AN EMPIRICAL INVESTIGATION OF THE
RELATIONSHIP BETWEEN VALUE SYSTEMS
AND ORGANIZATIONAL EFFECTIVENESS

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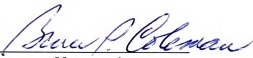1970

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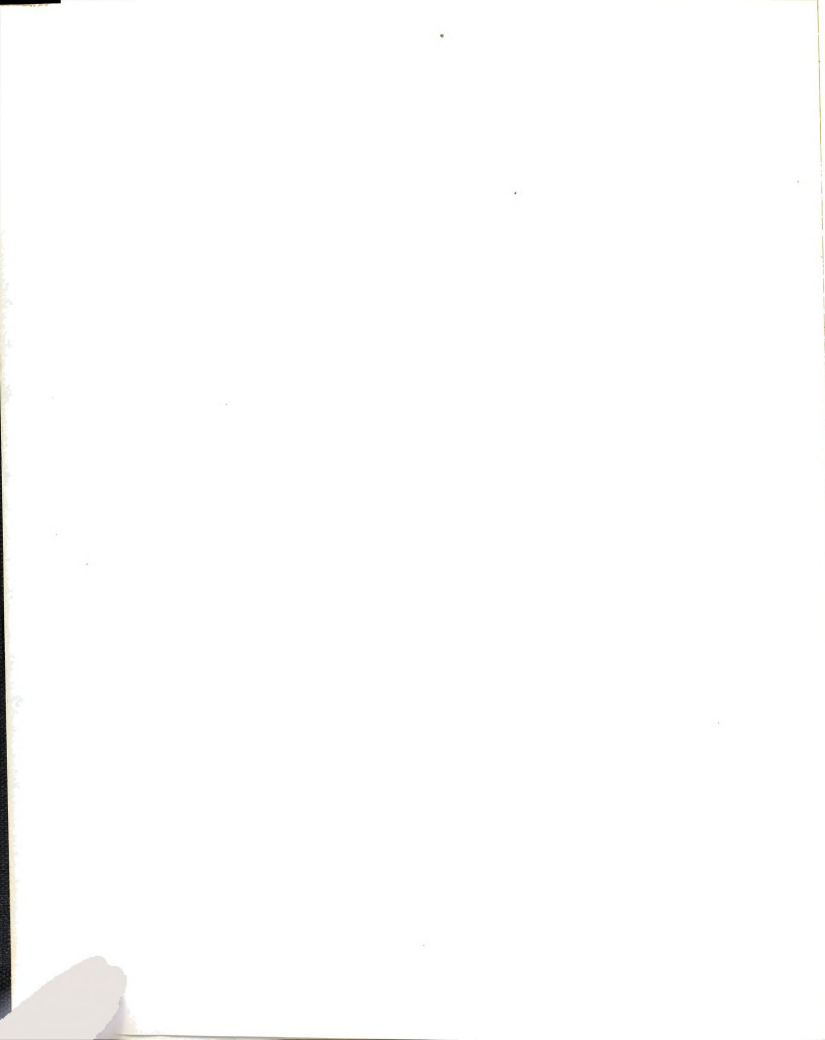___Ph.D___ degree in __Management__
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ABSTRACT

AN EMPIRICAL INVESTIGATION OF THE
RELATIONSHIP BETWEEN VALUE SYSTEMS
AND ORGANIZATIONAL EFFECTIVENESS

By

Mojtaba Kashefi-Zihagh

This study was an empirical investigation of the relationship between value systems and organizational effectiveness. This relationship was implicitly recognized by the organization and management schools of thought. To avoid the effects of values on organizational effectiveness, the Universalist school increased predictability of outcomes through scientific measures which led to efficiency, productivity, and profitability. The behavioral schools devoted more attention to the effects of values in the decision strategies and related the achievements of an organization to the behavior of its human elements.

The position in this study was taken that human value systems, a behavioral factor, have interrelationships with organizational effectiveness. The problem was defined as a lack of attention to the employee value systems,

Mojtaba Kashefi-Zihagh

absence of attempts to use a multidimensional instrument
for the measurement of effectiveness, and a lack of consider-
ation of a probable interrelationship between value systems
and organizational effectiveness. Although value systems
were recognized as affecting decision strategies, no
attempt was made to integrate this factor with several
factors of organizational effectiveness known to researchers.

The purpose of this study was to eliminate the
above shortcomings through testing three hypotheses rela-
tive to value differences between effective and ineffective
organizations; value patterns of groups stratified by
religion, age, sex, income, and education; and the identi-
fication of values which relate to organizational effective-
ness.

First, an investigation of pertinent literature
relative to values and organizational effectiveness was
undertaken. This literature search identified the extent
to which value systems and organizational effectiveness
were dealt with as independent phenomena.

Second, a research methodology was adopted to in-
tegrate the known factors of organizational effectiveness
with the concept of values. The methodology contained
Rokeach's value survey, an effectiveness questionnaire, and
a set of criteria for the selection of the effective and
ineffective organizations and individuals as the study
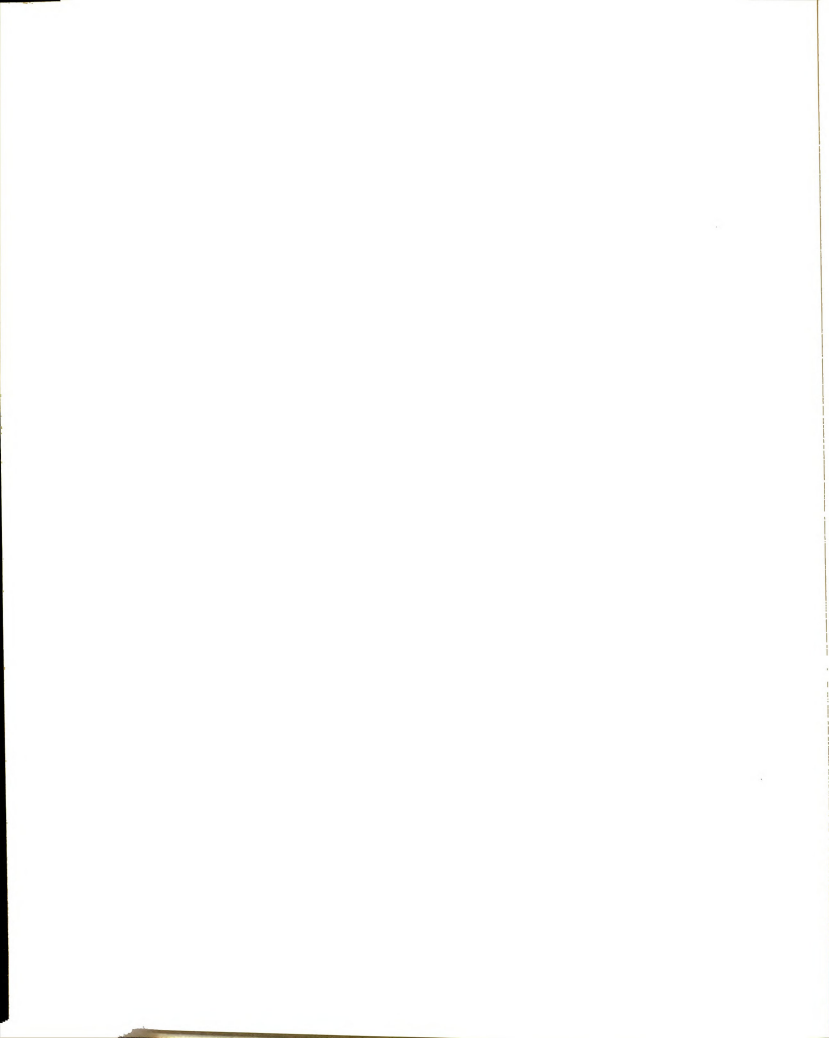
samples. The sample was comprised of 383 managerial positions in an educational institution, an insurance company, and a bank, all in Lansing, Michigan. 245 usable questionnaires were selected for analysis.

The major findings and implications of the study were:

(1) The effective organizations and individuals, within the limits of this investigation, displayed a pattern of value systems distinctively different from that of the ineffective organizations and individuals.

(2) A number of values were identified as the competence values which gained much importance from effective organizations and individuals.

(3) Stratification of the respondents by the variables of religion, sex, age, income, and education showed that significant value differences existed among various age, sex, and income groups. The young-male-middle-income executives attached more importance to the competence values than the other age groups. Religion and education did not show any significant value differences between effective and ineffective subjects.

(4) The examination of organizational effectiveness as perceived by the effective and ineffective organizations indicated that an interrelationship existed between these phenomena. It was also determined that several values had no correlation with organizational effectiveness.
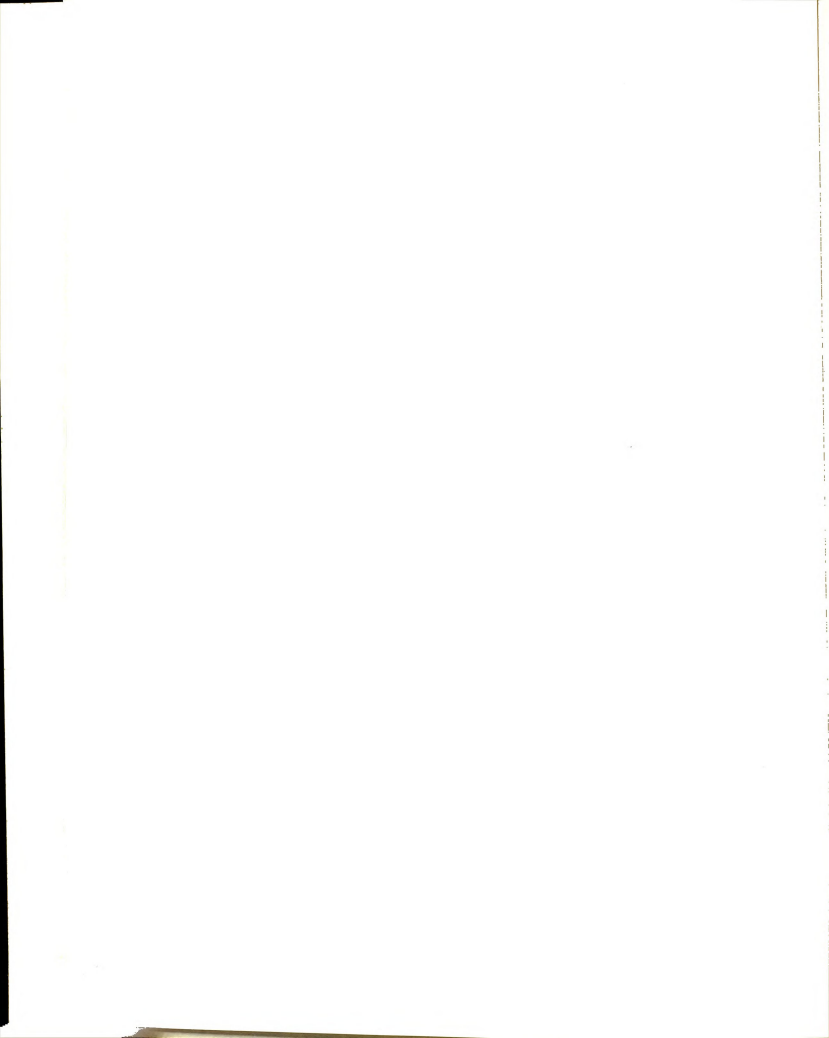
The values interrelated with organizational effectiveness contained A SENSE OF ACCOMPLISHMENT, SOCIAL RECOGNITION, AMBITIOUS, BROADMINDED, CAPABLE, IMAGINATIVE, INDEPENDENT, INTELLECTUAL, LOGICAL, COURAGEOUS, and RESPONSIBLE.

(5) The results indicated that an organization could not be found with complete homogeneity of religion, age, sex, income, and education. But a certain configuration of these variables might lead to higher achievements.

(6) Further studies were recommended for the development of effectiveness measures, stratification of samples, the effects of religion and formal education on value changes and organizational effectiveness, and the relationship between short-term organizational training methods such as T-Group and the executive value systems as the determinant factors of organizational effectiveness. Unless such studies are undertaken, no general theory of organizational effectiveness can evolve.
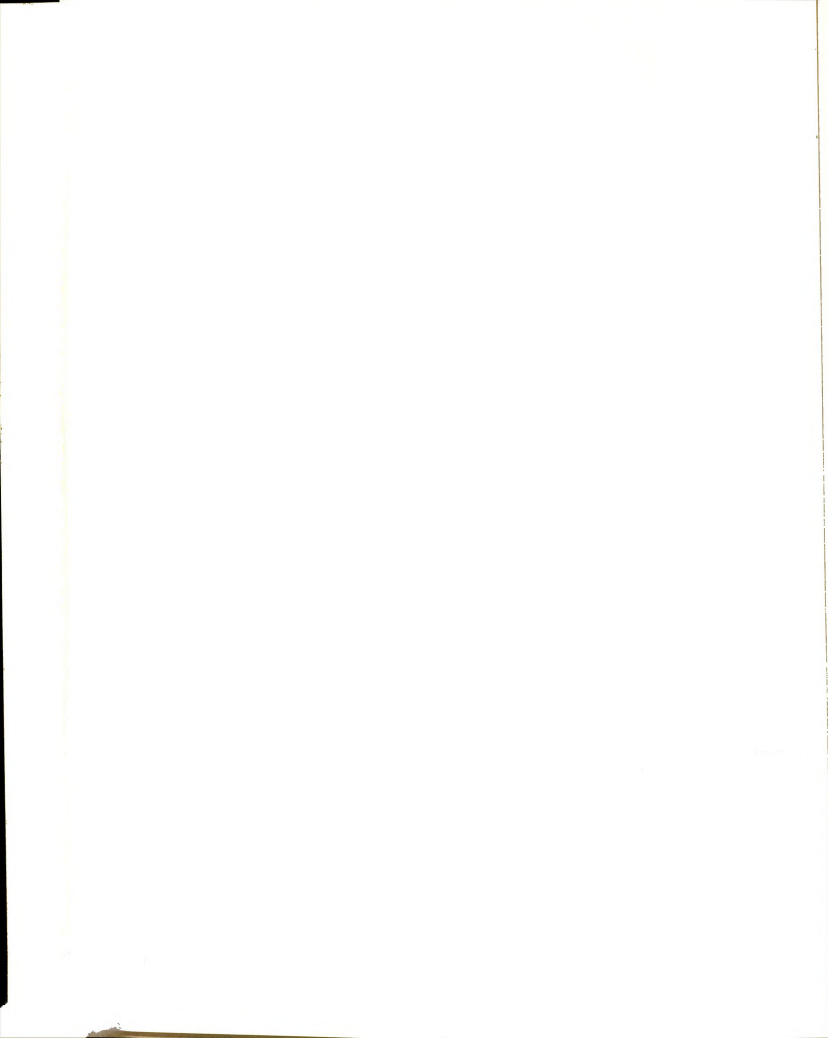
AN EMPIRICAL INVESTIGATION OF THE

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A THESIS
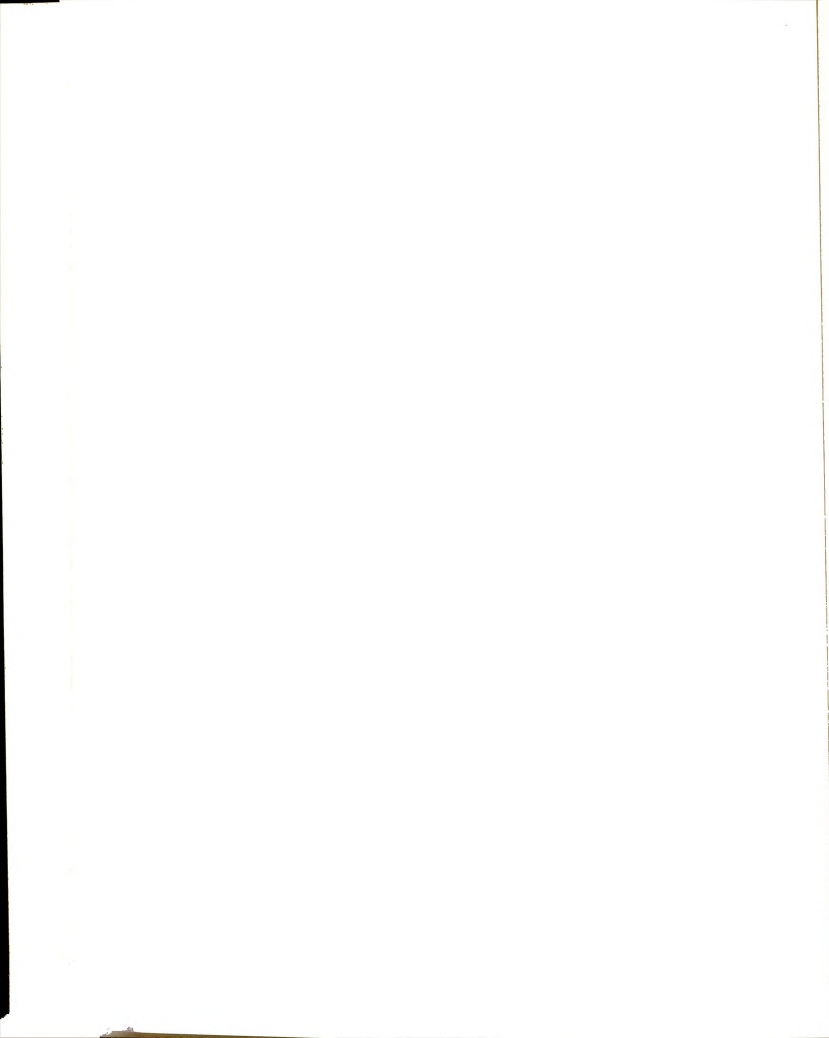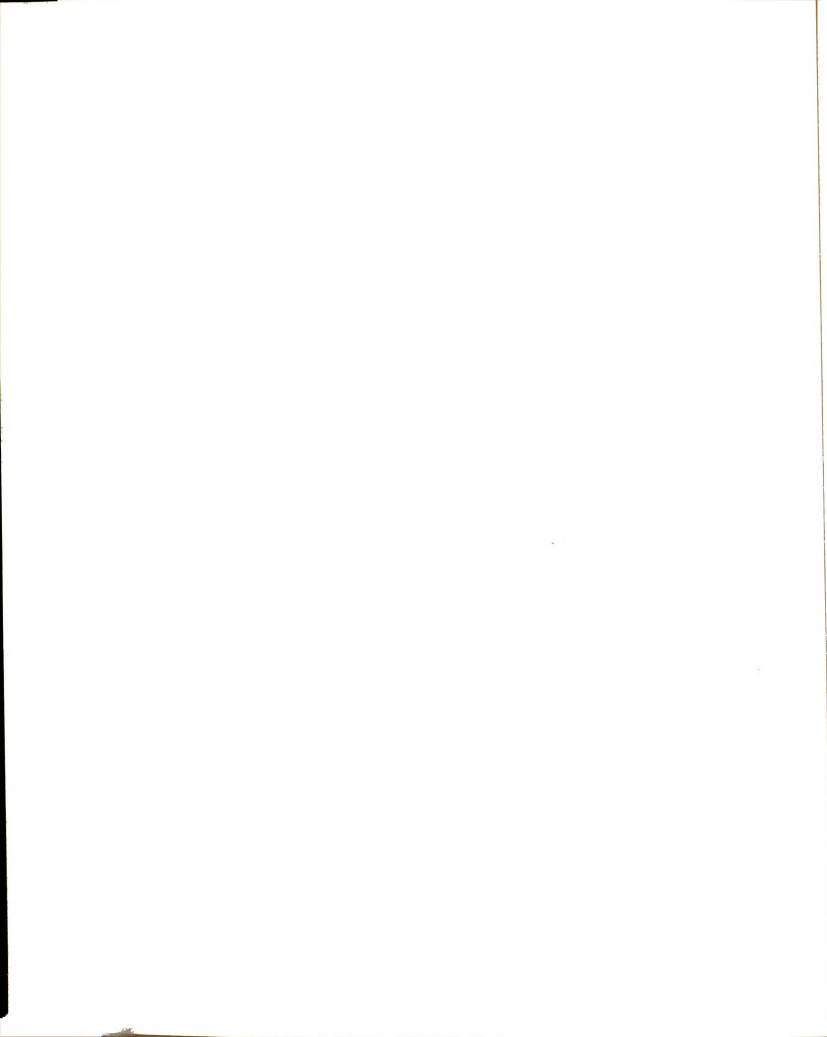
To

My brother, Mr. Ahmad Kashefi

who has taught me a lot about values.

ACKNOWLEDGEMENTS

TABLE OF CONTENTS

TABLE OF CONTENTS (Continued . . .)

List of Tables

List of Tables Continued . . .

x

List of Tables Continued . . .

List of Tables Continued . . .

List of Tables Continued . . .

LIST OF FIGURES

CHAPTER 1

THE PROBLEM OF VALUE SYSTEMS AND ORGANIZATIONAL EFFECTIVENESS

The Need for Knowledge of Values

The purpose of this chapter is to define the need for knowledge of the value systems of organizational members and to describe the research problem with which this study dealt. This is performed in two stages.

First, the need for knowledge of values and value systems in organizations is established. This is done by evaluating existing organization and management theories, and explaining the effects of values on the decision making strategies. Then, to illustrate the function of values in the organization, an assessment of management practice is made by explaining the levels of organizational responsibilities and differentiating between rationality and effectiveness.

Second, the need for research on value systems and organizational effectiveness is identified and the research problem and approach taken to it are set forth.

Evaluation of Existing Organization and Management Theories

Proponents of every school of thought in the field of organization and management have invariably suggested new

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ways and approaches which will, in their opinion, reduce the gap between projected goals and achieved outcomes.

A brief review of some of these thoughts sheds light on the problem of values and organizational effectiveness. Scholars of organization and management have approached pertinent concepts by either inductive or deductive reasoning.[1] Both approaches, however, present findings that are testable and observable. The inductive approach has gained popularity during the twentieth century, and consists of two categories of studies: 1) Empirical; and 2) Behavioral.

1) Empirical studies have been based upon experiments, observations and even personal experiences. As a result, a number of universal principles of organization have been recommended by such scholars as Urwick, Mooney and Riley, and others whose works are certainly not of the same genre.[2]

These principles entail a value judgment and prescribe what ought, should, or even must be done. Normative approaches like these apply only to means, never to ends.[3]

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[1]
For a discussion of methodologies employed to arrive at these theories and concepts see: Albert Hicks and Friedhelm Goronzy, "On Methodology in the Study of Management and Organization," _Academy of Management Journal_, December 1967, pp. 371-384.

[2]
For a review of these principles see: Harold Koontz and Cyril O'Donnel, _Principles of Management_, 4th edition (New York: McGraw-Hill Book Co., Inc., 1968); also Ernest Dale, _Management: Theory and Practice_, (New York: McGraw-Hill Book Co. Inc., 1969).

[3]
For a detail philosophical discussion on the role of "Ought Propositions" see: A.L. Hilliard, _The Forms of Value_,
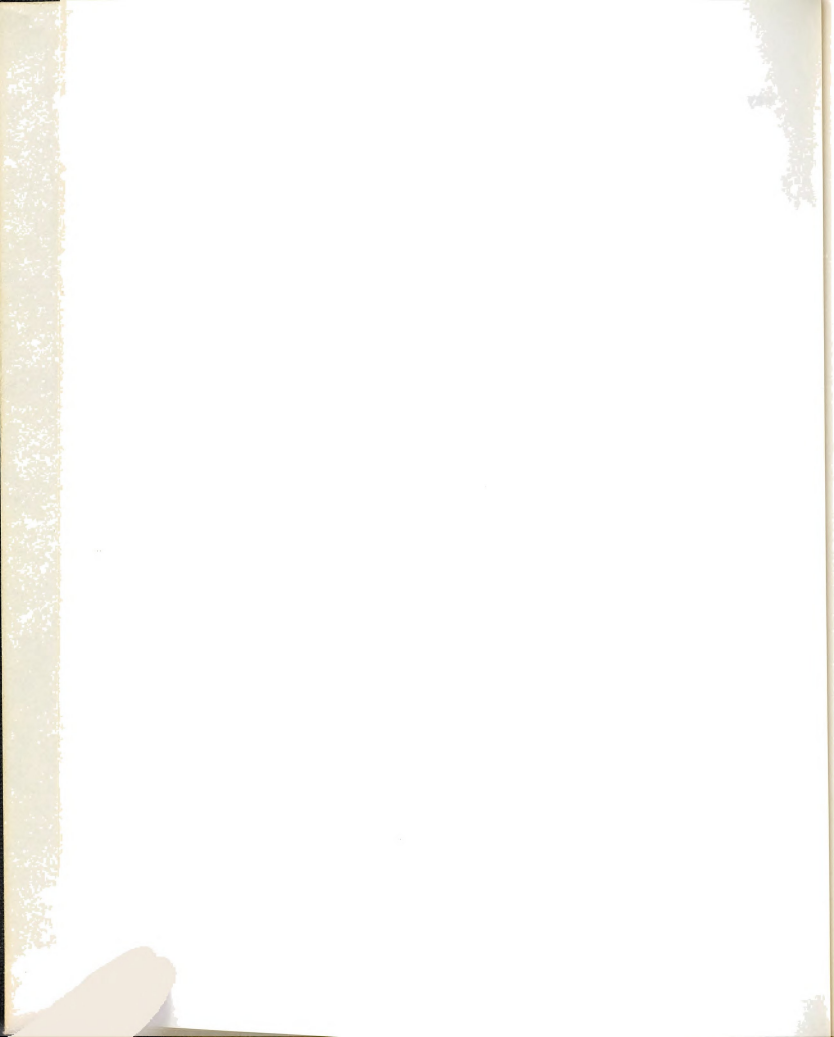
The validity as well as universality of these principles
have been debated by a number of scholars of the behavioral
school of management. They challenge such principles with a
contention that human values, attitudes, and behavior are
influenced by culture and the process of socialization.
They suggest, therefore, that further attention must be paid
to human behavior.[4]

2) Behavioral studies - the term "behavioral" in
management and organization literature designates at least
three different sets of concepts. First, there are concepts
based on various notions of needs and need satisfaction.
Second, there are concepts, such as those of the Carnegie
Tech group, based on ideas of goals, goal formation, goal
achievement, satisficing, and bounded rationality. And,
third, there are revealed preference concepts of behavior.[5]
The above concepts and approaches portray the importance of
the human elements in the accomplishment of purpose in an

(New York: Columbia University Press, 1950), p. 139.

