third effective dimension Reddin came to eight managerial styles, four more effective and four less effective.

Less effective managerial style	Basic style	More effective managerial style
Deserter	Separated	Bureaucrat
Missionary	Related	Developer
Autocrat	Dedicated	Benevolent Autocrat
Compromiser	Integrated	Executive.

There is no ideal managerial style. Styles are best seen in relation to specific situations. Any style has a situation appropriate to it, and many situations inappropriate to it. A manager has to match his basic style to the needs of the situation. A basic style, "related" for example, when appropriately used in a situation can be labeled "developer", when inappropriately used in another situation, that same behavior can be labeled as "missionary". Reddin explains. "When an assessment is made of managerial style, two things must be considered. One is the behavior actually being used, expressed in T0 and R0, and the other is the demands of the situation in which it is used. If the particular behavior does not meet the demands of the situation then one of the less effective style labels should be used to describe the situation. If the behavior is appropriate to the situation, one of the more effective style labels is used instead" (p. 44).

Apart from the eight managerial styles Reddin discussed the concepts of style flexibility vs. style drift, style resilience vs. style rigidity, all concepts concerning the use of the managerial styles.

The manager has to adapt his style to the demands of the situation, he has to change his style when necessary. The skill in varying one's basic style behavior appropriately to a changing situation so that managerial effectiveness increase is called style flexibility. Style drift, on the other hand is when the manager changes his basic style behavior inappropriately so that managerial effectiveness decreases. In a situation where a narrow range of behavior is appropriate, the manager who maintains his basic style (who has a low flexibility) is seen as having style resilience. On the other hand, if the situation demands a wide range of behavior, the maintaining of one basic style

by the manager, is seen as inappropriate. The manager is perceived as having style rigidity.

It is clear from the above, that the basic styles, and the degree of flexibility in using the basic styles seen apart from the situation, have no effectiveness value. The degree of effectiveness of the basic managerial styles, and the flexibility in the use of these styles is determined in relation with the demands of the situation.

A consequence of this line of thought is that the behavior of a manager can be perceived differently by each one of his subordinates, his coworkers, his superior. The manager therefore has to be aware of the various perceptions or expectations of his subordinates, coworkers and superior. With the use of a flex map (a chart depicting the element flex of the dominant situational elements and the basic style of the manager) Reddin proposes guidelines to assess the need for a particular style required by the elements of the situation (i.e. according to Reddin: the subordinates, coworkers, superior, the organization, and technology - see figure V-5).

After diagnosing the needs of the situation and assessing his own basic style, the manager will see the extent to which his style intersects with the styles demanded by the situation. He then will know what he has to do in order to become more effective.

Reddin gives the following illustration (1970, p. 130 - 131).

In this example situational elements make some common demands on style, the manager's style flex does not intersect with that of the situational elements. As seen in Figure V-5, the superior demands for related and separated behavior, technology demands dedicated and related behavior, organization demands related behavior. The manager's flex is integrated behavior.

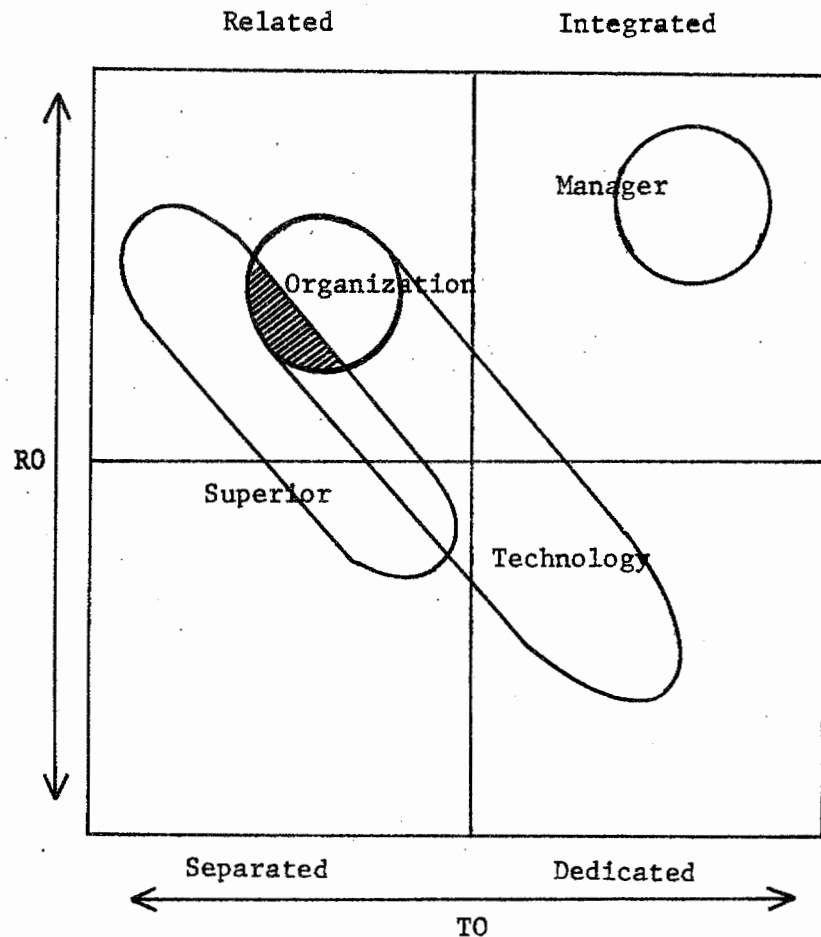


Figure V-5. The flex map  
(Reddin, 1970)

The intersection of the flex of the situational elements is called the area of possible effectiveness. The manager's flex does not intersect with the area of possible effectiveness. Therefore he should have to change his own style or the style demands of all three elements in order to achieve managerial effectiveness. It is obvious that he should attempt to do the first.

The 3-D theory is used as a training device. The central question in management training is : How can we improve effectiveness? The 3-D theory trains the three skills that, according to Reddin, are needed by

the manager: the situational sensitivity skill, the style flexibility skill, and the situational management skill.

#### 4.3. The Life-Cycle Theory

The life-cycle theory of leadership, developed by Hersey & Blanchard (1972), which is an outgrowth of the Tri-dimensional Leader Effectiveness Model, is based on a curvilinear relationship between task behavior and relationships behavior and maturity. This theory is an attempt to provide a leader with some understanding of the relationships between an effective style of leadership and the level of maturity of his followers.

Hersey & Blanchard quoted Sanford, who has indicated that there is some justification for regarding the followers as the most crucial factor in any leadership event. "Followers in any situation are vital," they say, "not only because individually they accept or reject the leader but because as a group they actually determine whatever personal power he may have" (p. 134).

The maturity level of the followers determines the effective style of the leader (see Figure V-6).

Beginning with structured task behavior, which is appropriate for working with immature people, life-cycle theory suggests that leader behavior should move through (1) high task-low relationships behavior to (2) high task-high relationships and (3) high relationships-low task behavior to (4) low task-low relationships behavior, if one's followers progress from immaturity to maturity (p.135).

Hersey & Blanchard assume that the level of maturity of the followers are not constant. Immature followers change to become more mature. It is one of the responsibilities of the manager to assist the followers



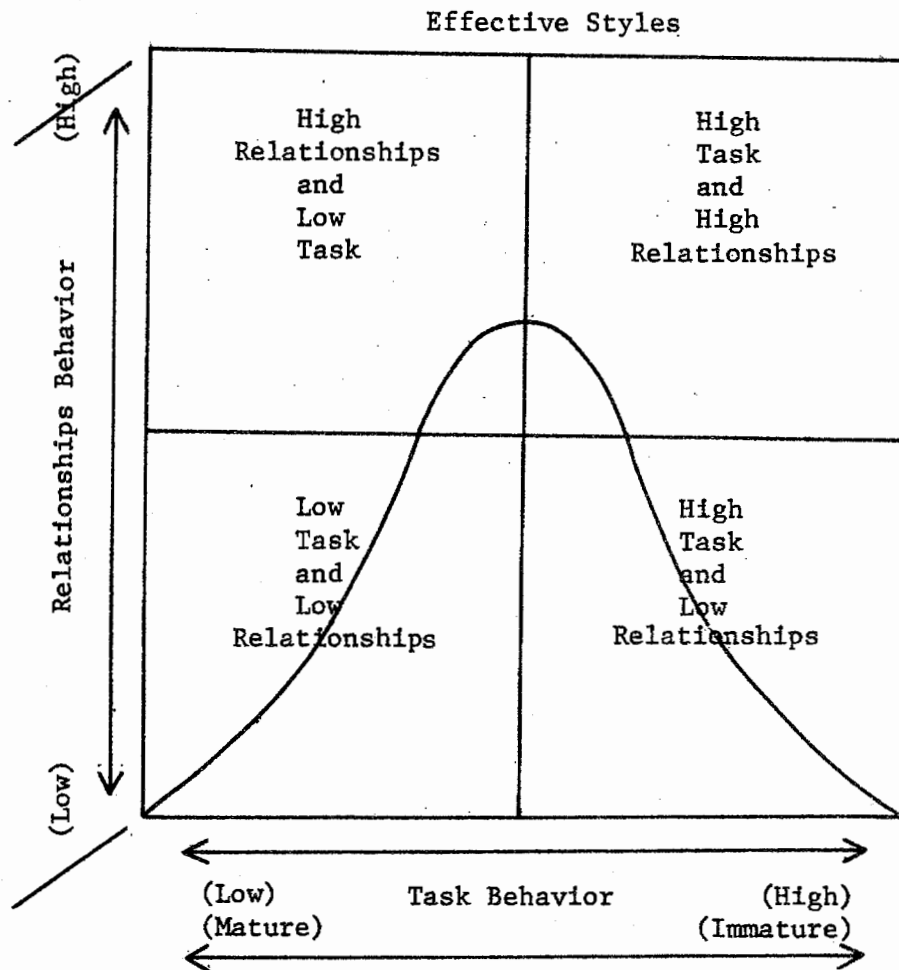


Figure V-6. The Life - Cycle Theory  
(Hersey & Blanchard, 1972)

to increase their level of maturity. The manager has to adjust himself to the situation not only passively but also actively. Hersey and Blanchard state that: "An effective leader must not only have good diagnostic skills. Once he has analyzed the demands of his environment, he must then be able to adapt his leadership personality to fit these demand and develop the means to change some or all of the other variables" (p. 149).

Maturity is defined by "achievement motivation, the willingness and ability to take responsibility, and task relevant education and experience of an individual or a group" (p. 134).

As a person matures over time he moves from a passive state to a state of increasing activity, from dependency on others to relative independence.

One weakness of this life-cycle theory is that by emphasizing the influence of the followers on the leader, they neglect the influences of the other situational variables, like the superior manager, peers, and the people outside the company, with whom he has to work.

5. Concluding remarks:

Overviewing the above presented leadership theories we see that leadership studies are focusing on:

- a) the personality of the leader, looking for "universal" effective leadership traits,
- b) leaders behavior, searching for effective leader behavior patterns,
- c) the interactions of the leader with situational variables, looking for the best management style in a particular situation.

The results of the studies looking for effective leadership traits did not prove fruitful. There is still a believe, however, in the existence of a set of personal attributes or traits required for effective leading, that operate in a general fashion.

Viewing the middle management job as a system, the personal attributes (the inborn as well as acquired personal qualities) of the manager is an instrumental input into the system. As is evident from chapter III,

the output of the system does not depend only on the kind of raw input, but depends also on the kind of instrumental input that is used to process the raw input. Therefore the question of what kind of personal attributes the manager should have in order to become effective is still important. Research should be directed to the identification of specific personal attributes required by management job groups. For example Stewart's (1967) management job groups (see chapter III).

Studies searching for effective leader behavior patterns produce various managerial styles, one of which has been thought as the most effective leadership style. This style is based on two dimensions of leader behavior found through empirical studies (a.o. the Ohio State University Leadership studies). The two dimensions are the task or work oriented dimension and the relationship oriented dimension. We could recognize the two dimensions through an analysis of the manager's job. The manager has been assigned a set of tasks in order to achieve his unit objectives. In achieving the objectives, however, he is not able to work alone. He has to be assisted by his subordinates, and has to work together with his peers and has to receive support and trust from his superior. Good relationship then is essential for the manager (see chapter IV), Neglecting these relationships means that presumably the manager is concentrating more on the tasks he has to perform (task oriented). On the other hand spending too much time on acquiring good relationship could have the consequence of neglecting the tasks he has to perform (more relationship oriented). There should be an optimal balance of concern for the two aspects of his job. The Ohio leadership studies and Blake & Mouton's managerial grid assumed to have found the optimal balance, i.e. the manager should

use a High consideration and high structure style, resp. a 9,9 style. They have not enough taken into consideration, however, other possible influences of the situational variables. Leadership studies prove that there is no best style. Different situations demand different styles.

The contingency view of leadership is focusing on the interactions of the leader and the situational variables in the effort to identify the best style for a particular situation. Eight different situations have been identified, and for each situation Fiedler searches for the best style. The results of the studies done in this field are not convincing yet. They are not always up to the expectations. This can be expected before, since the variety of leadership situations has been reduced to only eight situations.

The Life-Cycle theory of leadership also suggested some best styles for various situations. It relates the styles, however, with the degree of maturity of the followers, ignoring other situational variables. The importance of this theory is the recognition and the stress of the dynamic process of leadership, the continuous changing of the leadership situation. The followers' growth to maturity could be expanded to the manager himself, the coworkers, the superior (If the superior managers is still immature in terms of Hersey & Blanchard, can the middle manager be expected to be mature ?).

The manager has to be aware of this ever-changing character of himself and of his direct work environment. Acknowledging this, he should be able to adapt his behavior to the demands of the situation.

Reddin's 3-D Theory could assist the manager for this purpose. It provides the manager with :

- a. the tools to assess his work environment, to assess the dominant situational variables, and
- b. the alternatives of activities that he could do in order to be effective.

The manager has to make his own judgment as to what style is appropriate for a particular situation.

As a closing remark we may conclude from the leadership studies that :

- a. further reasearch should be conducted on :
  - a.1. the identification of personal attributes (inborn as well) as acquired) required by particular management job groups,
  - a.2. situational variables, looking for moderator variables that serve as a link between the personal attributes and managerial effectiveness,
- b. the ever changing leadership or managerial situation demands specific skills or personal attributes of the manager that can be and should be learned by him to enable him to adapt his behavior and management style to the situation.

## VI. THE REQUIRED PERSONAL ATTRIBUTES.

### 1. Introduction.

In describing the middle manager and his job in chapter III, I mentioned among others the susceptibility to change of the middle management job. The environment, the supra system will not have a direct impact on the middle management level. It is the top management level that has to deal with the uncertainties and ambiguities in the environment. These are transformed into new broad goals and strategies, that have to be translated by the middle manager into more specific operational goals. The middle manager's job is always changing, but in general not sudden or in a fast tempo.

What could be the personal attributes required for the middle manager which would deal with the changing characteristics of this job in order to be effective?

In chapter IV managerial effectiveness was defined as the extent to which a manager has achieved his individual objectives in his effort to accomplish the unit objectives he is responsible for. What are the personal attributes required for the achievement of the middle manager's objectives?

From the preceding chapter, we have seen that the search for universal effective leadership traits was still unsuccessful. The conclusion has made that it is still important and valid to search for the personal attributes required for effective managing. The search however has to be seen within the context of the middle management as an open sub-sub-system. The first subchapter will suggest personal attributes required for effective managing, on the basis of an conceptual analysis.

The second subchapter will give an illustration of what kind of empirical studies has been conducted. This subchapter is divided into three sections, the first section deals with personal attributes required for all management jobs, the second section concerns personal attributes required for different management levels and the third section is focused on personal attributes required for different management functional areas.

At the end comment will be given on the conceptual analysis and the results of the empirical studies.

## 2. A Conceptual Analysis.

### 2.1. The characteristics of change of the middle management job.

The industrial organization is an open socio technical system. Management is one of the five subsystems of the industrial system, and we can view the middle management job as a sub-sub-system (Chapter III). The system interacts continuously with other systems. Negative entropy takes place within the system. The system changes in its efforts to grow or to maintain its existence. Changes within the system manifest in itself in changing of the sub-systems and sub-sub-systems. The middle management job changes, it changes continuously. The changes are not only caused by the top management level, but also by the lower management level, and the middle manager himself. The continuously changing middle management job requires changes in the middle manager's behavior. The middle manager has to be alert to the changes and has to adjust himself to them. The adjustment process, however, is not only a passive reaction process, but an active process too. The middle manager is structuring his job adequate to the new situation, he has to adjust his plans, modify or determine new unit

objectives and individual objectives. Therefore the middle manager should have the ability and the willingness to adjust himself to the new situations. The readiness to adjust himself is closely related to the willingness to be effective.

Managerial effectiveness was defined as the extent to which a manager has achieved his individual objectives in his effort to accomplish the unit objectives he is responsible for. The extent to which a manager is motivated to achieve his individual objectives depends for a great deal upon his expectations in accomplishing his personal objectives, as long as these are not in conflict with the unit as well as the company objectives. If the manager feels that in the attainment of the individual and unit objectives a main part of his personal objectives will be achieved too (the main part of his needs will be satisfied) then he is willing to work effectively. A manager who is willing to work effectively, possesses the need for achievement and the need for self actualization. The two needs manifest themselves in a high level of aspiration, an eagerness to get better results, and not easily being satisfied with his achievements. The need for self actualization and the need for achievement will not always have the same intensity, they are susceptible to change. They can be intensified or weakened by various factors. The perceptions and expectations of the middle manager towards his own results, his own job outputs, and towards the perceptions, expectations and reactions of the people the manager has to work with towards his job outputs will have a great impact on the two needs.

## 2.2. Personal attributes required by the outputs of the job.

There are three kinds of individual objectives of the middle manager:



the regular-ongoing objectives, the problem solving objectives, and the innovative objectives (Chapter III).

Those objectives will not be achieved if the middle manager does not possess the appropriate knowledge about his job. i.e. the technical or the professional knowledge of the job. This knowledge can be general and broad, appropriate for a large group of management jobs, e.g. general management, it can be more specific, appropriate for a management functional group, e.g. production management, or it can be very specific, appropriate only for the particular middle management job in a particular company.

Apart from knowledge, the manager should have problem solving skills and he should be innovative. The problem solving skills can be learned. The training of this skill will be effective if the middle manager, apart from good job knowledge and the willingness to learn, has a good reasoning ability, and a good divergent thinking ability (creativity).

The innovative objectives, the substance of growth in organizational development, call for creativity, and often high levels of technical competence. The higher the position of the manager the more important the innovative objectives are. The middle manager should be flexible and divergent in his thinking, able to see many alternatives, to consider things from different points of views and to come up with new ideas.

In executing his job the middle manager could produce the desirable, expected results and/or undesirable and unexpected results. The expected results will have a reinforcement effect on his self confidence. Having the need for achievement and the need for self actualization the manager will try to produce better results. It depends, however, not only on how the middle manager perceives his results, but also on how he reacts to

the perceptions, expectations, and reactions of his superior, peers, subordinates and people outside the company towards those results. A middle manager could produce effective results, but they may not be perceived as such by his superior. The perceptions and reactions of the people the manager has to work with could become a resource of frustration and stress. The middle manager therefore should have the readiness to absorb frustrations and stress. He should also have the willingness to accept the consequences of his actions. Selfconfidence, endurance and emotional stability will help him overcoming failures, the real failures as well as those seen by the others. The manager should be willing to learn from his mistakes. Together with the ability to learn, he will be able to improve his effectiveness.

### 2.3. Personal attributes required by the management activities.

The managers activities can be classified into two main classes: the planning and the implementation activities (chapter III). The planning activities include long range, short range as well as very short range planning. Apart from constructing standard plans and single used plans (chapter III) the manager has to improvise plans as a reaction to possible unforeseen problems or to sudden unexpected changes.

The planning activities can be subclassified into three stages, the situational assessment stage, the planning alternatives stage, and the decision making stage. The planning activities are mainly done by the manager himself. In the situational assessment stage the manager has to assess the situation, he has to identify the strenghts, weaknesses, opportunities, and the constraints or threats of the "new" situation.

He has to analyse the information he receives, new information from the top as well as feedback information about his outputs, and the reactions of other people towards them. He has to be sure whether he has all relevant information available; if still necessary, he should search for additional information. The manager should have situational assessment skills or what Reddin (1970) calls situational sensitivity skills. It should be noted that the higher the position of the manager the broader the scope of his job, the more varied information he has to assess. The kind of information depends also upon the specific kind of job of the manager.

Based on the assessment made, the manager begins to develop his plans. He should not develop a single plan but he should develop alternative plans. The manager therefore should have the appropriate planning skills. He should be able to make forecasts (based upon assumptions), to determine objectives, and to recognize various strategies in the effort to accomplish the objectives. Like any other skills, the planning skills can be learned. Long range planning requires more time and a more thorough preparation. It is usually done together with other persons because of the broad scope involving other jobs closely related with the own job. The very short range planning deals mostly with changing or modifying the existing plans, adapting them to the new situations. The manager should be able to think thoroughly on the one hand to think quickly on the other hand. He should be factual, realistic, and practical. His activities should be based on facts. Here again, the same is the case with the problem solving skills, a good reasoning ability and creative ability, apart from job knowledge and the willingness to learn, will facilitate the learning of the planning skills.

In the decision making stage, the manager has to make his choice which plan should be implemented. For the middle manager the decisions he has to make are mainly concerning his own work unit and concerning short range and very short range plans. There is always the factor of risk in making the decisions. The circumstances often need quickly made decisions. This is the case in most management jobs. An exception is the job of the research and development manager. He may not have to make quick decisions. In contrary he should have time to contemplate. Indeed mostly the manager should be quick in his thinking, but in certain jobs it is not necessary. The willingness to take risks, closely related to the ability to make decisions, varies in intensity at the different management levels and in the different management job families. The higher the position of the manager, the greater the risk might be. The middle manager then should be venturesome, he should not be conservative. The supporting traits to this are independency, self assurance, and confidence.

The implementation activities are mainly characterized by frequent interpersonal interactions. He has to deal effectively with his subordinates, peers, superior and the people outside the company. He has various kinds of interdependent relationships to them, relationships determining to a large extent the achievement of his individual as well as his unit objectives (chapter IV). In general we can say that the manager should have interpersonal skills or human relations skills. Underlying this is the willingness to make contacts with people, the readiness to adjust to people, and to listen to them.

The skills in dealing with a bossy superior or a lenient one are different, as viewed from a dependent position. So are the skills in contacting a

superior, peers, subordinates and people outside the company, because of the different positions or roles of the manager (Chapter IV). Obvious is that the demands on the interpersonal skills of the manager vary from management job to management job. These interpersonal skills can be developed and trained for instance through social skills training programs. A prerequisite for the training is that the manager must be willing to accept his own weaknesses as seen by others, to improve or develop himself (to improve the degree of maturity in Hersey & Blanchard's view).

The interpersonal skills include Reddin's style flexibility and situational management skills.

The aquirement of the appropriate interpersonal skills will be facilitated by a good verbal ability: the ability to express ideas in words orally and writtenly.

#### 2.4. A summary of the required personal attributes.

In exploring the management job in general and the middle management job in particular, through the change characteristics, the outputs and the activities, a set of personal attributes possibly required for effective managing was identified. There are two classes of personal attributes: attributes expressed in traits and attributes expressed in skills, which can be seen as results of the operations of a particular set of traits. The personal attributes required are described in general, and are applicable for any middle management job. The necessity and the intensity of the personal attributes differ according to the level and the kind of the job.

The skills can be trained, and the presence of the traits will facilitate the learning process.

Here follows the list of the required personal attributes :

A. Knowledge.

- general knowledge (applicable to all management jobs)
- professional knowledge (the functional management areas)
- specific technical knowledge (different for each management job).