[4]
Harold Koontz, (ed.). Toward a Unified Theory of
Management, (New York: McGraw-Hill Book Co. Inc., 1967).

[5]
For the first type of concepts see the following
source: Bernard M. Bass, Organizational Psychology, (Boston:
Allyn and Bacon, 1965); For the Carnegie Tech concepts see:
Richard Cyert and James March, A Behavioral Theory of the Firm,
(Englewood Cliffs, N.J.: Prentice-Hall, 1963); and the re-
vealed preference theory of choice behavior is fully discussed
in the following sources: Tapas Majumdar, The Measurement of
Utility, (London: MacMillan, 1958); Frederick Herzberg, et al.,
The Motivation to Work, (New York: John Wiley, 1959); and

organization. What has been neglected, however, is the effect of the organization members' value systems on organizational effectiveness.

The need satisfaction approach is based on the assumption that persons have certain needs that they seek to satisfy. A stimulus (perhaps from a manager) can cause the desire for need satisfaction to be converted into action or behavior. Material and moral needs of a person cause a rank-ordering of objects as to when and how they must be satisfied. In other words, the importance that a person attaches to all objects and ideas around him serves as a basis for his behavior. A knowledge of the rank-ordering of values may help managers to adopt appropriate motivational approaches.

The Carnegie Tech group emphasizes that goals of individuals are translated into organizational goals through a goal formation process. This is a bargaining procedure by organization members considered to be members of a coalition. An essential feature of this approach is the recognition that full knowledge is not attainable and that individuals can not achieve full satisfaction. Consequently, individual behavior is of a satisficing nature. This approach seems to occupy middle ground between the normative principles of

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M. Scott Myers, "Who Are Your Motivated Workers?" <u>Harvard Business Review</u> (Jan.-Feb., 1964).

"Universalists" and the motivational approach. As was noted, the Universalist approach has little emphasis on human values, and the motivational approach is getting close to a recognition of value systems.

In the revealed preference theory of choice behavior, such notions as needs and goals of individuals are held to be not directly observable and, therefore, not admissible as scientific evidence. Rather, advocates of revealed preference argue that scientific knowledge must consist entirely of observable data. Such data are collected through observations of choice behavior. The recently developed instruments for value measurement create a circumstance in which the subject reveals his choice behavior and, thus, the data collected are observable and testable.

In sum, the schools of management thought can be chronologically placed along a continuum indicating a greater need for knowledge of human values as management thought has developed. Frank Knight points out "a knowledge of values is a prerequisite to any intelligent criticism of social process or results."[6] Criticizing the existing theories of organization and management and attempting to especially include in them more observable, testable, and measurable facts, the knowledge of the human values and its effect on total

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    Frank Hyneman Knight, _The Ethics of Competition,_ (New York: Augustus M. Kelley, Inc., 1953), p. 44.

human behavior can lead scholars to the development of a more integrated organization and management theory.

Effects of Values on the Decision Making Strategies

The need for knowledge of values and value systems in organizations is further established by an examination of the effects of values on the decision making strategies.

To illustrate the importance of the human element in the process of decision making and consequently how the decision maker's value system influences organizational effectiveness, Thompson and Thuden[7] consider two major dimensions for every decision: (1) beliefs about cause/effect relations, and (2) preferences regarding possible outcomes. This does not mean that both dimensions are consciously considered in every discretionary situation, but simply that both are operating at some level. These are the "basic variables" of decision.

Thompson points out "either variable can take on a large range of values, but to keep the discussion within bounds, each variable can be dichotomized and proceeded as if there could either be certainty or uncertainty regarding causation, and certainty or uncertainty regarding outcome

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[7] James D. Thompson and Arthur Thuden, "Strategies, Structures, and Processes of Organizational Decisions," in James D. Thompson et al. (eds), Comparative studies in Administration, (Pittsburgh, Pa.: The University of Pittsburgh Press, 1959).
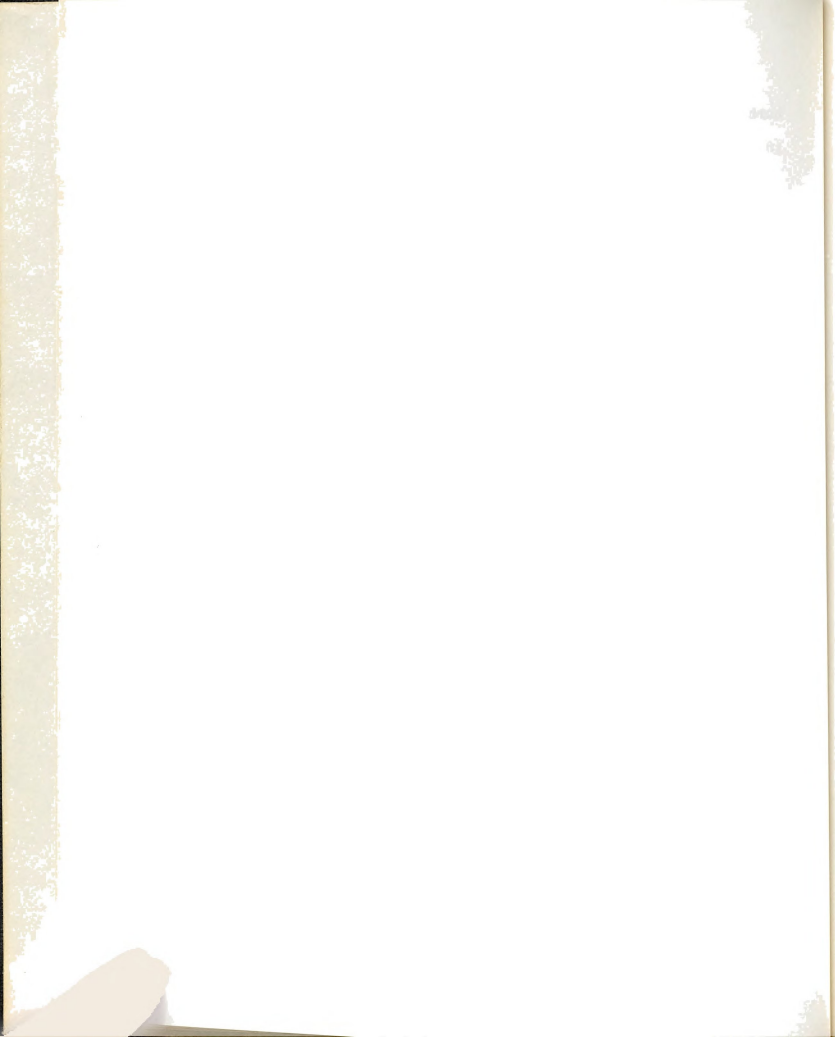
preferences."[8] This gives four types of decision issues:

		Preferences Regarding Possible Outcomes	
		Certainty	Uncertainty
Beliefs about cause/effect relations	Certain	I	III
	Uncertain	II	IV

FIG. 1. Decision situations and relevant strategies

Source: From James Thompson, <u>Organizations in Action</u>, (New York: McGraw-Hill Book Company, Inc., 1967), p. 135.

It seems clear that each type of decision issue calls for a different strategy. Where there is certainty regarding both causation and outcome preferences (Cell I), "computational strategy" is adopted for decision making. Although it might seem that no decision is required under such circumstances, if data are voluminous or formulas are intricate, the solution is not obvious. This is what Simon[9] has termed a "programmed decision," and it is for such issues that electronic computers have been most widely employed. In this

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8
James Thompson, <u>Organizations in Action</u>, (New York: McGraw-Hill Book Company, Inc., 1967), p. 135.

9
Herbert A. Simon, <u>The New Science of Management Decision</u> (New York: Harper & Row, Publishers, Incorporated, 1960).

case no value judgment of either the decision maker or the implementer is involved. Routine operations and assembly line arrangements fall into this category.

Where outcome preferences are clear but cause/effect relationships are uncertain, (Cell II) "Judgmental Strategy" for decision making is adopted. Where the situation is reversed and there is certainty regarding cause/effect but uncertainty regarding outcome preferences (Cell III), the issue can be regarded as calling for a "compromise strategy" for decision making. Finally, where there is uncertainty on both dimensions (Cell IV), the "inspirational strategy" for decision making is usually adopted, if indeed any decision is forthcoming.

There is no doubt that except in Cell I types of decisions, the decision maker has to use his value judgment. It is quite likely that an organization is simultaneously faced with all four situations. Except for the "computational strategies" all other situations are influenced by the value systems of organization members. If it can be assumed that each of the four situations may occur with an equal probability of 25 percent, value judgment can account for 75 percent of an organization's decision. This is of course an assumption, for the exact number of such decisions varies with the nature of the organizational objectives.

In brief, this subsection has explained some of the effects of value systems in decision-making strategies. If
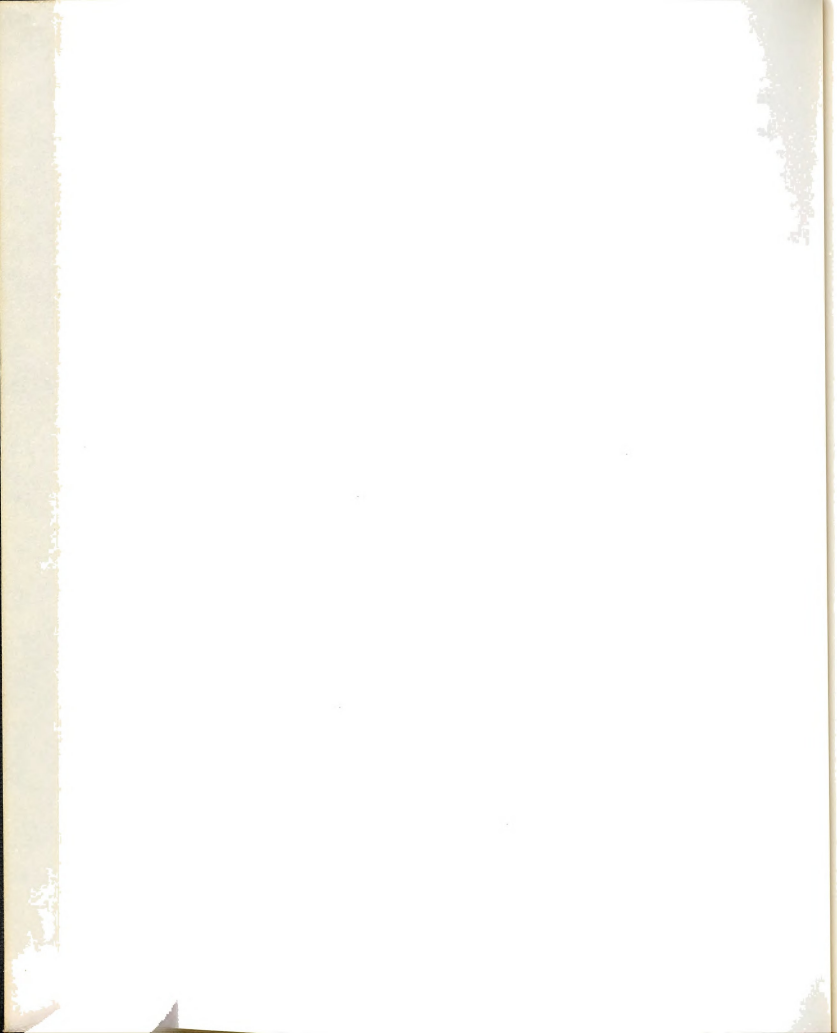
these propositions are valid, a knowledge of value systems of organization members demands further attention, as is specified in the following subsection.

Assessment of Management Practice in Organizations

The discussion so far has established a need for knowledge of values and value systems by showing that existing organization and management theories are becoming more concerned about values and that value systems of the organization members influence most of the decisions. Now it is appropriate to ask two questions: (1) Can all levels of responsibility in an organization influence the decisions equally? and (2) can the affairs of an organization be so arranged that no value judgment may intervene with organizational performance?

Regarding the first question Parsons suggests that organizations exhibit three distinct levels of responsibility and control - technical, managerial, and institutional.[10] In this view, "every formal organization contains a sub-organization whose "problems" are focused around effective performance of the technical function - the conduct of classes by teachers, the process of income tax returns and handling of recalcitrants by the bureau, the processing of material

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Talcott Parsons, *Structure and Process in Modern Societies*, (New York: The Free Press of Glencoe, 1960).
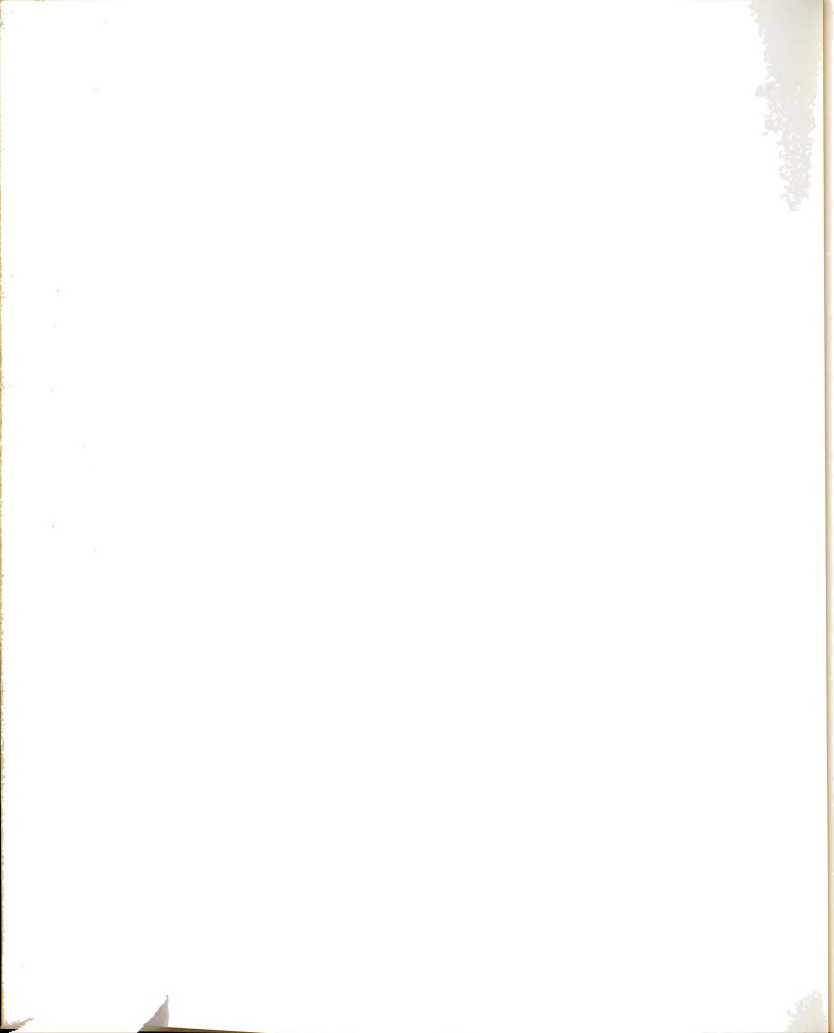
and supervision of these operations in the case of physical production. The primary exigencies to which the technical suborganization is oriented are those imposed by the nature of the technical task, such as the materials which must be processed and the kinds of cooperation of different people required to get the job done effectively."[11]

The second level, the managerial, "services" the technical suborganization by (a) mediating between the technical suborganizations and those who use its products - the customers, pupils, and so on - and (b) procuring the resources necessary for carrying out the technical functions. The managerial level "controls," or administers, the technical suborganization by deciding such matters as the broad technical task which is to be performed, the scale of operations, employment and purchasing policy, and so on.

Finally, in the Parsons formulation, "the organization which consists of both technical and managerial suborganizations is also part of a wider social system which is the source of the "meaning," legitimation, or higher-level support which makes the implementation of the organization's goals possible. This overall articulation of the organization and the institutional structure and agencies of the community is the function of the third, or institutional,

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[11] James Thompson, *op. cit.*, p. 10.
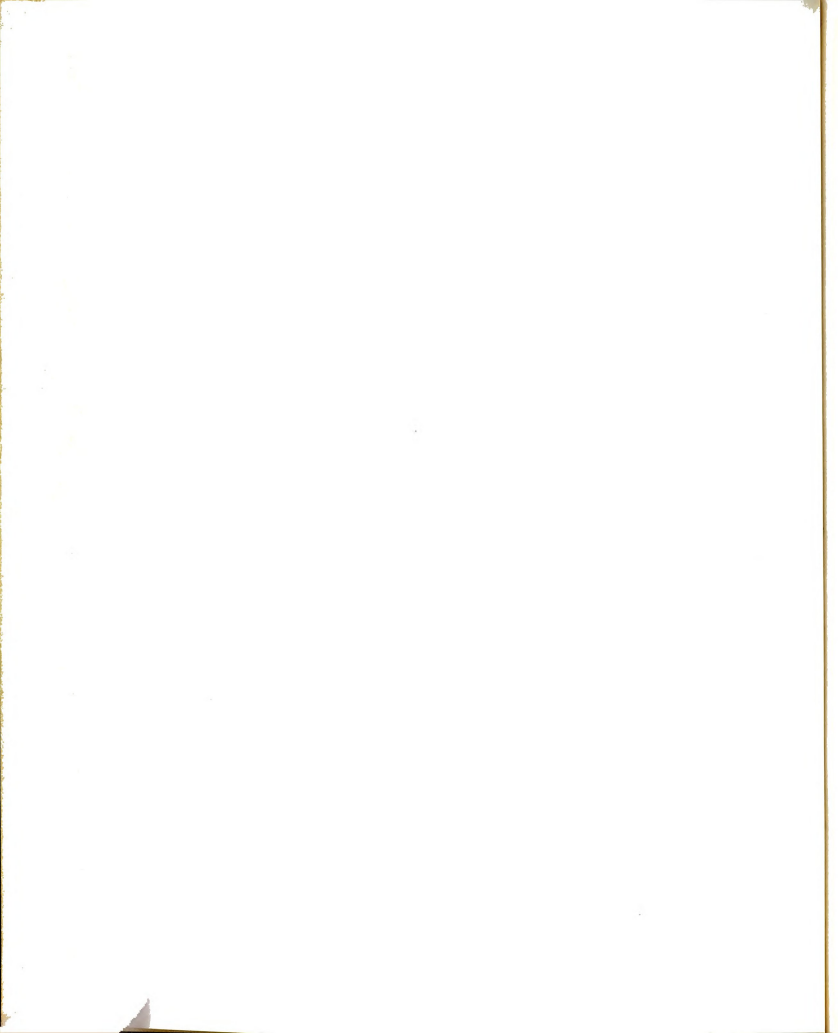
level of the organization."[12]

Recalling from Figure 1 (Cell I) clarity of cause/effect relationship and certainty about preferred outcomes lead to the computational strategy of decision making. It can be asserted that the function of the technical level of organization can be so arranged that the effects of value systems become insignificant. Doing so requires the removal of uncertainty as much as possible from its "technical core" by reducing the number of variables operating on it. Arrangements in the assembly line and micro-specialization of tasks are examples of efforts to increase predictability of outcomes and decrease the effect of human values in organizational functions. It is apparent, in the case of technical level of responsibility, that limiting the functions of organization to automation and minimizing the human elements results in predictability of organizational performance.

But, managerial level of organization which is in a constant contact with unpredictable external environment inevitably uses its discretion in decision making by adopting "compromise, instrumental, and judgmental strategies." Therefore, the influence of value systems becomes apparent as the level of management rises.

In short, an organization consists of two internal levels of responsibility - technical, and managerial - and

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[12] Most of this discussion has been adopted from: James Thompson, op. cit., pp. 10-11.
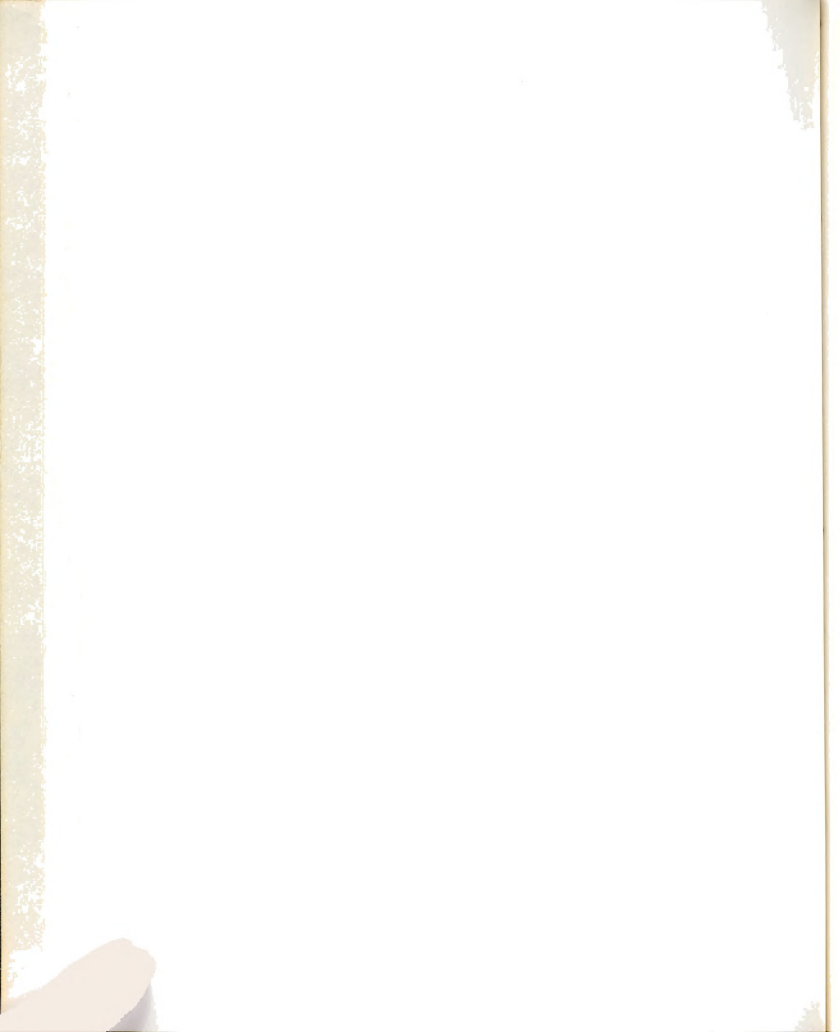
an external level called institutional. The value systems
of the three levels do not have equal influence upon the
decisions and performance of the organization. The lower
level, the technical core, can have minimum discretionary
functions provided its variables are minimized. The dis-
cussion now calls for a response to the second question:
Can the affairs of an organization be so arranged that no
value judgment may intervene with organizational performance?

As a first approximation, a distinction must be
drawn between rationality and effectiveness. An assessment
of the practice of management during the first half of this
century indicates that managers, in trying to apply the
principles of organization for a better achievement, seem
to have resorted to the concept of rationality rather than
effectiveness. Herbert Simon defines rationality as a
phenomenon "concerned with the selection of preferred be-
havior alternatives in terms of some system of values where-
by the consequences of behavior can be evaluated."[13]

Disregarding value preferences of the employees,
rationality has a close relationship with total organizational
effectiveness. In this view an organization is assumed to
be a close system with a few internal variables that are all
controllable and thus no gap exists between projected goals
and preferred outcomes. This is not the case in practice.

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[13] Herbert A. Simon, _Administrative Behavior_, (New
York: The MacMillan Company, 1958), p. 75.
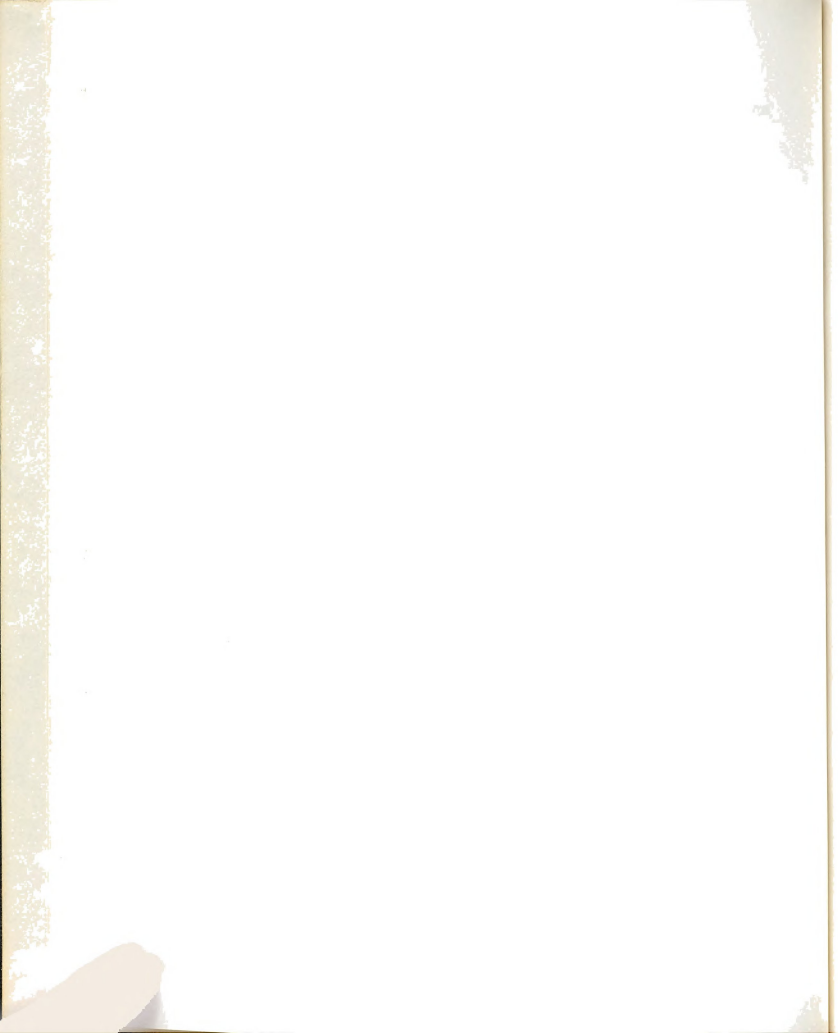
Organizations are open systems comprising socio-technical elements.[14] They contain both human and nonhuman resources or facilities. The number of variables of an organization are determinate by nature, but our incomplete understanding of all of the intervening variables forces us to expect surprise or the intrusion of uncertainty. Rationality and predictability, as was discussed in the previous question, can be introduced to the technical level of organizational responsibility and the results could be projected and measured by efficiency tests.

But efficiency is not all that is expected from an organization.[15] Peter Drucker points out that "during the past hundred years we have learned how to measure efficiency and how to define quality of work. Efficiency is most needed in the lower levels of organization. For manual work we need only efficiency, that is the ability to do things right rather than the ability to get the right things done."[16] Considering the fact that automation has, in part, replaced the manual worker, and at the same time increased the

[14]
E.L. Trist and K.W. Bamforth: "Social and Psychological Consequences of the Longwall Method of Coal-Getting," _Human Relations_, Vol. 4, Feb. 1951, pp. 3-38.

[15]
Etzioni defines efficiency as a phenomenon "measured by the amount of resources used to produce a unit of output." See: Amitai Etzioni, _Modern Organizations_, (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1964), p. 8.

[16]
Peter Drucker, _The Effective Executive_, (New York: Harper and Row Publishers, 1967), p. 2.

efficiency it must be noted that managerial positions still
remain and, in effect, increase in number in various organi-
zations. Also considering the increased attention that has
been paid to organizational members' values and attitudes by
the behavioral schools of thought, one realizes that
"efficiency" and "rationality" can only measure and perhaps
satisfy the economic needs of an organization and its members.
With the recognition of the role of human elements in the
accomplishment of the purposes of an organization there remains
no doubt that effectiveness,[17] which not only considers
efficiency, productivity, and profitability but is intended
to achieve all organizational goals including the employee
satisfaction, should no longer be neglected.

In sum, the affairs of an organization can not be so
arranged that value systems do not influence organizational
performance. Organizations contain human and technical ele-
ments in their systems. All tasks can not be rationalized,
and thus effectiveness, which takes into account economic and
technological variables as well as human values, should
replace rationality and efficiency as a more complete concept.

<div align="center">The Problem of Value Systems and
Organizational Effectiveness</div>

Need for Research

Organizational effectiveness has attracted a lot of
attention during the past several decades. Volumes have been

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[17]Etzioni defines effectiveness of an organization as

written on the methods and patterns of management, the traits of managers, and the environment for effective performance.

The forces of competition among the industrially advanced countries of the world, as well as the companies within an industry, have accelerated the search for efficiency, effectiveness, and optimality. In fact, the survival and the expansion of business organizations have become, to some extent, dependent on the phenomenon of "effectiveness."

What has been neglected is the impact of value systems on the total accomplishment and goal achievement of an organization. Fortunately, the refinement of propositions of the studies concerning human behavior and attitudes has resulted in the emergence of a number of concepts that have been synthesized, correlated, and further developed by researchers. For example, the Michigan studies on the relationship between attitudes and productivity, morale and effectiveness, productivity and satisfaction, and the extent of supervision and efficiency established a basis for the observation of several interrelationships that were finally synthesized by Rensis Likert in the "supportive relationships" theory of management.[18] The Ohio State studies of leadership

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the degree to which it realizes its goals. See Amitai Etzioni, op. cit., p. 8.

[18] Rensis Likert, New Patterns of Management, (New York: McGraw-Hill Book Co. Inc., 1961).

also opened the gates for further study on the traits of managers and leaders, the effects of various leadership approaches on the performance of organization, and the development of situational leadership model by Fred Fiedler.[19] Also many studies have been conducted on value systems; value changes[20]; and value differences among groups such as police and policed,[21] Catholics and Protestants,[22] and politicians and constituents.[23]

The studies on values are conducted on the basis of a single variable like sex, religion, or social class. To study groups in the light of several variables combined such as age, sex, religion, education, and income, research is needed to synthesize various concepts of values and attitudes. Also numerous studies in the area of organizational

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19
Fred E. Fiedler, A Theory of Leadership Effectiveness, (New York: McGraw-Hill Book Co. Inc., 1967).

20
Paul L. Whitely, "The Constancy of Personal Values," Journal of Abnormal and Social Psychology, Vol. XXXIII (July, 1938).

21
Milton Rokeach, Martin Miller, and John Snyder, The Value Gap Between Police and Policed, (Unpublished manuscript, MSU Department of Psychology).

22
E.D. Tate and G.R. Miller, "Differences in Value Systems of Persons of Varying Religious Orientations," Journal for the Scientific Study of Religion, Winter 1970.

23
Milton Rokeach, "The Role of Values in Public Opinion Research," Public Opinion Quarterly, 1968-69, Vol.32, pp. 547-559.

effectiveness have set the stage for a comprehensive study.

The need for a study of the effects of value systems of several groups on organizational effectiveness provided the impetus for this study. The foregoing studies and quotations are all suggestions of concern in the broad area of value systems and organizational effectiveness. The field of behavioral studies lacks research that views the phenomena of values and organizational effectiveness simultaneously.

The Research Problem

Having established the need for knowledge of value systems and the importance of organizational effectiveness, the problem of this research must be defined. The problem was a lack of attention to the employee value systems as a probable factor affecting organizational effectiveness, and synthesis of the existing factors and measures of organizational effectiveness.

Three shortcomings, therefore, were discovered in the works relating to organizational effectiveness: (1) neglect of the employee value systems; (2) absence of attempts to use a multidimensional instrument for the measurement of organizational effectiveness; and (3) lack of consideration of a probable correlation between value systems and organizational effectiveness.

Relationships have been already established between economic needs and productivity; rationalization of tasks and efficiency; and effectiveness and morale, attitudes, and

job satisfaction. No evidence, however, exists that these factors are integrated and correlated with values and value systems. Also, little attention, if any, has been paid to the value differences among groups of business organizations and the reasons for such differences. In this respect several questions have never been asked:

(1) Do the members of an organization have value differences or similarities?

(2) What are the bases for such differences or similarities?

(3) Is there a certain type of value system or a certain group that can affect the overall level of organizational effectiveness?

(4) Do organizations that are known to be effective contain members who have not only value differences with the members of ineffective organizations but possess certain value systems that lead to higher levels of accomplishment?

The value system and organizational effectiveness research problem was to eliminate the above shortcomings and to answer these questions. The approach taken to the problem was to develop and examine several hypotheses as follows:

Hypotheses

(1) Organizations and executives that are rated "effective" have a pattern of values that is distinctively different from that of organizations and executives that are rated "ineffective."

(2) Organizations that have homogeneous age, sex, religion, income, and educational groups are more likely to have value similarities than organizations which do not have such homogeneity. Therefore, the more homogeneous the organization the more value similarity it will have, and the more effective it will be.

(3) Value systems correlate significantly with the perception of organizational effectiveness. Therefore, a set of values can be identified that affect the level of organizational effectiveness.

The next step was to investigate the literature to determine the extent to which existing theory and practice dealt with problems of value systems and organizational effectiveness. This investigation is presented in Chapter 2.
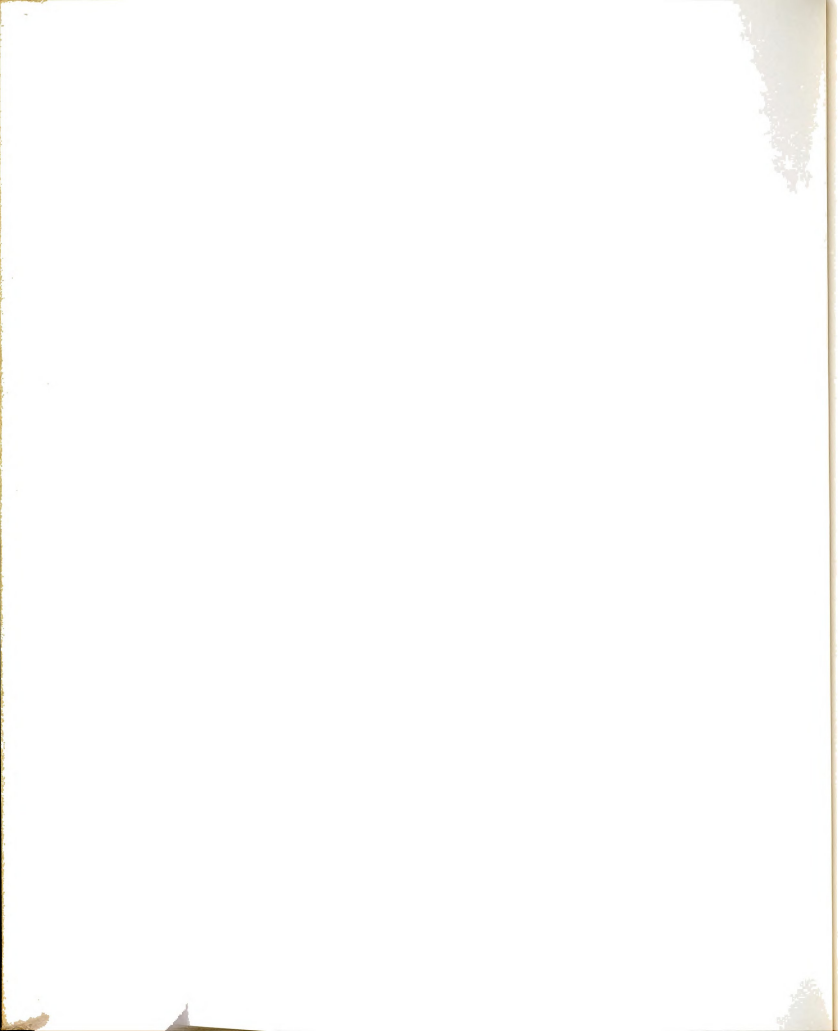
CHAPTER 2

REVIEW OF THE LITERATURE

Introduction

Two purposes guided an intensive search of literature
pertaining to values and organizational effectiveness. The
first was to determine the extent to which the shortcomings
in understanding and knowledge of values and organizational
effectiveness were filled. The second was to cumulate from
recorded sources ideas and concepts for the formulation of a
research methodology that synthesizes the factors affecting
organizational effectiveness. Since the study involved two
different phenomena (i.e., values and value systems, and
organizational effectiveness) literature sources were
selected to assure thorough coverage and expertise in both
areas. The principle topics investigated were value typology;
value theory; value sources; the role of values in human be-
havior; values of organized groups; assessment of organi-
zational and individual effectiveness, productivity, morale,
conformity, adaptiveness; institutionalization; bureaucracy;
autonomy; leadership methods; organization structure; and

job satisfaction. This chapter presents the results of that search.

<div style="text-align:center">

A Summary of Literature
Relative to Values and Value Systems

</div>

Values and Value Systems

A review of the literature of value research reveals three themes:

(1) Attitudes and values are often confused with each other.

(2) Attempts have been often made to determine how values evolve and affect a person's behavior.

(3) Attempts have been made to develop tools for measuring values.

The focus of this section is on the first two themes,[1] and includes brief discussions of the following:

(1) A working definition to differentiate between "attitudes" and "values."

(2) Kinds and sources of values.

(3) Significance and validity of value research.

(4) Values as major determinants of human behavior.

(5) Values of the executives.

(6) Dominant values of the organization.

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[1] The last theme is the subject of Chapter 3.

Differentiation Between Attitudes and Values

Social psychologists and management scholars have long sought the attitudes towards work rather than the values underlying the behavior of the employees. As Milton Rokeach[2] has pointed out that over the past fifty years empirically-oriented social scientists have paid considerably more attention to the theory and measurement of attitudes than to the theory and measurement of values. This greater emphasis on attitudes is due to two reasons:

    (1) Rapid development of methods for measuring attitudes,

    (2) Vagueness of understanding about the conceptual differences between values and attitudes.

Gordon Allport remarked as long ago as 1935: "The concept of attitude is probably the most distinctive and indispensable concept in contemporary social psychology. No other terms appears more frequently in the experimental and theoretical literature."[3]

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[2] Milton Rokeach, "The Measurement of Values and Value Systems," A mimeograph by MSU Department of Psychology to be published in: G. Abkariam (ed.), Political Participation and Social Psychological Processes, (Columbus, Ohio: Charles E. Merril, 1970), p. 1.

[3] Gordon Allport, Attitudes: A Handbook of Social Psychology, (Worcester, Mass.: Clark University Press, 1935), p. 798. As quoted by Milton Rokeach in the Public Opinion Quarterly, Vol. 32, Winter 1968-1969, p. 549.

One reason that value systems have not been taken seriously in the studies of social psychology and management is probably the difficulty of differentiation between values and attitudes. One way to make such a differentiation is to see how these two phenomena have been defined. Rokeach defines an attitude as an enduring organization of several beliefs focused on a specific subject (physical or social, concrete or abstract) or situation, predisposing one to respond in some preferential manner.[4] Values, he continues, on the other hand, transcend specific objects and specific situations: values have to do with <u>modes of conduct</u> and <u>end-states of existence.</u>

More formally, to say that a person "has a value" is to say that he has an enduring belief that a particular mode of conduct or a particular end-state of existence is personally and socially preferable to alternative modes of conduct or end-states of existence. This formal definition of value accomplishes two things: it distinguishes value from attitude, and it avoids at the same time such difficult terms as "ought," "should," or "desirable."

So defined, a value is a standard or criterion that serves a number of important purposes in our daily lives: it is a standard that tells us how to act or what to want; it is a standard that tells us what attitudes we should hold:

4

Milton Rokeach, <u>op. cit</u>., p. 550.

it is a standard we employ to justify behavior, to morally judge, and to compare ourselves with others. Finally, a value is a standard we employ to tell us which values, attitudes and actions of others are worth or not worth trying to influence.

<div align="center">

Kinds and Sources of Values

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Kinds of values

Psychologists and philosophers believe a person has a variety of values. Rokeach categorized and enumerated over 700.[5] Hilliard classifies them in twenty four modes.[6] For the purpose of our discussion, however, I will employ and discuss two sets of values in general.

There is a unanimous agreement among psychologists and philosophers on the existence of two sets of values in a person. They are, namely, _terminal values_, and _instrumental values_. Terminal values are representative of our beliefs on such matters as salvation, equality, freedom, and happiness. These are oriented either toward "other worlds" or other people. On the other hand, instrumental values

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[5] Milton Rokeach, _ibid._, p. 5.

[6] To reserve space I will not discuss the qualifying adjectives of value, twenty four modes of value, and the theories of values by Kant, Hobbes, Schopenhauer, and other philosophers. I will refer interested readers to: A.L. Hilliard, _The Forms of Value_, (New York: Columbia University Press, 1950), also John Laird, _The Idea of Value_, (Cambridge:

represent our beliefs on the modes of conduct. It is our
instrumental values that dictates to us whether to behave
responsibly, honestly, and or courageously.

Sources of values

A question is often asked whether the roots and
locus of values can be traced. The literature provides some
inconclusive answers. Melvin Rader mentions two factors that
generate individual values: the culture, and groups in which
the individual has association.[7] The factors are invariably
called dominant values and variant values. The dominant
values of a person are all determined by his culture and,
thus influence his behavior. The variant values have so
much to do with the way a person rank-orders them. This
force, inevitably brings about variations in individual be-
havior, which is not necessarily much different from the
other people with the same dominant values.

The dominant values are exemplified by the Protestant
Ethic in some western societies and exhibits itself in self-
discipline and work, initiative and acquisition, and
individualism and competition. The dominant values in a

The University Press, 1929; and Wolfgang Kohler, The Place
of Value in a World of Fact, (London: The New American
Library, 1966), pp. 38-58.

[7]
    Melvin Rader, Ethics and Society, (New York: Henry
Holt and Co., 1950), pp. 123-158.
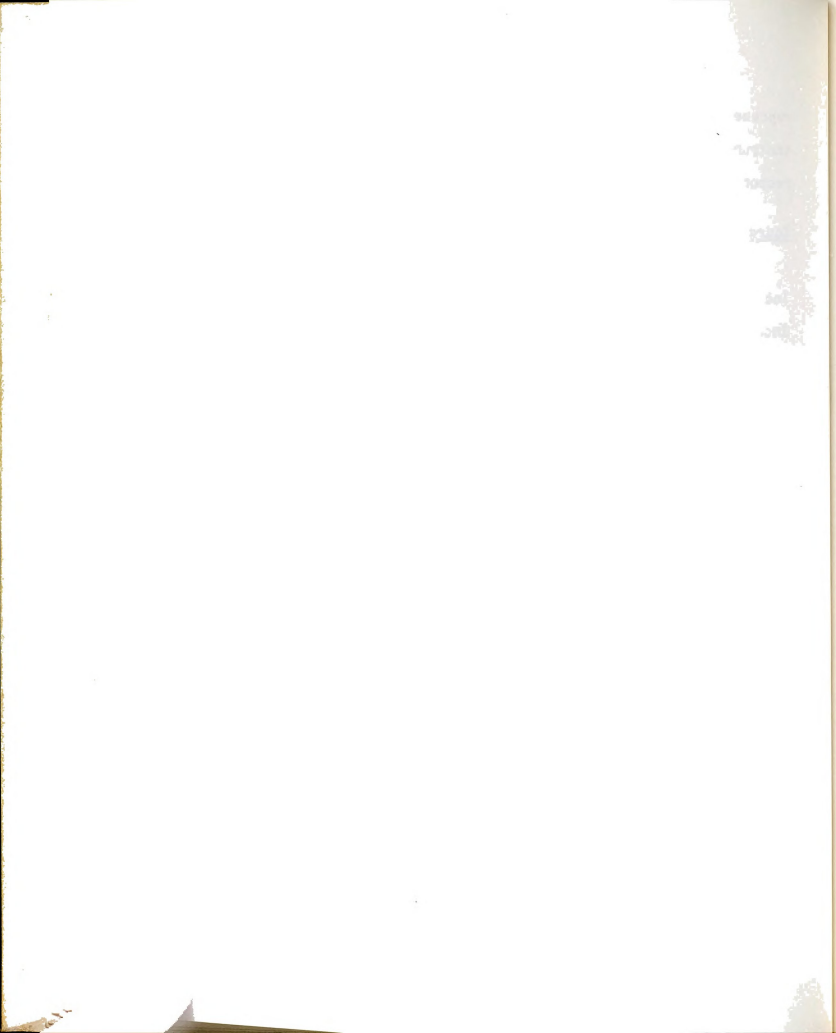
Middle Eastern culture is demonstrated by attitudes of
deferred satisfaction, limited work and much attention to
the other world. These people maintain that man should work
to the extent that a minimum living is obtained. He has,
on the other hand to spend the rest of his time in praying
to the Creator. These two examples of the dominant values
are a contrast of what Riesman et al call "other-directed,"
and "inner-directed" man.[8]

These authors point out a transition in the concept
of the Protestant Ethic and the dominance of "peer group"
values. Modern day man, or, the other-directed person, be-
comes accultured largely by peer groups. He looks to his
contemporaries for guidance and direction. His most import-
ant values are those which are also important to the peer
group. The other-directed person guides behavior through
the complexities and intricacies of modern life by picking
up cues from the environment with an internal "radar"
device. Lack of conformity or wrong-doing brings on anxiety
for fear that he may lose the love and approval of others.[9]

The variant values of a man (which is rank-ordering
of his values) are acquired through the process of

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[8]
David Riesman, Nathan Glazer, and Ruel Denney, The
Lonely Crowd, (Garden City, New York: Doubleday Anchor Books,
1950), pp. 29-40.

[9]
Ibid., pp. 41-42.

socialization. Variant value systems are acquired, modified, completely changed throughout one's entire active life by access to different socializing agents. Family, school, peer groups, and professions mold the man's value system.[10] If we can conclude that peer-groups are changing the organization man's dominant and variant values, as stated above, we may well claim, as we have hypothesized, that organizational values can be traced and observed in order to find out probable relationships between them and the degree of the effectiveness of the organization.

Significance and validity of value research

Philosophers had claimed, for a long time, that the study of values falls within the domain of their discipline. Advances in the research methodology of social sciences, and the refinement of their propositions has brought, since the beginning of the twentieth century, the value research in the field of behavioral sciences.[11] Social psychologists, educators, sociologists, and recently, management scholars[12] are conducting extensive empirical research on values and

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10
Gertrude Jaeger Selznick, Leonard Broom, and Philip Selznick, "Socialization," _Sociology_, 2nd edition, (Evanston, Ill.: Row, Peterson and Co., 1958).

11
See John Dewey's hypothesis that value-facts belong to behavioral science. Ray Leepley (ed.), _Values, A Cooperative Inquiry_, (New York: Columbia University Press, 1949), p.64.

12
See Richard Ericson, "Organizational Cybernetics

value systems. The transition began with the authoritative

works of John Dewey and his followers. The research of

values was brought into the realm of empiricism.

The study of the human organization and especially

the work of Herbert Simon ended the duality and separated-

ness of facts and values, and based each and every decision

on the premises of value in as much as the selection of an

alternative is concerned, and the facts in as long as the

implementation of a decision is involved.[13] Behavioral

studies indicated that there is a significant relationship

between values and behavior.[14] Being relatively accepted as

a behavioral phenomenon, values then like other behavioral

topics are subject to observation, experimentation, and test.

With the many research methodologies developed by the social

scientists it has been proved that values and value systems

are researchable.

Values as major determinants of human behavior

Studies on how values guide and affect a person's

behavior are relatively vague. There are various theories

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and Human Values," Academy of Management Journal, Vol. 13,
Number 1, March 1970, pp. 49-65.

[13]
    See Herbert Simon, op. cit.

[14]
    See Milton Rokeach, "The Role of Values in Public
Opinion Research." The Public Opinion Quarterly, Vol. 32,
Winter 1968-69, p. 555; Also Myron Bill Neace, Unpublished
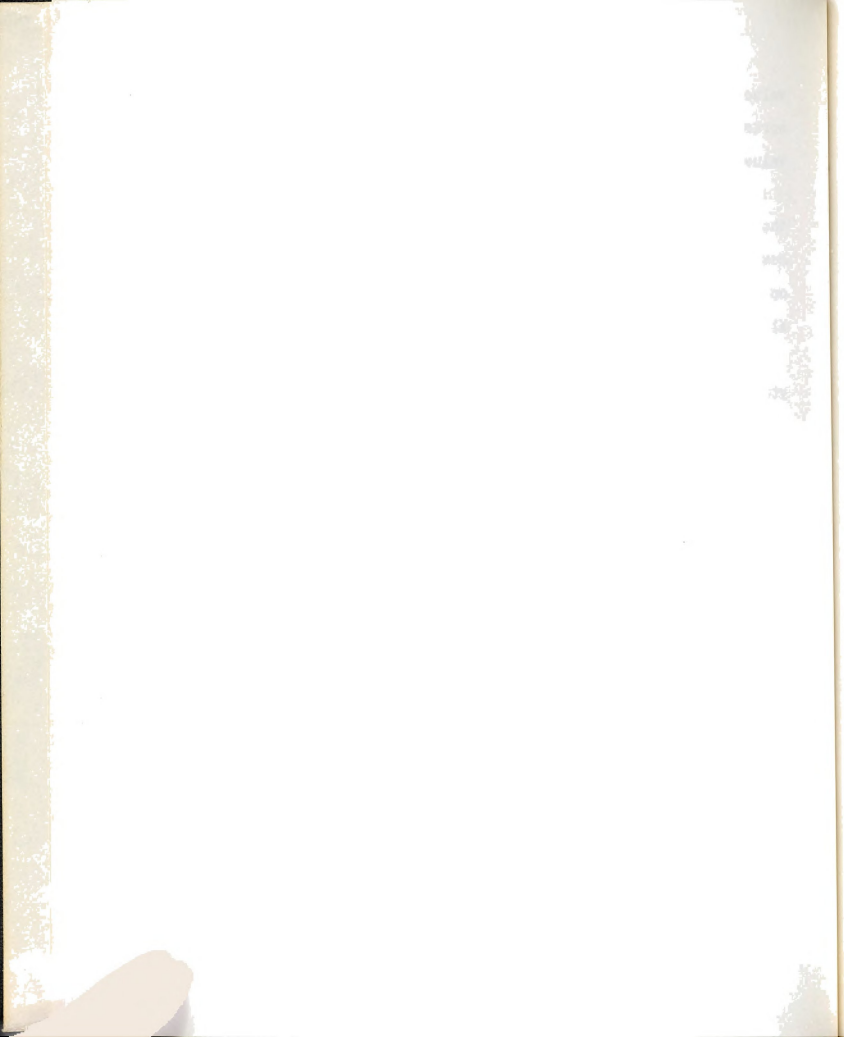
that try to establish a close relationship between values and human behavior. For example, Cora DuBois subjects the individual and group behavior to two interacting forces: values and situation.[15] A person acquires his values through his cultural and social experience. Personality factor also plays a great role in acquisition, variation and discording of the values. It is a life long process of acquisition which never breaks away from the culture.[16] Every person develops a conception of what is good, bad, real, right, wrong, etc. These conceptions become his guiding light and operate as a control system behind his behavior.

Studies indicate that value differences exist when different subcultures, religions, races, sexes, ages, life styles, and political and socio-economic conditions have been considered.

Values determine a person's behavior, his choice of alternatives, the areas of his interest and his thought.[17]

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dissertation, M.S.U. Value Systems and Meanings of Market-place Activities (1967).

[15] Cora DuBois, "The Dominant Value Profile of American Culture," American Anthropologist, Vol. LVII (Dec. 1955).

[16] See William Catton, "A Theory of Value", American Sociological Review, Vol. XXIV, (June, 1959).

[17] Allison Davis, "American Status Systems and the Socialization of the Child," American Sociological Review, Vol. VI (June, 1941), p. 368.

Every decision he makes entails a selection process by which something is included and something is excluded. His relationships with the others, his opinions about a job, and in fact, his desires for a profession are guided by his values. This theory postulates that whatever a man performs comes from "values." Therefore, values determine our reactions toward any situation and furnish us with a set of norms and standards to cope with different situations.