B. Intellectual abilities.

- Intelligence, above average (appl. to all management jobs)
- reasoning ability (the higher the position the better it should be)
- divergent thinking ability (depends on the position level and the kind of management job).
- verbal ability (necessary for management jobs with frequent and close contact with people)
- initiative (the higher the position the more it should be)
- mental alertness (not so necessary for management jobs where contemplation is needed)
- analytical thinking ability (the higher the position the sharper it should be)
- the ability to think quickly (not necessary for contemplative management jobs).

C. Personality traits.

- selfconfidence (the higher the position the greater it should be)
- emotional stability (idem)
- endurance (idem)
- self assurance (idem)
- venturesome (idem) also depending on the kind of the management job).

D. Motivation/attitudinal factors.

- the readiness to adjust (required by all management jobs)
- the need for self actualization (idem)
- the need for achievement (idem)
- the willingness to accept consequences of his actions (idem)
- the readiness to absorb frustration and stress (idem)
- the willingness to make contacts with people (depends on the kinds of the management job)
- the willingness to take risks (the higher the position the greater it should be, depends also on the kind of the management job)
- the willingness to accept own weaknesses (required by all management jobs)
- a realistic, and practical attitude (required by all management jobs)

E. Skills.

The degree of the required skills depends on the position level of the manager and on the kind of the management job.

- the problem solving skills
- the situational assessment skills
- the planning skills
- the interpersonal skills.

3. The empirical studies.

Numerable studies have been done in the search for the predictors. (the required personal attributes) of managerial effectiveness. This subchapter presents some of the studies to illustrate what has been done, and the variety of results.

Most research investigations seeking to predict managerial effectiveness have been trying merely to correlate trait differences between managers with either their current (concurrent validity studies) or their later managerial effectiveness (predictive validity studies).

### 3.1. Personal attributes required for all management jobs.

The search for universal effective leadership (i.c. managerial) traits produces opposite results. Campbell, Dunnette, Lawler and Weick (1970) based on their review of effective management studies comment that "the various lists of desirable managerial traits gleaned from these many sources seem to include just about every human virtue" (p.7). The opinion still exists however, that personality is a factor contributing to managerial effectiveness. It is not a return to the trait approach, who tended to treat personality variables in an atomistic fashion. It is a sensible modification of the extreme situationist point of view, who denied the influences of individual differences (Stogdill, 1974, p. 82). The traits should be seen in combination, they interact to generate personality dynamics advantageous for managerial effectiveness. Ghiselli (1971) speaks of managerial talent, which is "a broad capacity, broad in just the same way as other vocational talents such as mechanical ability and clerical ability...A talent is made up of a number of specific abilities and traits. It is a quality which plays an important part in determining the degree of success people can attain in a particular family of jobs" (p. 17). He selected 13 traits for his exploration of managerial talent, and used the Self-Description Inventory - developed by himself - as a measure for those traits. Based on his research results Ghiselli found



nine traits playing an important role in managerial talent in the following order of clusters: I. supervisory ability, II. the need for occupational achievement, intelligence, the need for self actualization, self-assurance, and decisiveness, III. the lack of the need for security, the lack of working class affinity, and initiative.

Following is a concised description of the 9 traits :

- I.1. The supervisory ability is the capacity to direct the work of others, and to organize and integrate their activities so that the goal of the work group can be attained.
- II.2. The need for occupational achievement is the need to achieve appointments to high-level positions in business and industry.
3. Inteligense is a broad domain of cognitive abilities, including diverse elements such as judgment and reasoning, the capacity to deal with ideas, abstractions, and concepts, the ability to learn, insightfulness, the capacity to analyze and to synthesize.
4. The need for self-actualization, the need to utilize the talents to the fullest extent.
5. Self-assurance refers to the extent to which the individual perceives himself to be effective in dealing with the problems confronting him.
6. Decisiveness refers to the extent to which the individual makes ready, and quick decisions.
- III.7. The need for security is the need to be protected from adverse forces.

8. Working class affinity refers to the extent to which the individual is likely to be accepted or rejected by those of the working class as a suitable person to be associated with.
9. Initiative has two aspects. The first aspect is comprised both of the ability to act independently, and of the ability to initiate actions without stimulation and support from others. The second aspect is the capacity to note and to discover new means of goal achievement.

The nine traits above satisfy Ghiselli's three criteria :

- 1). The trait should differentiate between managers on the one hand, and line supervisors and line workers on the other (see VI.3.2.).
- 2). Successful managers should possess the trait to a greater degree than less successful managers do.
- 3). The relationship between the trait and success should be higher for managers than it should for line supervisors and line workers (see table VI-1).

England & Lee (1974) using the Personal Values Questionnaire studied the relation between personal value systems and managerial success in the U.S., Australia, Japan, and India. The relationship between personal values and managerial success were .32 for American managers, .47 for Australian managers, .35 for India managers, and .26 for Japanese managers (  $p < .01$  for all correlations). They conclude that there "may be some common elements underlying the relationship between value patterns and success across the different countries." They found out that successful managers tend to

Table VI - 1

Correlation coefficients between the scores of managers, supervisors, and workers on the various scales and their job success.

<u>Scales:</u>	<u>Managers</u>	<u>Supervisors</u>	<u>Workers</u>
Supervisory ability	.46	.34	.10
Need for occupational achievement	.34	.08	.01
Intelligence	.27	.06	.03
Need for self-actualization	.26	- .03	.05
Self-assurance	.19	.18	- .03
Decisiveness	.22	.15	.05
Need for job security	- .30	- .05	- .11
Working class affinity	- .17	.07	- .03
Initiative	.15	- .07	.02

(source: Ghiselli, 1971, p. 150).

emphasize pragmatic, dynamic, achievement oriented values and that less successful managers prefer more static and passive values.

The two studies above (Ghiselli, and England & Lee) are concurrent validity studies. The following are predictive validity studies done by Miner (1968). He used the Miner Sentence Completion Scale (MSCS) as a measure in his studies. The MSCS comprises seven subscales: the authority figures; the competitive games; the competitive situations; the masculine role; the imposing wishes; standing out from group; the routine administrative functions.

Miner correlated the scores of the MSCS (the total as well as the subscale scores) with:

- a. the promotion rates of Research & Development managers over the ensuing five years (highest validity coefficient .37),
- b. the promotion rates of sales employees (highest validity coefficient .39),
- c. the performance ratings of managers from Research & Development and Marketing Departments (highest validity coefficient .69).

The three studies above have a common approach. They identify a set of personal attributes, assumed to be related with managerial effectiveness. A specific test is constructed to measure those personal attributes and administered to the sample of the research. The results of the test are correlated with the criteria of success.

Other studies have been done using comprehensive test batteries to determine the predictors of managerial effectiveness.

Bentz (1967) summarized the results of the studies of the description and prediction of executive behavior within the Sears, Roebuck and Company. Over thirty years ago, the Sears organization established a psychological testing program. The executive battery of test included the following :

American Council on Education Test (ACE):

This test produce a problem solving, Linguistic and total score.

Guilford-Martin Inventories:

Personality factors measured are: Sociability, Reflectiveness, Optimism, Emotional Control, Seriousness, General Activity, Social Leadership, Masculinity, Self-confidence, Composure, Objectivity, Agreeableness, and Tolerance.

Allport-Vernon Survey of Values:

The following values are measured: Scientific, Economic, Aesthetic, Social, Political, and Religious values.

Kuder Preference Record:

It comprises the following interest areas:

Mechanical, Computational, Scientific, Persuasive, Artistic, Literary, Musical, Social Service, and Clerical Interest.

Many validity studies of the executive battery have been conducted over the years.

Apart from the use of promotional rates or nominations of high success potential managers made by higher organizational officials as measures of managerial effectiveness, employee morale has also been used by Sears, Roebuck as one measure of managerial effectiveness.

From the studies conducted by Bentz the study with seven different success groups will be presented below. The groups are made up to men single out as being highly successful or potentially the most successful managers. As described by Bentz (1967, p. 181) the groups "present more diversified samples in terms of the nature of their job responsibilities. At the same time they are composed either of high-status individuals ...or men who, by dint of exceptional work performance, have merited inclusion in the kinds of groups which are frequently drawn upon for promotion to high level positions".

The seven success groups are: Senior reserve groups, Special senior reserve group, Highly upwardly mobile executives, Store managers, Parent company supervisors, Parent company special reserve groups, Attendees at staff school.

Biserial correlations were computed between the means of these seven groups and the company wide averages for all persons tested with the executive battery. Of the 31 test variables, 12 showed fairly consistent, statistically significant correlations across the seven groups. These 12 are shown in Table VI - 2 along with the median biserial correlations acquired for the seven groups.

Table VI - 2

Median Biserial correlations obtained for 12 test variables shown consistently statistically significant ( .01 and .05 level ) for seven high success or high potential managerial groups in Sears, Roebuck & Co.

	Number of studies in which the variables bore significant predictive power.	Median biserial correlation.
ACE		
Problem solving score	6	.14
Linguistic score	6	.21
Total score	5	.21
Guilford martin		
General activity	6	.19
Social leadership	7	.19
Masculinity/Dominance	6	.21
Self confidence	6	.25
Tolerance	6	.20
Allport Vernon		
Economic	6	.15
Aesthetic	5	-.19
Political	7	.28
Kuder		
Persuasive	7	.21

Source: Bentz (1967).

By relating the results of this composite study to the factor analysis of the Executive battery conducted in other studies, Bentz could determine which factors functioned importantly in the predictive efficiency of the Executive Battery. He came to the conclusion that "The effective executive is characterized by an orderly structured intellect of considerable power, strong administrative leadership skills, and considerable emotional strength, These intellectual and personal factors are given support and direction by strong competitive drive and a practical, business-centered turn of mind" (p. 186).

Mahoney, Sorenson, Jerdee & Nash (1963) identified a number of predictors of managerial success having applicability in a wide variety of situations. They studied a group of 468 managers from 13 companies, representing manufacturing, finance and insurance, public utilities, agricultural products, and wholesale trade. The managers were drawn primarily from middle management levels. Each was administered a battery of tests measuring the following personal characteristics:

- Intelligence: Wonderlic Personnel test.
- Empathy: Empathy test developed by Kerr & Speroff.
- Vocational interest: Strong Vocational Interest Blank (SVIB)
- Personality: California Psychological Inventory
- Biographical experiences: The Personal History Questionnaire.

The criterion of managerial effectiveness use was obtained through a global rating of effectiveness made by the managers' superiors using an alternative ranking procedure.

Of the 98 predictors 18 showed statistically significant (at the 10 percent

level) relationships with the ranking effectiveness.

These were:

Wonderlic Personnel test: general intelligence

C.P.I. : Dominance

S.V.I.B. : Dentist, Veterinarian, Printer, Carpenter, Vocational Agricultural teacher, Farmer (High-ranked managers scored lower) Purchasing agent, Sales manager, President of a manufacturing firm, and of occupational level (High-ranked managers scored higher)

Biographical questionnaire: High-ranked managers had more education; had better educated wives; participated in more sports, hobbies and organizations at the age of twenty five; and had wives who worked for a shorter time after marriage than the wives of lower-ranked managers.

In his review, Korman (1968) mentioned a.o. the validities found by Grant in the AT & T Management Progress Study. The predictive validities in four companies for:

- administrative skills are from .23 to .73
- interpersonal skills from .27 to .52
- Passivity from -.44 to -.54
- Control of feelings from .22 to .43
- Non-Conformity from .42 to .48

In conclusion the summary made by Stogdill should be mentioned. After reviewing 163 leadership studies (about 64 % management studies) Stogdill concludes that: "the leader is characterized by a strong drive for responsibility and task completion, vigor and persistence in pursuit



of goals, venturesomeness and originality in problem solving, drive to exercise initiative in social situations, self-confidence and sense of personal identity, willingness to accept consequences of decision and action, readiness to absorb interpersonal stress, willingness to tolerate frustration and delay, ability to influence other persons' behavior, and capacity to structure social interaction systems to the purpose at hand" (p. 81).

### 3.2. Personal attributes required for different management levels.

Ghiselli in his earlier as well as later studies (1963 and 1971) found differences of test scores on the different levels of management. Table VI - 3 presents the mean scores of a part of the scales of managerial talent on the different management levels.

Table VI - 3

The mean scores of several scales of managerial talent on the top, middle, and lower management levels.

	Top	Moddle	Lower
Intelligence	43.1	40,9	34.8
supervisory ability	31.1	28.8	26.8
Initiative	33.2	30.9	
Self assurance	28.6	26.7	24.9
Need for occupational achievement	44.8	40.9	33.1

Source: Ghiselli (1971).

Grimsley & Jarrett (1973, 1975) made two studies to determine the extent to which the mental ability test and the self-description inventory scores obtained during assessment, differentiated top from middle managers,

when certain moderator variables which were assumed to be related to both test performance and managerial achievement were held constant. They used the matched group design in their studies. In both studies the samples were top and middle managers (in each study 50 top and 50 middle managers). They were chosen from among 437 male candidates (applicants) for key managerial positions. The following test batteries were administered to each of them in the employment situation:

1. Employee Aptitude Survey (EAS):  
Verbal Comprehension, Numerical Ability part 1, Visual Speed and Accuracy, Space Visualization, Numerical Reasoning, Verbal Reasoning, Word Fluency, Symbolic Reasoning.
2. Gordon Personal Inventory (GPI)  
Cautiousness, Originality, Personal Relations, Vitality.
3. Gordon Personal Profile (GPP)  
Ascendency, Responsibility, Emotional Stability, Sociability.
4. Guilford-Zimmerman Temperament Survey (GZ)  
Genetal Activity, Restraint, Ascendence, Sociability, Emotional Stability, Objectivity, Friendliness, Thoughtfulness, Personal Relations, Masculinity.
5. Kuder Preference Record - Vocational, Form CH (K)  
Outdoor, Mechanical, Computational, Scientific, Persuasive, Artistic, Literary, Musical, Social Service, Clerical.
6. Study of Values (Allport, Vernon and Lindzey) (SoV)  
Theoretical, Economic, Aesthetic, Social, Political, Religious.

In addition to the 42 test scores, Grimsley and Jarrett made two combination scores from the tests Ascendence and Sociability, and the tests General Activity and Restraint, all four tests from the Guilford-Zimmerman temperament survey.

Of the 44 test scores, 11 test scores discriminate the middle from the top manager groups in both studies at 1 % significance level. Table VI - 4 presents the means of the top and middle managers in both studies with their validity coefficients (r point biserial).

Table VI - 4

Test scores discriminating the middle from the top manager groups in two studies (significant at .01 level).

Employee Aptitude	Top managers		Middle managers		r point Biserial	
	Study I M <sub>1</sub>	Study II M <sub>2</sub>	Study I M <sub>1</sub>	Study II M <sub>2</sub>	I.	II
- Numerical ability	20.72	19.66	17.94	16.60	.42	.44
- Numerical reasoning	15.08	14.24	12.24	10.66	.41	.56
- Verbal reasoning	19.48	18.58	15.36	15.10	.48	.45
- Word Fluency	55.38	51.26	45.26	43.26	.37	.34
- Symbolic reasoning	13.88	13.54	10.90	9.52	.31	.32
Guilford-Zimmerman						
- General activity	24.34	24.18	20.28	19.62	.45	.53
- Ascendence & Sociability	24.64	24.52	21.10	20.56	.28	.29
- General activity & Restraint	24.62	23.58	19.48	19.18	.40	.40
Gordon Personal Profile						
- Ascendency	28.20	28.10	25.94	25.74	.29	.31
Gordon Personal Inventory						
- Personal relations	25.78	25.06	27.82	27.52	-.27	-.31
- Vitality	32.66	31.86	29.06	28.88	.44	.31

Source: Grimsley & Jarrett (1973, 1975).

Close (1975) administered a short form of the Rokeach Dogmatism Scale to managers representing four organizational levels in an agri-product industry.

First line (N = 44) and lower-middle managers (N = 224) were found significantly more dogmatic on the average than were upper middle (N = 117) and top managers (N = 60). Table VI - 5 shows the means of the four management levels in the test.

Table VI - 5

The mean scores on the Rokeach Dogmatism Scale of first line, lower middle, upper middle, and top managers.

	Mean
First line managers	74.23
lower middle managers	70.32
upper middle managers	61.62
top managers	61.80

### 3.3. Personal Attributes required by different management functions.

Although the need to explore more on this problem is felt, surprisingly not many studies have been done. Three studies will be presented, all three are small studies.

Huttner, Levy, Rosen and Stopol (1959) have examined the data obtained from the quantitative tests administered to 250 executives from more than a dozen companies, large and small. The following tests were used :

Thurstone Primary Mental Abilities

Michigan Vocabulary and Diagnostic Reading

## Sales Aptitude

MMPI and Bernreuter.

They described a.o. in their study the differences between Engineering and R & D executives, Sales executives, Administrative and Accounting executives, and Production executives.

Here below are the summarized descriptions of the differences among the four groups. (p. 44 - 46).

### Engineering and R & D executives:

These executives (in large companies) are characterized by great accuracy both in general and specific terms. Their abstract reasoning powers are quite high and they show personality tendencies that are consistent with considerable creativity. On the other hand, they are somewhat inept with verbal material. They are highly skilled in handling spatial concepts and in organizing abstract materials, but are slower in simple routine computations than other executives groups. In general, they are the least dominant of the four groups studied, and are not so well adjusted as the others are. They also show some tendency toward subtle depression and to "keeping their distance" from others; They respond least to the stereotype of the business man.

### Sales executives:

These executive rank high in sales aptitude and score better on verbal as well as against nonverbal factors. They are somewhat less accurate than executives in general (i.e. they make more errors). They are highly dominant, sociable, and extroverted, and tend to be generally more people oriented, more open and relatively more thick-skinned, more optimistic,

and more self-assured, than other executive groups. Along with these traits there is some evidence of self-centeredness and selfishness.

Administrative and accounting executive.

This group is quite high in numerical ability, and tends to be more oriented toward tangibles rather than abstractions. They have a good theoretical grasp of business, but in general, are rather low in their communication abilities, particularly in their ability to verbalize. As for their personality they are more constricted, less sociable, and more withdrawn. They show the least signs of originality or creativity, and are also the least optimistic group, with more frequent indications of overt depression.

Production executives.

These men are very high on abstract reasoning ability. They actually rank higher in this respect than the engineering and R & D group. They also rank highest in their ability to deal with numbers. Production executive seem to be very much oriented toward the concrete; they are bright and make few errors. Personality-wise they tend to be optimistic, but at the same time are markedly subject to fluctuating moods.

Henney (1975) studied managers at the superintendent level at the Longbridge factory of British Leyland. The superintendents studied were only those concerned more or less directly with production rather than those involved in finance or personnel. They represent a middle level of management each responsible for roughly 400 people. The Cattell 16 PF test was completed by 36 superintendents. The profile obtained suggests outgoing, assertive and balanced characteristics.

Munandar (1976) made a comparative study of production middle managers (N = 24) and sales middle managers (N = 20). They represent the middle managers of six small and medium sized companies (manufacturing and commercial companies) located in Jakarta. The two groups did not differ in age, education and work experience. Statistical significant differences ( 1 % significance level ) were found in the total working hours, place of work, and the categories of people contacted.

The sales managers have longer working hours than the production managers. They spent more time outside the company and on traveling, and have more external contacts. The production managers spent more time in the own establishment and have more contact with their subordinates, they also spent more time for inspection.

The test battery used in the study was:

1. The Advance Progressive Matrices test (Raven)
2. The Verbal Reasoning test
3. The Edwards Personal Preference Schedule (EPPS)
4. The Cattell 16 Personality Factors test.

Of the 33 test variables, 5 were found discriminating between the two groups ( .01 to .05 level ).

The Sales managers tend to be more outgoing, more enthusiastic, shrewd, group dependent and socially precise. The production managers tend to be more aloof, serious, forthright, self sufficient, and careless of social rules.

#### 4. Concluding Remarks.

As an open sub-sub system the job of the middle manager is ever changing. Changes coming from the top, and below or coming from the middle manager himself as a result of his interactions in performing his job. The middle manager has to adjust himself continuously to the changing conditions, he himself changes too, he is growing together with his job. In the conceptual analysis I tried to describe the personal attributes required to deal effectively with the changing conditions. The willingness to adjust to new situations and the various skills (the problem solving, planning, situational assessment, and interpersonal skills) are attributes necessary to deal with the changes. Those attributes, however, are closely related to the operations of other personal attributes (knowledge, intellectual abilities, personal traits, and motivation/attitudinal factors). Together they are required (in different intensities and different necessities according to the different management jobs) by the outputs and activities of the middle management job.

Having those attributes does not mean a guarantee for managerial effectiveness, because managerial effectiveness is not only a function of the manager but also a function of situational variables. The superior, subordinate managers, peers and people outside the company are situational variables which have a considerable impact on the effectiveness of the manager. In other words, the interdependent relationships between the middle manager and the above mentioned people play a decisive role in determining his effectiveness (chapter IV). Favourable independent relationships does not only depend on the manager's interpersonal skills, but depends also on the attitudes of his superior, subordinates, peers, and



people outside the company toward him. Negative attitudes make it difficult for the manager to create favorable interdependent relationships, and are obstacles to the manager in his efforts to be effective. Positive attitudes, on the other hand, will facilitate the manager in his efforts to be effective, they will promote the effective operations of the required personal attributes.

The identification of the potential middle managers should be viewed in this context. The required personal attributes will produce effective results if they are stimulated and reinforced.

The empirical studies presented above illustrate the variety of predictors and measures used. The validity studies (concurrent as well as predictive validity) used a global unidimensional criterion (or a composite criterion). The complexity and the multidimensionality of the middle management job demands a multidimensional criteria of managerial effectiveness to be used for validity studies in selection research. Chapter VII will deal with this problem in more detail.

Studying the results of the empirical studies we recognize many personal attributes which are similar to the personal attributes mentioned in the conceptual analysis. Ghiselli's nine traits, England & Lee's values, for example, are listed in the personal attributes resulting from the conceptual analysis. Further research, however, is still felt necessary. Research that have to take the following points into consideration:

- a. The dynamic characteristics of the middle management job, as a consequence of its susceptibility to change. The empirical studies presented above, are conducted with the underlying assumption of the

unchangeable character of middle management jobs. The jobs are seen as closed systems, ignoring possible influences from the outside. The studies are like pictures, or snapshots. Differences between effective, and less effective managers can be identified, but not the dynamic interrelations of the differences.

- b. The variety of middle management jobs. From the empirical studies we may conclude that apparently management jobs on different levels require different degrees of personal attributes, and that different management functional areas seem to demand different sets of personal attributes.

## VII. MANAGEMENT ASSESSMENT.

### 1. Introduction.

The industrial organization as an open sociotechnical system (chapter II) is in continuous interaction with its suprasystem, with other systems. It influences and is influenced by the suprasystem or other systems. The influences (the environmental forces), however, are screened by the boundary-spanning components of the system.

As discussed in chapter III, the main two functions of the boundary-spanning components are:

- a. to provide a degree of autonomy and independence to the system,
- b. to screen the inputs and outputs of the system.

The boundary-spanning components can be found at the top, middle and lower management levels of the industrial organization. They also can be found operating between the various hierarchical levels of the organization, e.g. between the operating and the lower management level, between the lower and middle management level.

Management assessments or the identification of potential managers is in fact a boundary-spanning components function.

The following figure illustrate the location of the assessment process between systems and between subsystems (management levels).

The candidates for management positions could come from outside the system (from other systems like the education system), they could also be employees working at the operating or lower management levels, which can be promoted to (higher) managerial positions.

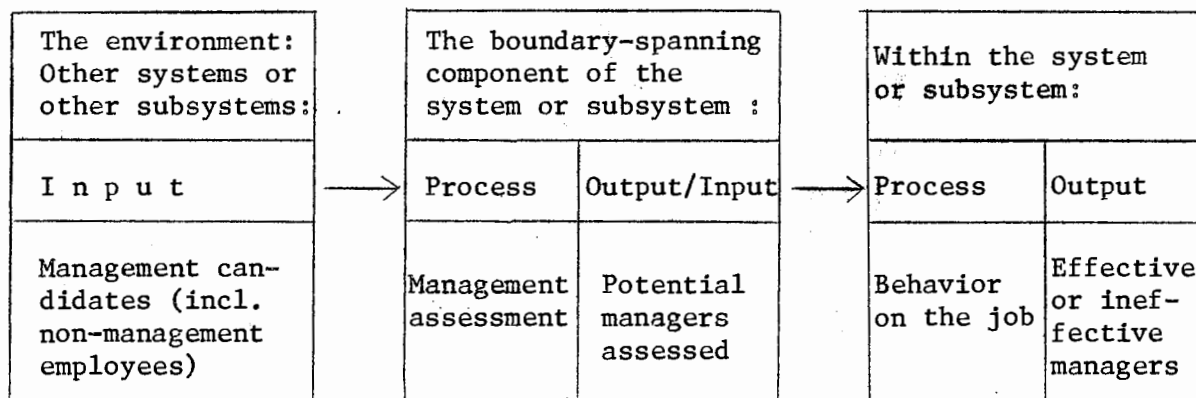


Figure VII - 1. The management assessment process between systems or subsystems.

Figure VII - 1 illustrates further that management assessment is a part of management development. After the identification of potential managers, various decision-making processes have to be made, such as the decision to hire, to promote, to train, to place them in appropriate managerial positions. The company will expect effective job performance and behavior from the assessed management candidates. A "wrong" assessment of the candidate will lead to problems in the organization. The management assessment process should be directed to the general and specific requirements and needs of the industrial organization.

Figure VII - 1 shows also that management assessment is in fact a predictive activity. The candidates for management positions are assessed based on a set of personal attributes required for effective managing. Those personal attributes are measured by various assessment tools or instruments, such as tests, self inventories, group exercises, interview etc. Based on the test scores (or the judged traits) the degree of effectiveness of the management candidate is predicted. In order to be able to predict the effective behaviors (behaviors on the

job leading to effectiveness) relationships should be established between the personal attributes (as reflected by the test scores) and the effective behaviors (reflected by the criterion scores). In other words, predictive validity studies should be done to be able to assess management candidates effectively.

This chapter will deal with the various components of this boundary-spanning component of the industrial organization dealing with management assessment.

In the next subchapter (subchapter 2) the objective of management assessment will be discussed. Management assessment includes selection and placement.

The discussion about the assessment tools (subchapter 3) will concentrate on Thorndike's traditional selection model, the components of the model and their problems, the various kinds of validity, and two modified selection models.

An approach which has become rather popular in the United States of America, the Assessment center method, will be described in sub chapter 4.

The last sub chapter will put forward several thoughts about the assessee, his motivation and possible role in the assessment process.

## 2. The Objective of Management Assessment:

Management assessment is a process in which management candidates are being assessed on a set of personal attributes required for effective managing in management positions.

Management assessment encompasses selection and placement.

The objective or target of selection is a recommendation or decision to accept or to reject a management candidate for a particular management position based on an estimation of the candidate's chances of becoming an effective manager.

The task in selection is to assess as many management candidates as necessary to select one whose qualifications fit the management position requirements most closely.

The objective of placement is a recommendation or decision to distribute and allocate management candidates over different management positions based on an estimation of the candidates' chances of becoming an effective manager in each of the different management positions.

The task in placement is to assess the management candidates and to match their qualifications with the requirements of each of the different management positions.

As such, we could consider placement as a selection process for more than one management position.

In selection as well as in placement, management candidates could come from outside as well as from inside the company. One company could look for the best potential management candidate to fill a vacant management position, selecting one from the employees already working within the company. The selected employee is promoted to the vacant management position. The company could, on the other hand, look for a potential management candidate available in the labor market.

In the case of placement, the company has a vacancy in several management positions. Here too, the company could look for potential management candidates among the employees, or could search for them in the labor market.

In selection as well as in placement management candidates are being assessed on a set of personal attributes. In selection the management candidates are being assessed on one set of personal attributes required by a particular management position, while in placement they are being assessed on a combination of sets of personal attributes required by the different management positions.

We may conclude that the objective or the target of management assessment is a group of identified potential managers, each of which is estimated to become an effective manager for a particular management position or for several management positions.

### 3. The Assessment Tools:

#### 3.1. The validity of the assessment tools:

##### 3.1.1. Predictive and construct validity:

As mentioned in the introduction, management assessment is a predictive activity. Management candidates are assessed on their personal attributes required by a particular management position or required by different management positions (as is the case with placement). Based on the assessment of their personal attributes an estimation of the candidate's chances of becoming an effective manager is made. In other words, the candidate's effective job behaviors are predicted.

Those personal attributes are measured or evaluated by the assessment tools or techniques, such as mental ability tests, situational tests, personality inventories etc.

Important to know is how valid those assessment tools are. Are those tools

really measuring the personal attributes ? Would the scores obtained from the assessment techniques function as good predictors ?

In general it can be said that the validity of a measurement device or a test is "de mate waarin de test aan zijn doel beantwoord" (Drenth, 1975, p. 236). The validity of a test has to be related to the purpose in using the test. Based on this concept of validity Drenth distinguishes two kinds of validity:

- a. Predictive validity. Based on the test behavior we predict behavior or effectiveness on the job. Predicting behavior here is not meant in a temporal sense, but more in the methodological sense of the word. The behavior predicted could lie in the past, present or in the future.
- b. Construct validity. Here we are concerned about the theoretical construct itself, with which we are able to provide explanations to the test behavior.

Both validities are determining the degree of relationship with a criterion. The difference between the two is that a high predictive validity shows the accurateness in predicting the criterion using the test, while a high construct validity means that the test represents the criterion to a high degree.

The criterion used in measuring the predictive validity could be:

- a. a direct or global measure of managerial effectiveness (e.g. salary increase, number of promotions within a certain period, an overall rating of manager's performance etc.),
- b. criterion scores of effective job behaviors obtained through tests or through personnel ratings.



The criterion used in measuring the construct validity is another measure of the construct that is supposed to be measured by the test. This psychological construct could be :

- a. personal attributes (e.g. traits, abilities, skill etc.),
- b. effective job behaviors (in the case of criterion tests or personnel ratings).

### 3.1.2. The selection paradigm:

The traditional selection model consists of the following steps :  
(see Figure VII - 2)

- Step 1. Job analysis. Informations about the job are collected; the objectives of the job, the various tasks, the methods used in performing the job, the materials and equipments used, and the working conditions.
- Step 2. Determination and measurement of the predictors. Based upon the acquired job data, personal attributes required by the job can be derived, measurement tools can be determined, constructed and developed. By testing a sample of individuals, using the measurement tools, scores can be obtained and interpreted quantitatively.
- Step 3. Determination and measurement of the criteria. This step can be performed simultaneously with step 2. Based on the job data a criterion or a set of criteria of effectiveness or of effective behaviors can be determined. Criterion measurement tools can be constructed and developed, and criterion scores can be acquired.

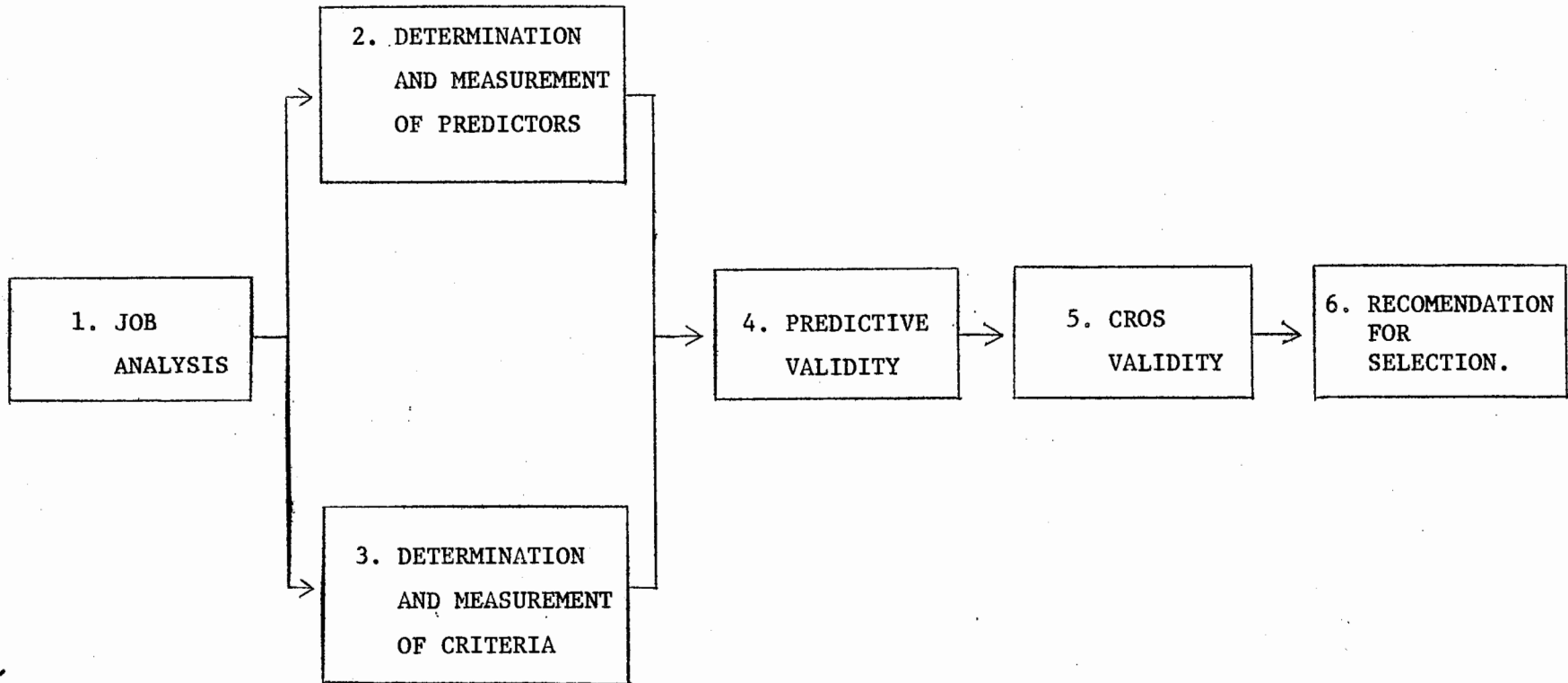


Figure VII - 2 The Traditional Selection Model.

- Step 4. Calculation of the predictive validity. To obtain the validity coefficient criterion scores are correlated with the test scores.
- Step 5. Cross validation. To check the validity of the results, the whole procedure has to be repeated on another sample of individuals for the same job. If results are different the whole procedure, step 1 to step 4, has to be studied again. If the results confirm the findings of step 4, the last step, step 6 should be performed.
- Step 6. Recommendation for selection. If step 5, cross validation, works out, the last step is to make recommendations for selection. The kinds of scores acceptable for selection should be determined. Guidelines for the administration of such recommendations should be set up.

There are three incorrect assumptions underlying this selection model :

- 1). It is assumed that the jobs and the people doing those jobs do not change. This assumption is incorrect because as a consequence of the industrial organization as an open system, the system is susceptible to changes, the organization is susceptible to changes. So the jobs within the organization will undergo changes too. The individuals who are holding the job, and who are in continuous interaction with their job, will receive the impact of the changes of the job. They have to adjust themselves to the changes of the job. Apart from this, a maturity process, in the sense of Argyris, takes place. A continuous mutual shaping-resaping process is going on between the jobholder and his job.

- 2). It is assumed that the applicant population for the same job will be the same. The society we live in is a dynamic society and "we are constantly being subjected to various legal, social, and ethical constraints on our behavior, constraints which are always changing" (Korman, 1971, p. 199).
- 3). It is assumed that when we find a set of predictors of effective job behaviors these will be equally applicable to all individuals applying for that job in terms of determining success on the job. This is not true. We know from the validities that in the selection process we will always find, beside the positive and the negative hits, the positive and the negative missers. Another set of predictors could be better predictors for the positive missers.

Apart from the incorrect assumptions mentioned above, there is one big problem in calculating the predictive validity, i.e. the sample size. This model requires a large sample size. We cannot apply this selection model unless we have a considerable number of people doing the same job. As we have discussed in chapter III and chapter VI, we cannot speak of the middle management job. We could obtain groups of middle management positions. But even then it would still be difficult to find a large enough sample size required by this traditional selection model. Other selection models have to be used.

There are more problems specifically attached to the steps of the traditional selection model that I will discuss in the following sections.

### 3.2. Job analysis:

#### 3.2.1. The various purposes and the process of job analysis:

The information obtained by job analysis can serve a variety of purposes, including certain personnel decision making purposes such as mentioned by McCormick & Tiffin (1975, p. 49):

- a. Personnel Administration: Personnel recruitment, selection, and placement; Training and personnel development; Performance measurement and rating; Wage and salary administration; Labor relations.
- b. Work and Equipment Design: Engineering design; Methods design; Job design.
- c. Administrative control: Organizational planning; Manpower planning and control.
- d. Other uses: Planning educational curricula; Vocational counseling; Job classification systems.

For selection purposes the components of a job are studied to determine the personal attributes required for effective performance.

A job, as defined by Shartle (quoted by McCormick & Tiffin, 1975), is a group of similar positions in an organization (a single plant, business establishment or educational institution). There may be one or many persons employed in the same job.

A position is a group of tasks performed by one person. There are as many positions as there are workers in the organization. On the management level there is generally only one man employed on the same job.

In general, information is collected about :

- a. the activities on the job (either job-oriented or worker-oriented activities),
- b. the materials processed,
- c. the tools and equipment used, and
- d. the working conditions (social as well as physical).

The various methods usually used in job analysis can be grouped into two main methods, the questionnaire methods and the interview and observation methods.

Included in the questionnaire methods are:

Questionnaire via mail technique; checklist technique; diary technique; critical incident technique.

The interview and observation methods encompasses:

The individual interview technique; Observation Technique; group interview technique; technical conference technique; Work participation technique.

Job data can be collected from:

- a. the job incumbent himself,
- b. his superior only,
- c. the job holder and his superior,
- d. the "experts" of the job.

The data collected from the job can be processed either quantitatively (e.g. Hemphill's EPDQ 1959, Stogdill's LBDQ 1952, Stewart's study 1967, McCormick's PAQ 1972) or qualitatively (a narrative and general description of the activities, skills, experience involved in the job).

### 3.2.2. Sources of error in job analysis:

There are two main sources of error in job analysis, i.e. the job informants and the job itself.

#### 1). The job informants:

As jobs change in time, the job incumbent is supposed to know best about the job. Apart from that when he is involved in job analysis, it elicits his cooperation (by bringing him in on the decision making) and possibly enhances his self-esteem. On the other hand, however, the job incumbent will probably be most motivated to distort, either consciously or unconsciously, his description in a favored direction (Korman, 1971). This distortion of information about the job can be made by the supervisor and the experts too. They could describe the job as they think the job should be done, and not as it is being performed at present. The collection of job activities make the possibility of distortion of information even greater. A secretary for example, who does a lot of typing in her daily work, could stress the importance of typing, while her superior puts the emphasis more on her correspondence and filing activities.

#### 2). The job:

There is no job which does not change. They undergo time, person, and situation determined changes. Changes which can be foreseen and changes which cannot be predicted. A routine job, where tasks have to be repeated after a certain interval of time, can easily be described. The job of a middle manager, however, consists of tasks with a routine and non routine character. Apart from routine administrative

duties, the middle manager has to face possible problems which demand significant changes in his schedule, plan and workmethods. A policy change in the organization has an impact on the job, which characteristics cannot be specified in advance.

Apart from that, managers are given broad administrative assignments, but they are allowed great latitude in the means they use to accomplish them. The outputs or the objectives of the assignments could be the same, the strategy or the activities to accomplish them could be different. Another problem is the continuous interaction between the manager and his job. The job is shaped by the manager and vice versa.

It is clear from the description above that the job data collected will always be incomplete and inaccurate.

### 3.2.3. Alternative methods to reduce errors in job analysis:

The errors in the job analysis process can be minimalized by using the following alternative methods:

- 1). Group interview, technical conference or workparticipation techniques.  
In these techniques data presented by one job informant can be checked on its truth, relevance and significance by other job informants (peers, superior manager or technical experts).  
The incompleteness and inaccuracy of job data, however, cannot be reduced by these techniques.
- 2). McCormick's Position Analysis Questionnaire (PAQ) 1972. The PAQ is a structured job analysis instrument that consists of 189 job elements of a worker-oriented nature. It was developed by McCormick and his



colleagues at the Occupational Research Center Department of Psychology, Purdue University.

The term job element refers to a generalized class of behaviorally related job activities, including the behavioral adjustment required to features of the work context. They are not job tasks in the sense of characterizing specific technologically related work activities, but rather relate to generalized human behaviors involved in work. The primary frame of reference underlying the development and organization of the PAQ followed the informationinput, mediation, and work-output model. There are individual job elements relating to each of them. Additionally, there were job elements relating to the interpersonal activities associated with jobs, to the nature of the work situation or job context, and to certain miscellaneous aspects of work.

Disagreements among the informants on the job data are relatively small. McCormick, Jeanneret, Mecham (1972) found high interjudge correlation, with a median correlation of .84.

In the same article McCormick et al described the results of a factor analysis carried out on the data collected with the use of the PAQ. They found for 536 jobs (professional, managerial, and non-managerial jobs) five dimensions as a result of the overall analysis of the PAQ data, and 27 dimensions as a result of the separate analysis of the six PAQ divisions.

The five overall dimensions are:

- 1). Decision/communication/social responsibilities,

- 2). Skilled activities,
- 3). Physical activities/related environmental conditions,
- 4). Equipment/vehicle operation,
- 5). Information processing activities.

The PAQ, however, seems to be more applicable for non management positions. The five overall dimension found based on the job data explained only 41% of the total variance. The sample used in this study was somewhat top-heavy; there was an excess of professional, managerial, and clerical jobs and a shortage in the skilled, semi-skilled, and service occupational areas. More studies should be done with the PAQ on management positions.

3). The systems approach to job analysis.

A position is a group of tasks performed by one person. Each position has its own set of objectives derived from the organizational objectives (see chapter III). The position objectives can be subdivided into tasks objectives, each of which can be subdivided into a network of part-activities objectives. One of the main tasks of a loan officer for example is to study and to analyse a loan application of a client. The task objective would be a recommendation to his superior (the bank branch manager) to accept or to reject the application. Before he is able to reach this objective, the loan officer has to analyse each of the 4 "C"'s of the client, the Capital, Capacity, Colateral, and the Character of the prospective client. In analyzing each of the "C"'s, the loan officer has to perform many part activities or steps, each resulting in an output that serves as an input for another part activity.

As such, the whole task can be analyzed as a network of inputs - activities - outputs (Munandar, 1975).

Using this method the following job data are collected:

a. The inputs of each task.

The kind of information received (e.g. facts, reports, regulations, policies, orders, objectives etc.), and the source of information (e.g. information coming from the superior manager, other middle managers, subordinate manager, people outside the company, from retrieval systems such as files, library etc.).

b. The activities leading to the part objectives and to the task objectives.

Although various activities can be performed in achieving one and the same task objective, they all can be classified into several classes of activities. Glaser and Short (1971) classified their activities they have found in their study into: correcting, preventing, supporting, and installing activities.

c. The outputs of each task (including the outputs of the part activities).

Here the data about the kinds of output and its destination are collected. For example: an order to the subordinate manager to correct a mistake in his analysis of a loan application of a client; a report to his superior manager about the number of creditors and the amount of loan given during the last three months.

d. The critical incidents experienced.

In executing the managerial tasks situations could arise which are critical in the sense that decisions made could lead to effective or ineffective results.

An advantage of this method is that distortions of information will be minimized. The set of outputs can be observed and checked. The informants of job data are "compelled" to give realistic data about the job.

Another advantage is that the knowledge and skills involved in performing the job will be easily recognized from the network of the part-activities objectives.

The interaction pattern of the job with other jobs will give information about the kind of interpersonal relationships needed by the job, reflecting the kind of interpersonal skills required by the job.

Based on the set of outputs a set of criteria of effectiveness can be determined and measured.

A fourth advantage of this method is that the job data collected can be used for selection as well as for training purposes.

Any change in the job reflect changes in the job objectives and task objectives, and as such can be easily detected and reported.

The main disadvantage of this method, however, is the amount of time involved in doing the analysis of one management position.

Glaser & Short (1971) have used this procedure for training purposes for non management positions.

Munandar (1975) started to develop this technique for the identification of potential middle managers.

This technique still needs further development and refinement.

### 3.3. The predictors:

Based upon the acquired job data personal attributes required by the job can be derived, measurement tools can be constructed or developed.

One global predictor, such as an estimation of the candidate's chances to be promoted to middle management positions, or a set of specific predictors can be used.

The set of specific predictors could either be test scores (e.g. scores of mental ability tests, self inventories, situational tests etc.) or ratings or judgements of personal attributes (e.g. intellectual ability, adaptability, sensitivity, planning skills, communication skills etc.). Through a theoretical analysis of the collected job data a set of predictors can be determined. The value of the predictors, however, should be determined empirically through validity studies.

#### 3.3.1. Prediction strategies:

Campbell, Dunnette, Lawler, Weick (1970) mentioned six prediction strategies based on the mechanical or clinical method in the collection and combination of the data. The following is a brief description of each method (p. 152):

##### 1). Pure clinical;

Clinically collected data combined clinically. Here a clinician bases his predictions on an interview or other behavior observations

without using any objective information. The typical "write up" of a job candidate after he has been interviewed is an example of this strategy.

2). Behavior rating.

Clinically collected data combined mechanically. Here a clinician, after observing a candidate's behavior or after interviewing him, summarize his impressions in the form of ratings on one or more pre-specified scales.

3). Profile interpretation;

Mechanically collected data combined clinically. Here a clinician without interviewing or observing a candidate, interprets his pattern or "profile" of scores obtained on a set of tests.

4). Pure statistical;

Mechanically collected data combined mechanically. A standard example of this strategy is the use of biographical information and testcores in a multiple regression equation to predict managerial job performance.

5). Clinical composite;

Both modes used for collecting data to be combined clinically. This is perhaps the most frequently encountered clinical situation, where all information - interview, observation, and test scores - is integrated by either one clinician or a team of clinicians to develop an overview and behavior predictions about a candidate.

6). Mechanical composite;

Both modes used for collecting data to be combined mechanically.

This method differs from the clinical composite only in its use of

preassigned rules (such as a multiple regression equation) for deriving final behavior predictions from all the data (both clinically and mechanically collected) available.

Data collection is :

- a. mechanical if it is done according to pre-established guidelines, rules, or procedures (example: standardized tests and biographical data blanks);
- b. clinical if it is carried out in a flexible manner, which may differ from candidate to candidate at the discretion of the person collecting it (example: personal interview and observations of behavior in a leaderless group discussion).

Mechanical combination of information is done according to rules or statistical equations developed by prior research, and these rules can be applied to the data, after training, by an ordinary clerical person.

Clinical combination of information is done by experts who believe they can take better account of a candidate's overall pattern or configuration of attributes in the context of relevant, special job requirements and situational circumstances than can be done by any across-the-board rule or equation (Campbell et al, 1970, p. 162).

Sawyer's study about the merits of the six strategies was described by Campbell et al and summarized in the following table.

They conclude that the mechanical mode of combining predictors is superior to the clinical mode regardless of the method used for collecting predictor information.

They further state that "The best strategy of all..is one which supplements

Table VII - 1

Ranking of strategies from "best" to "poorest" according to proportion of comparisons yielding significantly superior and inferior predictive accuracies.

Strategy	Mode of data collection	Mode of data combination	% of "superior" outcomes	% of "inferior" outcomes
Mechanical composite	Clinical + Mechanical	Mechanical	60	0
Pure statistical	Mechanical	Mechanical	31	0
Behavior rating	Clinical	Mechanical	8	16
Profile interpretation	Mechanical	Clinical	0	25
Clinical composite	Clinical + Mechanical	Clinical	0	37
Pure clinical	Clinical	Clinical	0	50

Source: Campbell, Dunnette, Lawler, Weick, 1970.

data collected mechanically with the presumed broader range of data collected clinically but which "protects" the data from the clinician's potentially faulty inferences by combining them into a predictive composite by a set of common rules or equations developed mechanically" (p. 155).