An interesting point is that our values are not so rigid. They can, due to circumstances, take flexible shapes and resolve their inner-conflicts. As Rokeach points out "over and above the functions served by each value considered alone as a separate standard, the function of a person's value system is to help him choose between alternatives and to resolve conflicts between alternatives in everyday life. Given any situation a person may find himself in, it is all but impossible for him to behave in a manner that is equally congruent with all of his values.

The situation may activate one value more strongly than another. A person may, for example, sometimes have to choose between behaving truthfully or behaving kindly, but not both, or between behaving courageously or behaving patriotically, but not both."[18] Amazingly an adjusted and adapted person can easily resolve such conflicts within his

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[18] Milton Rokeach, op. cit., p. 55.
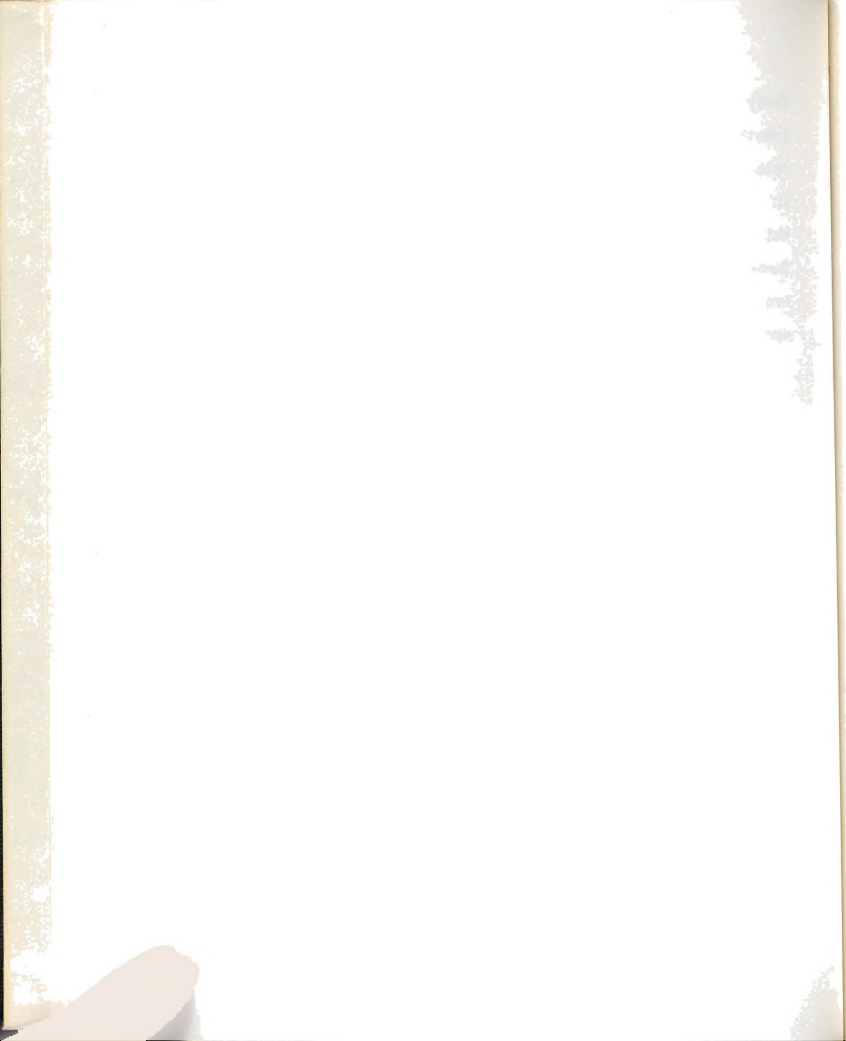
value system. The lack of such capability, of course, results in frustration.

Values of the executives

In an organizational society, the executive occupies a significant place. He is the subject of many studies. His leadership traits, his management approach, and everything he does has led researchers to some behavioral propositions. The executive has been viewed as an actor, a catalyst, a guardian, a friend, owner, technician, and a person.[19] He has been held responsible by the Government, stockholders, entrepreneurs, clients, subordinates, etc. as his behavior has been considered to affect the condition of environment as well as the well-being of many groups of people.

Although the executive, as a person, has acquired his values and therefore makes his decisions accordingly, the social psychologists have attempted to shift his values. This attempt has been exhibited through laboratory training under a variety of names such as sensitivity training, T-groups, etc. The executive has been advised to learn and adhere to a certain code of conduct.[20]

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[19]
Herbert Snothoff, "What is the Manager?" _Harvard Business Review_, Vol. XLII (November-December, 1964), pp. 24-26.

[20]
William H. Whyte. _The Organization Man_, (New York: Simon and Schuster, 1956) also Alan Harington, _Life in the Crystal Palace_ (New York: Alfred A. Knopf, 1959).

The executive's religious values and the economic prosperity of the United States have been often correlated. The Protestant Ethic has been diagnosed as the most important factor to attain such prosperity. This has been, however, debated by some authors who suggest that as capitalism becomes the dominant and pervasive economic order, religious values will decrease in importance and lose their impact.[21] Others disagree, and warn that the loss of religious values has left a philosophical vacuum in the business world. They contend that religious values can and should provide the underpinnings for decision-making in the business world as well as in other areas of life.[22]

Social responsibility, political trends, and economic competition have impact on the values and codes of conduct of the executives. The literature advocates that the businessman and his organization should pursue policies and make decisions in light of the objectives and aims of society. In other words the personal values of the executives must support those of the society, and the support should be voluntary.

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[21] Max Weber, _The Protestant Ethic and the Spirit of Capitalism_, Trans. by Talcott Parsons (New York: Charles Scribner's Sons, 1958), pp. 181-182.

[22] Kenneth E. Boulding. "Religious Foundations of Economic Progress," _Harvard Business Review_, Vol. XXX (May-June, 1952), p. 40.
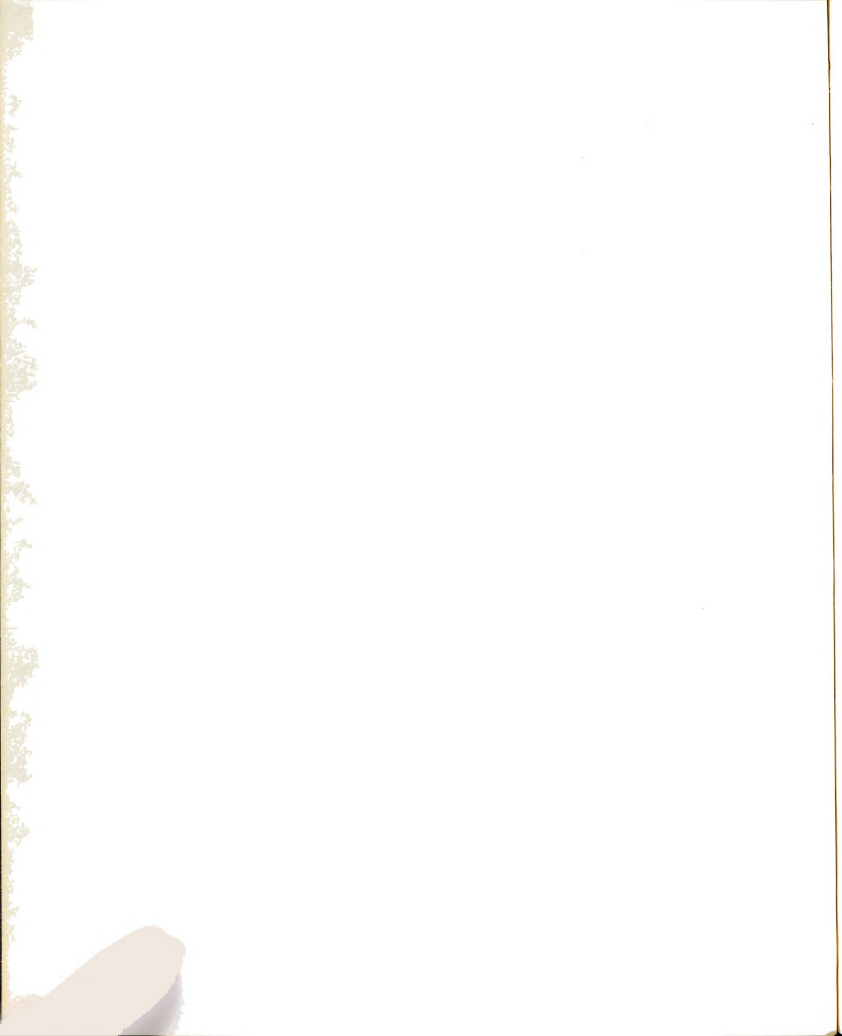
Dominant Values of the Organization

Although the value systems of organizational members
are different to some extent, organizations respond to the
urgings of the society by developing codes of conduct for
their members. By and large, codes of conduct establish
value-standards of behavior and are self-enforced. The
organizational code of conduct depicts one side of the coin
in as much as it dictates what kind of values _should_ exist
in the organization. The other side of the coin concerns
the extent of communality of the executive value system that
_is_ present.

The literature of values is not rich in studies per-
taining to communality of values in an organization. It,
however, contains recommendations that executives should, a
matter of value by itself, become cognizant of the values of
their subordinates.[23] Also, studies of informal organizations
and interest groups have not looked at problems of value con-
gruity or divergence.

The process of integration of man and organization
has been given some thoughts by the scholars of management
and organization. Bakke explains how a man joins an organi-
zation to satisfy his personal needs in the exchange of

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[23] Robert McMurray, "Conflicts in Human Values,"
Harvard Business Review, Vol. XLI (May-June, 1963).
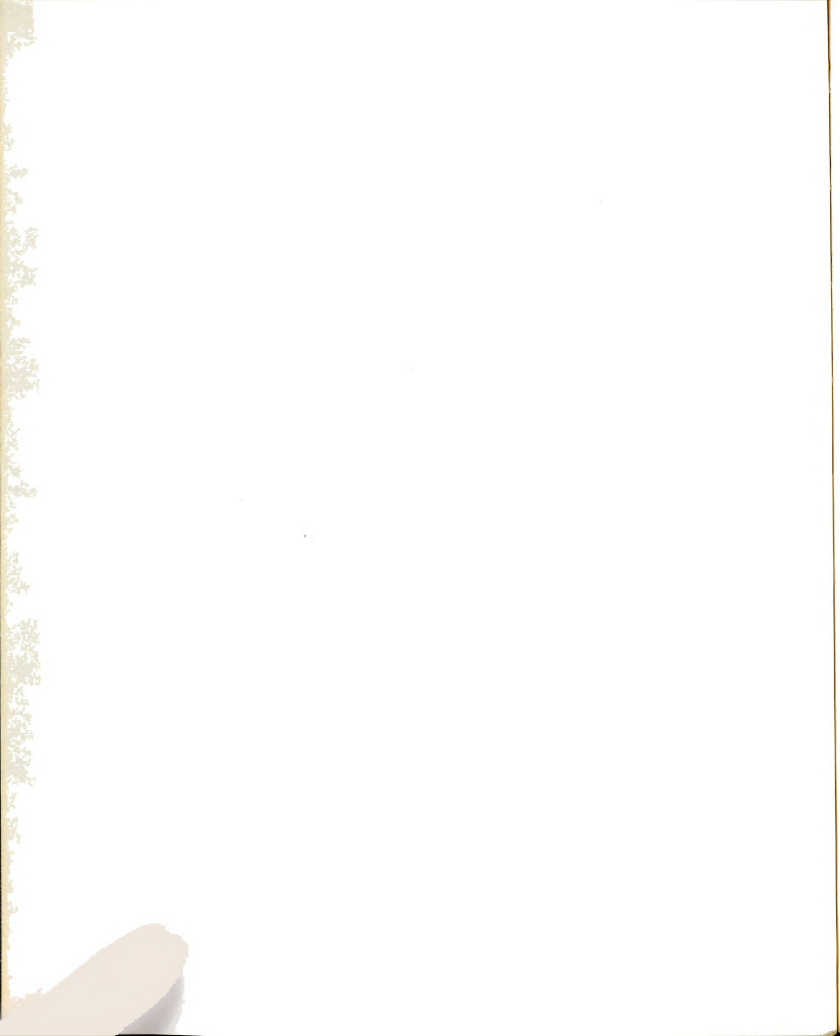
satisfying some of the needs of the organization.[24] This
is, in practice, a mutual need satisfaction of the members
of a contract. As long as they view each other as worthwhile,
they will continue their cooperation. The studies on the
integration of man and organization have never contemplated
the variable of value systems. In such contracts, is there
a mutually exclusive set of values inherent in their
relationships? If so, does that contribute to the effective-
ness of the organization? These are the questions that have
never been answered.

Apparently, a society cannot remain healthy or
creative unless it has common values that give meaning and
purpose to its existence. These common values provide the
necessary stability in a dynamic environment. This is
necessary for the continued functioning of a system.[25]
Organizations that are social systems are no exception to
this necessity.

As noted earlier, organizations place much emphasis
on predictability and rationality of the organizational
functions and outcomes. Therefore, consideration of the
common values held by the members of an organization can be
a good determinant of their behavioral activities. This

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[24] For the description of Bakke's fusion process see
Ernest Dale, op. cit.

[25] Lloyd Warner and Norman Martin (eds.), Industrial
Man, (New York: Harper and Brothers, 1959), p. 8.

knowledge, in turn, can increase predictability.

Summary of Values and Value Systems

Attitudes and values are often confused with each other. Attitude is an enduring organization of several beliefs focused on a specific subject or situation, whereas values transcend specific objects and specific situations. People have, in general, two types of values: terminal and instrumental. These values are acquired through culture and socialization. The culturally affected values are dominant values and those acquired through socialization are variant values. Development of research methodologies has brought values and value systems within the realm of empiricism.

Values are believed to be the major determinants of human behavior. Executives as well as organizations, therefore, have value systems which guide their performance. Being influenced by the executive value systems, the effective performance of individuals and organizations are, at the same time affected by other factors as identified by the scholars of management. The following section presents their findings.

A Review of the Organizational Effectiveness Studies

The current information about effectiveness is so diverse and disorganized that the interested individual encounters immense difficulties. The first symptom is that a great number of studies on organizational effectiveness have

been conducted with a variety of standards, methodologies, and scales. Since there is no consensus on a standardized measure of effectiveness, the studies range from the treatment of one variable such as attitudes toward work to multivariables like profitability, productivity, and morale.

The literature of the measurement of organizational effectiveness centers around two themes:

1) Effectiveness of the organization as a whole.

2) Effectiveness of the organization members as individuals.

Effectiveness of the organization as a whole

Effectiveness, whether of the organization or individuals, is the degree to which goals are achieved. For example, a university which has an educational goal, which provides a high quality of education, and supplies the society with highly educated people, would be considered an effective organization. As it is known from the definition of effectiveness, organizational goal determination[26] would be a crucial factor in evaluation of organizational effectiveness. Strategy determination and goal setting have been treated in extensive volumes by the scholars of management and organization. What is vital to this discussion is an

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[26] For a discussion on the methods of goal determination and implementation see: Amitai Etzioni, op. cit., pp. 7-8 and 25-26.
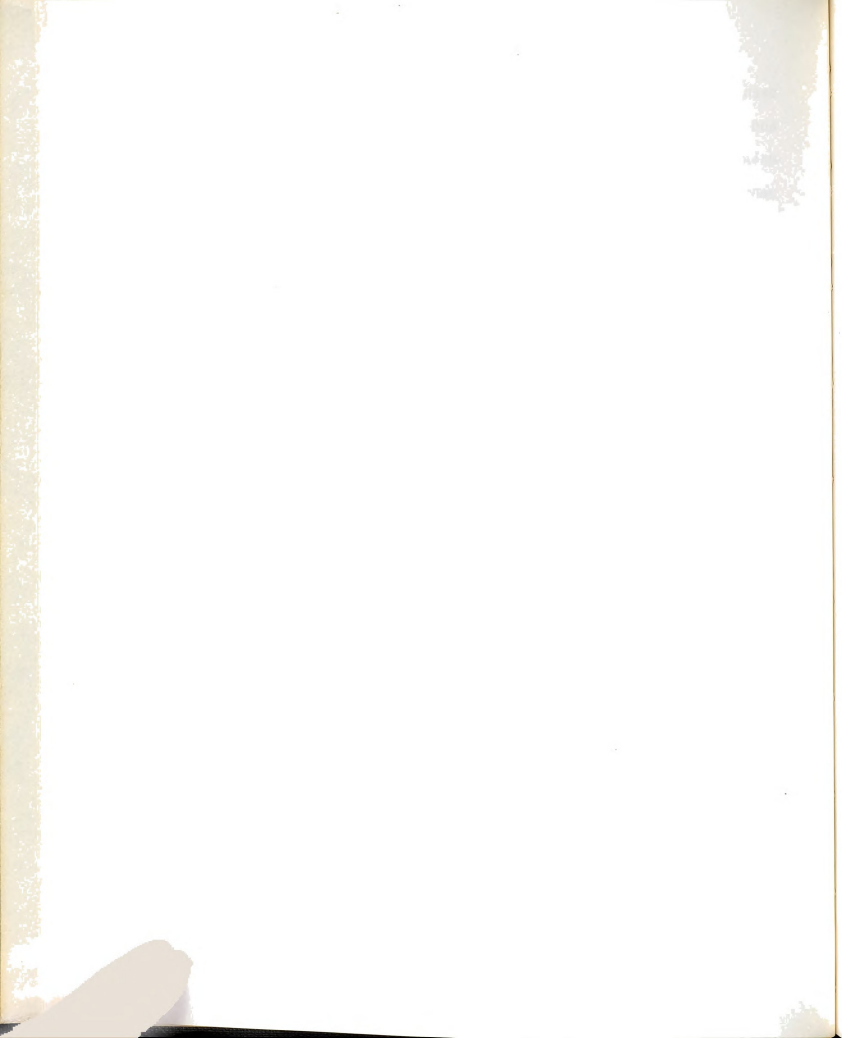
understanding of the way the executives choose one from among many alternatives that lead to success, to goal achievement, and to effectiveness. What is the element that dictates to executives the selection of one alternative despite the facts that are available on each case?

A search through the literature on organizational effectiveness opens a big treasure of studies which have measured the phenomenon of effectiveness by the yardsticks of productivity, morale, conformity, adaptiveness, and institutionalization. James Price[27] has compiled fifty studies concerning organizational effectiveness. Every study bases the effectiveness on a certain variable and uses different measures. The following is a discussion of these variables:

Profit Maximization Model

Evaluation of organizations has usually been based on the degree of accomplishment of purposes. Therefore, in the case of organizations engaged in the private sector of the economy and under the norms of rationality, the only criterion for the measurement of effectiveness is maximization of profits. There is a close relationship between maximization and productivity. Productivity in turn, is related to efficiency. For, if we define efficiency as the ratio of

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[27] James L. Price. Organizational Effectiveness: An inventory of propositions, (Homewood, Ill.: Richard D. Irwin Inc., 1968).

output to input,[28] the term productivity will correspond very closely to this definition. Such definition and measurements purport only one aspect of goal achievement, that is, economization of resources. What has been controversial is the effect of so many variables such as machines, procedures, and manpower, that has made the outcomes - the degree of goal achievement - somewhat unpredictable. Thus, maximization has been challenged by those who believe organizations sacrifice or seek to attain acceptable or desirable states.[29] Therefore, in the discussion of effectiveness, the literature draws a borderline between what should optimally be obtained and what can be achieved within bounded rationality.

It is with this borderline that the researcher is led to the standards of measurement. There are two major contributions to the study of the variables of effectiveness measurement. One is the work of James Thompson and the other an inventory of effectiveness propositions by James Price.

28
    John W. Kendrick, _Productivity Trend in the United States_, (Princeton, N.J.: Princeton University Press, 1961), p. 3.

29
    Herbert A. Simon, "Models of Man, Social and Rational," in _Administrative Science Quarterly_, Vol. 9, June 1964, pp. 1-22. See also the following references: James G. March and Herbert A. Simon, _Organizations_, (New York: John Wiley & Sons, Inc., 1958) - Richard M. Cyert and James G. March, _Behavioral Theory of the Firm_, (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1963) - W.J. Baumol, _Business_

In the assessment of organizations,[30] Thompson
alludes to two variables: (1) standards of desirability,
and (2) beliefs about cause/effect relationships. By the
former is meant the state of affairs that the organization
intends to reach; the latter, indicates the effects of causal
action. Standards of desirability have very much to do with
what I have started this study with, that is the value system.
A normal person's values, in general, give preference to
success over failure, and rationality over irrationality.
This value system would always seek those goals and objec-
tives that are optimal if it were to rely on a single cri-
terion such as profit. In reality, an organization operates
to satisfy several goals, often incompatible, on the basis
of interaction among economic, technological, political-
legal, social, and human variables. Where there is no
choice to drop any goal, or to neglect any variable as such,
the task of selection of an appropriate level of satis-
faction in each area becomes difficult.

Basing organizational effectiveness on one standard,
as the conventional accounting methods of profitability and

Behavior, Value, and Growth, (New York: The MacMillan Company,
1959) - J. Margolis, "The Analysis of the Firm: Rationalism,
Conventionalism, and Behavioralism," Journal of Business,
Vol. 31, July,1958, pp. 187-199.

[30]
Most of our discussion in this section will be
based upon these two works: James D. Thompson, op. cit.,
chapter 7 - and James L. Price, op. cit.
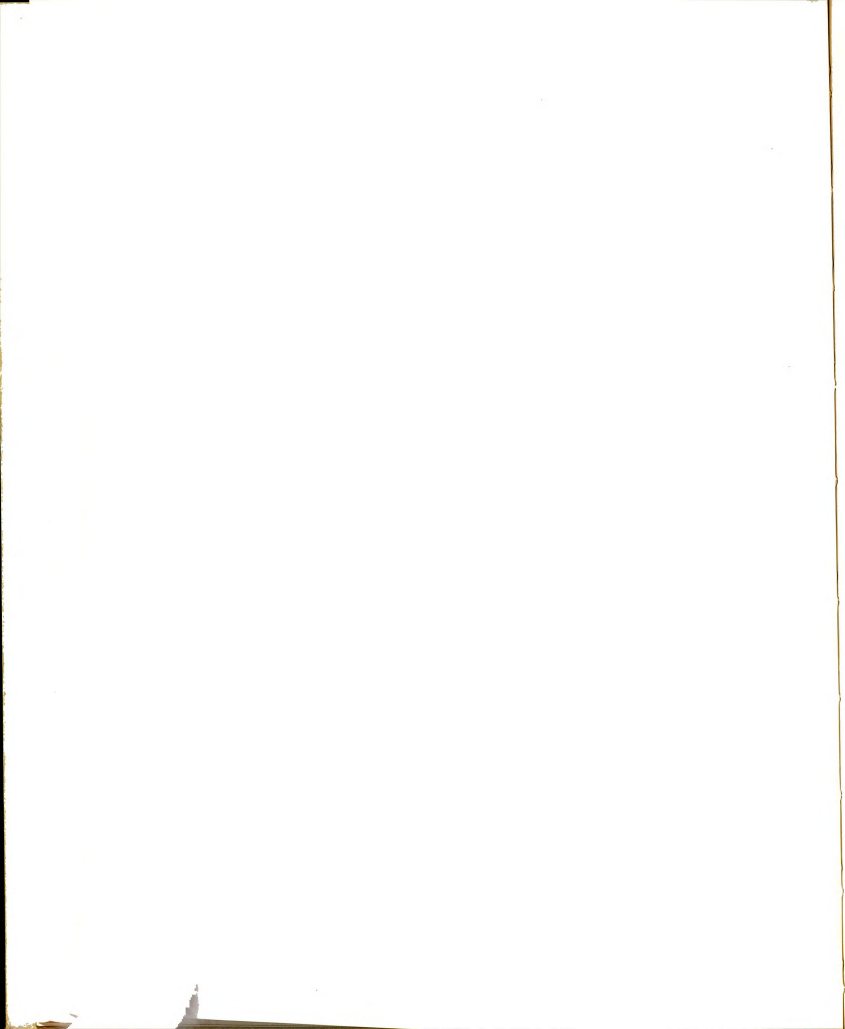
success does for the companies today, makes the task of
measurement rather easy. For, with an economic yardstick,
like money, we can determine how profitable the organization
has been. But, as it was noted, with the presence of
several variables, this measurement will not be reliable and
complete. Thompson visualizes the situation of selection
of a measure as a task which can be stated in two forms.
When one can establish a standard of desirability quite
easily the case will be crystallized. One example is the
assembly line where, through the specialization of tasks, a
desirable number of units is supposed to be produced within
a time-limit. Where so many variables are to be considered
for the establishment of a standard of desirability, often
the desirable level of achievement becomes vague and ambiguous.