The major advantages of the statistical method are:

- a. its precision in stating the actual odds that a particular level of job behavior will occur and



- b. the knowledge to be gained from learning empirically the exact predictors associated with different job behaviors.

Its disadvantages include:

- a. the difficulty of conducting rigorous validation and cross validation studies.
- b. the inability to take easily into account dynamic changes in job and organizational circumstances,
- c. the difficulty of using it for deriving truly individualized decisions.

The clinical method has advantages in:

- a. dealing somewhat more appropriately with each individual,
- b. utilizing the special skills and experiences of the psychologist to take account of special circumstances idiosyncretic to specific prediction situations.

Its disadvantages are:

- a. the imprecision, in that there is little prior knowledge of potential accuracy of personnel decisions,
- b. the myriad problems arising out of difficulties related to unstandardized procedures, subjective judgments, problems of impression formation, and the optimal rules for combining information to form predictions.

### 3.3.2. The predictors' measures:

The measures of predictors can be classified into: Ability tests; objective personality tests; Projective personality tests; Situational tests; Biographical information; Interviews and other judgmental assessments.

1). The ability tests;

These consist of measures of cognitive and motor abilities, including those tests designed to determine how much or how well a person can perform. Such tests do have correct and incorrect answers in the sense that the magnitude of the total score implies greater or lesser ability.

The greatest potential for predicting managerial effectiveness are general intelligence tests. From his review Ghiselli (1966) states that proficiency in executive and managerial jobs has been most effectively indicated by tests of intellectual ability, perceptual accuracy, and personality or interest. To this Korman (1968) found in his own review of studies that intelligence, as measured typically by verbal ability tests, is a fair predictor of first-line supervisory performance but not of higher-level managerial performance.

2). Objective personality tests;

These are measures of personality characteristics which have a relatively structured format. They have no specified correct or incorrect answers, instead the individual describes himself along dimensions defined by himself. Campbell et al (1970) make a distinction between personality and vocational interest measures.

Personality measures seek to estimate a person's typical behavior pattern in adjusting to the interpersonal or social aspects of his work environment.

Vocational interest measures are directed primarily toward estimating a person's orientation toward different activities in the work environment.

Ghiselli in the above mentioned review (1966) found that personality and interest measures are effective indications of proficiency in managerial jobs. Korman (1968) found no significant predictive validities of objective personality inventories, except for the measure of managerial motivation developed by Miner. After reviewing several studies Campbell et al (1970) conclude: "... these review suggest that standardized personality measures have a rather poor record for measuring or predicting managerial effectiveness. It is best to develop special scoring keys based on measures of effectiveness in particular organizational situations and organizational settings. Interest measures have fared considerably better....certain orientations such as persuasion, verbal interest and interpersonal contact seem more often than not to be common to more effective managers, but the nature of these preference pattern is not well defined, and they need to be explicated more thoroughly (p. 133).

3). Projective personality tests or projective techniques;

These are measures of personality characteristics which have an unstructured format and which allow the individual to respond along any dimension which he wishes and which he constructs. The usual rationale for using projective personality tests is that a person's responses to the ambiguous stimuli common to them will reveal more fully his underlying personality dynamics, thereby providing an experienced interpreter with much richer content for deriving behavioral inferences. Although projective techniques have been rather widely applied to the evaluation of managers, their usefulness has not been convincingly

demonstrated (Kinslinger, 1966). The contributions of projective techniques to the assessment of management potential at the A.T. & T. (American Telephone & Telegraph Company) were studied and reported by Grant, Katkovsky and Bray (1967). Analysis of the data shows that the projective tests reports influenced the assessment staff in rating such characteristics as work motivation, passivity, and dependency. In short, the results suggest that projective techniques can perhaps yield useful predictions when an effort is made to interpret responses to them according to motivations relevant to business management.

4). Situational tests and task simulations;

These are measures of typical behavior strongly affected by situational variables. Management tasks are simulated in the situational test.

Examples of situational tests are Leaderless Group Discussion, In-basket technique, Management or Business Game.

The prime advantage of the situational tests is the opportunity it affords for observing directly a rich array of leading or structuring behaviors.

The situational tests are mainly used in assessment centers (see 4. The assessment Center).

The findings of the study at the A.T. & T. show that the contributions of the situational tests to the assessment of management potential are higher than the mental ability and the projective techniques measures (Bray & Grant, 1966 ; Grant, Katkovsky, Bray, 1967).

5). Biographical information or objective life-history items;

These consist of questions concerning relatively objective characteristics of a person's school, work, and personal background. The elements of a

person's past behaviors, such as marital histories, activities in high school, past successes and failures etc., are treated as separate items to be compared against defined job behavior categories. In this way, items of a biographical inventory may be scored to yield predictions of typical behavior in the future. Campbell et al (1970) state that biographical information "constitutes one of the most fruitful sources of information to be considered along with measures of cognitive abilities, personality and interest measures, and situational procedures for predicting managerial effectiveness" (p. 146).

6). Interviews and other judgmental assessments;

The interview is undoubtedly the most widely used personnel method for predicting managerial effectiveness.

Most of the companies in Indonesia use interview as the only method in selection of personnel.

Data obtained from the interview is judged to the extent to which the individual possesses the characteristics which are felt to be necessary for adequate job performance. Those judgments, however, are subjectively colored. In most validity studies about the interview method negligible validity coefficients have been found.

In spite of this no one would suggest dispensing with interview as a means of sizing up and predicting the potential effectiveness of managers. Occasionally interviews can have good predictive validity as shown by Ghiselli's study. Still more research on this most often used method must be done in order to discover interviewing principles and approaches most likely to yield reliable judgments and increasingly valid job behavior predictions.

### 3.4. The Criterion measures:

#### 3.4.1. The criterion construct:

One of the most basic concerns emerging from the literature in industrial psychology is the criterion. A criterion is a way of describing success. Blum & Naylor (1968) stress the importance and the meaning of the criterion to industrial psychology. They state "The criterion is basic to all measurement in industrial psychology. To overstate its importance would be literally impossible. Without adequate criteria, industrial psychology is ineffective and ceases to be a science. In other words, the magnitude of the contribution of industrial psychology is completely determined by the adequacy of the criterion measures evolved" (p. 174).

In general terms, it can be stated that the criterion is an evaluative standard which can be used to "measure" a person's performance, attitude, motives, etc.

Drenth (1975) states that the two dimensions of the criterion, the time dimension and the goal abstraction level dimension, have not been sufficiently distinguished. Those two dimensions can be recognized in Thorndike's classification: The immediate, intermediate, and ultimate criteria.

The criterion classification according to the time dimension is described by Blum & Naylor (1968). They distinguished between:

- a. Proximal criteria: Criteria which are obtained close to the time at which the prediction instruments are used.
- b. Distal criteria: Criteria which are obtained at some later date.
- c. Immediate criteria: criteria which are obtained at the same time the prediction instruments are administered.

The time whether a criterion is still proximal or distal is based on judgment. Blum & Naylor suggest that any criteria obtained a year or more after obtaining the predictor measures can be regarded as distal.

According to the goal abstraction dimension, criteria can be classified into :

- a. The ultimate goal or the ultimate criterion; this is the most abstract criterion, which is impossible to measure.
- b. The conceptual criterion; This is a more concrete goal derived from the ultimate goal described in observable results, e.g. the job appropriateness of an employee.
- c. The criterion measure or score: measures or scores related to criterion behavior or criterion performance which are measurable and observable behavior, and which are judged as relevant to the conceptual criterion.

It is difficult or impossible to use the ultimate criterion. The ultimate criterion is an idealized version of job performance. It is the criterion which best captures the essence of a particular job activity.

The ultimate criterion is usually contrasted with the actual criterion (whatever measure of success one actually uses).

Suppose we are interested in developing a test battery to select management candidates. We have to select some measure or set of measures which define, to our immediate satisfaction, how successful each management candidate will be. We might, for example, adopt as our criterion of success the rating by the superior manager at the end of one year. This rating would then become our actual criterion of success against which we would validate our test battery. From a more ideal point of view, however, we

would probably say that the superior's ratings are not the ultimate measure of success of a manager. In fact, it is exceedingly difficult to decide and define what the ultimate measure of success is. One could state that the ultimate criterion of an effective manager is his optimal contribution to the continuity and growth of the company.

This ultimate criterion, however, is an abstract construct which cannot be observed and measured. We should look for more concrete observable and measurable behavior. In other words we should consider and select intermediate criteria which will be an approximate estimate of his ultimate criterion. The intermediate criterion in our example, the rating by the superior manager, is the criterion actually used.

It is clear from the above that the criterion should be reliable, valid and practical. In connection with this the three properties of the actual criterion-criterion deficiency, relevance, contamination - should be considered (Blum & Naylor, 1968; Landy & Trumbo, 1976).

Criterion deficiency is a measure of the degree to which the actual criterion does not completely measure the ultimate criterion.

Criterion relevance is a measure of the degree to which the actual criterion measures the true or ultimate criterion.

Criterion contamination is a measure of the degree to which the actual criterion includes elements unrelated to the ultimate criterion.

#### 3.4.2. Composite versus multiple criteria:

There has been a controversy of long standing in industrial psychology between the advocates of the single composite criterion and those favoring multiple criteria.



The basic argument of the supporters of the composite criterion is that the criterion should provide a measure of the overall "success" or "value-to-the-organization" of the individual because such an index is needed to compare and make decisions about individuals.

The basic arguments of those favoring multiple criteria is that measures of different variables should not be combined. If criterion elements display low positive, zero, or low negative correlations with one another, then they are obviously measuring different variables, and weighting them into a composite score, will make the score ambiguous and uninterpretable. Several authors seek a compromise to this controversy.

Landy & Trumbo (1976) advocate the use of both the composite as well as the multiple criterion. For administrative purposes (such as personnel selection) the use of a single composite criterion should be used, while multiple criteria should be used for diagnostic purposes (like guidance and counseling). Schmidt & Kaplan (1971) recommend a similar use. The criterion could either measure an economic construct (such as "overall success", "performance on the task", "overall value of the individual on the job") or a psychological (behavioral) construct. For economic and practical reasons a composite criterion should be used, but for obtaining an understanding of the psychological processes involved in the prediction of job behavior multiple criteria should be used.

Dunnette (1963) suggests that the use of composite criterion may go far in explaining the failure of industrial psychology to break through the ceiling of about .50 on validity coefficients. He recommends the use of a modified model for test validation and selection research, getting

away from looking for the criterion. In this model the use of multiple criteria is advocated and the development of a moderator test battery is suggested (Dunnette, 1966; Hobert & Dunnette, 1967).

#### 3.4.3. The incorrect uses of criterion measures:

The number of promotions, the salary increase and personnel ratings are frequent criterion measures used for test validation.

They are not without problems.

- a. The use of the number of promotions and salary increase as criterion measure.

The performance of a manager, which reflects the degree of effectiveness, will be "rewarded" by the industrial organization. He will receive administrative consequences based on his performance. If effective, the manager receives a promotion or a salary increase or other administrative consequences. The more frequent a manager is promoted, or the more frequent he receives salary increases the more effective he is. This could be the reason why salary and organizational level indices are commonly used as the global composite criterion of effectiveness (Campbell, Dunnette, Lawler, Weick, 1970; Mahoney, Sorenson, Jerdee, Nash, 1963).

Salary and organizational level indices can be used as or are relevant criterion measures if they answer the following prerequisites:

- 1). The policy of the company to promote or to increase the salary should be based only on the performance.
- 2). The organization should be able to provide equal opportunities to the managers to obtain a promotion or a salary increase.
- 3). The managers should be judged correctly by their superior managers.

There are many companies in Indonesia who based promotion or salary increase on performance and seniority. As a consequence of the use of seniority for promotion and salary increase, the managers will not have equal opportunities to be promoted or to obtain an increase in salary. The growth of the company effects the increase of management positions. The growth process, however, is not a steady constant growth process. At one moment the company expands, at another moment no expansion occurred for years. As a consequence the managers will not receive equal chances to be promoted.

Before obtaining a promotion or salary increase the managers have to be judged by their superior managers. Based on these ratings the managers will be promoted or will receive salary increase. The personnel ratings are not accurate instruments to judge people (see the next section).

b. The use of personnel ratings as criterion measures.

Personnel ratings are often used as criteria to validate tests.

According to an estimation made by de Wolff (1970) 70 to 80% of the validity studies used personnel ratings as criteria. He mentioned three basic problems in the use of personnel ratings:

- 1). The norms used by the raters are not the same. In an experiment where 7 personnel officers have to judge 10 fictive persons on their appropriateness to a particular job de Wolff (1970) found large differences in the means and standard deviations among the seven judges. The variance of the ratings is determined by the differences of the norms used by the raters.

- 2). There is a low interrater agreement. The correlations of ratings made by different raters about the same persons are usually very modest. One would find from the literature correlations between .20 and .60.
- 3). The halo-effect in ratings. When raters have to rate a set of characteristics one would find high agreements between the ratings of the characteristics. The correlations between the rated characteristics tend to be higher than the correlations between the raters. One would find coefficients of .80 to .90.

It should be clear from the above that we have to be careful in our choice of the criterion.

To overcome the above mentioned problems we should concentrate:

- a. on the determination of relevant, observable, and measurable criterion measures,
- b. on improving the reliability, validity and practicality of the criterion measurement instruments, such as personnel ratings.

#### 3.4.4. Alternative criterion measurement instruments.

Based on the behaviorally anchored scales developed by Smith and Kendall (1963), Campbell, Dunnette, Lawler, Weick (1970) have developed behaviorally based rating scales, which I discussed in chapter III (see also Campbell, Dunnette, Arvey, Hellervik, 1973).

A disadvantage of the behaviorally based rating scales is that their construction and development are laborious and costly. Further a large sample size is needed for the construction of the scales.

Another alternative is to develop situational tests, which measure effective behaviors in simulated situations, to use them as a criterion measurement tool.

Here again the development of such tests are laborious and costly. Besides the limitations mentioned by Chapanis (1967) about research studies done in simulative situations apply for the relevance of the situational tests as criterion measurement tools. Those limitations are:

- a. The incompleteness of simulated situations. Many aspects of the real situation are not considered. There is the danger of criterion deficiency.
- b. The incongruance of simulated situations. The real situation may deviate strongly from the simulated situation. There could be "stress" differences. The danger here is criterion contamination.

### 3.5. Predictor - Criterion Correlations:

#### 3.5.1. "Temporal" predictive validity.

In correlating predictor scores with the criterion scores we will obtain validity coefficients.

Drenth's predictive validity (1975) encompasses predictive validity, in temporal sense, and concurrent validity.

With "temporal" predictive validities, the predicted behavior lies in the future. Using the predictive validation strategy, all applicants would be tested and all would be hired without regard to their test results. At some later date relationships would be determined between the test scores and the various behavior patterns or outcomes shown by the managers.

An advantage of the "temporal" predictive validity strategy is that tests and job behavior information of all candidates are available.

Apart from the large sample size needed (as mentioned in section 3.1.2.) other disadvantages of this strategy are :

- a. The amount of time involved. This approach involves a substantial delay before results become available.
- b. Hiring all applicants or management candidates would be a very costly and wasteful procedure.

### 3.5.2. Concurrent validity:

The concurrent validity, which is probably more commonly used in the industrial situation, studies information about behavior concomitantly related to test responses. Its major purpose is to eliminate the delay between the administration of the predictor measures and the collection of job behavior measures. The disadvantages outnumbered the advantages. Several authors (Korman, 1971) suggest not to use the concurrent validity strategy in validation studies.

Here again a large sample size is needed. Apart from that other more specific disadvantages of this strategy are :

- a. The incorrect assumption that motivational determinants of responding to a possible selection instrument are the same for those already on the job as for those applying for the job.
- b. The predictors are probably related to experience on the job. Many test responses (particularly those made to typical behavior inventories) may be due to rather than predictive of current aspects of a person's behavior.

c. The remainders on the job will not show much variation. This will depress the level of the correlation. The sample is too homogeneous, it does not include potentially less effective managers who were not hired or who have failed and been discharged. It may also fail to include the highly effective persons who, through success have been promoted to more responsible and more demanding jobs.

This disadvantage, however, may to a certain degree be resolved using for instance Thorndike's correction for restriction of range (Guilford, 1973, p. 315).

### 3.5.3. The validity coefficients:

Ghiselli has summarized the literature pertaining to the occupational validity of tests in 1966 and has updated this summary in 1973. The literature summarized in 1973 includes reports which pertain to the occupational validity tests that were published during the period from 1920 through 1971.

To these published findings was added a great amount of unpublished material which was obtained from private sources in a number of business, industrial, and overnmental organizations.

The criterion used in calculating the validity coefficient was different for different jobs. In all but a very few instances the criterion was intended to be a measure of overall success, and was generally in the form of ratings, although occasionally they consisted of objective measures or combinations of different kinds of measures.

For managerial occupation Ghiselli found validity coefficients ranging from .09 (hand dexterity tests) to .31 (number comparison tests). Measures of intellectual abilities, spatial and mechanical abilities, and personality

traits are of moderate value in predicting the level of proficiency managers attain on their jobs (from .21 to .31).

Several causes of the moderate validities could be:

a. The use of a global criterion.

The criterion is global, covering all aspects of job performance and consequently a broad spectrum of traits. A single test, measuring as it does a restricted range of traits, cannot possibly be highly related to such a variable.

b. The relatively low reliability of the criterion scores.

De Wolff (1970) found interrater agreements coefficients of .20 to .60. According to Ghiselli (1973) values of the order of .60 to .80 can be taken to be characteristic of the reliability with which job performance is measured. It is apparent that the magnitude of the reliability of the criteria which are used substantially limits the validity of tests which are used to predict them.

c. Non-linear relationship between predictor and criterion, and heteroscedasticity of the data.

The validity coefficients in Ghiselli's review are described solely by means of the Pearsonian coefficient of correlations. Thus a linear model, with at least the implication of homoscedasticity, is forced upon all relationships between test and criterion scores. Certainly in instances nonlinear heteroscedastic models could give a much more favorable picture of the validity of occupational tests.

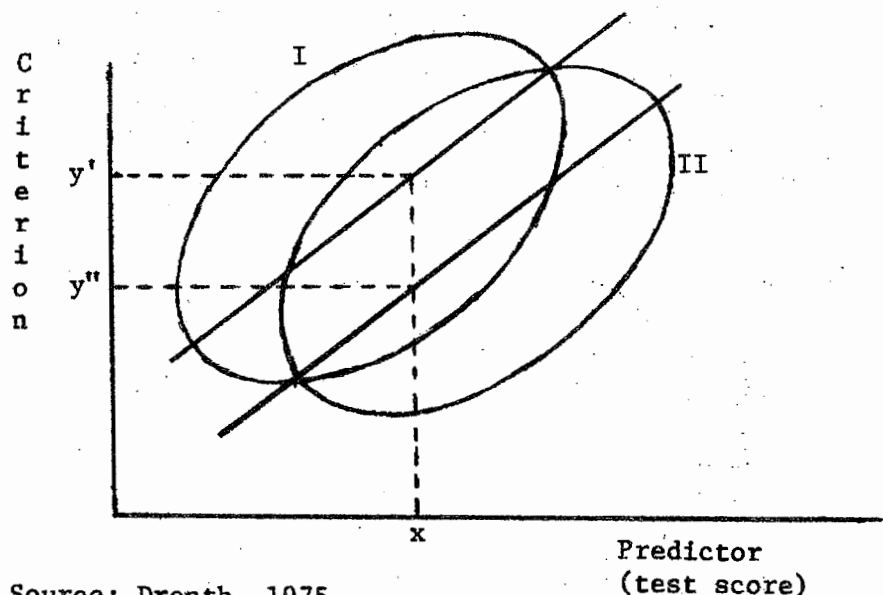
d. The sample is too heterogeneous (Drenth, 1975).

The sample can be divided into subgroups based on moderator variables.



A moderator variable is a variable which does not need to have a high correlation with the criterion, but which affects the relation between other variables and the criterion. A particular test for example could have a high correlation with a criterion for highschool graduates but a low correlation for elementary school graduates. The correlation coefficient for the mixed sample would be moderate. Education then is a moderator variable with regard to the correlation between test and criterion.

The possible impact of the heterogeneity of the sample on the validity coefficient can be explained graphically using the example given by Drenth (1975, p. 267). Suppose two subgroups each having a high correlation between test and criterion (see Figure VII - 3). The regression line of group I and II does not coincide. Someone with test score  $X$  from group II will obtain a lower criterion score than someone from group I with the same test score  $X$ . The correlation coefficient



Source: Drenth, 1975

Figure VII-3. Correlation between test and criterion for two subgroups with different regression lines.

for the whole group will be lower than the correlation coefficient for each subgroup apart.

Hobert & Dunnette (1967) demonstrated the increase of the predictability of the criterion by determining moderator variables and developing moderator tests.

To sum up, higher validity coefficients could be obtained by:

- a. using a test battery, covering a broader spectrum of traits, instead of using one single test (resulting in a multiple correlation coefficient),
- b. developing more realible criterion measures,
- c. dividing the sample into more homogeneous or less heterogeneous subgroups, and developing moderator tests.

#### 3.5.4. Synthetic validity:

The large sample size necessary for determining the predictive validity can be solved by using the synthetic validity strategy. According to the synthetic validity idea, introduced by Lawshe (1952), jobs can be analysed into behavior dimensions that are common to many dissimilar jobs. Tests can then be validated against performance in these job behavior dimensions rather than against a single over-all criterion. A valid test battery can then be synthesized for any job by using those tests found valid for the specific elements required by the job (Guion, 1965). For each job a job behavior dimension profile can be determined, based on the degree of applicability and importance of each behavior dimension to the job in question. It should be possible to find tests or predictors which would predict differences in performance on each dimension. For criteria, i.e. as measures of differences in performance on the dimensions, current

occupants of each job may be used, comparing the level of test performance of those in jobs where the skill is very important with those in jobs where the skill is unimportant, in order to test the adequacy of the prediction instrument (Korman, 1971).

Though the purpose of synthetic validity is still to predict particular job behaviors (the correlation between predictor and a criterion of success in a job behavior dimension), the idea of construct validity is implied (jobs where the skill is very important are compared with jobs where the skill is unimportant).

Besides the advantage of meeting the large sample size problem this validity strategy has the advantage that selection instruments are developed for a group of jobs instead for one single job only. This could be a solution to validate tests for management positions.

### 3.6. Modified models for selection research:

For years, psychologists have relied on the traditional and simplified model for selection research, described in the preceding section (3.1.2.). This model has sought to link predictors with criteria through the correlation coefficient. We have seen the weaknesses of this model and have to search for other models. In the first two sections Dunnette's Person-process-product model and Schoenfeldt's assessment-classification model will be discussed.

#### 3.6.1. Dunnette's person-process-product model:

Dunnette's model for test validation and selection research (Dunnette, 1963, 1966, Hobert & Dunnette, 1967, Campbell, Dunnette, Lawler, Weick, 1970) is shown in figure VII - 4.

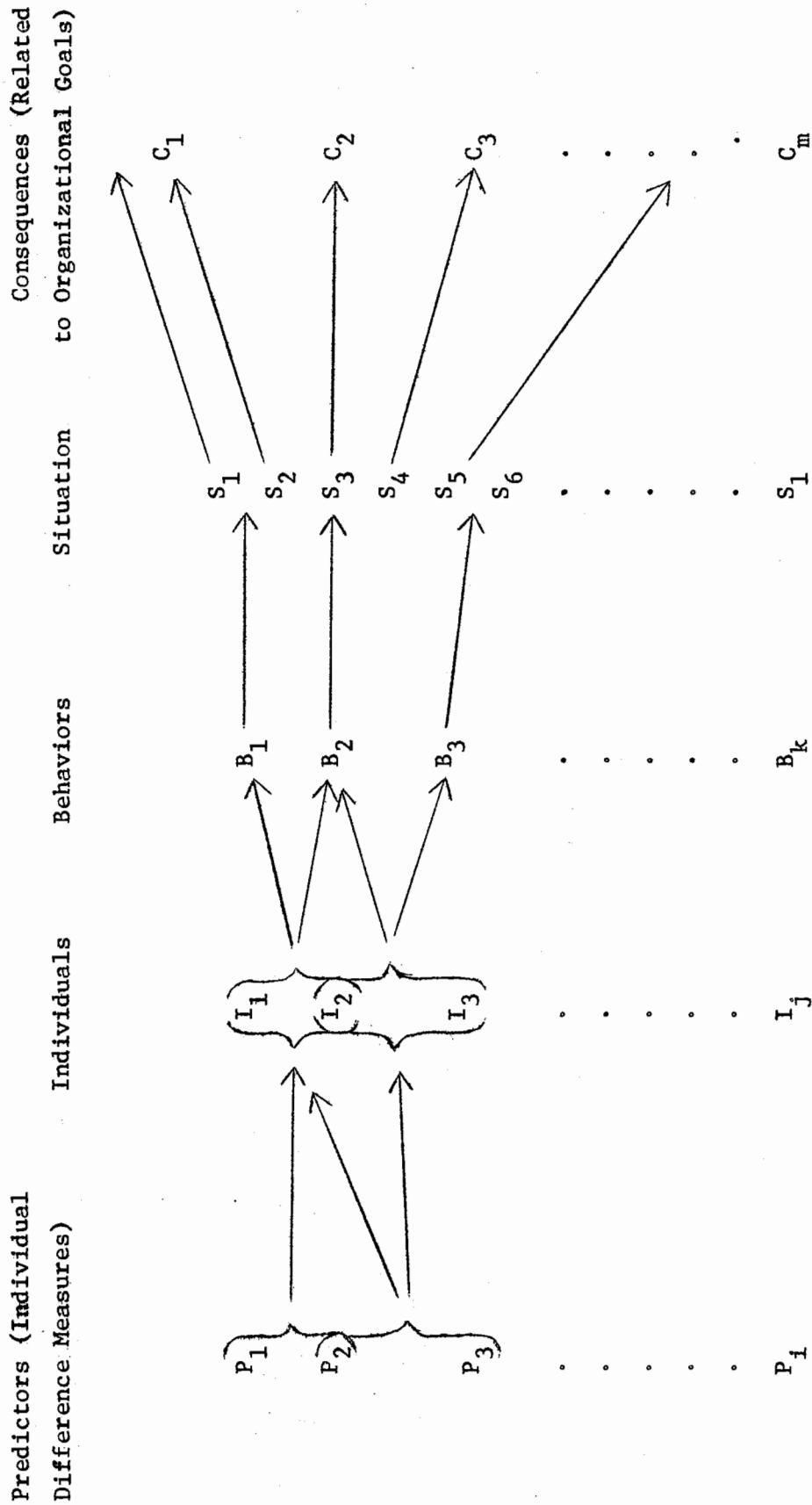


Figure VII - 4. A model for test validation and selection research (Dunnette, 1966).

This modified prediction model takes account of "the complex interactions which may occur between predictors and various predictor combinations, different groups (or types) of individuals, different behaviors on the job, and the consequences of these behaviors relative to the goals of the organization" (Dunnette, 1963, p. 318).

Figure VII - 4 shows the possibility to try a set of predictors (  $P_1$  and  $P_2$  or  $P_2$  and  $P_3$  ) for different groups of individuals (  $I_1$  and  $I_2$  or  $I_2$  and  $I_3$  ) which probably would yield differentially accurate predictions for different job behaviors. For example scores on test of speed and accuracy of perception (set of predictors) tried for different groups of individuals (male - female, high school graduates - non high school graduates) yield differentially accurate predictions for the job behavior "volume of work", which in this example is "average number of bottles packed per day" (Dunnette, 1966, p. 107 - 109).

The diagram shows also the possibility of different job behaviors leading to various organizational consequences depending upon differing situational contexts. A salesman using persuasive tactics (job behavior) could lead to effective selling (organizational consequence) in one situation, to ineffective selling in another situation.

The diagram shows another possibility. Similar job behaviors may be predictable by quite different patterns of interaction between groupings of predictors and individuals. Effective behaviors may be predicted by test battery A for a group of individuals, group  $I_x$ , while for another group of individuals, group  $I_y$ , testbattery B predict the same effective behavior.

Dunnette suggests to use multidimensional criteria, rather than a composite criterion measure of success. A careful study should be done on effective behaviors for each job dimension that would serve as a criterion of effectiveness.

Hobert and Dunnette (1967) demonstrated the applicability of the model in the development of moderator variables to enhance the prediction of managerial effectiveness. They developed a new set of predictors (moderator tests) which they tried for the "unpredictables" (the group not correctly predicted by another set of predictors) to identify the "underpredicted" and the "overpredicted" managers.

Validity coefficient, expressed through the point biserial correlation increased from .65 to .73. They have used in this study a sample of 443 managers of the Standard Oil Company of New Jersey.

The main obstacle to implement this model in Indonesia would be the large sample size. It would be very difficult, if not impossible, to find today a company in Indonesia having several hundred managers enough for this kind of research. The problem of sample size will be much more difficult to overcome, if we take the variety of the middlemanagement positions into account, and try to implement this model on a particular middle management position.

### 3.6.2. Schoenfeldt's assessment-classification model:

Schoenfeldt's assessment-classification model (1974) incorporates the evaluation of person-process-product model with the subgroup conception of

Owens (1968). It involves the assessment of individuals, measurement of jobs, and the prediction of job success (see figure VII - 5).

This model classifies individuals into subgroups, jobs into job families. Individuals are classified into life history subgroups, homogeneous with respect to important dimensions of life behavior. This involves administering a biographical questionnaire to assess the antecedent behavior.

The classification of jobs into job families would involve the analysis of the jobs by a technique such as the PAQ (McCormick, Jeanneret, Mecham, 1972)

The assessment-classification model is then developed "by the use of a maximization procedure (such as discriminant analysis) to determine the probability of success and satisfaction in a particular job family given that the individual is a member of a particular life history subgroups" (Schoenfeldt, 1974).

Through the use of this model prediction of job success can be made for a new individual whose subgroup is known and who would be performing a job belonging to one of the job families.

Synthetic validity studies can be executed using this model. A set of predictors, and their measures, can be determined synthetically for subgroups of individuals to predict their success on a corresponding job family.

The sample size will pose no problem. Managers from various management

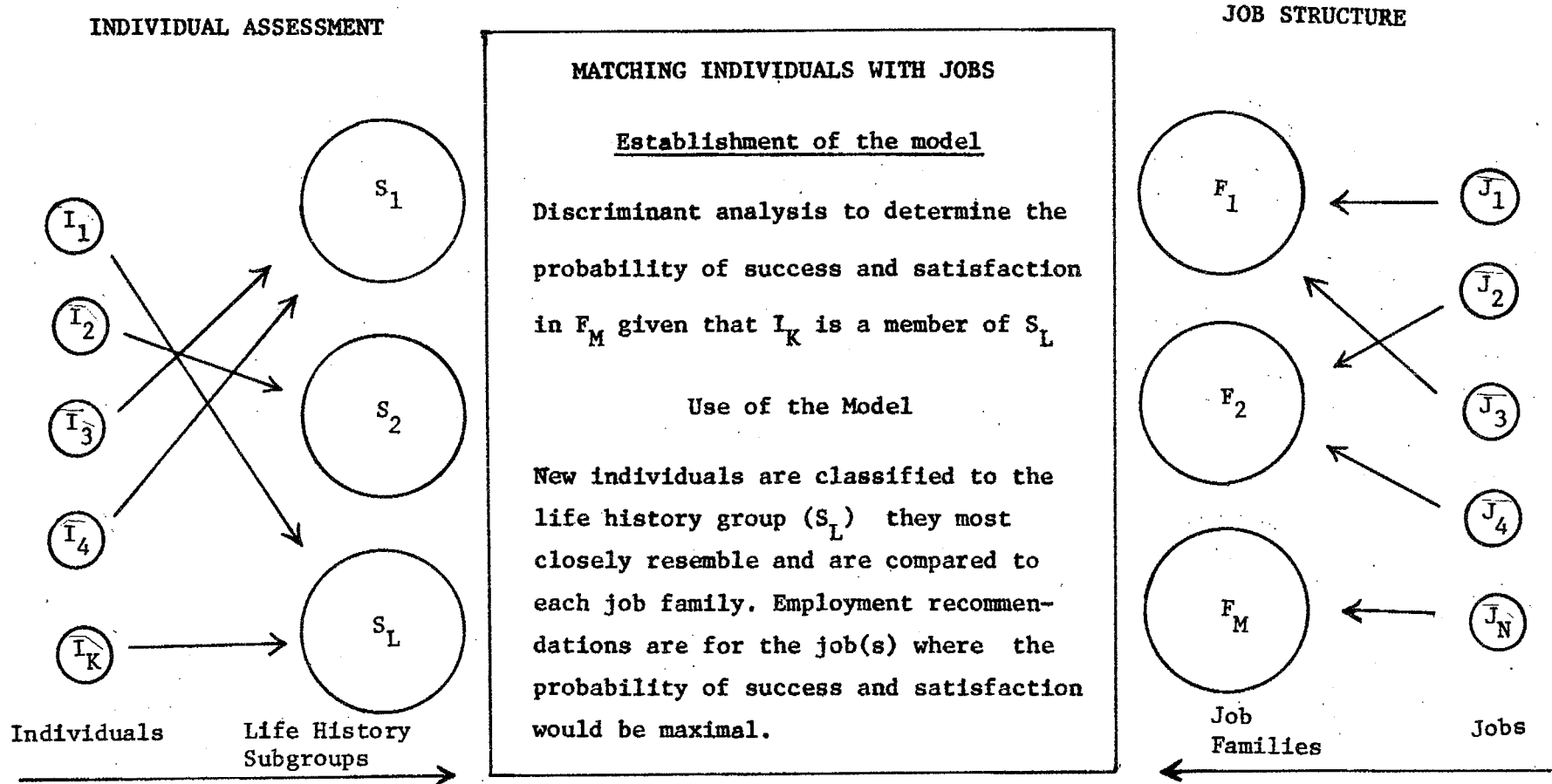


Figure VII - 5. The assessment-classification model (Schoenfeldt, 1974).



positions classified into one homogeneous management job family could serve as the sample.

The classification of individuals into subgroups is based on the premise that past behavior is the best predictor of future behavior. Though this may be true, the premise seems to say also that people's behavior does not change, which is incorrect, since we know that they are able to master new knowledge, skills, and that they may change in their values and attitudes.

#### 4. The Assessment Center:

The Bell System's Management Progress Study at the American Telephone & Telegraph Company (A.T. & T.) is the first known industrial application of the assessment center method (Crooks, 1973). Early applications of the method occurred primarily in military or academic context (Bray, Grant, 1966).

An assessment center method is a comprehensive, standardized procedure in which multiple assessments techniques are used in combination to evaluate individuals for various purposes.

The assessment center method originally was held on a fulltime basis at a special location. Now the term assessment center is used to describe any situation in which similar assessment methodology is used regardless of the degree of performance or location of the program (Bender, 1973).

#### 4.1. The various purposes:

Kraut (1976) mentioned the following purposes or use of the assessment center:

- a. The selection of people with greater ability for promotion to management.
- b. The identification of people with management potential early in their careers.
- c. The placement of individuals in positions that will use their talents and the individuals further development.
- d. Personal development in order to help people diagnose their competencies and to help to improve them.

According to de Wolff (1977) the assessment center is not only used for the assessment of managers, but it is also used for the assessment of sales engineers, and minority groups. The assessment center is further used for immediate promotions and also for accelerated development.

#### 4.2. The assessment techniques:

One of the characteristics of an assessment center is the use of multiple assessment techniques.

Apart from psychological tests (mental ability, personality inventories, etc.), simulation techniques, such as Management Business Game,

Leaderless Group Discussion, Inbasket exercises, are used. An in-depth interview is also given to the assesseees.

Another technique, also often used, is peer evaluation (the assesseees are assessing or judging each other and himself).

#### 4.3. The evaluation parameters:

Bender (1973) found in his survey about the operations of the assessment centers in twenty-nine companies and four government agencies a great variety of the evaluation parameters most frequently observed during assessment center operations. He found a total of 66 evaluation parameters. The following are the parameters observed in 50% or more of the assessment center:

Impact; energy; forcefulness; perception; creativity; use of delegation; problem analysis; leadership, oral communication skills; oral presentation skills, written communication skills organizing and planning; decision making skills; resistance to stress; behavioral flexibility.

#### 4.4. The staff:

The assessment center is headed by either a fulltime or a parttime director, which can be an industrial psychologist. (Bender, 1973). The staff of the assessors are psychologists and senior managers of the company, who are assigned to the assessment center for a certain period. Bender in the above mentioned survey found a range of three to twenty four assessors working in an assessment center. Most of the assessors are holding management positions two levels above the assesseees. They first undergo a special training before they become an assessor. The training varies from five hours to fifteen days for one assessor. A one day training seems to

be more effective than a training of a few hours. Hinrichs & Haanperä (1976) found that a full day observer training program had a trait or characteristic reliability as high as .86, while a three hour training achieved highest reliability of only .55.

#### 4.5. The assessment program:

The assessees are usually assessed for one or two days. The candidates are usually selected by local management (de Wolff, 1977). In several assessment centers, assessees nominate themselves for assessment (Bender 1973).

More than one assessor assess one and the same person. Based on the information obtained from tests, simulation exercises and the interview each assessee is rated by the assessors on a set of evaluation parameters or traits. In addition to this, overall ratings about the potential of the assessees are made.

A typical program outline could look as follow (de Wolff, 1977):

first day : depth interview; testing; group exercise; written exercise.

second day : Inbasket exercise; individual exercise; group exercise.

additional days are used by the staff for evaluation.

#### 4.6. The validity of the assessment center method:

The validity of the assessment center method has been the subject of a large number of studies. Of these, the Management Progress Study conducted by Bray and his associates at the A.T. & T. is the best known and best documented. They assessed 269 first-line managers from 1957 until 1960, using non-company psychologists, locked up the data, and in 1966 checked the accuracy of their predictions about who would reach middle

management levels. Of the 55 men achieving middle management, 43 (78%) were predicted correctly by the assessors. In contrast, of the 73 men who have not advanced beyond the first level of management the assessment staff predicted that 69 (95%) would not reach middle management within 10 years (Bray & Grant, 1966).

Kraut (1976) together with Grant Scott found in their study of several hundred sales representatives of office equipment who attended an operational assessment center program, that high-rated assessees were three times as likely as low-rated assessees to be promoted to higher levels of management during the following few years.

Mitchel (1975) examined data on 254 managers, attending an assessment center, for changes in validities over time. Twenty four predictors were correlated with a criterion of salary growth measured 1, 3, and 5 years after the managers were assessed. Before conducting the analysis, the managers were grouped into three generations based on the year they were assessed. Peer and assessor ratings were found significantly correlated with the criterion. The multiple correlations generalized well across time and generations. A general increasing trend in the validity coefficients was noted over time.

5. Notes On The Role Of The Assessees:

So far the "non-human" components of the management assessment subsystem has been discussed. This last sub chapter will deal with the human component of management assessment, the assessees. The motivation process of the management candidates or assessees will be treated as well as the consequences upon the assessment process.

### 5.1. Motivation and managerial effectiveness:

Managerial effectiveness is a function of the interdependent relationships between the manager and his supervisor, subordinate(s), peers, and people outside the company (Chapter IV). The effective interaction between the manager and the people he has to work with depend a great deal upon the functioning of a particular set of personal attributes required by the management position.

This particular set of personal attributes consist of knowledge, intellectual abilities, personality traits, motivation and attitudinal factors, and skills (Chapter VI).

Motivation plays a large part in determining the level of performance of the manager, which in turn, influences his degree of effectiveness. Miner's study (1968) shows that highly motivated management candidates have a greater chance to become effective managers than low motivated management candidates. Hersey and Blanchard (1972, p. 5) quote James' research on motivation. He found that hourly employees could maintain their jobs by working at approximately 20 to 30 percent of their abilities. His study also showed that employees work close to 80 to 90 percent of their abilities if highly motivated. We may conclude that if motivation is low, employees' performance will suffer as much as if ability were low. The level of motivation will not be constant, it is in a dynamic equilibrium. It may increase or decrease.

The instrumentality theory of motivation, in particular the Porter-Lawler model, gives us a clear understanding about the dynamics of motivation. The initial motivation level determines the effort expenditure of the individual, which, in turn, together with the abilities, traits, and role

perception determine the level of performance. Based on the level of performance, the individual will expect a reward he perceives as appropriate (perceived equitable reward). If the perceived equitable reward exceeds the actual reward, the individual will feel dissatisfied. If the actual reward exceeds the perceived equitable reward, the individual is satisfied. The degree of satisfaction will affect the level of motivation. Satisfaction will lead to an increase, dissatisfaction will lead to a decrease in the motivation level.

The effort expenditure or the energy expended on the job is a result of the individual's estimation about the probability that effort will lead to improved performance, and the probability that improved performance lead to the valued rewards. Porter - Lawler's valued rewards are synonym to the personal objectives the individual seeks to achieve through the achievement of the company objectives (Landy & Trumbo, 1976, p. 306 - 308).

#### 5.2. The assessees and the assessment process:

Each management candidate has a set of personal objectives, which he tries to achieve by achieving the company objectives. He will be highly motivated and satisfied if he succeeds to accomplish his personal objectives, he will have low motivation and will be dissatisfied if he fails in the achievement of his personal objectives.

The personal objectives, however are not always congruent to the company objectives. They should be realistic, in the sense that the personal objectives can be achieved by the individual and that the company provides the conditions and the opportunities for the achievement of the personal objectives.

For example, a promotion as a highly valued personal objective can be a realistic objective if the individual has the necessary qualities and if the company has a vacancy. On the other hand, promotion can be an ~~irrea-~~listic personal objective if the individual does not possess the necessary qualities or if the company does not have a vacant management position on a higher level.

The company, therefore, has to make sure during the assessment process that the identified potential management candidate will have a set of realistic personal objectives. De Wolff (1977) suggests that the company should not only concentrate on its own decision process, but should also concentrate on the candidate's decision making process. The management candidate, the assessee, should be given the opportunity to decide for himself whether the job he is applying for in this particular company would be appropriate for him.

For this purpose, during or at the end of the assessment, the candidate should be given information about himself (his strengths and weaknesses based on the evaluation of the assessors and his peers) and about the company (what opportunities and limitations exist in the company, which the company can offer). Based on the information, the candidate could resign from the application or could make the necessary adjustments, having realistic personal objectives.

With the assessee's participation in the decision making process a realistic "psychological contract" (de Wolff, 1977) can be developed between the assessee and the company, which will produce a high initial level of motivation.



## VIII. CONCLUSIONS AND PERSPECTIVE

### 1. Indonesian Industrial Organizations As Open Socio Technical System.

Since its independence, back in 1945, Indonesia has recognized the meaning and importance of industrialization to the economic growth of the country.

Nowadays Indonesian industries have to operate in a turbulent environment. The economic and political interdependent relationships between Indonesia and the other countries have their impact on the operations of industries in Indonesia.

The Indonesian cultural heritage evoked and enhanced cultural values which are often experienced as conflicting with modern business values, causing typical problems and stagnations in the progress of the industries.

The rapid changes of the educational system have an impact on the industrial system. A higher literacy level can be seen today compared with the low level back in 1945. The industries in Indonesia have to deal with problems created by the different qualities - different in education and cultural background - of their employees and workers. The Indonesian industries have also experienced the impact of changes of the political system in Indonesia. Though realizing the importance of industrialization, due to emphasis on the political aspects of the country, no significant industrial growth could be witnessed during the first two decades after the Indonesian independence. The growth rate of production paralleled the population growth rate, and its contribution to the Gross Domestic Product (GNP) was constant (see table VIII - 1).

Table VIII - 1

Production Growth Rate, Population Growth Rate  
and the GDP from 1960 to 1968 in Percentages.

	1960	1962	1964	1966	1968
Production (industry)	100	113.8	110.1	111.4	125.2
Population	100	104.7	109.6	115.0	120.7
Gross Domestic Product (GDP)	100	107.7	109.0	113.2	122.5

Source: Nugroho (1972)

Since the foreign and domestic investment laws came into force (in 1967 and 1968 respectively) a swift change in industrial life in Indonesia can be witnessed.

Quite a number of new industries, domestic as well as foreign, have been and are being established. Local companies vanished or developed into "nation wide" companies, having branches all over Indonesia, or their product are sold all over Indonesia. Other companies merged together. Several industries, such as textile, fertilizer, paper, and cement industries, not only are multiplied in number, but the whole production increased 4 to 5 times within one decade, 1967 - 1976 (see table VIII - 2).

The environmental changes, the changes in the suprasystem, affect the Indonesian industrial organizations. In order to survive - or to develop -, to maintain their dynamic equilibrium, necessary changes take place within the industrial organizations, changes that affect the management positions. Several management positions will be enlarged, others disappear or new positions are created.

Table VIII - 2

## Production Growth Rate Of Several Products 1967 - 1975/1976.

Products:	Units:	1967 *	1969 *	1973/74**	1975/76***
T e x t i l e	million meters	225 (100%)	415 (184%)	926.7 (412%)	1 017.1 (452%)
U r e a	thousand tons	93.3 (100%)	84.1 ( 90%)	115.7 (124%)	396.7 (425%)
P a p e r	thousand tons	8.8 (100%)	15.8 (179%)	47.2 (536%)	45.9 (521%)
C e m e n t	thousand tons	322 (100%)	535.4 (166%)	819 (254%)	1 088.8 (338%)

\* source: Nugroho (1972)

\*\* source: Soeharto (1976)

\*\*\* source: Soeharto (1976), estimated.

With the growth of industries in Indonesia the demands for managers will increase. A foreign consultancy firm, Cresap, McCormick, and Paget (1971), estimated that the number of new managers required each year will increase to an average of 15,000. They stated further that "between 1971 and 1980 about 7,000 persons will be needed annually to compensate for normal attrition of about 4 percent among current managers, who are typically engaged in managerial positions for about 25 years.

This situation calls for a sound management assessment strategy. As should be clear from the above (chapter VII) the conventional selection model, which is based on the assumption that neither the jobs nor the people performing those jobs change, will not be suitable for the selection of managers in Indonesian industries. A modified selection model should be used. As another alternative the assessment center method could be implemented for particular industries in Indonesia.

Before discussing the two alternatives the impact of organizational change on the middle management job and on the required personal attributes will be analyzed.

## 2. The Impact of Organizational Change:

### 2.1. The impact of change on the middle management job:

From the empirical studies described in Chapter III, subchapter 2 (Hemphill, 1959, Stewart, 1967) and Chapter VII, subchapter 3 (McCormick, Jeanneret, Meham, 1972) the following conclusions can be made :

- a. Despite the large diversity, common dimensions can be found in the management positions.

Hemphill found ten dimension for 93 management positions, different in position levels and functional areas. McCormick found five overall dimension for 536 jobs (professional, managerial, and non-managerial jobs).

- b. Management positions, different in level and functional area, may possess equal importance on the same dimension. In Hemphill's study management positions in Research & Development, General Administration, and Manufacturing are equally high on the dimensions: "supervision of work" and "Personal Demands" (see table III - 2, Chapter III).

Stewart found five clusters of management positions through the analysis of data about four aspects (which can be considered as dimensions) of the job. Each cluster or job group contains management positions different in level and functional area (see table III - 4, Chapter III).

- c. It is possible to determine the dimension profile of each management position, and to classify management positions with similar dimension profiles into one job group or job family.

Based on the above mentioned conclusions it becomes evident that the impact of the organizational changes on the middle management job will not affect the number and the kinds of dimensions if the same job analysis instrument is used. The changes will rather affect the dimension profile of the middle management job. In other words a management job belonging to a particular job group could, as a result of organizational change, become a management job with a different job dimension profile belonging to another management job group.