Beliefs About Cause/Effect Relationships. The level
of understanding of cause/effect relationships is relative
in open and closed systems. In a closed system - like an
assembly line - all variables can be computed easily, and
therefore a standard of achievement can be established. In
such cases understanding of cause/effect relationship is com-
plete. In an open-system, like most organizations of today,
so many variables are in interaction that understanding of
cause/effect relationship becomes gravely incomplete. Con-
sidering the two extremes of value judgment concerning the
certainty and uncertainty or ambiguity of standards of
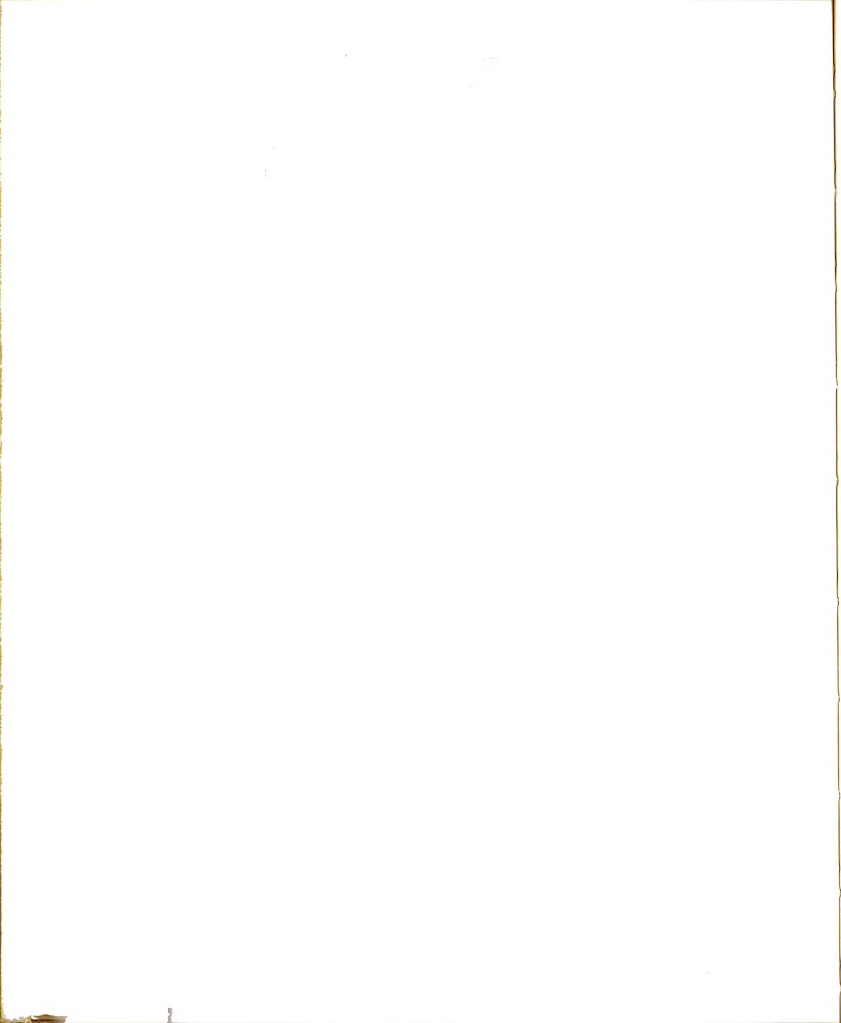
desirability, and also contemplating the two dimensions of complete and incomplete understanding of cause/effect relationship, Thompson constructed the following scheme which depicts four assessment situations.[31]

		Beliefs about cause/effect knowledge	
		Complete	Incomplete
Standards of Desirability	Crys-talized	I	II
	Ambig-uous	III	IV

FIG. 2. Variables to assess an organization

Source: James Thompson, *Organizations in Action*, (New York: McGraw-Hill Book Company, Inc., 1967), p. 86.

In Cell I, where cause/effect understanding is believed to be complete and a standard of desirability is crystalized, we would expect the maximizing approach to assessment. This is known as the efficiency test, which assumes efficiency equals effectiveness.[32] As was already

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[31] James D. Thompson, *op. cit.*, p. 86.

[32] I have already debated that the efficiency tests are based on a single dimension of economic maximization which neglects all other variables like morale, conformity, adaptiveness, institutionalization, etc.
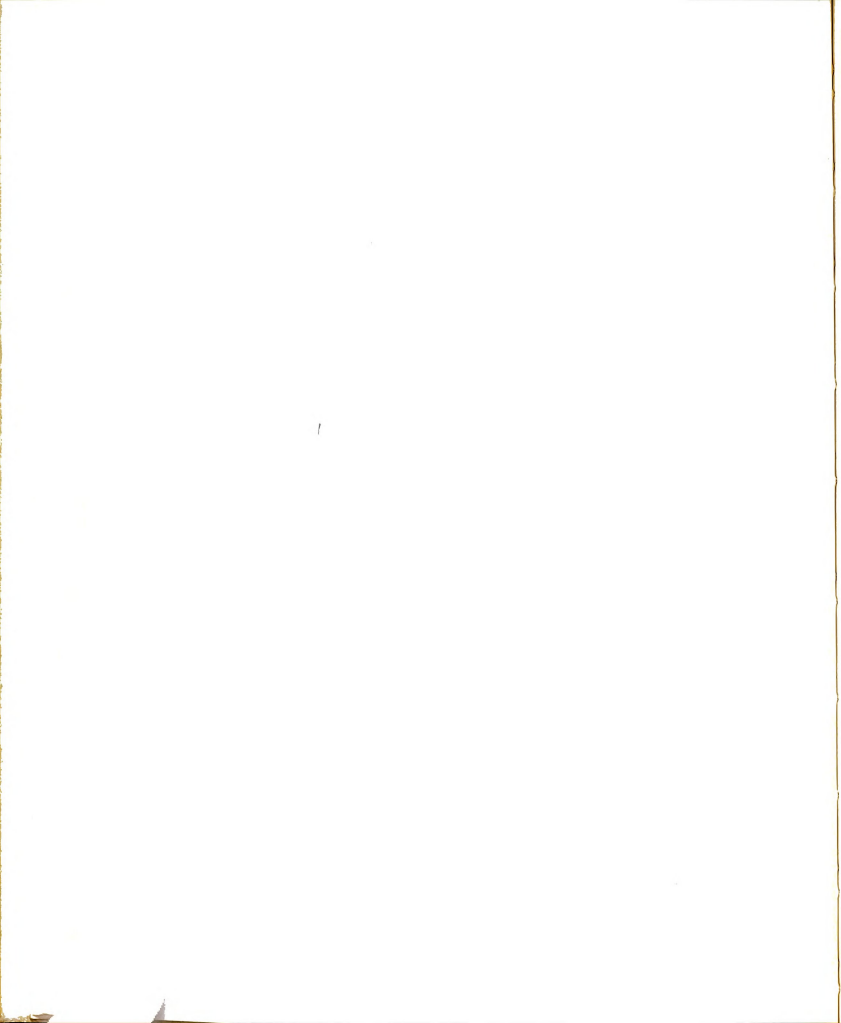
noted, this kind of test is one of the notions of the scientific management school which puts emphasis on the rate of material output through such devices as time and motion studies.

This school hypothesizes that: organizations which have a high degree of division of labor are most likely to have a higher degree of effectiveness than organizations which have a low degree of division of labor.[33] Their basic assumption is that of equality of efficiency, productivity, and effectiveness.[34]

There are several other studies that place much emphasis on economic dimension of organizational effectiveness. Chandler's study of four major industrial organizations led him to hypothesize that: except where there is a high degree of complexity, organizations which have a high degree of specialized departmentalization are more likely to have a higher degree of effectiveness than organizations which have a low degree of specialized departmentalization.[35] Another

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[33] James D. Thompson, op. cit., p. 86, and James L. Price, op. cit., p. 16.

[34] See the Waterton Arsenal Study by Aitkin: Hugh G.J. Aitken, Taylorism and Watertown Arsenal, (Cambridge: Mass.: Harvard University Press, 1960); see also Charles R. Walker and Robert H. Guest, The Man on the Assembly Line, (Cambridge, Mass.: Harvard University Press, 1952); W. Lloyd Warner and J.L. Low, The Social System of the Modern Factory, (New Haven, Conn.: Yale University Press, 1947), p. 173.

[35] Alfred D. Chandler, Jr., Strategy and Structure,
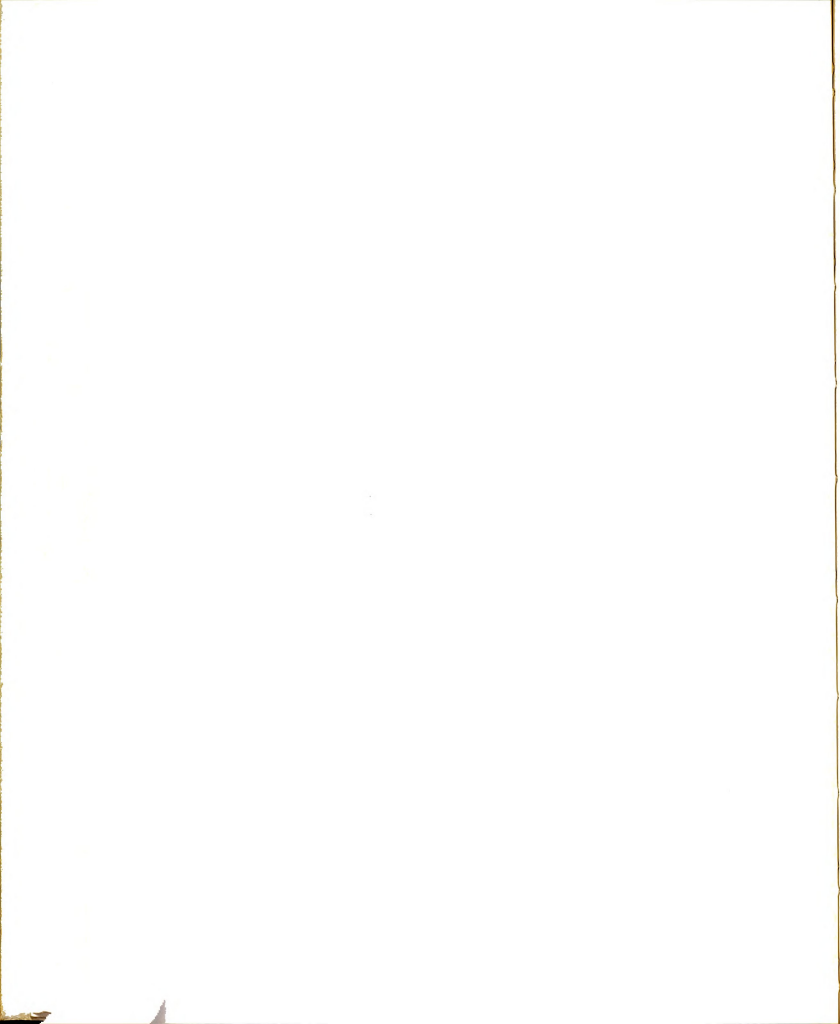
study on economic dimension of organizational effectiveness deals with mechanization with an apparent assumption that efficiency equals effectiveness.[36]

In cell II (the scheme on page 35) where a standard of desirability is crystalized but the assessor believes his knowledge of cause/effect is incomplete, the efficiency test is inappropriate, for there is no way of assessing the net effects of causal action. In this case, the appropriate test will not be the economic one, but the instrumental test can be used. In instrumental tests, the assessor is forced to seek another standard of satisfactoriness.

In cells III and IV when standards of desirability are ambiguous, the assessor must find other means of resolving his dilemma. As it can be seen, the efficiency test is not and cannot be applicable in all measurements of organizational effectiveness.

To find a comprehensive measure that can be applied to all situations a number of studies have been performed. To continue the search of the literature, it seems quite appropriate to conceive of an organization as a problem-facing, problem-solving, and decision-making system which is in a

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(Garden City, N.Y.: Doubleday and Co. Inc., 1966). See also Peter F. Drucker, Concept of the Corporation, (Boston: Beacon Press, 1960), pp. 41-43, and 122-128.

[36] Charles R. Walker, Toward the Automatic Factory, (New Haven, Conn.: Yale University Press, 1957).
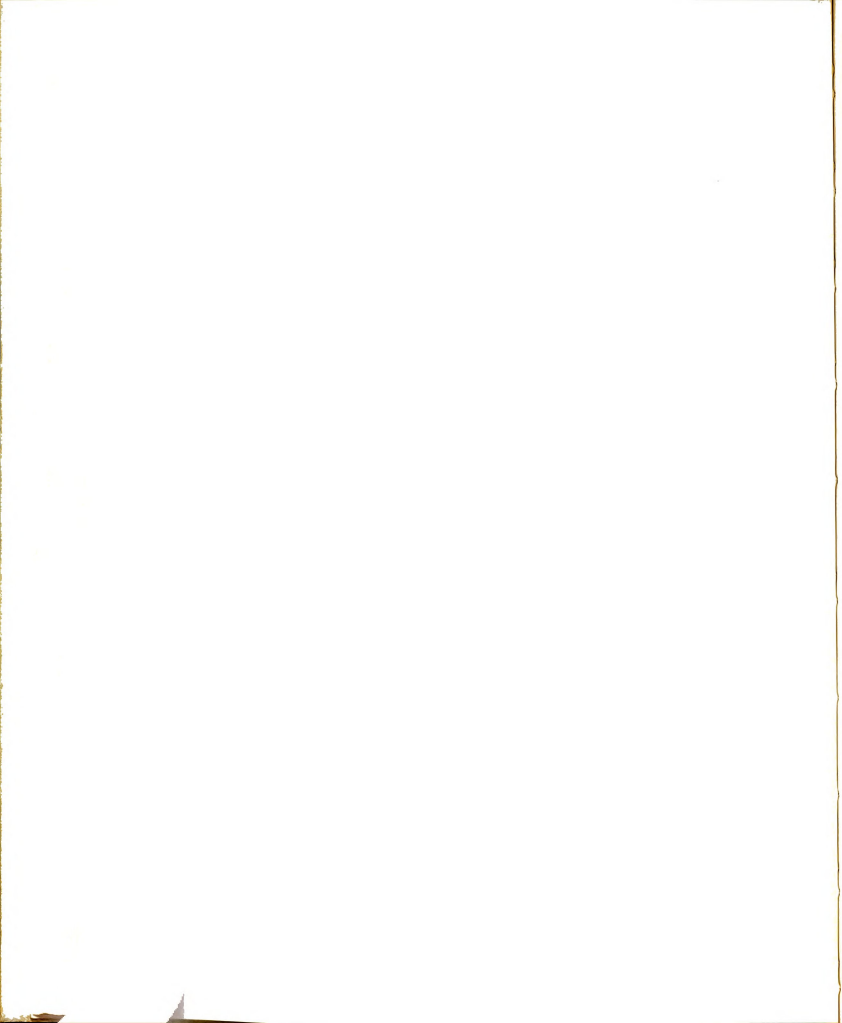
close interaction with its external environment and internal
components. It would not be just if one only alluded to
economic and technological dimensions as the major factors
of effectiveness, and neglected such variables as super-
vision, leadership, goal setting, enforcement of decisions,
power, authority, size, complexity, autonomy, centralization
vs. decentralization, control system, sanctions, and communi-
cation mechanism.

Likert's Multivariable Model

In the process of the measurement of organizational
effectiveness, Likert debates the use of a mono-dimensional
criterion such as productivity. He presents a model of
measurement which is to consider the interactions among
causal-intervening and end-result variables.[37] He includes
the following factors in the list of causal variables:
organizational structures, organizational objectives, manage-
ment and supervisory practices, and behavior, capital in-
vestments, and needs and desires of the members of organiza-
tion. Intervening variables include personality, work group
traditions, values, goals, and past experience, perceptions,
expectations, attitudes, motivational forces, and behavior.
Likert enumerates the following as the end-result variables:

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[37] Rensis Likert, *New Patterns of Management*, (New
York: McGraw-Hill Book Co. Inc., , 1961,) Chapter 13.
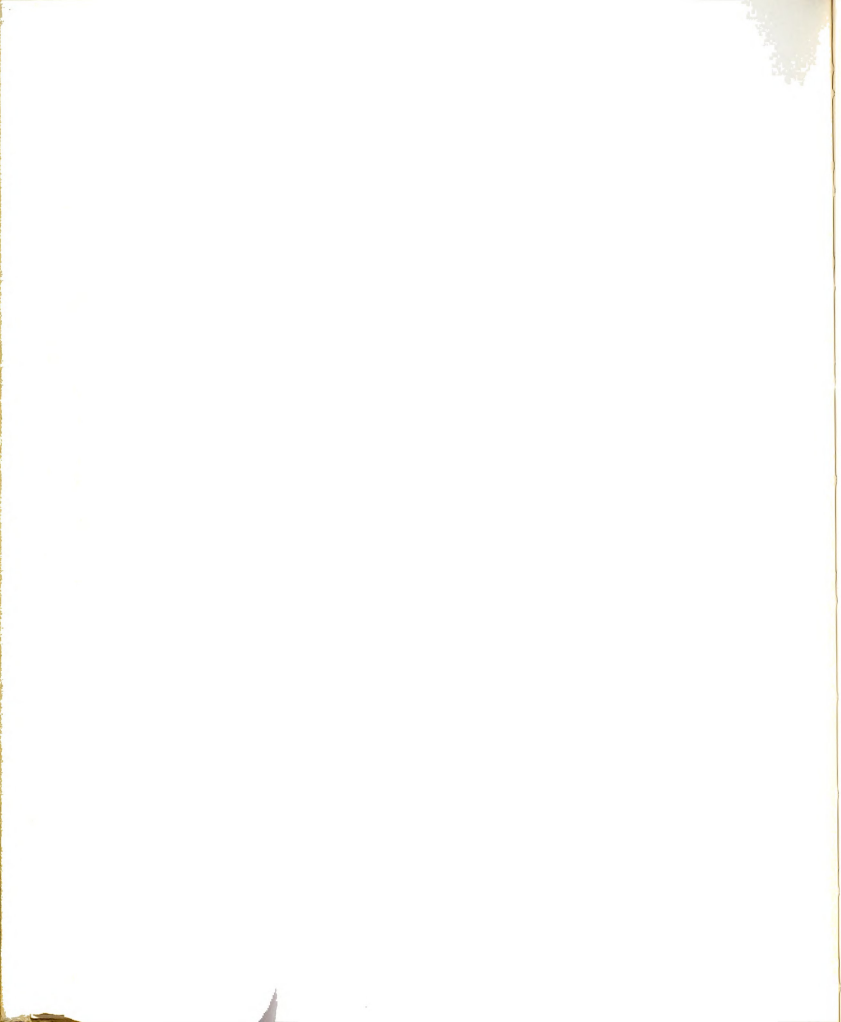
production, (cost, waste), earnings, absence, turnover,
union-company relations, grievances, stoppages, and sales.

This model of interaction of variables requires a
lot of perfection as regards measurement methodology and
tools. In addition, consideration and measurement of the
impacts and the results of such a number of variables may not
be feasible if accuracy is expected.

Single Variable Models

There are many studies in the literature that have
subjected the effectiveness of an organization to one or two
variables. For example, Katz et al. found a close relation-
ship between productivity and the level of supervision.
They hypothesized that general rather than close supervision
is more often associated with a high rather than low level of
productivity.[38] Blau's study of a department of a state
employment agency[39] and Sykes'[40] study of a maximum security

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[38] D. Katz, N. Maccoby, and Nancy Morse, Productivity,
Supervision, and Morale in an Office Situation, (Ann Arbor,
Mich.: Institute for Social Research, 1950).

[39] Peter M. Blau, The Dynamics of Bureaucracy,
(Chicago: University of Chicago Press, 1955).

[40] Gresham Sykes, The Society of Captives, (Princeton:
N.J.: University Press, 1958). See also: Alvin W. Gouldner,
Patterns of Industrial Bureaucracy, (Glencoe, Ill.: Free
Press, 1954), pp. 59-101.
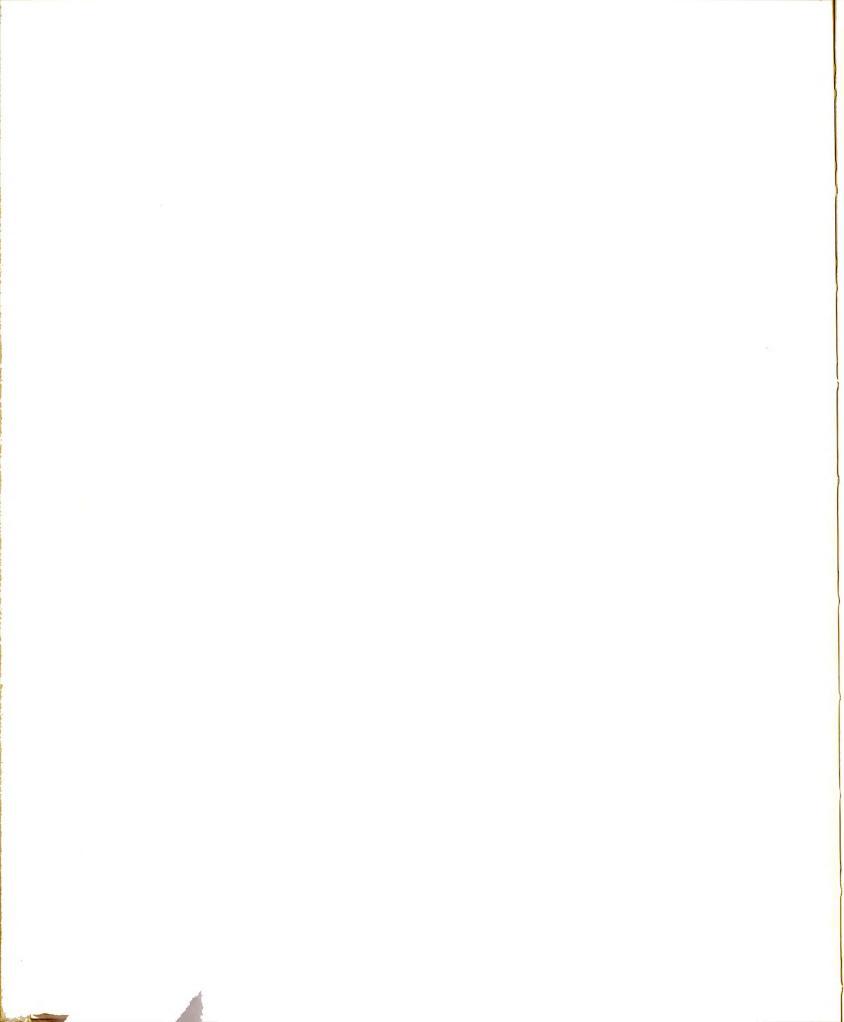
prison illustrate a proposition that organizations which
have a high degree of legitimacy are more likely to have a
degree of effectiveness than organizations which have a low
degree of legitimacy. Legitimacy in these cases is defined
as the degree to which the behavior of an organization is
socially approved.[41] Blau's study also confirms that organi-
zations which primarily have a rational-legal basis for
decision-making are more likely to have a high degree of
effectiveness than organizations which primarily have a
charismatic type of decision-making.[42]

Other correlations have been made between the degree
of authority delegation and organizational effectiveness.
Kaufman's study of the forest service, and Gouldner's study
of a gypsum plant, Marcson's study of a research laboratory
of the pacific electronic company, and Stanton and Schwartz's
study of a private mental hospital illustrate the degree of
centralization and the level of organizational effectiveness.[43]

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[41]
        Seymur M. Lipset, Political Man, (Garden City, N.J.:
Doubleday and Co. Inc., 1960), pp. 77-96.

[42]
        Rational-legal decision making is defined as the
degree to which a social system allocates decision making to
roles. Charismatic decision-making may be defined as the
degree to which a social system allocates decision making to
specific individuals. For further discussion see: Herbert
Goldhammer & Edward A. Shills, "Types of Power," in Robert
Dubin (ed.), Human Relations in Administration, (New York:
Prentice-Hall Inc., 1951), pp. 182-187.

[43]
        Herbert Kaufman, The Forest Ranger, (Baltimore:
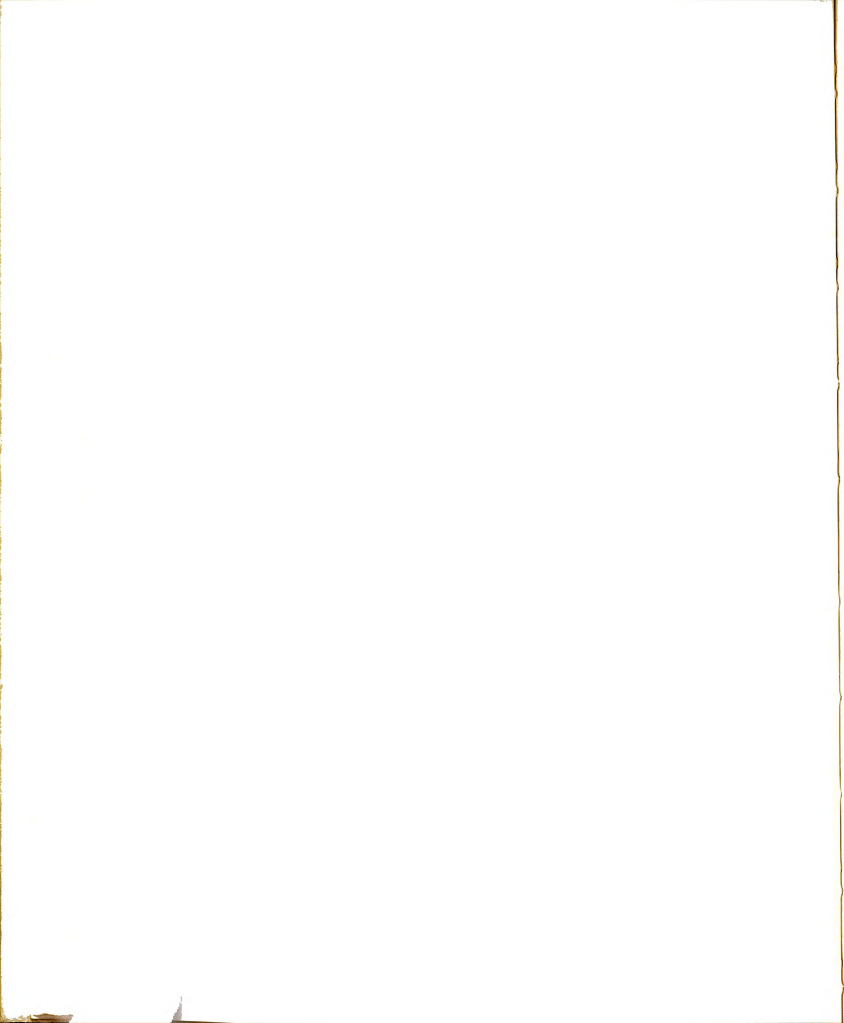
The literature contains studies that establish a correlation between autonomy and organizational effectiveness. It has been shown that the decisions of an organization which can lead to effectiveness are not made only within the confines of the organization's internal factors, but also political-legal, social and economic constraints play a great role. The government's business policy, attitudes toward ownership, regulations of industry, and so on affect the degree of the organization's autonomy. Therefore, in the measurement of effectiveness the degree of autonomy must also be considered. Such studies hypothesize that organizations which have a high degree of autonomy are more likely to have a higher degree of effectiveness than organizations which have a low degree of autonomy.[44]

It has also been asserted that representation contributes to the extent of effectiveness of an organization. Representation may be defined as the practice of a social

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Johns Hopkins University Press, 1960), see also Gouldner, op. cit., Blau, op. cit., (con), pp. 19-23; Paul R. Lawrence, The Changing of Organizational Behavior Patterns, (Boston: Division of Research, Graduate School of Business Administration, Harvard University, 1958); Donald T. Campbell, Leadership and Its Effects Upon the Group, (Columbus: Bureau of Business Research, The Ohio State University 1956); Simon Marcson's, The Scientist in American Industry, (Princeton, N.J.: Industrial Relations Section, Department of Economics, Princeton Univ. 1960).