## 2.2. The impact of change on the required personal attributes.

In chapter VI, I distinguished personal attributes into the following categories :

- a. Knowledge, job and professional knowledge,
- b. Intellectual abilities,
- c. Personality traits,
- d. Motivation and attitudinal traits,
- e. Skills.

Knowledge and skills are results of the continuous interactions between a set of traits (intellectual, personality motivation and attitudinal traits) and a set of situational variables. The traits are interdependent related to each other in their operations.

Job knowledge can be mastered efficiently and effectively if the individual possess the necessary intellectual abilities, personality traits, motivation and attitudinal traits, and if knowledge are presented systematically and clearly by the environment, which also provides opportunities for the application of knowledge.

Problem solving skills can also be considered as a result of the interaction between individual variables (a network of traits) and situational variables.

With Pervin (1975) we could distinguish between :

- a. traits, which are more genetic determined, which are not so susceptible to environmental changes,
- b. traits, which are more environmental determined.

Motivation and attitudinal traits will be more susceptible to change than the intellectual abilities.

Changes in the job dimension profile will have as a result changes in the required personal attributes. Attributes once important and very relevant to the job could become less important or unimportant at another point of time.

The changes could affect:

- a. Knowledge about the job. Present job knowledge becomes obsolete. New knowledge has to be mastered, or additional knowledge has to be learned.
- b. Skills. With the growth of the company, from a company with a few hundreds of employees to a company with several thousands of employees within a few years, we can imagine that this situation calls for another kind of problem solving skills of the personnel manager. Skills in dealing with the union in Indonesia which were required in the past, were not so important after 1967, and are becoming important again today.
- c. The degrees of the required traits. Changes in the job dimension profile will not affect changes in the number and kind of the required traits, because each dimension has its own trait profile. Since changes will not affect the number and kinds of the dimension, the number and kinds of the required traits will also remain the same. What is changed is the degree of the required traits. A sales manager responsible for the sales of his product in a seller's market will not need much endurance as when he has to sell his product in a buyer's market.

The possibility that each job dimension has its own trait profile is demonstrated in Guion's synthetic validity study (1965) as described in Chapter VII, subchapter 3 and in the study conducted by McCormick, Jeanneret, and Mecham (1972).

McCormick, Jeanneret, and Mecham have asked psychologist to rate the relevance of attributes to the job elements of the PAQ (Position Analysis Questionnaire). According to them, an attribute is somewhat akin to the concept of a worker trait.

Sixty eight attributes were selected classified into "Aptitudinal" attributes (e.g. Verbal comprehension, Arithmetic reasoning, Divergent thinking, Manual dexterity, Dynamic strength) and "Situational" attributes (these were considered in terms of requirement for the individual to adapt to a specified situation, e.g. the adaptability to a variety of duties, dealing with people, pressure of time, working alone). As a result an attribute profile for each job element was obtained. The attribute profile for each job element consisted of the median ratings (given by the psychologists) of the relevance of 67 attributes to the job element (one of the attributes was not included in the analysis).

Through a factor analysis based on the attribute profile data, carried out separately on the six divisions of the PAQ, 21 dimensions were found.

It appears that there was a fair amount of similarity between the dimensions found based on the attribute profiles data and the dimensions found based on the job data. In other words, it would be possible to find for each dimension a corresponding personal attribute profile.

### 3. A Proposed Model For Selection Research.

The following conclusions serve as premises underlying the proposed model for selection research in Indonesia:

- a. The middle management jobs are undergoing changes - though not fast and sudden - as a consequence of the continuous interaction of the industrial organization with its environment.



- b. The middle management jobs can be classified into middle management job groups or families on the basis of similar job dimension profiles.
- c. Changes of the middle management job will affect the job dimension profile.
- d. Personal attributes required for effective managing can be distinguished into more "genetic determined" traits and more "environmental determined" traits.
- e. Middle managers can be classified into subgroups on the basis of similar trait profiles.
- f. Each job dimension has a corresponding trait profile.

This model involves the classification of middle management jobs, the assessment of managers, their classification into subgroups, and the prediction of job success.

Figure VIII - 1 illustrates the model for selection research.

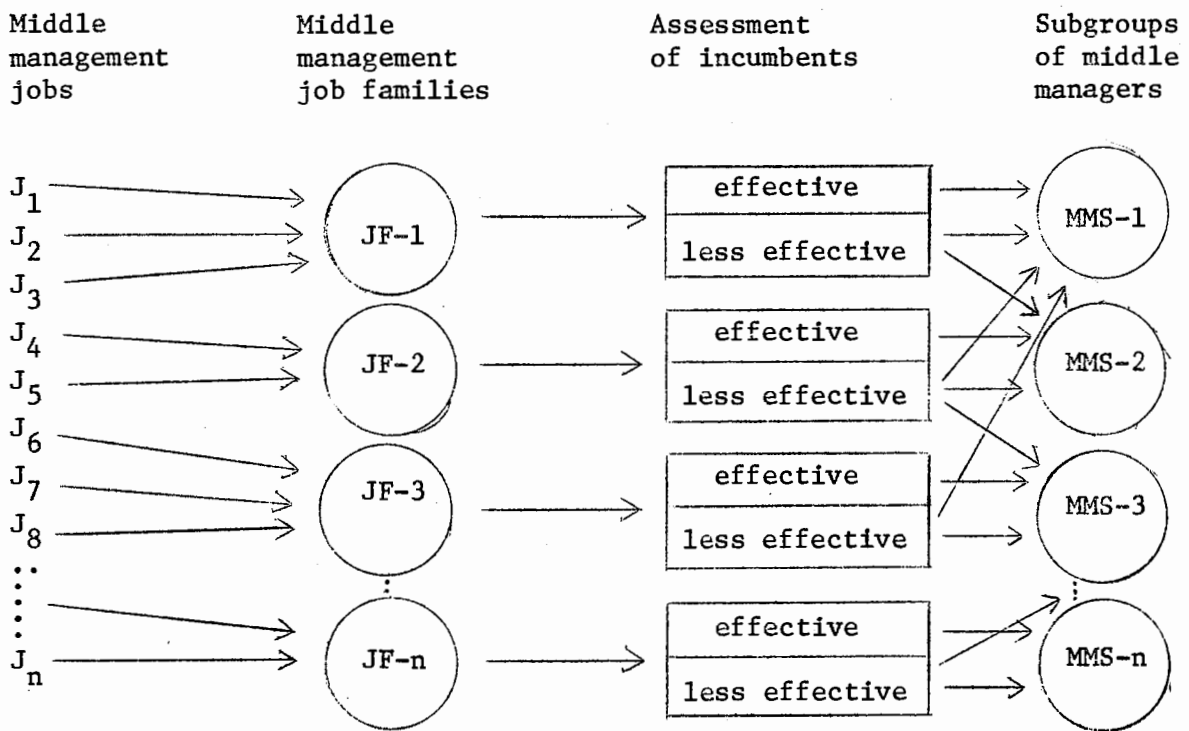


Figure VIII - 1. A model for selection research in Indonesia.

### 3.1. The classification of the middle management jobs.

For the classification of middle management jobs a structured position analysis questionnaire similar to McCormick's PAQ could be developed, comprising job elements of a worker-oriented nature.

The following major divisions, as described in chapter III, are suggested :

- 1). The inputs (comprising the frequency, the degree in complexity, urgency, importance, and kind of information the middle manager has to deal with).
- 2). The activities (comprising planning activities, the degree of broadness of the scope, the time span, and the flexibility of the plans, and the implementation activities, the degree in complexity and structuredness of the tasks to be performed, the number of the direct and indirect subordinates, the kind and number of peers and people-outside-the-company contacted, the time spent in communicating with them).
- 3). The outputs (comprising the content, degree of generality, and the kind of objectives to be achieved by the middle management job).

Through factor analysis job dimensions can be found and middle management job families can be constructed (JF-1, JF-2, JF-3, JF-n in Figure VIII-1).

### 3.2. The assessment of managers.

The incumbents of the management positions should undergo two kinds of assessments:

- a. The assessment the managers' of traits, to be used as predictors,
- b. The assessment the managers' of managerial effectiveness, to be used as the criterion.

ad. a. The managers should be assessed on the more genetic determined traits, such as their intellectual abilities, personality traits, and attitudinal traits.

Knowledge and skills do not have to be assessed, because they are products of the interaction between a set of traits and situational variables. People who do not have the required set of traits will not be able to master the required knowledge and skills. It should be added, that people having the required set of traits will not automatically be effective on the job. They have to be trained in the necessary skills and have to learn the required job knowledge.

ad. b. For each job dimension found from the analysis above behaviorally anchored rating scales, similar to the scales developed by Campbell, Dunnette and others (1970, 1973) can be constructed. The scales will be used as measures of effectiveness. The scores obtained from the scales will make up the composite criterion of success. This will be the only index of managerial effectiveness, since other indices such as the rate of promotion and salary increase cannot be used as indices of managerial effectiveness in Indonesia as explained in Chapter VII.

On the basis of the ratings, middle managers of each job family can be divided into effective and less effective managers.

### 3.3. The classification of managers:

The middle managers, the job incumbents, can be classified into subgroups on the basis of their test scores.

Unlike Schoefeldt I would not classify the managers into subgroups on the basis of their similar life experiences. Behavior is a product of the

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operations of a set of traits in their interaction with the environment. As such, past behavior could be different from future behavior. Managers with unfavourable working attitudes caused by specific experiences in the past could have experiences in the future causing a change in the attitudes.

If the assumption is correct that each middle management job family will have its own trait profiles then we will find in each subgroup the following type of managers:

- a. effective managers belonging to a particular middle management job family,
- b. less effective managers belonging to the same middle management job family as those mentioned in a.,
- c. less effective managers coming from other middle management job families than those mentioned in a. and b.

The type a. managers are effective because they have the required traits and possess the required knowledge and skills.

The type b. managers are less effective because they do not have the knowledge and skills required by the job, although they possess the required traits.

Type c. managers are less effective because they have neither the required traits nor the required job knowledge and skills. These managers are misplaced, they belong to another middle management job family. Therefore we will find them classified into job families other than their own.

Figure VIII - 1 illustrates the case. MMS-1 consists of effective managers coming from JF-1, less effective managers are coming from JF-1, JF-2 and JF-3. Those coming from JF-2 and JF-3 are manager of type c.

When we study the managers from one middle management job family we will find hypothetically four groups of managers.

Figure VIII-2 illustrated the hypothetical distribution of middle managers according to their test scores (horizontal axis) and their criterion score (vertical axis).

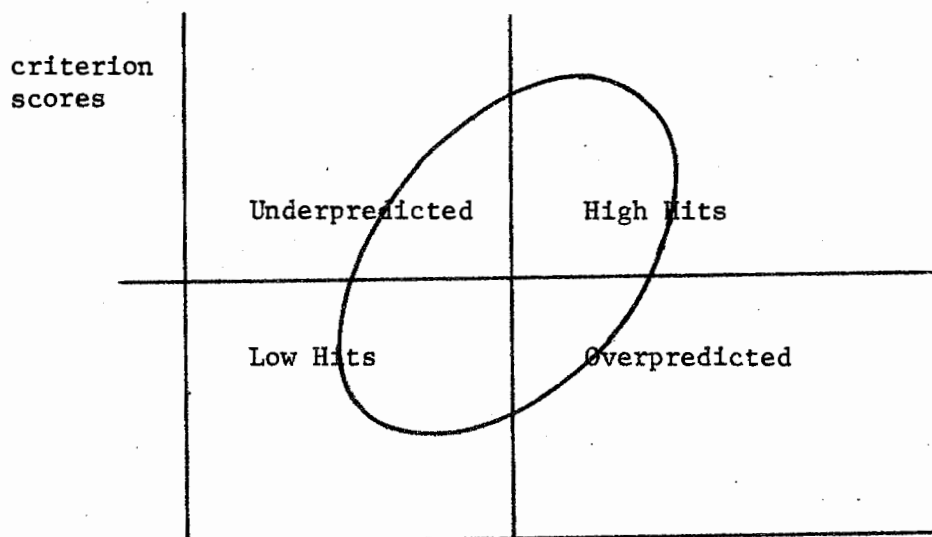


Figure VIII-2. Hypothetical distribution of test scores and criterion scores of middle managers, incumbents of a job family.

The "high hits" are effective managers, the type a managers mentioned above. The type b managers are those who are "overpredicted", type c managers are those who are "low hits".

The "underpredicted" managers succeeded in mastering the required knowledge and skills despite their lower degree of the required traits.

#### 3.4. Advantages of the proposed model.

The following advantages can be expected from this model for selection research in Indonesia :

- a. The problem of sample size can be solved. Each middle management job family consists of various middle management jobs. Managers holding different management jobs coming from different companies could serve as the sample of validity studies. This would be appropriate to the situation in Indonesia, where most of the industries are still medium or small sized industries.
- b. For each middle management job family selection batteries and moderator tests can be developed using the techniques and procedure recommended by Hobert & Dunnette (1967). Based on the results of the selection test battery we will find middle managers classified into four groups, as illustrated in figure VIII - 2, i.e. the high and low hits, the over- and under-predicted managers. Moderator tests can then be developed to identify the under- and over-predicted managers. In other words, the moderator tests will reduce the number of the over- and under-predicted managers to a minimum.
- c. Synthetic validity studies can be carried out with this model using the procedure recommended by McCormick, Jeanneret, and Mecham (1972), which includes the following main points:
  - 1). The determination of the criterion scores. One of the two criteria they have used is the mean test score of actual job incumbents. This score "might be one indication of the relative level of the aptitude required for the job" (p. 360).
  - 2). The division of the sample of jobs into two subsamples. For cross validation purposes the sample of jobs were divided randomly into two subsamples.

- 3). The determination of the dimension scores. For each job a dimension score can be derived for each dimension, obtained through the PAQ.
  - 4). The correlation between the criterion and dimension scores. The dimension scores for each subsample of jobs were correlated with the mean test scores for their corresponding jobs.
  - 5). The carrying out of a double cross-validation procedure.
- d. The position analysis questionnaire developed in this model for selection research can be used for any middle management job to identify its job dimension profile and to classify the job into one of the job families. Management candidates for this job can then be assessed using the testbatteries, which were validated through the use of this model.
  - e. With the implementation of this model a statistical or a mechanical strategy of prediction can be used in the selection of potential middle management candidates, which will have a better predicted value than the clinical and composite clinical methods frequently used today in Indonesia.
  - f. Small and medium sized industries operating in Indonesia could participate in the development and implementation of this model for selection research, and could make use of the research results to identify potential middlemanagers for their middle management positions.

A note to the advantages should be added. Research results using this model may not be expected within a short period of time.

#### 4. The Implementation Of The Assessment Center Method:

##### 4.1. The function of the development of the individual in the assessment center:

The assessment center method has two functions, the function of the development of the individual and the function of selection.

In the case of the first function, the development function, assessment is not seen as an independent activity, but as an integrated activity that serves both the company and the individual.

Among the key characteristics of assessment centers summed up by Bender (1973) we find the following characteristics relating to the development of the individual manager (p. 55 - 56):

- Assesseees receive immediate oral feedback on their performance.
- Assesseees receive written feedback on their performance.
- Feedback is disseminated by assessment center personnel.
- Assessment center results are used for formal development plans.
- Re-assessment is permitted.

The assesseees are coming from inside the company. In most of the cases they are nominated by supervision. There are assessment centers, however, where the assesseees could nominate themselves for assessment (Bender, 1973).

The emphasis on the individual development function of the assessment center is stressed by Lupton (1973). He described two approaches to the organizational activities of managerial identification, development and control: the mechanistic and the organic approach.

The mechanistic approach, implemented in the assessment center context,



puts the individual in an essentially passive and dependent position. Decision about the assessee is made by the assessment staff. The staff is responsible for assessing the performance of the assessee. From the data collected during the assessment period the staff identifies the individual's strengths and weaknesses and set up a development plan thought to be appropriate to the assessee.

The organic approach, on the contrary, gives the assessee a major responsibility for assessing his own performance and potential. The assessment staff and the other assesseees serve as resources. They provide the individual responsible feedback about his performance on the series of exercises and simulations. The assessee himself - with the assistance of staff and his fellows - has to identify his own strengths and developmental needs, and has to come up with a development plan for subsequent actions.

The assessment center method with the accentuation on the function of individual development would be applicable and suitable for the industries in Indonesia, which have branches dispersed over Indonesia, and which assess potential middle managers for higher management positions.

Based on my experiences and observations, companies in Indonesia are selecting candidates from outside the company for the lower middle management positions. For the higher middle management positions an internal selection takes place. The managers from lower middle management positions become candidates for the higher jobs.

Only few companies are offering middle management positions to managers from the beginning or lower management level jobs.

Instead of just screening the candidates from the lower middle management positions, the candidates will be given the opportunity to develop their potentials optimally, recognizing their own strengths and weaknesses.

The validity problem of the assessment tools seen within this context obtains another meaning. The construct, content, and face validity become of more importance than the predictive validity.

A thorough knowledge about the jobs at the level for which candidates will be assessed is necessary. For this purpose the system approach to job analysis as described in Chapter VII could be used.

From the collected job data knowledge, skills, aptitudes, abilities, and personal characteristics important to job performance at that level can be derived.

Relevant problems encountered on this level can be indentified through the use of the critical incident technique. On the basis of the job data and the problems management games, in-basket exercises, leaderless group discussions and other situational tests can be constructed and developed, to be administered later on to the candidates beside the conventional tests (aptitude and personality test).

The use of situational tests, which are simulations of real management situations, in the assessment of the candidates will increase their motivation in taking the tests/exercises.

Because of the perceivable similarities with real management situations the candidates will tend to accept readily their performance on those tests as valid measures of their capabilities.

#### 4.2. The function of selection in the assessment center:

The second function in the assessment center methods is the function of selection. Candidates are either accepted or rejected. Accentuation on this function exists in the early implementations of the assessment center strategy in industry, as can be seen in several studies reported by Bray & Grant (1967, 1964), Johnson (1964), Thornton (1964), and as indicated by Lupton (1973).

The assessee, all coming from within the industry, are assessed on their managerial potential to hold management positions on different levels.

I would suggest for Indonesia to use the assessment center approach to assess both management candidates coming from outside as well as from inside the industry.

In assessing candidates from inside the company the accentuation should be on the individual development function, while for the assessment of candidates coming from outside the company the emphasis should be given to the selection function.

By emphasizing the selection function I do not mean to keep the role of the assessee passive. As suggested in Chapter VII, they should be given a more active participative role in the decision process, by giving them the necessary informations about the industry - the opportunities and limitations they will experience - and feedback informations about their results during the assessment.

The assessment tools used to assess candidates from inside the company can be used also for the assessment of candidates from outside the company. The results achieved by the "inside" assessee could serve as norms in the selection of the "outside" management candidates.

#### 4.3. Additional remarks:

The assessment center method can only be used by large industrial organizations. De Wolff (1977) mentioned industrial organizations with more than 15,000 employees. It would be worthwhile, however, to try to use this method in medium size industrial organizations, where the assessment results can be used as additional information to the information obtained through the conventional methods of potential review and performance appraisal used by those industries.

It is self evident that the involvement and interest of top management to the use of the assessment center method, contribute a great deal to the success of its operations. Top management should recognize the benefit and importance of the assessment center to its organization. They should see the assessment center as a necessary activity integrated in the whole activity of its organization. They should see the appointment of their managers to become assessors as part of their career development program.

A last word should be given with regard to the assessors. Anundsen (1973) mentioned comments of the assessors about their job as assessor. Many of the assessors have been through the assessment center themselves. Several of the assessors commented that they learned as much from being observers as from being participants (p. 35).

Before becoming assessors the managers have to undergo a systematic training in what behaviors to observe in judging managerial potential. The assessors should receive sufficient training to enable them to evaluate intelligently the behaviors measured in the center.

Kraut (1976, p. 36) suggests that a required minimum training should encompass :

- a. Knowledge of the assessment techniques used.
- b. Knowledge of the assessment dimensions. (or evaluation parameters).
- c. Knowledge of behavior observation and recording.
- d. Knowledge of evaluation and rating procedures.
- e. Knowledge of assessment policies and practices of the organization.
- f. Knowledge of feedback procedures where appropriate.

To these I would add the skills to observe and to record behavior, to evaluate and to rate, and the skills to give feedback to the candidate.

Bender (1973) mentioned a training time for one assessor ranging from 5 hours to 15 days. The training of the candidate assessors in Indonesia is of the utmost importance. The idea of the assessment center method, its objectives and its procedure has to be digested and accepted to elicit appropriate attitudes toward the assessment process to master the necessary observation and evaluation skills. A training time of 15 days for one assessor would therefore not be too much.

#### 5. Closing Remarks:

In the search for a sound strategy in assessing candidates for middle management positions appropriate to the conditions of industries operating in Indonesia, two possible alternatives were suggested :

- a. the development and use of a model for selection research,
- b. the implementation of assessment centers.

Any size and any kind of industrial organization can participate in the development and use of the model for selection research.

Research results of this model, such as: the identification of job

dimensions, middle management job families, valid selection and moderator test batteries can be used for any kind and any size of industrial organization, which is searching for potential middle management candidates.

For the identification of potential middle managers in medium and large sized industries the implementation of the assessment center strategy is recommended.

Management candidates from inside as well as from outside the company can be assessed by the assessment centers. The selection function of the assessment center is accentuated in the assessment process of candidates coming from outside the company, while the stress is put on the development function in the assessment of "inside" candidates.

It is my hope that research can be carried out using this model and that the assessment center strategy can be implemented, so that the risk in selecting management candidates can be kept to a minimum and the best potential candidates can be selected for the middle management jobs. The contribution of the new appointed managers will contribute to the industrial growth, which in turn will affect the economic growth of the country.

Support and participation of the industries in Indonesia, however, is a necessity to secure success of the application of the model and the implementation of the assessment center approach in the assessment of middle management candidates.

## SUMMARY.

Today a strong move towards industrialisation can be witnessed in Indonesia.

The yearly significant increases of the number of new industries in various business sectors and the growth rate of production of the existing industries are indicators of the rapidity of the industrial growth.

The industrial growth creates a significant demand for manpower, skilled and unskilled labor, administrative personnel and managers. The qualitative imbalance in the labor market creates the problem of finding the right people for employment. Industries find it very difficult at the moment to obtain the right technically skilled people and the right qualified managers.

Today there is a distinct demand in Indonesia for well trained, capable managers. A foreign consultancy firm (Cresap, McCormick, and Parget, 1971) estimated that the number of new managers required each year will increase to an average of 22.600 persons.

It is a recognized fact that managers play a crucial role in an industrial society. Competent managers who are able to put the natural and manpower resources efficiently together in the production and distribution of useful goods and service are contributing significantly to the economic growth and development of the country.

As mentioned above, it is difficult to find managers "ready for use".

The companies have to look for candidates with good management potential. They try to identify them from people with a university background, either having studied several years at a university or having a university degree (a bachelor or a master degree) using selection methods that can be classified into the pure clinical and the clinical composite method (Campbell, Dunnette, Lawler, and Weick, 1970).

No significant research has been done in Indonesia to evaluate the effectiveness of those two methods. Studies done in the United States of America about the effectiveness of the pure clinical and the composite clinical methods show unfavorable results.

Many companies in Indonesia are expressing the need to look for better selection or assessment methods to identify potential middle managers. Because of the great impact the decisions made by the middle managers have upon the further operations and development of the industrial organization, the risk in hiring middle managers should be kept to a minimum. One way to keep the risk small is to develop a sound strategy of assessment.

The fact that no significant research has been conducted on the assessment of managers in Indonesia encouraged me to study the western literature and review studies about management, managerial effectiveness and other topics relating to the problem of the identification of potential middle managers, with the expectation to be able to develop a comprehensive research model and to find possibilities to develop an appropriate strategy for the identification of candidates with good potentials to be employed as middle managers by companies operating in Indonesia.

The identification of potential middle managers as a management activity cannot be studied in isolation, independent of other management activities within the industrial organization.