[44] The following studies are illustrative of the relation between autonomy and organizational effectiveness: Philip Selznick, TVA and The Grass Roots, (Berkley: University of California Press, 1953); also Burton R. Clark, The
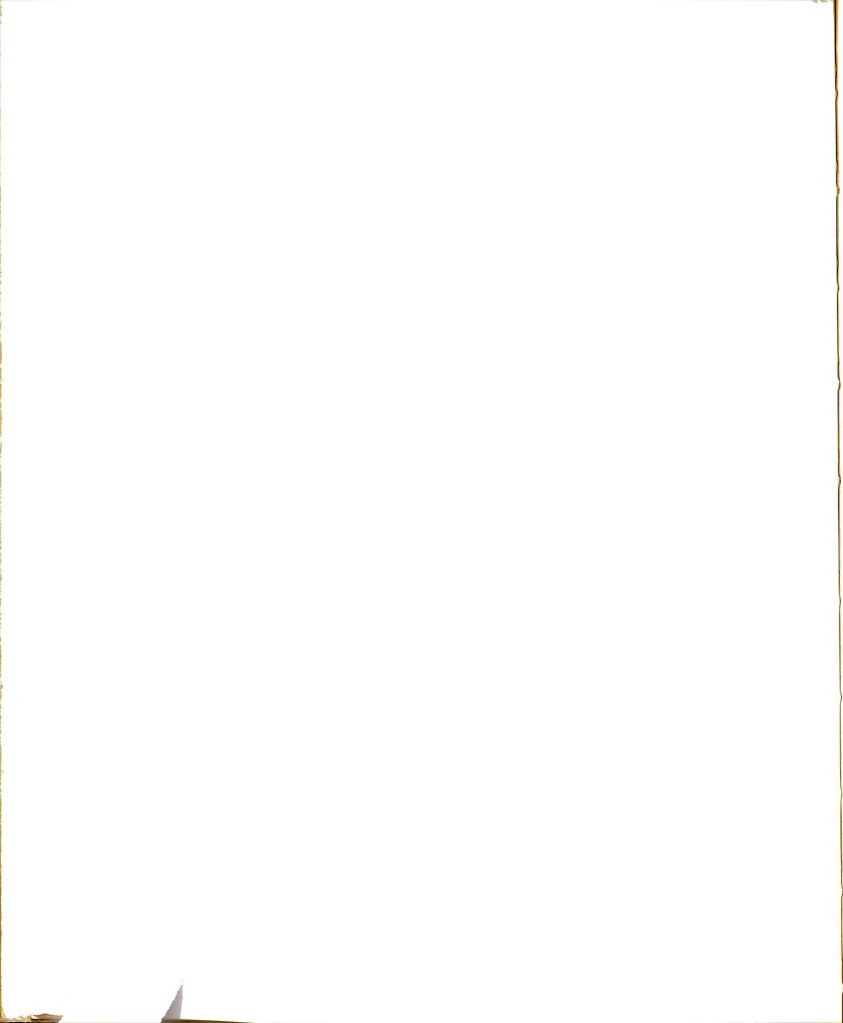
system's members joining other social systems with the goal of increasing its institutionalization.[45] This representation can be a voluntary association of the executives of an organization in the community affairs which can increase the institutionalization of their organization. This can change the perception of the community in favor of such an organization. Studies by Warner and Low, Kaufman, Selznick, and Stanton and Schwartz support the idea of representation.[46]

There are many studies that relate the effectiveness of an organization to its control system, communication ability, and size.[47]

The literature indicates that most studies have subjected organizational effectiveness to a single dimension

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Open Door College, (New York: McGraw-Hill Book Co., 1960); Irvin Belknap, Human Problems of a State Mental Hospital, (New York: McGraw-Hill Book Company, 1956); Michael Krozier, The Bureaucratic Phenomenon, (Chicago: University of Chicago Press, 1964).

[45] Philip Selznick, op. cit., pp. 3-16 and 217-246.

[46] Lloyd Warner and J.L. Low, The Social System of the Modern Factory, (New Haven, Conn.: Yale University Press, 1947); Herbert Kaufman, The Forest Ranger, (Baltimore, John Hopkins Press, 1960), Philip Selznick, op. cit.; Alfred Stanton and Morris S. Schwartz, The Mental Hospital, (New York: Basic Books, Inc., Publishers, 1954).

[47] For an inventory of such studies see: James L. Price, op. cit.
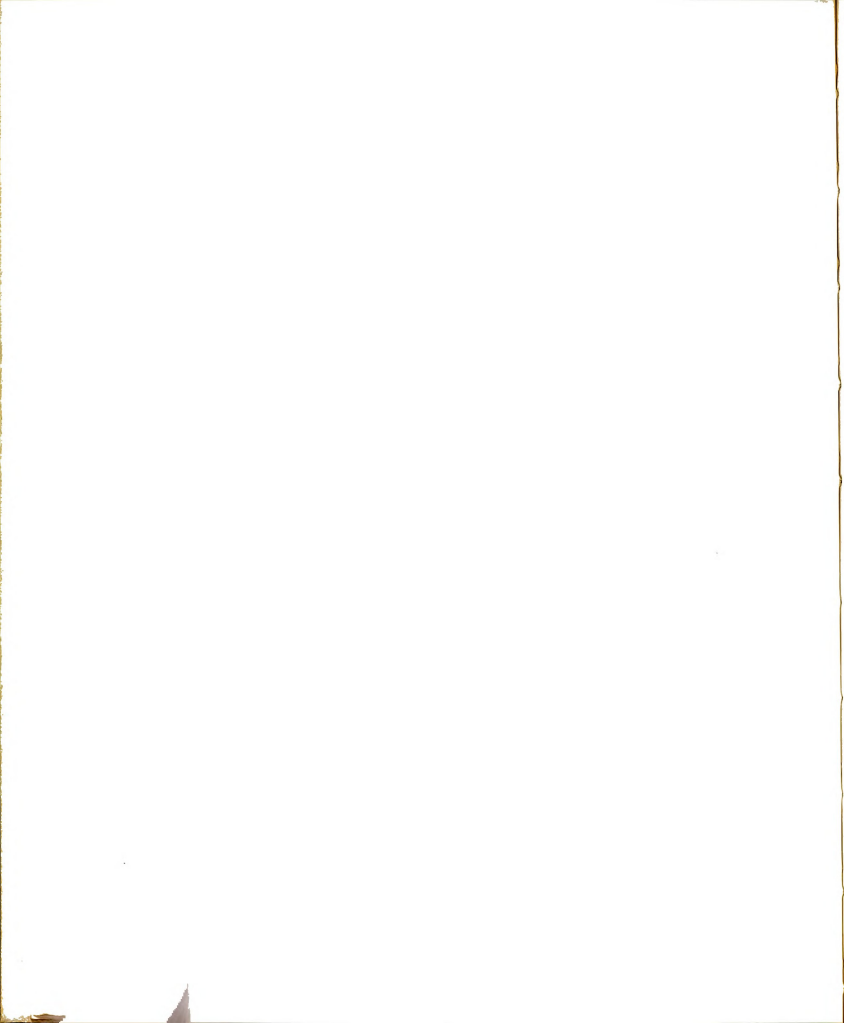
without excluding the effects of the other factors. My
search in the literature has led me to a few studies which
have a resemblance, in nature, to this study. Selznick and
Clark's studies[48] illustrate four propositions concerning the
presence of ideology, congruence of ideology, priority, and
conformity. They purport that organizations which have
(1) an ideology (2) and whose ideology has a high degree of
congruence, (3) priority, and (4) conformity, are more likely
to have a high degree of effectiveness than organizations
whose ideologies have low degree of congruence, priority,
and conformity.

Ideology is defined as beliefs which are publicly
expressed, with the manifest purpose of influencing the
orientations and actions of others.[49] The similarities be-
tween an ideology behind an organization and value systems
lie in the following:

1) An ideology, as such, consists of beliefs behind
the organization and should be expressed publicly. But its
importance and the role it plays in the success and effec-
tiveness of an organization comes from the extent of accept-
ance it may have among the organization members.

2) Values, also, are beliefs injected to a person
through his culture and the process of socialization. These
values can be shared by the members of an organization.

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[48]
    Philip Selznick, op.cit., also Burton R.Clark, op.cit.

[49]
    Francis X. Sutton, Seymur E. Harris, Carl Kaysen,
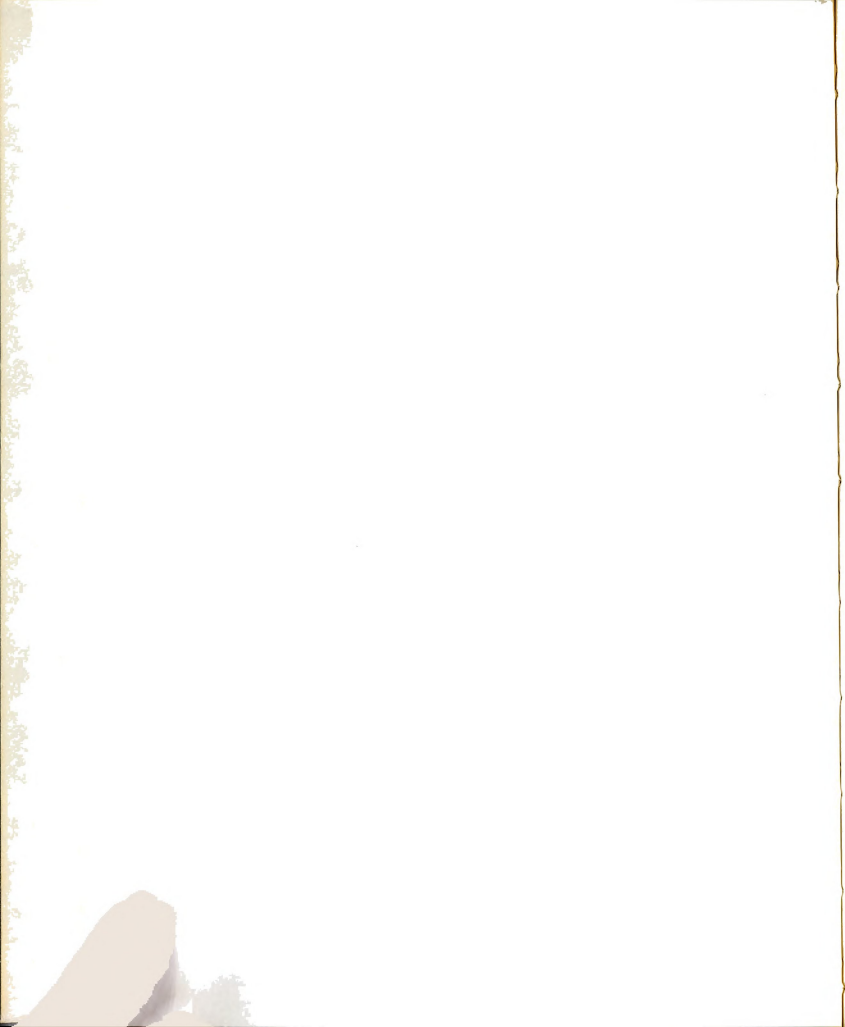
The difference between ideology and values is in the way each is expressed. Ideology is usually expressed publicly, but values are exhibited by the individuals through their choice of alternatives. Since Clark and Selznick's studies have based the level of organizational effectiveness upon the congruency of the ideologies and its acceptance by organization members, and similarities were found between ideology and values, it can be suggested that congruency in the value systems of an organization's members affect the extent of its effectiveness.

Effectiveness of Organization Members as Individuals

Individuals are the human elements in the system of an organization. Their contribution will sum up with the other factors to enable the organization to reach to its level of total achievement. Many theories have been formulated to increase the level of the individual's performance. In effect, management theories of human relations, leadership styles, and motivation have very much to do with the human side of the organization.

It has been asserted that an employee's job satisfaction as well as his motives, needs, and desires increase his effectiveness. Studies on morale, attitudes, and work condition illustrate how the organization structure, level

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and James Tobin, _The American Business Creed_, (Cambridge, Mass.: Harvard University Press, 1966), pp. 1-15.
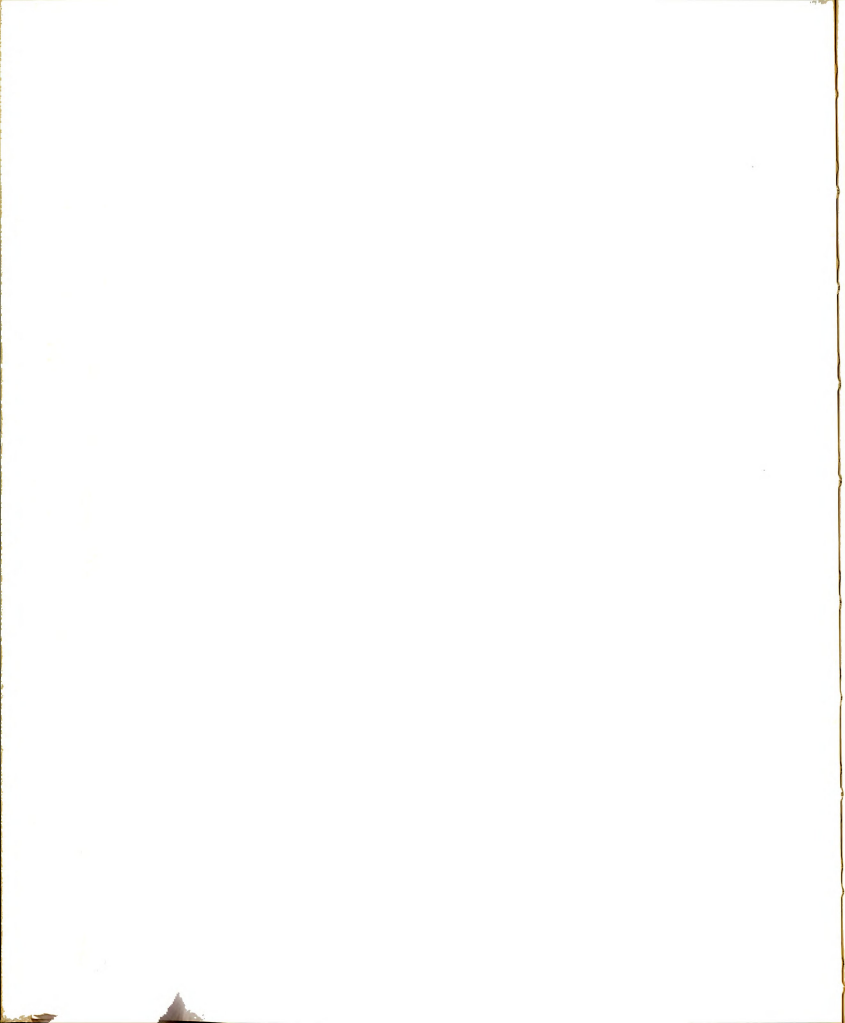
of training, autonomy, and values affect the individuals.[50]
Values of the individuals are considered to be very effec-
tive guidelines for their behavior. Therefore a certain set
of values may reflect a high level of satisfaction in con-
trast to another set which under the same circumstances
might express dissatisfaction. Executives who judge the
effectiveness of a subordinate place much emphasis on what
seems to be desirable to themselves rather than the employee.
Thus, an individual may receive different ratings from
different executives.

What is important in this process of measurement of
the individual's effectiveness is a diagnosis of the indi-
vidual's value system and the determination of the differ-
ence between his and his superiors' perception of organiza-
tional effectiveness.

Summary of Organizational Effectiveness Studies

Effectiveness is the degree to which goals are
achieved. Measurement of effectiveness is performed through
a variety of standards ranging from economic tests of
efficiency, productivity, and profitability - the scientific

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    For a discussion on how to measure the individual's
performance as well as the criteria for executive effective-
ness measurement see: Frederic R. Wickert and Dalton E.
McFarland (eds.), Measuring Executive Effectiveness, (New
York: Appleton-Century-Crofts, 1967), Chapter 3.

management school - to the tests of morale, conformity, adaptiveness, creativity, organization structure, and leadership methods - behavioral school of management.

The two sets of measures have been often employed independently without any observable attempt for the integration of several factors that affect the level of organizational achievement. The studies cited here indicate that a variety of relationships exists between organizational effectiveness and such factors as management methods of supervision, control, and employee satisfaction. Effectiveness is believed to be a function of attitudes toward work, the degree of autonomy, quality and quantity of training, and economic as well as moral needs satisfaction. The literature provides a host of factors affecting the level of organizational effectiveness. An appraisal of these contributions can show to what extent they have assisted conducting the present study.

Appraisal of Contributions

In Chapter 1 several shortcomings were mentioned relating to the studies on organizational effectiveness. One purpose of this chapter has been to determine the extent to which theory and practice, as expressed in the literature relative to "value systems" and "organizational effectiveness," eliminated those shortcomings.
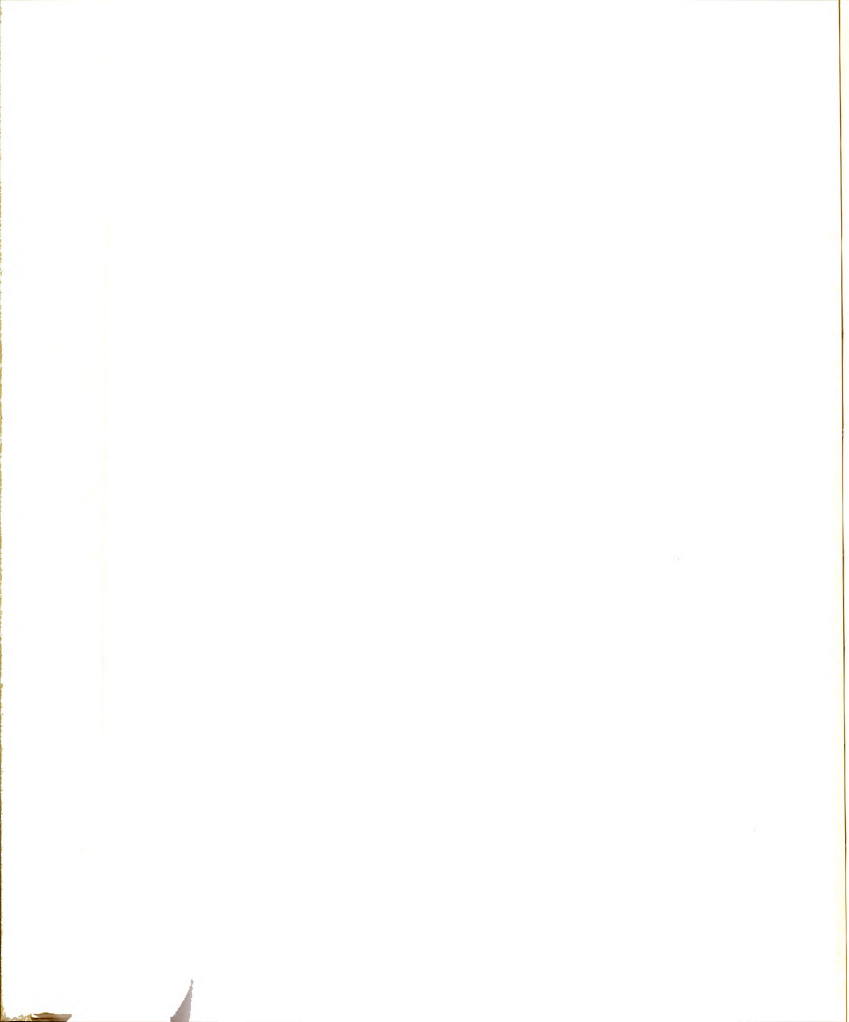
The literature pertaining to values and value systems identified existing confusion between values and attitudes. It was also noted that value research has been brought in the realm of empiricism and that values can be identified within organizations and among the executives. The literature also improved the knowledge of sources and kinds of values and maintained that values serve as a major determinant of human behavior.

The literature of organizational effectiveness ranged from very general techniques (subjecting organizational effectiveness to a single factor of economic efficiency) to very specific ones (relating organizational effectiveness to a host of factors such as organization structure, leadership methods, employee morale, satisfaction, conformity, etc.)

Most of the literature sources identified differences of values among groups. But, no attempt was made to discover bases of differences and the factors affecting the extent of difference among groups. Studies of organizational effectiveness diagnosed factors that markedly contribute to a higher level of organizational achievement. Such studies concerned isolated factors without any attempt to approach the topic in a sufficiently comprehensive manner or in sufficient depth to be of general theoretical use for an understanding of organizational effectiveness.

The present study attempted to integrate the factors of organizational effectiveness as cited in this chapter with
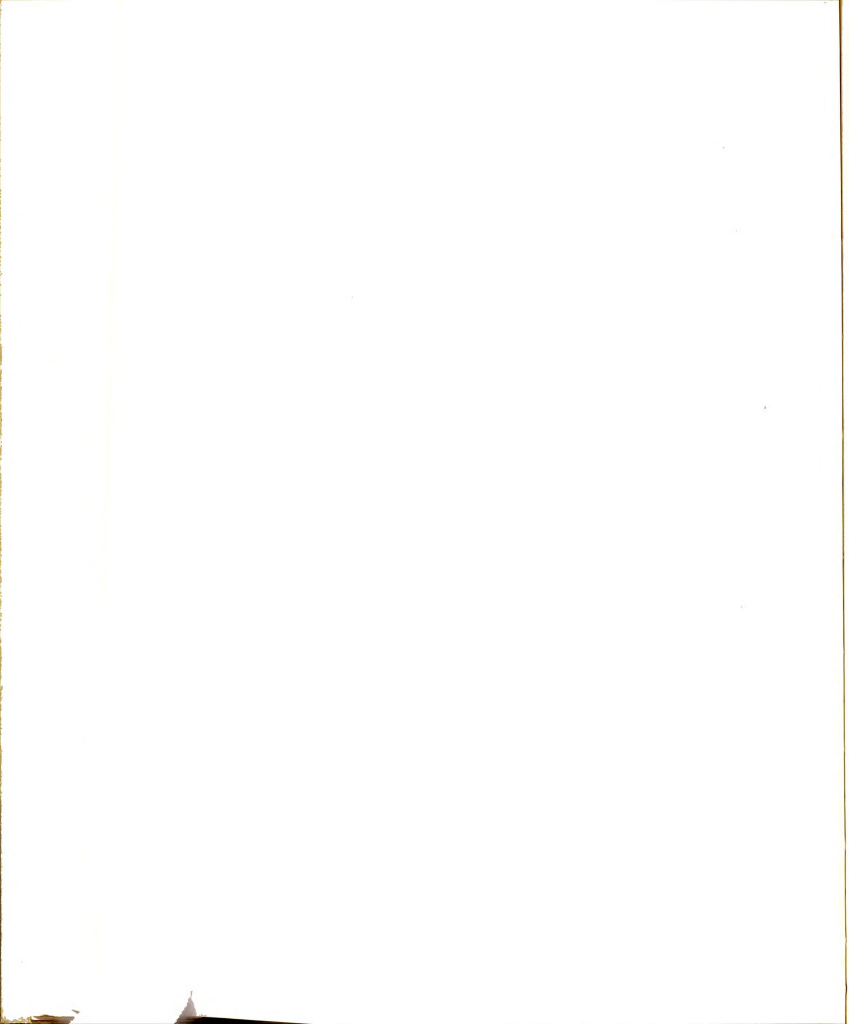
the element of values. It also determined the extent of
interrelationship between those factors and the value systems
of the organization members. Chapter 3 describes the method-
ology used to achieve the purposes of this study.
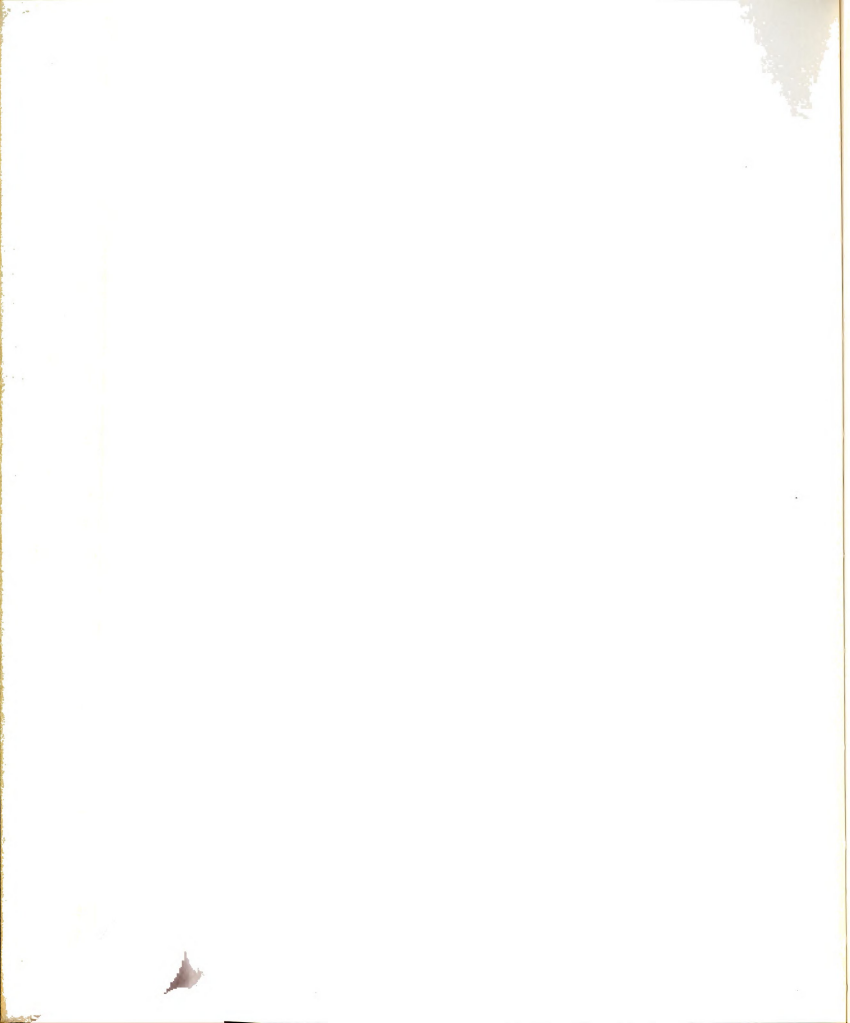
CHAPTER 3

RESEARCH DESIGN

Introduction

The purpose of this chapter is to describe the design and methodology employed for the test of the hypotheses and for the integration of ideas and concepts of value systems and organizational effectiveness identified in Chapter 2.

The discussion of this chapter concerns:

(1) The data collection techniques - selection of a measure, description and development of data collecting instruments.

(2) The nature of the sample - criteria for selection, size of the sample, and method of selection, interviewing procedures, and criteria.

(3) The method of analysis - description of the statistical techniques used in the study.

Data Collection Techniques

Criteria for the Selection of Research Instruments

Since the research project was designed to determine the degree of interdependence between the value systems and
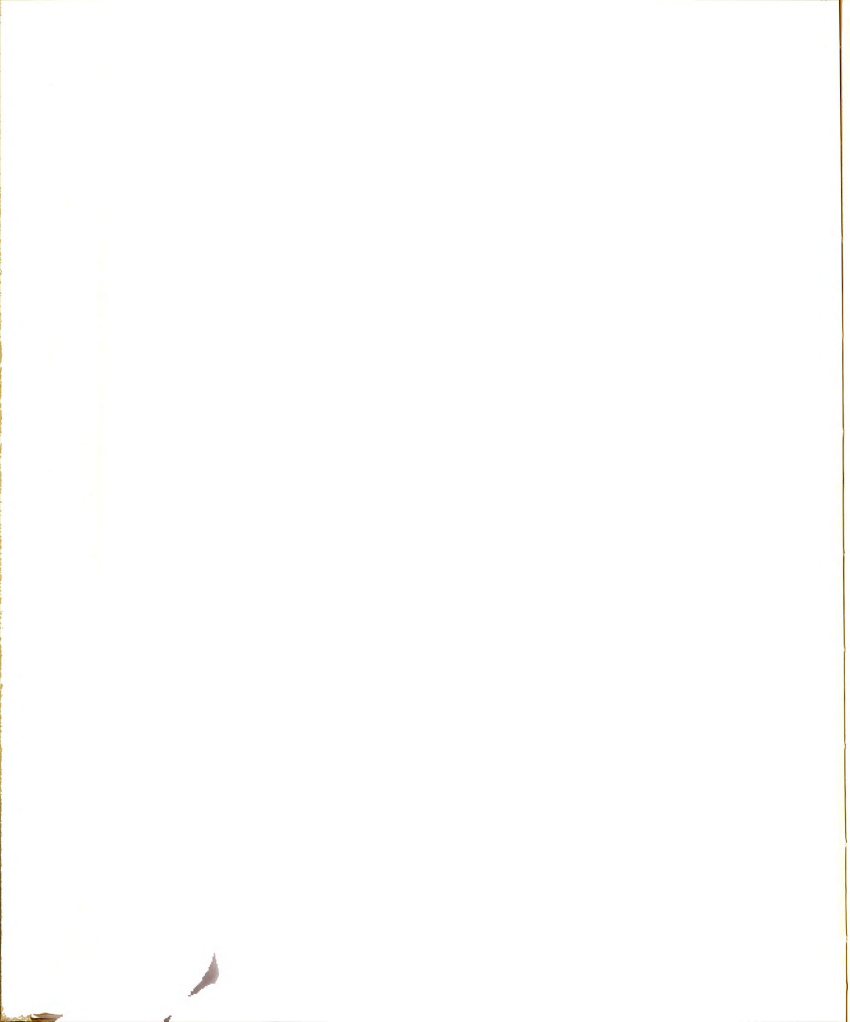
organizational effectiveness of the organization members,
two research instruments were required: one for gathering
data on how the employees of both the most effective and the
least effective organizations rank-ordered their own values,
and one instrument for gathering information on how those
employees perceived of their organization's effectiveness.
The complex and multidimensional nature of values and organi-
zational effectiveness prescribed that the instruments also
be multidimensional to gather data on the many aspects of
each of these phenomena.

In brief, the task was to find or develop data
collection instruments that met the following criteria:
(1) Were effective in measuring the two complex phenomena of
values and organizational effectiveness; (2) were structured
for easy compliance by respondents; (3) were simple to ad-
minister; and (4) required minimal time for completion in
light of objectives of the project.

Value Measurement

The purpose and product of value measurement was to
obtain certain types of information which could be used as
predictors of behavior in certain circumstances. The circum-
stances, of course, were created by using questionnaires.[1]

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[1] For a detail discussion on the purpose of measure-
ments and the development of circumstances see: C. West
Churchman, Prediction and Optimal Decision, (Englewood Cliffs,
N.J.: Prentice-Hall Inc., 1961).
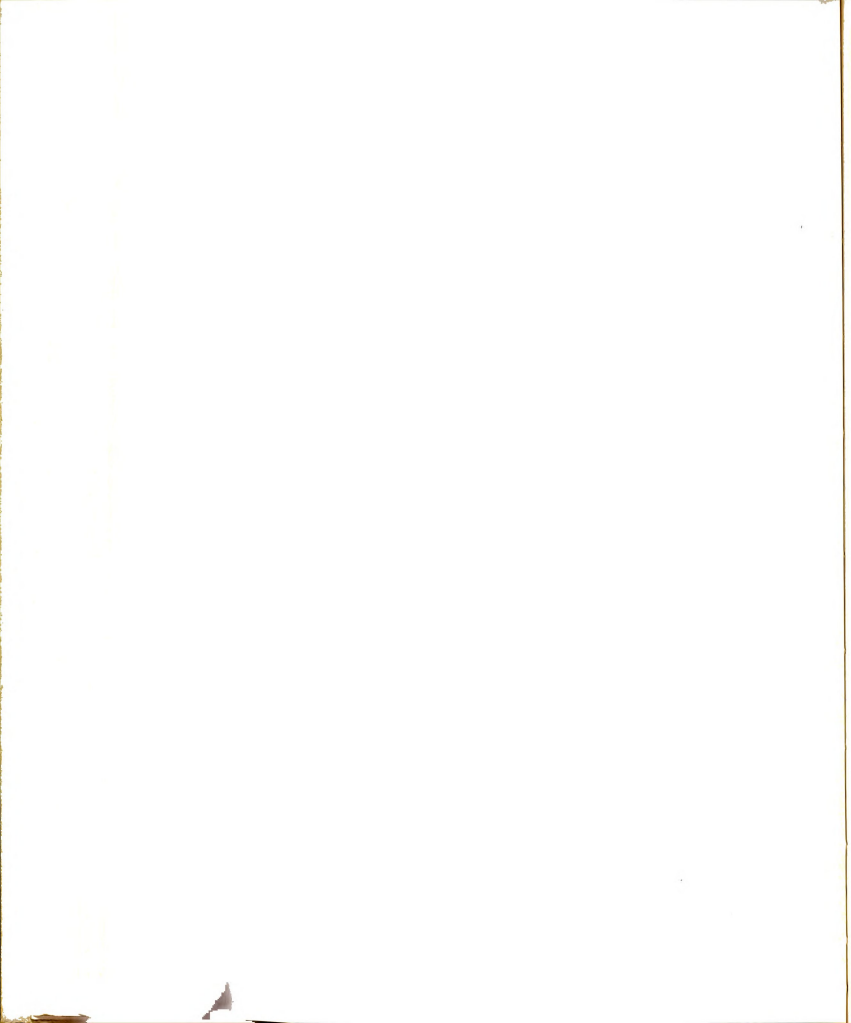
It was stated in Chapter 2 that individuals have two kinds
of values, namely: instrumental, and terminal. What was
required for the purpose of the present study was a certain
information on how the organization members arrange these
values into a value system.[2]

Several methods are available for gathering data
about values. William Scott suggests a content analysis of
open-ended value dimension questions.[3] This requires time-
consuming interviews with individual respondents which would
be economically prohibitive if applied to large samples.
Charles Morris' approach[4] to the measurement of values is
rather complex and requires a high level of education on the
part of the respondent. Kilpatrick and Cantril recommend a

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[2]
Kluckhohn and Strodtbeck state "value orientations
are complex but definitely patterned (rank ordered) principles,
resulting from the transactional interplay of three analyti-
cal, distinguishable elements of the evaluative process -
the cognitive, the affective, and the directive elements -
which give order and direction to the everflowing system of
human acts and thoughts as these relate to the solution of
common human problem." Florence Rockwood Kluckhohn and Fred
L. Strodtbeck, _Variations in Value Orientations_, (Evanston,
Ill.: Row, Peterson, and Co., 1961), p. 4.

[3]
William A. Scott, "Empirical Assessment of Values and
Ideologies," _American Sociological Review_, Vol. LIX (Nov.
1952), p. 422.

[4]
Charles W. Morris, _Variation of Human Value_,
(Chicago: University of Chicago Press, 1956).
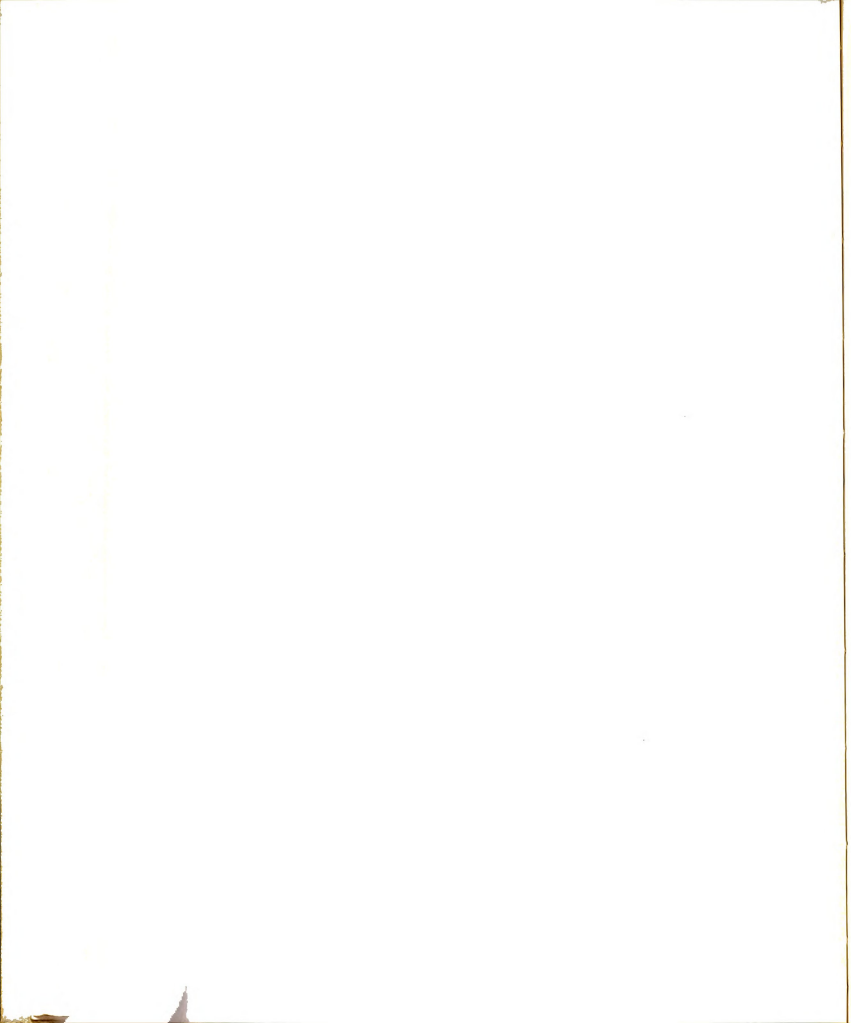
kind of value test through self-anchoring scaling.[5] Thurstone's paired comparison scaling,[6] William Catton's ranking of absolve or infinite values,[7] Ira Reid's analysis of social protest, O.E. Thompson's differential value inventory,[8] Roy Carter's rating of value situations[9] with resultant factors, Allport-Vernon-Lindzey's joint choice and ranking of value situations with resultant value profiles,[10] and Rokeach's rank ordering of instrumental and terminal values are some of the methods for the measurement of values.

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[5] F.P. Kilpatrick and Hadley Cantril, "Self-anchoring Scaling: A Measure of Individual's Unique Reality Worlds," Journal of Individual Psychology, Vol. XVI (Nov. 1960), pp. 158-173.

[6] L.L. Thurstone, "The Method of Paired Comparisons for Social Values," Journal of Abnormal and Social Psychology, Vol. XXI, January-March, 1927), pp. 384-400; ---- "The Measurement of Values," Psychological Review, Vol. LXI (January, 1954), pp. 47-58; and Louis Guttman, "A basis for Scaling Qualitative Data," American Sociological Review, Vol. IX (April, 1944), pp. 139-150.

[7] William R. Catton, Jr., "Exploring Techniques for Measuring Human Values," American Sociological Review, Vol. XIX (February, 1954), pp. 49-55; and Hornell Hart, "A Reliable Scale of Value Judgments," American Sociological Review, Vol. X (August, 1945), pp. 473-481.

[8] Ira De A. Reid, "Social Protest; Cue and Catharsis," Phylon, Vol. XVI (June, 1955), pp. 141-147.

[9] Roy E. Carter, Jr., "An Experiment in Value Measurement," American Sociological Review, Vol. XXI (April, 1956), pp. 156-163; and Robert Sommer and Lewis M. Killian, "Areas of Value Differences; A Method for Investigation," Journal of Social Psychology, Vol. XXXIX (May, 1954), pp. 227-235.

[10] Gordon W. Allport, Philip E. Vernon, and Gardner
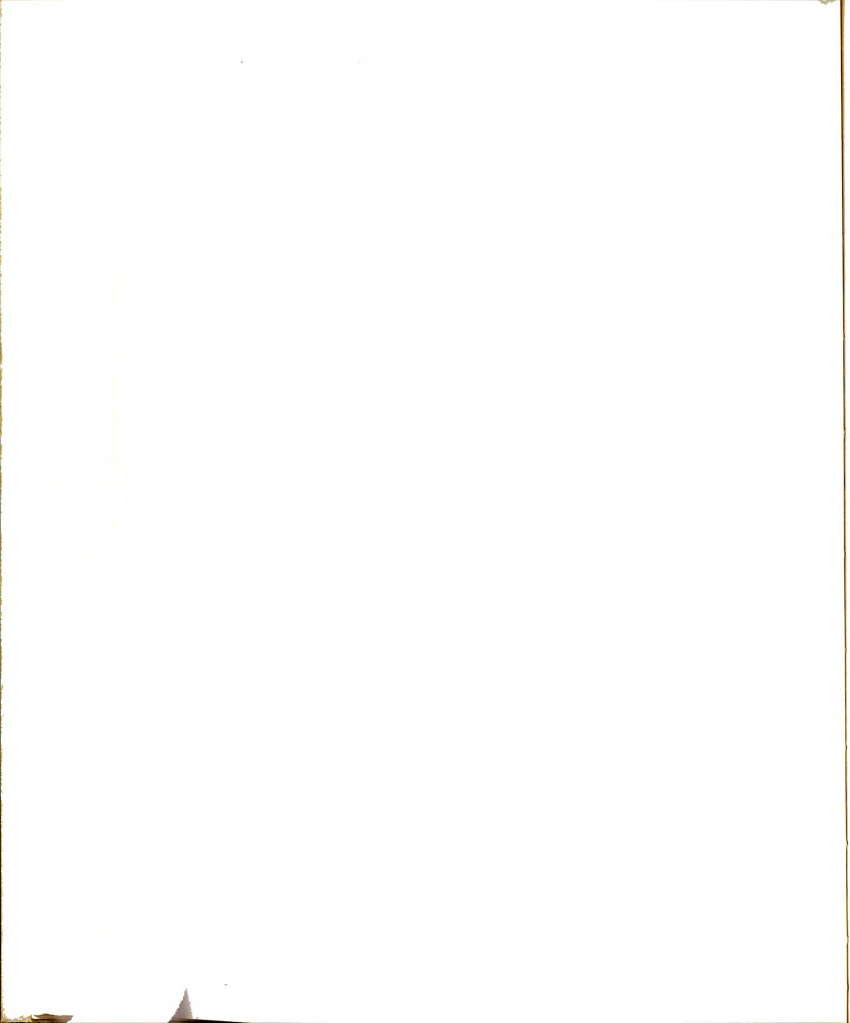
Examination of these value measurement instruments in light of the criteria of relevancy of information, easy administration, cost, and time led me to a selection of the Rokeach value survey.[11] This instrument was used to collect data about how the executives of a number of business organizations rank ordered their values on a continuum of value systems. In addition, the survey was so designed that statistical analysis for identification and isolation of values that contribute to organizational effectiveness seemed quite feasible.

Rokeach's value survey is a phenomenological approach to the measurement of values. It assumes that every person who has undergone a process of socialization has learned a set of beliefs about modes of behavior and about end-states of existence that he considers to be personally desirable. The value survey treats the values that are indicators of modes of behavior as instrumental values, and those that represent our beliefs about end-states of existence as terminal values. The survey also assumes that every person differs from every other person not so much in whether or not he possesses such values but rather in the way he arranges

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Lindzey, Manual, Study of Values, 3rd edition, (Boston: Houghton Mifflin Co., 1960).

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Milton Rokeach, Value Survey, (Lansing, Michigan: Jenso Associates Testing Division, 1967).
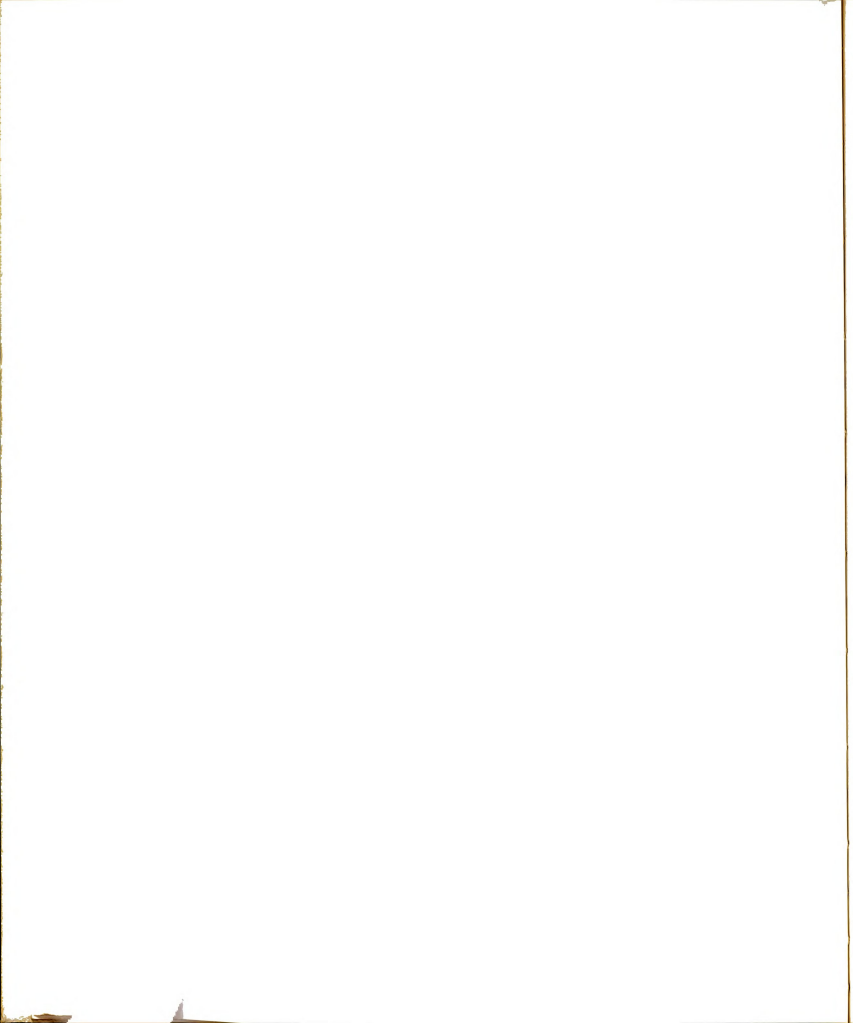
them into value systems, a hierarchy or rank-ordering of terminal or instrumental values along a continuum of perceived importance.

From a phenomenological standpoint, everything that a person does and all that he believes is capable of being justified, defended, explained, and rationalized in value terms, that is justified in terms of modes of behavior and end states of existence that are personally and socially worth striving for. Hence a phenomenological approach commits us to elicit from a person the conceptions he has of his own values, conceptions he is willing or even eager to admit possessing, to others as well as to himself.

The value survey consists of 18 alphabetically arranged terminal values and 18 alphabetically arranged instrumental values. The two sets of values are shown in Table 1. Each value is presented to the respondent along with a brief definition in parentheses. The instructions to the respondents are to "arrange them in order of importance to you, as guiding principles in life."

Rokeach points out that "in committing ourselves to the ranking method of measuring values we have assumed that it is not the absolute presence of a value that is crucial but rather the relative ordering of values with respect to one another."[12]

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[12] Milton Rokeach, "The Measurement of Values and Value Systems," in G. Abkarian (ed.), _Political Participation_
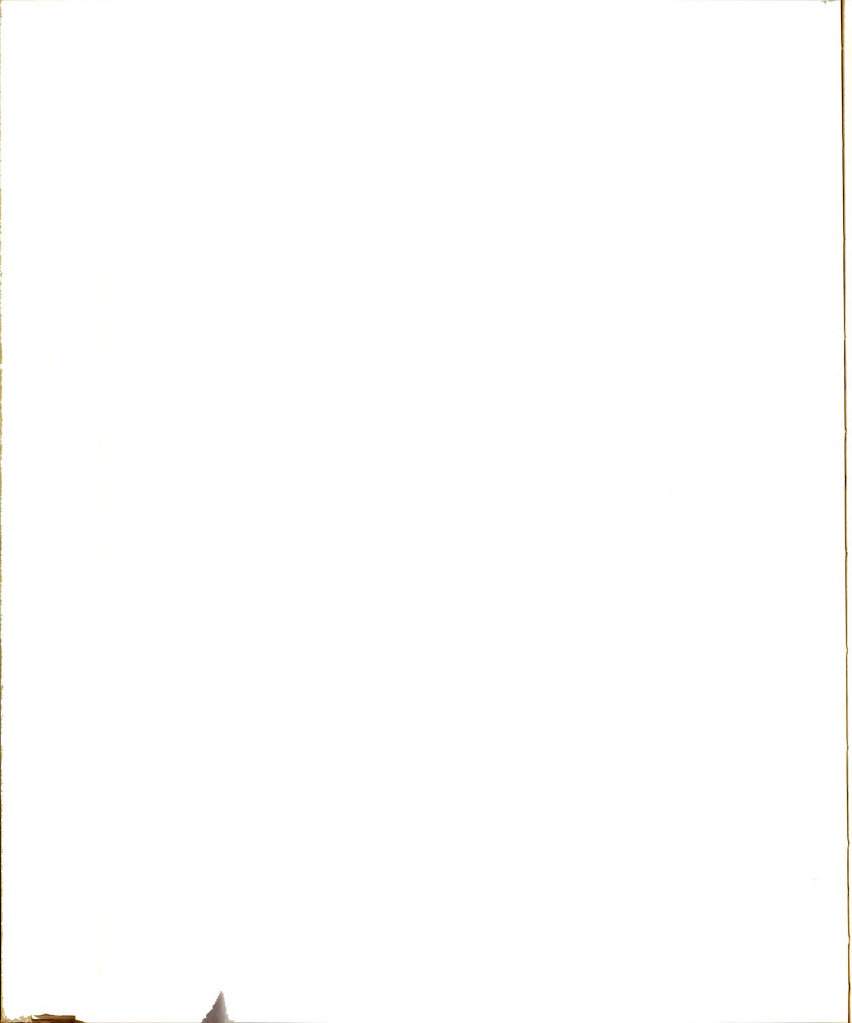
In the value survey form, used in this study[13] each value was printed on a gummed label and the subject instructed to "study the list carefully and pick out the value which is the most important for you. Peel it off and paste it in Box 1 on the left. Then pick out the value which is second most important to you. Peel it off and paste it in Box 2. Then do the same for each of the remaining values. The value which is least important goes in Box 18. Work slowly and think carefully. If you change your mind feel free to change your answers. The labels peel off easily and can be moved from place to place." The average time to complete the rankings was about 15 minutes.

Prior to a critique of the Rokeach Value Survey, a few words are in order about further classification of Terminal and Instrumental values. This classification does not relate to the respondents and is highly helpful in the analysis of values as far as organizational effectiveness is concerned. Instrumental values can be broken down into moral values and competence values. To my mind, the general concept of value is considerably broader than the concept of moral values. For one thing, moral values refer only to

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and Social Psychological Processes, (Columbus, Ohio: Charles E. Merril, 1970), p. 3.