The industrial organization is an open socio-technical system made up by several sub-systems. It is an organized unitary whole composed of two or more subsystems and delineated by identifiable boundaries from its environmental supra system (Kast & Rosenzweig, 1974).

The industrial organization is composed of five subsystem : the goals and values subsystem, the technical subsystem, the psychosocial subsystem, the structural subsystem, and the managerial subsystem (Kast & Rosenzweig, 1974).

The managerial subsystem is the link between the industrial organization and its environment. Through the managerial subsystem various adjustments and progress can be accomplished. Internally the main role of the managerial subsystem is coordinating and integrating the activities of the other subsystems in the achievement of the organizational goals.

The industrial organization is, as an open system, continuously interacting with its environment. Change in the environment or suprasystem will affect the industrial organization. The industrial organization in turn will affect its environment. It is not possible for the industrial organization, however, to respond to all possible environmental influences. It has to be selective, it has to screen the inputs to be able to deal with them more effectively and to prevent destruction or entropy within the system.

To save the industrial organization from destruction we will find boundary-spanning components of the system dealing with the screening of outputs and inputs of the system and which provide the organization a degree of autonomy and independence in its operations, spared, for a particular time span, from intrusion of environmental influences.

Within the managerial subsystem, three levels of management can be distinguished: the top, middle, and the lower or beginning management level.

The top management level has to deal with the uncertainties and ambiguities in the environment. It should concentrate on adaptive and/or innovative strategies, and it should devote most of its time to planning. The company objectives formulated at this level are general and broad objectives. They provide substantial flexibility as to the means for their attainment.

The middle management level translates the goals into more specific operational goals. The general plans developed at the top management level has to be transformed into more specific plans by each functional management area.

The objectives at the management level are of three kinds: the recurring - ongoing objectives, the problem solving objectives, and the innovative objectives (Odiorne, 1973).

The emphasis at the middle management level is put on the problem solving objectives. The middle manager has the responsibility to supervise and to correct the activities of his subordinates. He has to solve anticipated and non-anticipated problems arising during the course of activities within his working unit.

The middle management level covers a variety of management positions between the general manager, managing director or board of directors (top management level) and supervisors (lower management level). In "tall" organizational structures several layers of middle management positions

can be observed, while in "flat" organizational structures only one or two layers of middle management positions exist.

As a consequence, a middle manager will have either a top manager or another middle manager from a higher level as his superior, either a supervisor or another middle manager from a lower level as his subordinate. In general, middle managers will have one or more subordinates, but not in a large number.

The middle management job can be viewed as a sub-subsystem of the managerial subsystem. As such it is susceptible to organizational changes.

From the studies on management positions conducted by Flanagan (1951), Hemphill (1959), and Stewart (1967) the following conclusions can be made:

- a. The variety of middle management positions is too big to justify a description about the middle management job without taking the various differences into consideration.
- b. It is possible to classify the management positions into several job "families" (Stewart, 1967).
- c. The management positions can be projected on a common set of job dimensions. Each management position will have its own job dimension profile (Hemphill, 1959).
- d. It can be hypothesized that for each dimension profile there will be a corresponding personal attribute profile.

Studying the interaction pattern of the middle manager, we will find various interdependent relationships between the middle manager and his superior, subordinate(s), peers, and other people outside his company.

Those interdependent relationships play a very important role in determining the middle manager's effectiveness.

From the definition of the middle management job and the interaction pattern of the middle manager we see that the middle manager has to function as a superior and as a subordinate at the same time, or that he has to be a leader as well as a follower.

Several early theorists attempted to explain leadership on the basis of inheritance. The leader is endowed with superior qualities that differentiate him from his followers. Guided by the assumption that leaders are born, for many years the most common approach to the study of leadership concentrated on the identification of leadership traits. There is still a belief, however, in the existence of a set of personal attributes or traits required for effective leading, that operate in a general fashion. From the system point of view it is still important to look for personal attributes (as one of the instrumental inputs) required for effective managing. Research should be directed to the identification of specific personal attributes required by management job families.

Other leadership studies are concentrating upon leader behavior and on the interactions of the leader with situational variables.

Studies concentrating on leader behavior found two dimensions of leader behavior: Consideration and Initiating Structure (Stogdill & Coons, 1957). Other leadership studies identified similar dimensions. Various managerial styles can be produced on the basis of those two dimensions. The most effective managerial style would be the one produced by the manager who scored high on the work-oriented leader behavior (Initiating Structure) as well as on the person-oriented leader behavior (Consideration).

Research on this topic, however, produces contradictory results. Recently the move is towards the contingency view of leadership, which advocates the existence of a best management style for a particular situation (Fiedler, 1967, Reddin, 1970, Hersey & Blanchard, 1972).

The manager has to adapt his leadership style to the demands of the situation, if he wants to be effective. A particular management style effective in one particular situation may not be effective in another situation. The manager should have style flexibility, he should be able to change his style and use another style appropriate to the changed situation.

The ever changing leadership or managerial situation demands specific skills or personal attributes of the manager that can be and should be learned by him to enable him to adapt his behavior and management style to the situation.

The personal attributes required for effective managing can be classified into :

- a. Knowledge,
- b. Intellectual abilities,
- c. Personality traits,
- d. Motivation and attitudinal traits,
- e. Skills.

The classes of personal attributes should be viewed as a network, all interacting with each other.

The attributes can be distinguished into attributes less susceptible to changes and attributes more susceptible to changes.

Knowledge and skills, attributes more susceptible to changes, are results or products of the operations of a particular set of traits, those which are less susceptible to changes (intellectual abilities, personality traits, and motivation/attitudinal traits).

From the empirical studies on personal attributes the following conclusions can be made :

- a. Management jobs on different levels apparently required different degrees of personal attributes. The higher the level the higher the score on the test measuring the particular personal attribute (Ghiselli, 1971, Grimsley & Jarrett, 1973, 1975, Close, 1975).
- b. Different management functional areas accentuate the demand for a particular set of personal attributes (Huttner, Levy, Rosen, Stopol, 1959, Henney, 1975). A test measuring a personality trait (extraversion for example) is scored high by sales managers and low by production managers (Munandar, 1977).
- c. The empirical studies reviewed are conducted with the underlying assumption of the unchangeable character of the middle management job. The jobs are seen as closed systems, ignoring possible influences from the outside..

The middle management job as a sub-subsystem of the managerial subsystem should be perceived as susceptible to environmental influences. Though not fast and sudden, changes will take place. This fact should be taken into consideration in the process of management assessment.

Management assessment, which is in fact a boundary-spanning component's function, has as objective or target, a group of identified potential

managers, each of which is estimated to become an effective manager for a particular management job or for several management jobs.

The candidates for management positions could come from outside the system (from other systems like the education system), they could also be employees working at the operating or lower management levels, which can be promoted to (higher) managerial positions.

The assessment of managers or candidates for management positions is in fact a predictive activity. The candidates are assessed based on a set of personal attributes required for effective managing. Those personal attributes are measured by various assessment tools or instruments, such as tests, self inventories, group exercises, interview etc. Based on the test scores (or the judged traits) the degree of effectiveness of the management candidate is predicted. In order to be able to predict the effective behaviors relationships should be established between the personal attributes and the criteria of effective behaviors. In other words, predictive validity studies should be conducted to be able to assess management candidates effectively.

Predictive validity studies are conducted with the use of the traditional model for selection research, which is essentially nothing more than a calculation of the correlation between predictors (test scores) and the criterion of success.

There are three incorrect assumptions underlying this traditional selection model (Thorndike's model):

- a. It is assumed that the jobs and the people doing those jobs do not change.
- b. It is assumed that the applicant population for the same job will be the same.

- c. It is assumed that when we find a set of predictors of effective job behaviors these will be equally applicable to all individuals applying for that job in terms of determining success on the job.

Apart from the above the following disadvantages of the predictive validity strategy can be stated:

- a. A large sample size is needed for the study. This would be difficult if not impossible as far as the middle management job is concerned. The variety of middle management job is so big that it is difficult to find a homogenous sample.
- b. The amount of time involved. This approach involves substantial delay before results become available.
- c. To secure accurate results all applicants should be hired. The sample will then not be biased. The hiring of all applicants would be a very costly and wasteful procedure.

Other validity studies should be conducted using other selection models.

Dunnette's person-process-product model for test validation and selection research (1963, 1966) would be an appropriate model. It takes into account the following possibilities:

- 1). A set of predictors tried on different groups of individuals will probably yield differentially accurate predictions for different job behaviors.
- 2). Different job behaviors could probably lead to various organizational consequences depending upon differing situational contexts.
- 3). Different sets of predictors tried on different groups of individuals may predict similar job behaviors.



A large relatively homogeneous sample size is still needed for this model. Another model for selection research has been developed by Schoenfeldt, the assessment-classification model (1974). It involves the assessment of individuals, measurement of jobs, and the prediction of job success. The jobs are classified into job families, the individuals are classified into subgroups of individuals. Each subgroup of individuals is matches with a corresponding job family. Through the use of this model prediction of job success can be made for a new individual whose subgroup is known and who would be performing a job belonging to one on the job families.

The sample size will pose no problem, since managers from various management positions classified into one homogeneous management job family could serve as the sample.

Based on the premise that past behavior is the best predictor of future behavior, individuals are classified on the basis of their life-history. The premise seems to say also that people's behavior does not change, which is incorrect, since we know that they are able to master new knowledge, skills, and that they may change in their values and attitudes.

A model for selection research in Indonesia is recommended. It incorporates Dunnette's possibilities mentioned above and like Schoenfeldt's model, it classifies the jobs into job families, the individuals into subgroups of individuals.

Unlike Schoenfeldt, the individuals are classified based on their test scores. Tests are administered to the individuals, which measure traits less susceptible to changes.

The following premises are underlying this model :

- a. The middle management jobs are continuously changing.
- b. The middle management jobs can be classified into middle management job families on the basis of similar job dimension profiles.
- c. Changes of the middle management job will affect the job dimension profile.
- d. Personal attributes required for effective managing can be distinguished into more "genetic determined" traits and more "environmental determined" traits.
- e. Middle managers can be classified into subgroups on the basis of similar trait profiles (testscores).
- f. Each job dimension has a corresponding trait profile.

This model involves the classification of middle management jobs, the assessment of managers and their classification into subgroups, and the prediction of job success.

Through the use of a Position Analysis Questionnaire similar to McCormick's PAQ (1972) job dimensions can be found and middle management job families can be constructed.

Ability and objective personality tests serve as measurement instruments to assess the more genetic determined traits (traits less susceptible to changes) of the middle managers. Based on their test scores they are classified into subgroups of middle managers.

Through the use of behaviorally anchored rating scales, similar to scales developed by Campbell, Dunnette and others (1970, 1973) the middle managers can be assessed on their managerial effectiveness. The managers can then be classified into effective and less effective managers.

On the basis of the test scores and the effectiveness measure selection batteries and moderator tests can be developed for each middle management job family, using the technique and procedure recommended by Hobert & Dunnette (1967).

For each middle management job, dimension scores for each job dimension can be calculated. Together with the acquired test scores of the middle managers they provide the possibility to conduct synthetic validity studies to develop selection test batteries with high predictive values.

With the implementation of this model a statistical strategy of prediction can be used in the selection of potential middle management candidates, which will have a better predicted value than the clinical and composite clinical methods frequently used today in Indonesia.

Small and medium sized industries operating in Indonesia could participate in the development and implementation of this model for selection research. They also could make use of the research results to identify potential middle managers for their middle management positions.

The model for selection research is concentrating on the development of valid assessment instruments. The success of management does not depend only on the valid assessment tools, it depends also on the assessment strategy used, the assessors and the assessees.

An assessment strategy popular in the United States of America is the assessment center strategy. It is a multi-trait-multi-method approach to the assessment of managers. Using various assessment methods managers are being assessed on a set of trait or parameters thought to be relevant and important to the management positions.

The assesseees are incumbents of lower level management positions, usually appointed by their superiors.

The assessors are managers from the same company of the assesseees, incumbents of management positions at least two levels higher than the assesseees. Before becoming an assessor, they have to undergo a special training.

The assesseees are usually assessed for one or two days. There are cases where they are assessed for more than two days.

Studies on the assessment center strategy proof high predictive values of this strategy (Bray & Grant, 1966, Kraut, 1967, Mitchel, 1975).

The implementation of the assessment center strategy for the identification of potential middle managers is recommended for medium and large size industries in Indonesia with small modifications.

The assessment center method has two functions, the function of the development of the individual and the function of selection.

In assessing candidates from inside the company the accentuation should be on the individual development function, while for the assessment of candidates coming from outside the company the emphasis should be given to the selection function.

In assessing the candidates from inside as well as from outside the company the organic approach (Lupton, 1973) should be used. The assessee should be given a major responsibility for assessing his own performance and potential. The assessment staff and the other assesseees serve as resources, providing the individual feedback about his performance on the various assessment instruments.

The development and use of a model for selection research and the implementation of assessment centers are two possible alternatives suggested in the search for a sound strategy in assessing candidates for middle management positions appropriate to the conditions of industries operating in Indonesia.

It is my hope that research can be carried out using this model and that the assessment center strategy can be implemented, so that the risk in selecting management candidates can be kept to a minimum and that the best potential candidates can be selected for the middle management jobs. The contribution of the new appointed managers will contribute substantially to the industrial growth, which in turn will affect the economic growth of the country.

Support and participation of the industries in Indonesia, however, is a necessity to secure success of the application of the model and the implementation of the assessment center approach in the assessment of middle management candidates.

### RINGKASAN.

Dewasa ini di Indonesia dapat disaksikan adanya suatu perkembangan yang mengarah ke industrialisasi.

Sesuai dengan Garis-Garis Besar Haluan Negara maka salah satu tujuan pembangunan jangka panjang adalah merubah secara fundamental struktur pembangunan ekonomi Indonesia, sehingga produksi Nasional di luar pertanian akan merupakan bagian yang makin besar dan industri menjadi tulang punggung ekonomi.

Pertambahan setiap tahun yang menyolok dari industri-industri baru, dalam berbagai macam sektor usaha, dan laju pertumbuhan dari produksi dari industri-industri yang telah ada merupakan indikator-indikator dari kecepatan laju perkembangan industri.

Perkembangan industri menciptakan suatu permintaan berarti akan tenaga kerja, pekerja terlatih dan tak terlatih, tenaga administratif dan tenaga pengelola atau manajer. Ketidak-seimbangan kwalitatif dalam pasar tenaga kerja menimbulkan masalah untuk menemukan orang-orang yang tepat untuk dipekerjakan. Dewasa ini perusahaan-perusahaan merasa sangat sulit untuk mendapatkan tenaga-tenaga yang berketrampilan teknis yang tepat dan manajer-manajer yang berkualitas tepat.

Pada waktu ini terdapat suatu permintaan (demand) yang nyata di Indonesia akan tenaga manajer yang terlatih dan cakap.

Suatu badan konsultasi asing (Cresap, McCormick, dan Paget, 1971) menaksirkan bahwa jumlah dari tenaga manajer yang baru yang diperlukan setiap tahun akan bertambah dengan rata-rata 22.600 orang.

Telah merupakan fakta yang diketahui secara umum bahwa para manajer memainkan peran yang sangat penting dalam suatu masyarakat industri. Para manajer yang tangkas yang mampu menyatukan sumber-sumber alam dan tenaga kerja secara efisien dalam produksi dan distribusi dari barang-barang dan jasa-jasa yang bermanfaat, memberikan sumbangan yang sangat berarti kepada perkembangan dan pembangunan ekonomi negara.

Sebagaimana telah dikemukakan diatas, sulit untuk menemukan tenaga tenaga manajer "siap untuk langsung dipekerjakan".

Belum ada lembaga pendidikan di Indonesia yang mendidik manajer-manajer profesional untuk pemerintahan dan perusahaan.

Dengan program Indonesianisasi dari pemerintah, maka kesulitan-kesulitan dalam mendapatkan manajer-manajer yang baik akan menjadi lebih besar dalam beberapa tahun yang akan datang.

Perusahaan-perusahaan sekarang terpaksa mencari calon-calon yang berpotensi untuk menduduki jabatsn-jabatan manajemen. Mereka berusaha untuk mengidentifikasi para calon yang berpotensi dari orang-orang dengan latar pendidikan universitas atau perguruan tinggi, baik yang pernah belajar beberapa tahun di perguruan tinggi, maupun yang telah mencapai sesuatu gelar kesarjanaan (Sarjana Muda ataupun Sarjana). Metode-metode seleksi yang dipakai untuk keperluan ini dapat digolongkan ke dalam metode-metode klinikal murni dan klinikal gabungan (Campbell, Dunnette, Lawler dan Weick, 1970).

Di Indonesia belum diadakan penelitian yang berarti untuk menilai efektivitas dari kedua metode diatas. Penelitian-penelitian tentang effektivitas metode-metode klinikal murni dan klinikal gabungan yang dilaksanakan di Amerika Serikat memberikan hasil-hasil yang tak menguntungkan kedua metode tersebut.

Banyak perusahaan di Indonesia yang merasakan kebutuhan akan metode-metode seleksi atau assessment yang lebih baik untuk mengidentifikasi manajer-manajer menengah yang berpotensi. Risiko dalam mempekerjakan para manajer menengah harus diusahakan sekecil mungkin, karena keputusan-keputusan yang diambil oleh para manajer menengah mempunyai pengaruh yang sangat besar terhadap operasi dan perkembangan organisasi perusahaan selanjutnya. Salah satu cara supaya risiko tetap kecil ialah dengan mengembangkan suatu strategi assessment yang dapat dipertanggungkan.

Kenyataan belum adanya penelitian yang berarti tentang assessment dari para manajer yang dilaksanakan di Indonesia, mendorong saya untuk mempelajari kepustakaan barat dan me-review studi-studi tentang manajemen, efektivitas manajerial dan topik-topik lain yang berhubungan dengan masalah identifikasi dari manajer-manajer menengah yang berpotensi, dengan harapan dapat mengembangkan suatu model riset yang komprehensif dan dapat menemukan kemungkinan-kemungkinan untuk mengembangkan strategi yang sesuai untuk identifikasi dari calon-calon yang berpotensi baik supaya mereka dapat dipekerjakan sebagai manajer-manajer menengah oleh perusahaan-perusahaan yang beroperasi di Indonesia.

Identifikasi dari manajer-manajer menengah yang berpotensi sebagai suatu aktivitas manajemen tak dapat dipelajari dalam keterpencilan, ter-



lepas dari aktivitas-aktivitas manajemen lainnya dalam organisasi perusahaan.

Organisasi perusahaan adalah suatu sistem sosio-teknikal yang terbuka yang terdiri dari beberapa subsistem. Ia adalah suatu keseluruhan kesatuan yang terorganisasi yang terdiri dari dua atau lebih subsistem dan yang dilukiskan secara jelas oleh batas-batas yang dapat dikenal dari suprasistem lingkungannya (Kast & Rosenzweig, 1974).

Teori-teori manajemen yang telah dikembangkan dan yang ada memberi tekanan pada satu subsistem tertentu dari organisasi perusahaan. Manajemen ilmiah (scientific management) dan ilmu manajemen (management science) memberikan tekanan pada subsistem teknikal; manajemen tradisional (teori manajemen dari Fayol) menekankan organisasi struktural dan subsistem manajerial; sarjana-sarjana ilmu perilaku lebih menekankan subsistem psikososial. Dengan memandang organisasi perusahaan sebagai suatu sistem, perhatian dapat diberikan kepada dinamika dari keseluruhan, sehingga subsistem-subsistem pokok dan interaksi mereka yang dipelajari.

Organisasi perusahaan tersusun dari lima subsistem: subsistem tujuan-tujuan dan nilai-nilai, subsistem teknikal, subsistem psikososial, subsistem struktural dan subsistem manajerial (Kast & Rosenzweig, 1974).

Subsistem manajerial merupakan penghubung antara organisasi perusahaan dengan lingkungannya. Melalui subsistem manajerial dapat dicapai berbagai macam penyesuaian dan kemajuan. Peran utama dari subsistem manajerial kedalam adalah mengkoordinasi dan mengintegrasikan aktivitas-aktivitas dari subsistem-subsistem lainnya dalam mencapai tujuan-tujuan organisasi.

Sebagai sistem yang terbuka, maka organisasi perusahaan secara terus menerus berinteraksi dengan lingkungannya. Perubahan-perubahan dalam

lingkungan atau suprasistim akan mempengaruhi organisasi perusahaan. Sebaliknya organisasi perusahaan akan mempengaruhi lingkungannya juga. Tidaklah mungkin bagi organisasi perusahaan untuk memberikan jawaban kepada semua kemungkinan pengaruh lingkungannya. Ia harus bertindak selektif, ia harus menyaring input-input supaya dapat berurusan dengan mereka secara lebih efektif dan untuk mencegah destruksi atau entropy dalam sistim.

Untuk melindungi organisasi perusahaan dari destruksi kita akan menjumpai komponen-komponen rentangan-batas (boundary-spanning components) dari sistim yang berurusan dengan penyaringan dari input-input dan output-output dari sistim dan yang memberikan suatu otonomi dan kebebasan kepada organisasi dalam operasi-operasinya, terhindar - untuk jangka waktu tertentu - dari gangguan pengaruh lingkungan.

Dalam subsistim manajerial dapat dibedakan tiga tingkat manajemen, yaitu: tingkat manajemen atas, menengah dan rendah atau permulaan.

Tingkat manajemen atas harus berurusan dengan ketidakpastian dan kedwivartian dalam lingkungan. Ia harus memusatkan diri pada strategi-strategi yang adaptif dan/atau inovatif, serta harus menyediakan kebanyakan dari waktunya untuk membuat rencana-rencana. Sasaran-sasaran perusahaan yang dirumuskan pada tingkat ini merupakan sasaran-sasaran yang bersifat umum dan luas. Sasaran-sasaran perusahaan ini memungkinkan digunakannya berbagai macam cara untuk pencapaian sasaran-sasaran tersebut.

Tingkat manajemen menengah menterjemahkan sasaran-sasaran kedalam sasaran-sasaran operasional yang lebih khusus. Rencana-rencana umum yang dikembangkan pada tingkat manajemen atas harus diubah kedalam rencana-rencana yang lebih khusus oleh masing-masing bidang manajemen fungsional.

Pada tingkat manajemen dikenal tiga macam sasaran, yaitu: sasaran-sasaran rutin-berulang-ulang, sasaran-sasaran pemecahan masalah dan sasaran-sasaran inovatif (Odiorne, 1973).

Pada tingkat manajemen menengah penekanannya adalah pada sasaran-sasaran pemecahan masalah. Manajer menengah mempunyai tanggung jawab untuk mengawasi dan mengoreksi aktivitas-aktivitas bawahan-bawahannya. Ia harus memecahkan masalah-masalah, baik yang dapat diantisipasi maupun yang tidak dapat diantisipasi, yang timbul selama rangkaian aktivitas dalam unit kerjanya.

Tingkat manajemen menengah mencakup berbagai ragam jabatan atau kedudukan manajemen antara general manager, managing director atau board of directors (tingkat manajemen atas) dengan para pengawas atau supervisors (tingkat manajemen rendah). Pada struktur organisasi yang "tinggi" (tall) dapat dijumpai beberapa lapisan dari jabatan-jabatan manajemen menengah, sedangkan pada struktur organisasi yang "cépér" (flat) hanya terlihat satu atau dua lapisan dari jabatan-jabatan manajer menengah.

Dengan perkataan lain, seseorang manajer menengah akan mempunyai seorang manajer atas atau seorang manajer menengah dari tingkat lebih tinggi sebagai atasannya, seorang supervisor atau seorang manajer menengah dari tingkat yang lebih bawah sebagai bawahan. Pada umumnya, seorang manajer menengah akan mempunyai satu atau lebih bawahan, namun tidak dalam jumlah yang besar.

Jabatan manajemen menengah dapat dipandang sebagai suatu sub-subsistem dari subsistem manajerial. Dengan demikian ia mudah kena perubahan-perubahan organisasi.

Dari penelitian-penelitian yang dilakukan oleh Flanagan (1951), Hemphill (1959) dan Stewart (1967) tentang jabatan-jabatan manajemen, dapat ditarik

kesimpulan-kesimpulan sebagai berikut :

- a. Macam ragam jabatan manajer menengah terlalu banyak untuk dapat membenarkan satu uraian dari jabatan manajer menengah yang mewakili semua jabatan manajer menengah lainnya.
- b. Ada kemungkinan untuk menggolongkan jabatan-jabatan manajemen kedalam beberapa "rumpun" jabatan atau kelompok jabatan manajemen (Stewart, 1967).
- c. Jabatan-jabatan manajemen dapat diproeksikan kepada seperangkat dimensi jabatan yang sama. Setiap jabatan manajemen akan memiliki profil dimensi jabatannya sendiri (Hemphill, 1959).
- d. Dapat diperkirakan bahwa untuk setiap profil dimensi jabatan akan ada profil sifat-sifat pribadi yang sesuai.

Jika kita mempelajari pola interaksi dari seorang manajer menengah, kita akan menemukan hubungan-hubungan ketergantungan yang bermacam-macam antara manajer menengah dengan atasannya, bawahan(-bawahan)nya, kolega-koleganya dan orang-orang lain dari luar perusahaannya.

Hubungan-hubungan ketergantungan ini memainkan peran yang sangat penting dalam menentukan efektivitas dari manajer menengah.

Efektivitas manajerial didefinisikan sebagai sejauh mana manajer berhasil mencapai sasaran-sasaran perorangannya dalam usahanya untuk mencapai sasaran-sasaran unit kerjanya, yang merupakan tanggung jawabnya.

Hubungan-hubungan ketergantungan dari manajer menengah mencerminkan derajat ketidaktergantungan yang berbeda-beda. Derajat ketidaktergantungan dalam hubungannya dengan atasan, bawahan(-bawahan)nya, kolega-koleganya dan orang-orang lain dari luar perusahaan menunjukkan pula kemungkinan-kemungkinannya untuk merubah hubungan-hubungannya menjadi hubungan-hubungan yang lebih

menguntungkan sehingga akan dapat membantu dia dalam mencapai sasaran-sasaran perorangnya. Hubungannya dengan bawahan-bawahannya dapat lebih mudah ia rubah dibandingkan dengan hubungannya dengan atasannya.

Dari definisi jabatan manajer menengah dan dari pola interaksi dari manajer menengah kita lihat bahwa manajer menengah berfungsi sekaligus sebagai atasan dan bawahan, atau berfungsi sekaligus sebagai pemimpin dan pengikut.

Pada mulanya para sarjana berpendapat bahwa kepemimpinan didasarkan pada pembawaan. Pemimpin memiliki sifat-sifat yang unggul yang membedakan dia dari para pengikutnya. Dengan dipedomani asumsi bahwa pemimpin-pemimpin itu dilahirkan, maka untuk waktu yang lama para sarjana mempergunakan pendekatan yang sama untuk mempelajari kepemimpinan yaitu dengan memusatkan perhatian terhadap identifikasi dari sifat-sifat kepemimpinan. Penelitian-penelitian tersebut pada umumnya tak menghasilkan apa-apa. Namun demikian masih tetap ada yang percaya akan adanya seperangkat ciri-ciri pribadi yang sama yang dituntut untuk dapat memimpin secara efektif dalam situasi kepemimpinan apapun juga.

Ditinjau dari sudut sistim tetaplah penting untuk mengidentifikasi sifat-sifat pribadi (sebagai salah satu input instrumental) yang diperlukan untuk dapat memanejemeni secara efektif. Resit sebaiknya diarahkan ke identifikasi dari sifat-sifat pribadi yang khusus yang diperlukan oleh kelompok-kelompok jabatan manajemen.

Penelitian-penelitian kepemimpinan lainnya memusatkan diri pada perilaku pemimpin dan pada interaksi antara pemimpin dengan variabel-variabel situasional.

Studi-studi yang memusatkan perhatian pada perilaku pemimpin menemukan dua dimensi dari perilaku pemimpin yaitu: Ketenggangan (Consideration) dan Memrakarsai Struktur (Initiating Structure) (Stogdill & Coons, 1957). Studi-studi kepemimpinan yang lain menemukan dimensi-dimensi yang serupa. Atas dasar kedua dimensi tersebut dapat dihasilkan berbagai macam gaya manajerial. Banyak sarjana-sarjana berpendapat bahwa gaya manajerial yang paling efektif dihasilkan oleh manajer yang tinggi skornya baik pada dimensi perilaku pemimpin yang berorientasi-ke-pekerjaan (Memrakarsai Struktur) maupun pada dimensi perilaku pemimpin yang berorientasi-ke-orang (Ketenggangan). Namun demikian penelitian-penelitian selanjutnya tentang masalah ini memberikan hasil-hasil yang bertentangan. Akhir-akhir ini banyak sarjana mulai menganut pandangan "contingency" dari kepemimpinan, yang menyokong pandangan adanya gaya manajemen yang paling baik untuk situasi tertentu saja (Fiedler, 1967, Reddin, 1970, Hersey & Blanchard, 1972).

Manajer harus menyesuaikan gaya kepemimpinannya dengan tuntutan-tuntutan dari situasi, jika ia mau efektif. Gaya manajemen tertentu yang efektif digunakan untuk situasi tertentu dapat menjadi tak efektif jika digunakan dalam situasi yang lain. Manajer seyogyanya mempunyai fleksibilitas dalam gaya, ia harus dapat merubah gayanya menggunakan gaya kepemimpinan lain yang sesuai dengan yang dituntut oleh situasi yang telah berubah.

Situasi-situasi manajerial atau kepemimpinan yang terus menerus berubah-ubah memerlukan ketrampilan-ketrampilan atau ciri-ciri khusus dari manajer yang dapat dan harus ia pelajari sehingga ia dapat berhasil menyesuaikan perilaku dan gaya manajemennya dengan situasi.

Sifat-sifat pribadi yang diperlukan untuk dapat memanejemeni secara

efektif dapat dikelompokkan kedalam :

- a. Pengetahuan.
- b. Kemampuan-kemampuan intelektual,
- c. Ciri-ciri kepribadian,
- d. Ciri-ciri motivasi dan sikap,
- e. Ketrampilan-ketrampilan.

Kelompok-kelompok dari sifat-sifat pribadi harus dipandang sebagai suatu jaringan, yang semuanya saling berinteraksi. Sifat-sifat tersebut dapat dibedakan kedalam sifat-sifat yang kurang mudah kena perubahan-perubahan (sifat-sifat yang lebih ditentukan oleh faktor-faktor genetik) dan sifat-sifat yang lebih mudah kena perubahan-perubahan (sifat-sifat yang lebih ditentukan oleh faktor-faktor lingkungan).

Pengetahuan dan ketrampilan-ketrampilan adalah sifat-sifat yang lebih mudah kena perubahan-perubahan. Kedua kelompok sifat-sifat pribadi tersebut merupakan hasil atau produk dari seperangkat ciri-ciri tertentu, yaitu sifat-sifat yang kurang mudah kena perubahan-perubahan (kemampuan-kemampuan intelektual, ciri-ciri kepribadian dan ciri-ciri motivasi dan sikap).

Dari studi-studi empiris tentang sifat-sifat pribadi yang diperlukan oleh jabatan-jabatan manajemen dapat ditarik kesimpulan-kesimpulan sebagai berikut :

- a. Jabatan-jabatan manajemen pada tingkat-tingkat yang berbeda-beda rupanya memerlukan sifat-sifat pribadi yang sama dengan derajat besarnya yang berbeda-beda. Makin tinggi tingkatnya makin tinggi skor dari test yang mengukur sifat pribadi yang diperlukan (Ghiselli, 1971), Grimsley & Jarrett, 1973, 1975, Close, 1975).

- b. Masing-masing bidang manajemen fungsional rupanya memerlukan seperangkat sifat-sifat pribadi yang khusus (Huttner, Levy, Rosen dan Stopol, 1959, Henney, 1975, Munandar, 1977). Suatu test yang mengukur ciri kepribadian tertentu (mis. ekstraversi) dibuat dengan baik (skor rata-rata tinggi) oleh para manajer penjualan dan kurang baik (skor rata-rata rendah) oleh para manajer produksi (Munandar, 1977).
- c. Studi-studi empiri yang di-review dilaksanakan atas dasar asumsi bahwa jabatan manajer menengah tidak mengalami perubahan. Suatu asumsi yang keliru. Jabatan-jabatan manajemen dalam studi-studi tersebut dipandang sebagai sistim-sistim yang tertutup dan tak diperdulikan adanya kemungkinan-kemungkinan pengaruh dari luar.

Jabatan manajemen menengah sebagai suatu sub-subsistim dari subsistim manajerial harus dipandang sebagai mudah kena pengaruh-pengaruh dari lingkungan. Meskipun tak dengan cepat dan tiba-tiba, perubahan-perubahan akan terjadi. Fakta ini harus ikut dipertimbangkan dalam assessment manajemen.

Assessment manajemen, yang merupakan fungsi dari komponen rentangan-batas, mempunyai sasaran: suatu kelompok dari para manajer berpotensi yang telah diidentifikasi, yang masing-masing telah dinilai untuk menjadi manajer yang efektif untuk sesuatu jabatan manajemen tertentu atau untuk beberapa jabatan manajemen.

Para calon untuk kedudukan-kedudukan atau jabatan-jabatan manajemen dapat berasal dari luar sistim (dari sistim-sistim lain seperti sistim pendidikan), dapat juga berupa tenaga-tenaga kerja yang telah bekerja pada tingkat-tingkat manajemen rendah, yang dapat dipromosikan ke jabatan-jabatan manajemen yang lebih tinggi (berasal dari dalam sistim sendiri).



Assessment dari para manajer atau para calon untuk jabatan-jabatan manajer pada dasarnya merupakan suatu aktivitas peramalan. Para calon diassess berdasarkan seperangkat sifat-sifat pribadi yang diperlukan untuk mememanajementi secara efektif. Sifat-sifat pribadi tersebut diukur dengan bermacam-macam alat assessment seperti test-test, inventarisasi-diri (self-inventory), latihan-latihan kelompok, wawancara dsb. Berdasarkan skor-skor test (atau ciri-ciri yang telah dinilai) maka derajat efektivitas dari calon manajemen diramal. Untuk dapat meramalkan perilaku-perilaku yang efektif haruslah ditentukan hubungan-hubungan antara sifat-sifat pribadi dengan kriteria dari perilaku-perilaku yang efektif. Dengan perkataan lain, studi-studi validitas peramalan (predictive validity studies) harus dilaksanakan untuk dapat meng-assess para calon manajemen secara efektif.

Studi-studi validitas peramalan dilaksanakan dengan menggunakan model tradisional untuk riset seleksi, yang pada hakekatnya tak lain dari pada suatu perhitungan korelasi antara peramal-peramal (predictors) yaitu skor-skor test-test, dengan kriteria dari keberhasilan.

Ada tiga asumsi yang keliru yang mendasari model seleksi tradisional (model dari Thorndike) ini :

- a. Diasumsikan bahwa pekerjaan-pekerjaan dan orang-orang yang melakukan pekerjaan-pekerjaan tersebut tidak berubah.
- b. Diasumsikan bahwa populasi calon untuk pekerjaan atau jabatan yang sama akan sama.
- c. Jika ditemukan seperangkat peramal-peramal dari perilaku-perilaku jabatan yang efektif, maka diasumsikan bahwa seperangkat peramal-peramal tersebut dapat secara sama diterapkan pada semua individu-

individu yang melamar untuk jabatan tersebut dalam arti penetapan keberhasilan dalam jabatan.

Disamping pokok-pokok diatas dapat dikemukakan kelemahan-kelemahan dari strategi validitas peramalan sebagai berikut :

- a. Untuk keperluan studi dibutuhkan suatu sampel yang besar. Ini merupakan suatu kesulitan atau suatu ketidakmungkinan untuk dipenuhi untuk jabatan manajemen menengah. Keragaman dari jabatan manajer menengah terlalu besar sehingga sulit menemukan sampel yang cukup untuk jabatan manajer menengah tertentu.
- b. Jumlah waktu yang terlibat. Pendekatan ini melibatkan penundaan yang sangat berarti sebelum hasil-hasil dapat diperoleh. Studi validitas peramalan merupakan studi jangka panjang (longitudinal research).
- c. Untuk meyakinkan hasil-hasil yang tepat, maka semua calon seharusnya dipekerjakan. Dengan demikian sampel tidak akan berat sebelah (biased). Dipekerjakannya semua calon akan merupakan prosedur yang sangat mahal dan terlalu boros.

Atas dasar catatan diatas maka haruslah dilaksanakan studi-studi validitas lainnya dengan menggunakan model-model seleksi lain.

Model orang-proses-produk untuk validasi test dan riset seleksi dari Dunnette (1963, 1966) kiranya merupakan model yang tepat. Kemungkinan-kemungkinan berikut dipertimbangkan oleh model tersebut :

- 1). Seperangkat peramal-peramal dicobakan kepada kelompok-kelompok individu yang berbeda mungkin akan memberikan ketepatan peramalan yang berbeda untuk perilaku-perilaku jabatan yang berbeda.

- 2). Perilaku-perilaku jabatan yang berbeda mungkin dapat menimbulkan akibat-akibat organisasi yang bermacam-macam tergantung pada konteks situasional yang berbeda-beda.
- 3). Perangkat-perangkat peramal-peramal yang berbeda-beda yang dicobakan pada kelompok-kelompok individu yang berbeda-beda mungkin akan meramalkan perilaku-perilaku jabatan yang sama.

Kelemahan dari model ini ialah masih diperlukannya sampel homogen yang besar.

Model lain untuk riset seleksi telah dikembangkan oleh Schoenfeldt (1974), yaitu model assessment-klasifikasi. Model ini meliputi assessment dari individu-individu, pengukuran dari jabatan-jabatan dan peramalan dari keberhasilan jabatan. Jabatan-jabatan diklasifikasi kedalam rumpun-rumpun jabatan, individu-individu dikelompokkan kedalam subkelompok-subkelompok individu. Setiap subkelompok individu dicocokkan dengan suatu rumpun jabatan yang sesuai. Dengan menggunakan model ini maka keberhasilan jabatan dapat diramalkan untuk seseorang individu yang baru yang diketahui subkelompoknya dan yang akan menjabat sesuatu jabatan yang termasuk kedalam salah satu rumpun jabatan.

Besarnya sampel tidak akan merupakan masalah, karena para manajer dari bermacam-macam jabatan manajemen yang dikelompokkan kedalam satu rumpun jabatan manajemen yang homogen dapat dijadikan sampel.

Berdasarkan pemikiran bahwa perilaku di masa lampau merupakan peramal yang paling tepat untuk perilaku di masa mendatang, maka Schoenfeldt mengelompokkan individu-individu berdasarkan riwayat-hidupnya. Setiap subkelompok individu terdiri dari individu-individu dengan riwayat-hidup yang bermacam.

Dasar pemikiran diatas seolah-olah juga mengatakan bahwa perilaku orang-orang tak dapat berubah. Ini merupakan suatu pemikiran yang tak tepat, karena kita ketahui bahwa orang-orang mampu menguasai pengetahuan baru, mempunyai ketrampilan-ketrampilan baru dan bahwa mereka dapat pula merubah nilai dan sikap-sikapnya.

Suatu model untuk riset seleksi dianjurkan untuk Indonesia. Model ini mencakup kemungkinan-kemungkinan yang dikemukakan oleh Dunnette diatas dan seperti model dari Schoenfeldt model ini mengelompokkan jabatan-jabatan kedalam rumpun-rumpun jabatan manajemen menengah dan mengelompokkan individu-individu kedalam subkelompok-subkelompok individu.

Berbeda dengan Schoenfeldt, individu-individu dikelompokkan berdasarkan skor-skor mereka pada test-test. Test-test yang diberikan kepada individu-individu ialah test-test yang mengukur ciri-ciri yang tak mudah kena perubahan-perubahan.

Berikut adalah pemikiran-pemikiran yang mendasari model riset seleksi untuk Indonesia :

- a. Jabatan-jabatan manajemen menengah secara terus menerus berubah-ubah.
- b. Jabatan-jabatan manajemen menengah dapat diklasifikasikan kedalam rumpun-rumpun jabatan manajemen menengah atas dasar profil-profil dimensi jabatan yang serupa.
- c. Perubahan-perubahan pada jabatan manajemen menengah akan mempengaruhi profil dimensi jabatan.
- d. Sifat-sifat pribadi yang diperlukan untuk memanejemeni secara efektif dapat dibedakan kedalam ciri-ciri yang lebih ditentukan oleh pembawaan dan ciri-ciri yang lebih ditentukan oleh lingkungan.

- e. Para manajer menengah dapat diklasifikasikan kedalam subkelompok-subkelompok atas dasar profil ciri (skor-skor pada test-test) yang serupa.
- f. Setiap dimensi jabatan mempunyai profil ciri yang cocok.

Model ini meliputi klasifikasi dari jabatan-jabatan manajemen menengah, assessment dari para manajer dan pengelompokan mereka kedalam subkelompok-subkelompok, dan peramalan dari keberhasilan jabatan.

Dengan menggunakan kwesioner analisa kedudukan dalam bentuk serupa dengan Position Analysis Questionnaire dari McFormick (1972) maka akan dapat ditemukan dimensi-dimensi jabatan dan dapatlah dibentuk rumpun-rumpun jabatan manajemen menengah.

Test-test kemampuan dan test-test kepribadian objectip (objective personality tests) digunakan sebagai alat ukur untuk mengassess ciri-ciri yang lebih ditentukan oleh pembawaan (ciri-ciri yang tak mudah kena perubahan-perubahan) dari para manajer menengah. Atas dasar skor-skor test mereka, mereka dikelompokkan kedalam subkelompok-subkelompok manajer menengah.

Dengan menggunakan skala-skala rating dengan perilaku-perilaku yang dijangkarkan (behaviorally anchored rating scales), serupa dengan yang dikembangkan oleh Campbell, Dunnette dan koleganya (1970, 1973) para manajer menengah dapat dinilai efektivitas manajerialnya. Para manajer selanjutnya dapat dikelompokkan kedalam kelompok manajer yang efektif dan kelompok manajer yang kurang efektif.

Atas dasar skor-skor test dan ukuran efektivitas, maka dapatlah dikembangkan battery seleksi dan test-test moderator untuk setiap rumpun jabatan manajemen menengah, dengan menggunakan teknik dan prosedur yang

disarankan oleh Hobert & Dunnette (1967).

Untuk setiap jabatan manajemen menengah dapatlah dihitung skor-skor dimensi dari setiap dimensi jabatan. Bersama dengan skor-skor test yang diperoleh dari para manajer menengah dapatlah kemudian dilaksanakan studi-studi validitas sintetik (synthetic validity studies) untuk mengembangkan battery-battery test seleksi dengan nilai-nilai peramalan yang tinggi.

Dengan penerapan model ini suatu strategi statistikal dari peramalan dapat digunakan dalam seleksi dari calon-calon manajemen menengah yang berpotensi, yang akan mempunyai nilai peramalan yang lebih baik dari pada metode-metode klinikal murni dan klinikal gabungan yang sering digunakan sekarang di Indonesia.

Perusahaan-perusahaan kecil dan menengah yang beroperasi di Indonesia dapat ikut serta dalam pengembangan dan implementasi dari model untuk riset seleksi ini. Mereka juga dapat menggunakan hasil-hasil riset untuk mengidentifikasi para manajer menengah yang berpotensi untuk jabatan-jabatan manajemen menengah mereka.

Model untuk riset seleksi ini terpusat pada pengembangan dari alat-alat assessment yang valid, dapat diandalkan. Namun keberhasilan dalam assessment manajemen tidak saja tergantung pada alat-alat assessment yang valid, tapi juga tergantung pada strategi assessment yang digunakan, para assessor dan para calon yang diassess.

Satu strategi assessment yang populer di Amerika Serikat adalah strategi assessment center. Strategi ini adalah suatu pendekatan multi-ciri-multi-metode terhadap assessment dari para manajer. Dengan mempergunakan metode-metode assessment yang bermacam-macam para manajer di assess. Yang diassess dari para manajer ialah seperangkat ciri-ciri atau parameters yang

dianggap relevan dan penting bagi jabatan-jabatan manajemen.

Para manajer yang diassess adalah para pemegang jabatan manajemen pada tingkat yang rendah, yang biasanya ditentukan oleh atasan mereka.

Para assessor adalah manajer-manajer yang bekerja pada perusahaan yang sama dengan para assessee dan memegang jabatan manajemen pada paling sedikit dua tingkat lebih tinggi dari para assessee. Sebelum menjadi assessor mereka harus mengikuti suatu training yang khusus.

Para assessee pada umumnya di assess selama satu atau dua hari. Ada kalanya mereka di assess untuk lebih dari dua hari.

Penelitian-penelitian tentang strategi assessment center menunjukkan bahwa strategi atau metode tersebut mempunyai nilai peramalan yang tinggi (Bray & Grant, 1966, Kraut, 1967, Mitchel, 1975).

Implementasi dari strategi assessment center untuk mengidentifikasi para manajer yang berpotensi disarankan untuk perusahaan-perusahaan menengah atau besar di Indonesia dengan beberapa perubahan.

Assessment center memiliki dua fungsi, fungsi pengembangan dari individu dan fungsi seleksi.

Jika pada assessment center di Amerika Serikat para assessee adalah mereka yang sudah bekerja dalam perusahaan maka untuk Indonesia disarankan untuk mengassess juga calon-calon manajemen dari luar perusahaan disamping para manajer tingkat rendah yang telah bekerja pada perusahaan.

Dalam mengassess calon-calon dari dalam perusahaan maka penekanannya hendaknya diletakkan pada fungsi pengembangan dari individu, sedangkan untuk assessment dari para calon dari luar perusahaan hendaknya ditekankan fungsi seleksi.

Pendekatan organik sebagaimana disarankan oleh Lupton (1973) seyogyanya digunakan dalam mengassess para calon baik dari dalam maupun dari luar perusahaan. Calon harus diberikan tanggung jawab utama untuk mengassess prestasi-prestasi dan potensinya. Para staf assessment dan para assessee lainnya berfungsi sebagai sumber-sumber yang memberikan umpan balik kepada individu tentang prestasi-prestasinya pada alat alat assessment yang bermacam-macam.

Pengembangan dan penggunaan dari model untuk riset seleksi dan implementasi dari assessment center adalah dua alternatif yang disarankan dalam usaha mencari strategi yang dapat dipertanggungjawabkan untuk mengassess para calon untuk jabatan-jabatan manajemen menengah yang sesuai dengan kondisi-kondisi dari perusahaan-perusahaan yang beroperasi di Indonesia.

Adalah menjadi harapan saya bahwa riset dapat dilaksanakan dengan menggunakan model tersebut dan bahwa strategi assessment center dapat diimplementasikan, sehingga risiko dalam menyeleksi calon-calon manajemen dapat diusahakan sekecil mungkin dan calon-calon dengan potensi yang paling baik dapat dipilih untuk jabatan-jabatan manajemen menengah. Dengan demikian sumbangan yang akan diberikan oleh para manajer menengah yang baru dapat merupakan sumbangan yang berarti sekali untuk pertumbuhan perusahaan, yang akan mempengaruhi perkembangan ekonomis dari negara.

Tunjangan dan partisipasi dari perusahaan-perusahaan di Indonesia merupakan suatu prasyarat untuk dapat memastikan keberhasilan dari penerapan dari model dan implementasi dari pendekatan assessment center dalam assessment dari para calon manajemen menengah.



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E R A T A

<u>PAGE</u>	<u>LINE</u>	<u>WRITTEN</u>	<u>SHOULD BE</u>
4	4	from below	ambiguous
7	8	from below	Plant
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106	12	from below	dynakics
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108	6	from above	success
108	7	from above	(Fiedler, 1967, p.19)!"
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