[13]
See Appendix A for Rokeach's Value Survey.
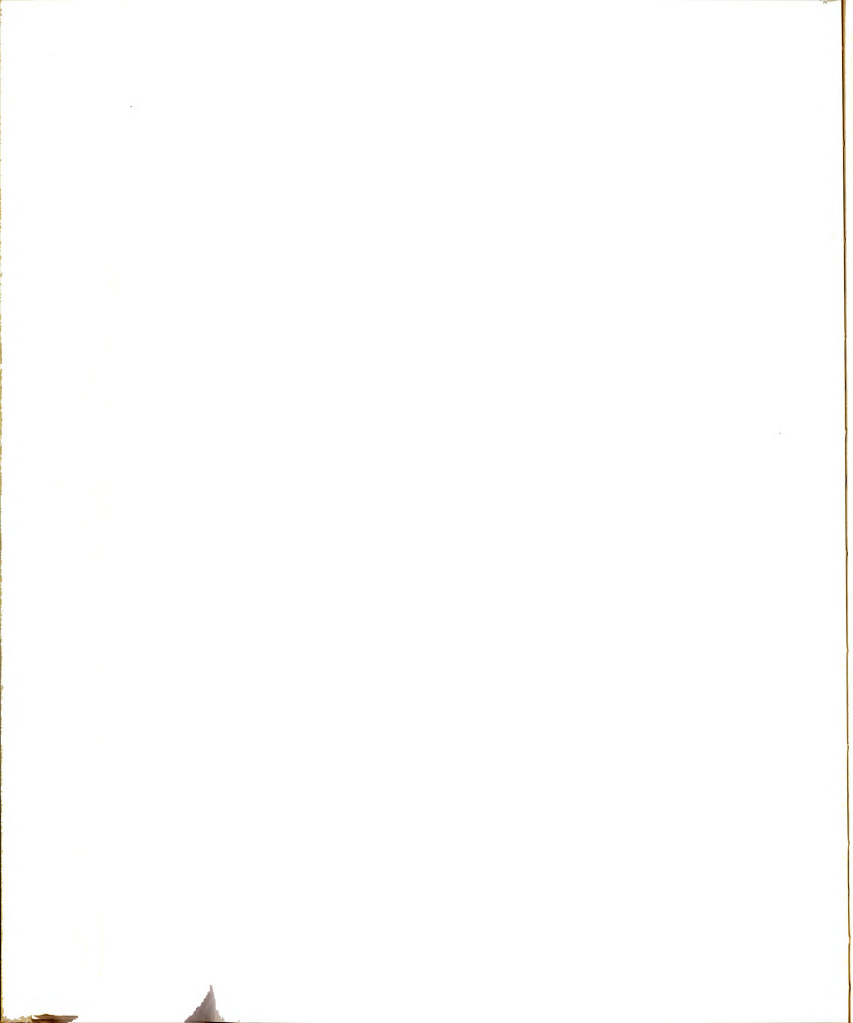
TABLE 1 - The Terminal and Instrumental Value Scales

Terminal Values	Instrumental Values
A comfortable life (a prosperous life)	Ambitious (hard-working, aspiring)
An exciting life (a stimulating, active life)	Broadminded (open-minded)
A sense of accomplishment (lasting contribution)	Capable (competent, effective)
A world at peace (free of war and conflict)	Cheerful (lighthearted, joyful)
A world of beauty (beauty of nature and the arts)	Clean (neat, tidy)
Equality (brotherhood, equal opportunity for all)	Courageous (standing up for your beliefs)
Family security (taking care of loved ones)	Forgiving (willing to pardon others)
Freedom (independence, free choice)	Helpful (working for the welfare of others)
Happiness (contentedness)	Honest (sincere, truthful)
Inner harmony (freedom from inner conflict)	Imaginative (daring, creative)
Mature love (sexual and spiritual intimacy)	Independent (self-reliant, self-sufficient)
National security (protection from attack)	Intellectual (intelligent, reflective)
Pleasure (an enjoyable, leisurely life)	Logical (consistent, rational)
Salvation (saved, eternal life)	Loving (affectionate, tender)
Self-respect (self-esteem)	Obedient (dutiful, respectful)
Social recognition (respect, admiration)	Polite (courteous, well-mannered)
True friendship (close companionship)	Responsible (dependable, reliable)
Wisdom (a mature understanding of life)	Self-controlled (restrained, self-disciplined)
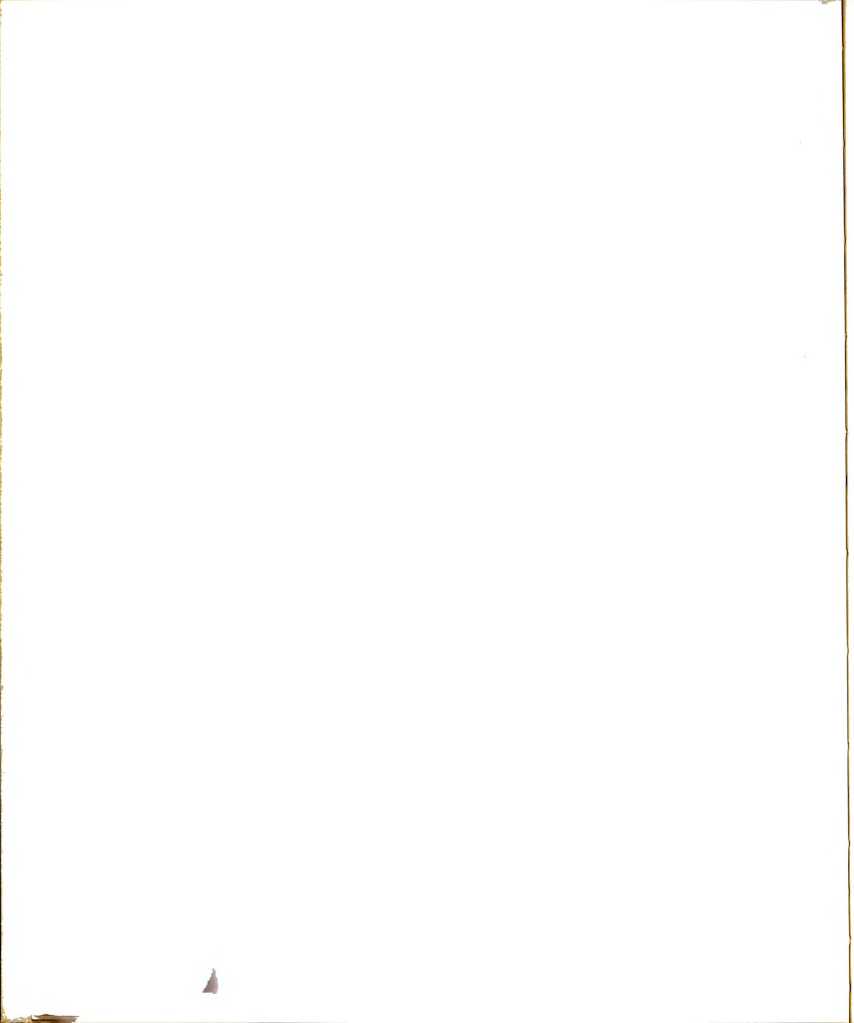
modes of behavior, instrumental values, and not to end-states of existence, terminal values. For another, moral values refer simply to those modes of behavior which, when violated, arouse pangs of conscience or feelings of guilt or wrongdoing; they have an interpersonal focus. Competence values refer to preferred modes of behavior which, when violated, lead to shame about competence rather than to guilt about wrongdoing; their focus is personal rather than inter-personal.

Organizational effectiveness which is a sum of the behavioral contributions of the members of an organization depends considerably on the extent of adherence to the com-petence values. The following classification may help make the distinction clearer:

(1) Moral Values: Clean, Forgiving, Helpful, Honest, Loving, Obedient, Polite, Responsible, Self-controlled.

(2) Competence Values: Ambitious, Broadminded, Capable, Imaginative, Independent, Intellectual, Logical.

(3) Indeterminate: Courageous, Cheerful.[14]

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[14]
This classification has been made by Milton Rokeach, "Value Systems in Religion," _Review of Religious Research_, Vol. 11, No. 1. In a remark to this classifica-tion, Dr. Rokeach points out: "I am uncertain about the classification of Courageous and Cheerful because they may be "moral" under certain circumstances and "competence" under others. If the values of behaving courageously or cheerfully are violated under conditions perceived to be harmful to others, they would probably lead to a feeling of wrongdoing or guilt. Otherwise, their violation would prob-ably reflect a lack of ability and thus lead to shame about
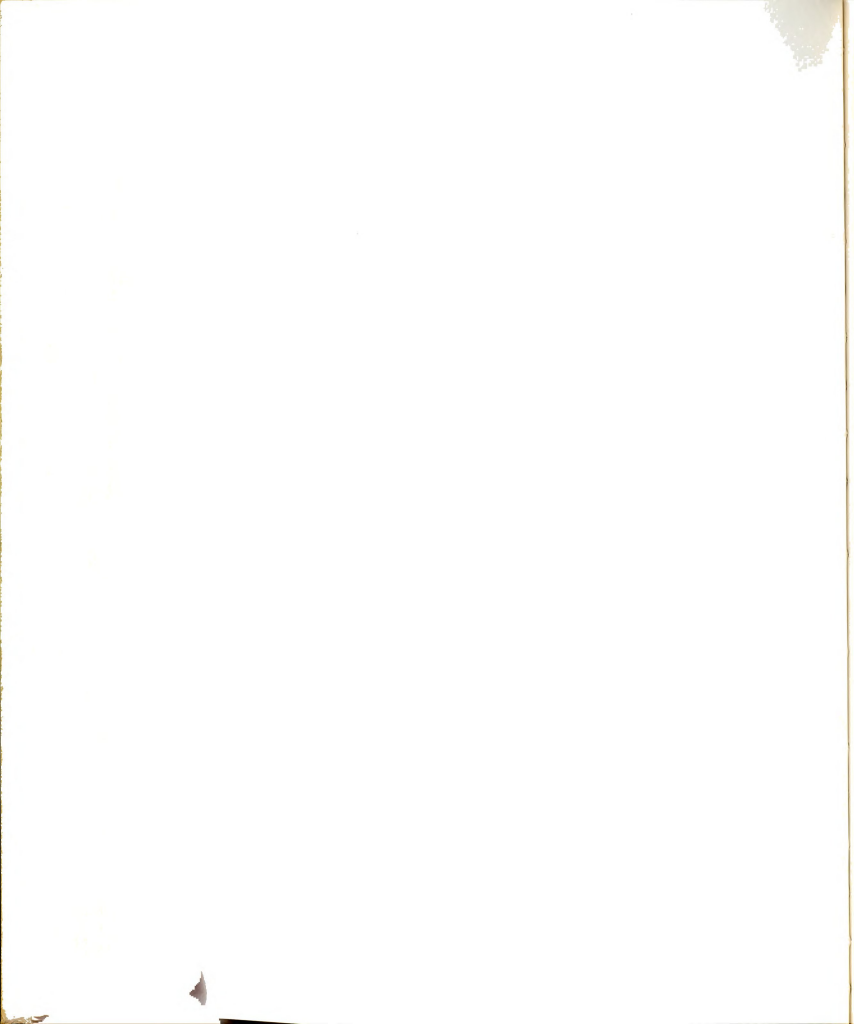
The value survey has been criticized by respondents.
One of the grounds for complaint is that the ranking task of
18 instrumental and 18 terminal values is a very difficult
one, because all the terminal and instrumental values are
socially desirable, thus making the process of ranking
rather difficult. This researcher, however, did not face
such a complaint. Respondents in all studies of the past
that have used Rokeach's value survey have indicated their
enthusiasm to fill out the form and to find out how they
score in regard with the subject of research. For example,
students at Michigan State University were desirous to know
how similar or different their value systems were with those
of the Hippies. Some charge that the survey of values con-
fuses two psychological dimensions which can be separated:
interest and value. Investigators have complained that the
vocabulary level of the instrument is too high and have
suggested simplified versions.

Despite these charges and criticisms of the Rokeach
value survey, this researcher selected this instrument for

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incompetence. The results of several factor analyses
empirically confirm the distinction between moral and com-
petence values. The strongest factors are bipolar ones
with different combinations of the moral values leading at
one pole and different combinations of competence values
loading at the other pole."
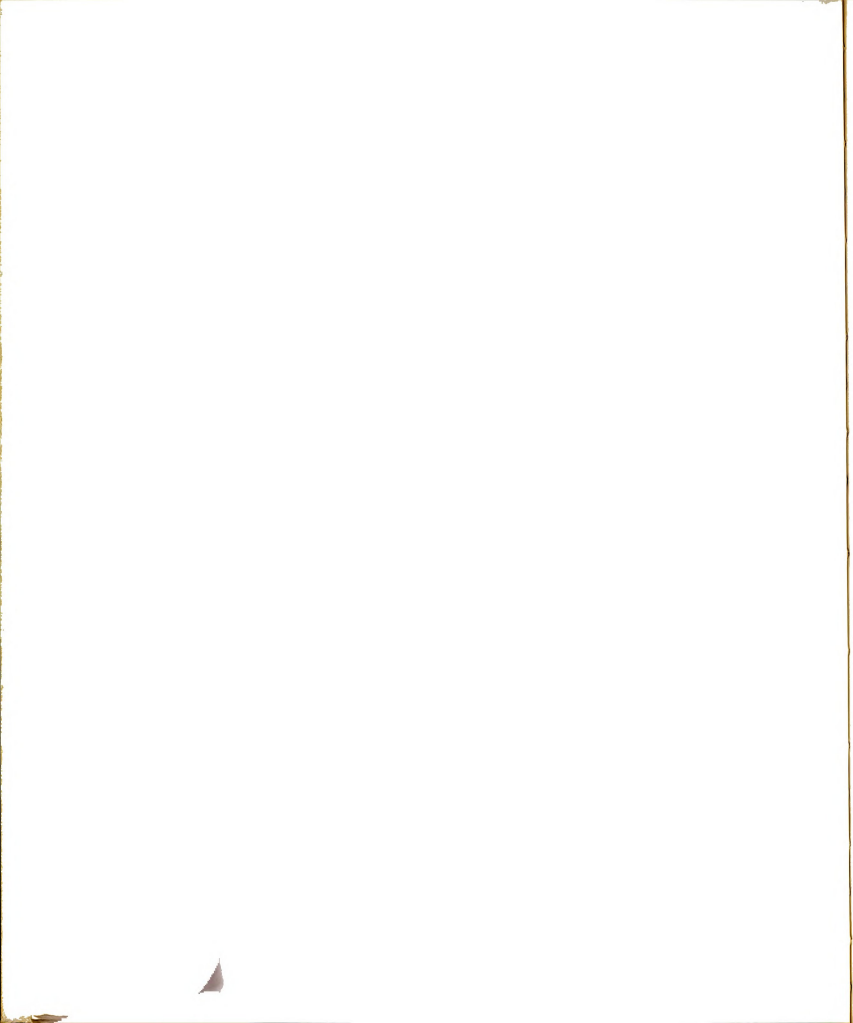
its advantages. Another factor that influenced the selec-
tion of Rokeach value survey over the other instruments was
the degree of reliability and the validity of this measure.
The Rokeach value survey has been used in a variety of
situations, and is generally considered to be both reliable
and valid.[15] Previous research has shown that respondents
rank order their values in a reasonably reliable manner.
With time intervals ranging between seven weeks to three
months, test-retest reliability of the terminal and instru-
mental values ranges on the average between 0.72 and 0.82.

Measurement of Effectiveness

There is still no consensus among the researchers of
organizational effectiveness on a universal measure of
effectiveness. The existing measures have been developed
for specific researches and are not usable in all cases.[16]
Since this study was investigating the presence or absence
of a certain set of values that may have some effect on the
effectiveness of a person or an organization, the researcher
developed a questionnaire to go with Rokeach's value survey.

15
    R. Cochrane and M. Rokeach, "Rokeach's Value
Survey: A Methodological Note," Journal of Experimental
Research in Personality, Fall, 1969.

16
    For example Negandhi and Estefan have developed a
measure which can be employed in specific cases but not all.
Measures are found in Negandhi and Estefani "A research model
to determine the applicability of American Management Know-how
in differing cultures and or environments," in Benjamin Prasad's,
Management in Perspective, (New York: Appleton, Century,
Croft, 1967).
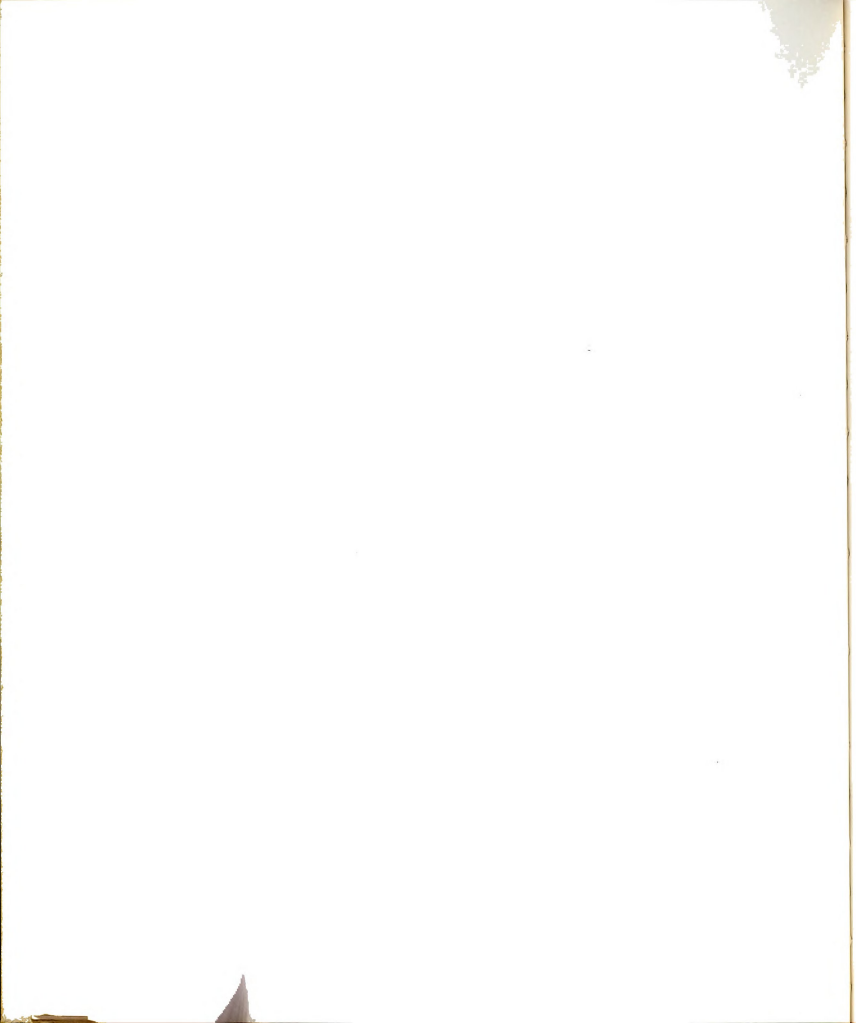
Those questions were to elicit answers on how satisfied the respondent feels with the organization in which he is serving. The way employees perceive of their organization and how they rank their immediate superior's effectiveness as well as that of the organization as a whole was very important for this study. It presented a good basis for comparison between the viewpoints of the top executive and the perception of the organization members. The questions were developed to reflect the opinion of the employees on such organizational matters as job satisfaction, employee attitude toward work, and perception of the level of effectiveness in their organization.[17] A pretest of this part of the questionnaire which was conducted on a test-retest basis confirmed the reliability of the measures with a coefficient variance of 0.92. The subjects were two groups of students of the Colleges of Social Science and Business of Michigan State University.

To select a measure for organizational effectiveness and the individual's performance appraisal I came to the conclusion that a monodimensional variable such as net profit, increase in production, or morale can neither be appropriate nor accurate. The measure used in the interview with the

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[17] For the text of these questions see Appendix A, Part 2. The questions were prepared so as to integrate the concepts of organizational effectiveness cited in Chapter 2.
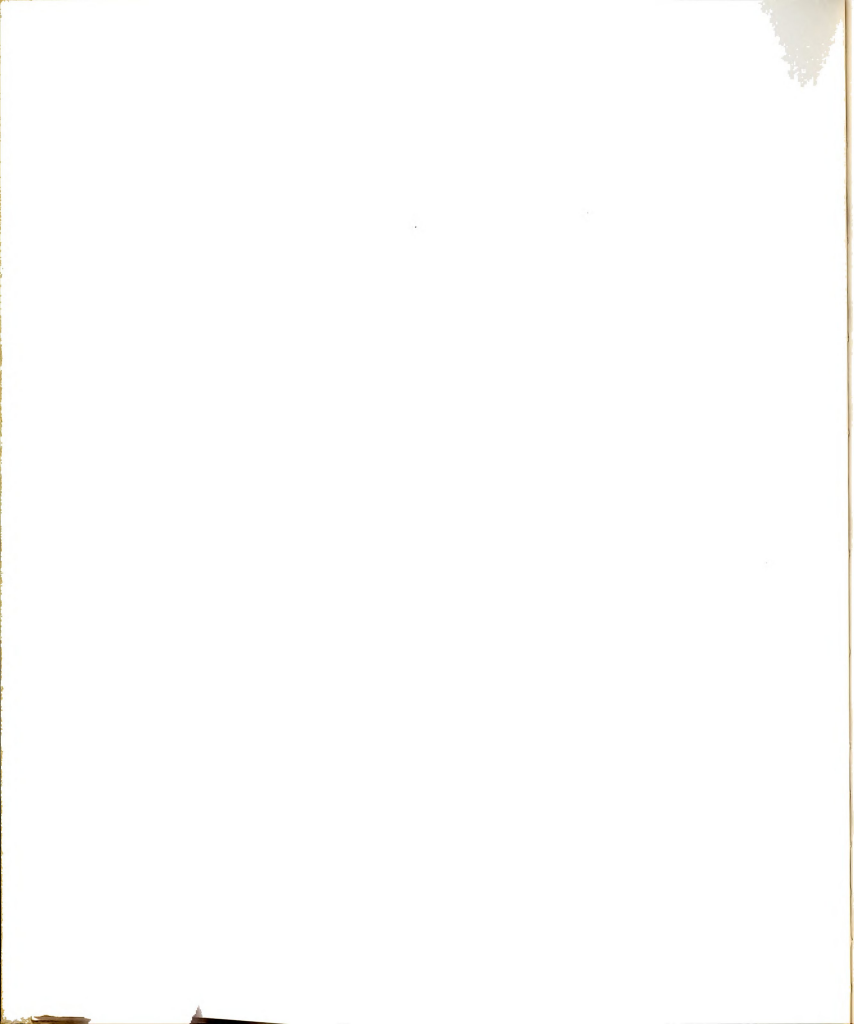
top executive and the supervisors contained the factors of productivity, contribution to the organizational goal achievement, conformity with organizational policies, smoothness of operation, absenteeism, creativity, and adaptiveness to changes.[18]

A remark on the validity of such measurements is appropriate. The data that have been generated through the use of the above mentioned measures are data on the empirical world that contain some errors. Determining the validity of a concept is a problem in logical inference. The difficulty of determining validity becomes more apparent when one considers the task of measuring a construct such as the level of an organization's effectiveness.

Paul Rigby points out that "the results of measurement can be treated as though they are the concept itself. Therefore, there is no real problem of validity but only the problem of establishing the significance of what has been measured. Can patterns or relationships be discovered between the results of the measure and the results of some other measure? If they can, and if the form of the relationship is established, we might conclude that the measure has validity."[19]

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[18] See Appendix A for the text of value survey, questionnaires, and criteria used by the top executive and supervisors to rank their subordinate organizations and organization members.

[19] Paul Rigby, _Conceptual Foundations of Business Research_, (New York: John Wiley and Sons, Inc., 1965), p. 163.
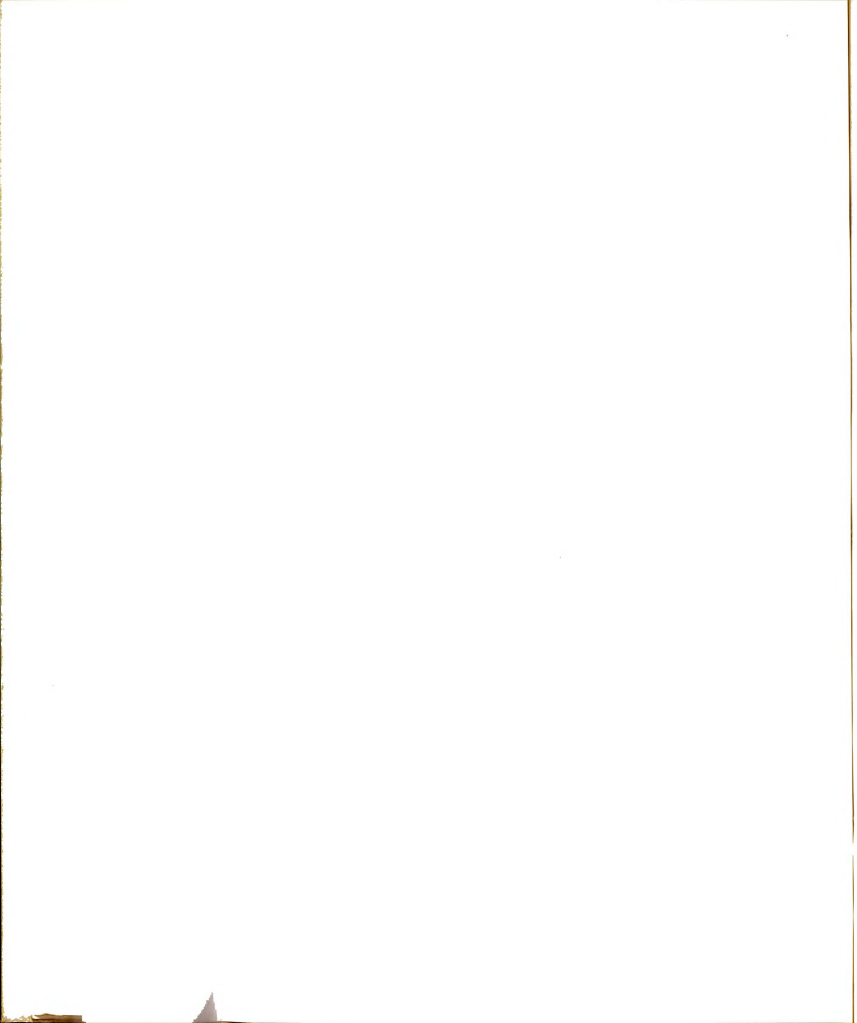
Using Rigby's suggestion I randomly chose 10% of the questionnaires received from both the most effective and least effective organizations.[20] A comparison was made between the results of these questions and the rankings made by the top executives with a different measure in order to determine the most and the least effective departments. The result showed that 94% of the respondents in the most effective departments and 96% of the respondents in the least effective departments agreed with the top executive's ranking.

It should also be remembered that the hallmark of a truly effective person or organization is rather the espousal of a recognizable set of competence values that are distinctively different from those espoused by the less effective people or organizations. This study shows that effective organizations possess a set of competence values - values that most contribute to the accomplishment of tasks - that may be missing in ineffective organizations.

Nature of the Sample

Criteria for the Selection of the Sample

Four criteria were used in the selection of the organizations for this study: (1) Geography; (2) Occupation;

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[20] The method for the selection of these organizations and the universe of this field study are discussed in the next section of this chapter.
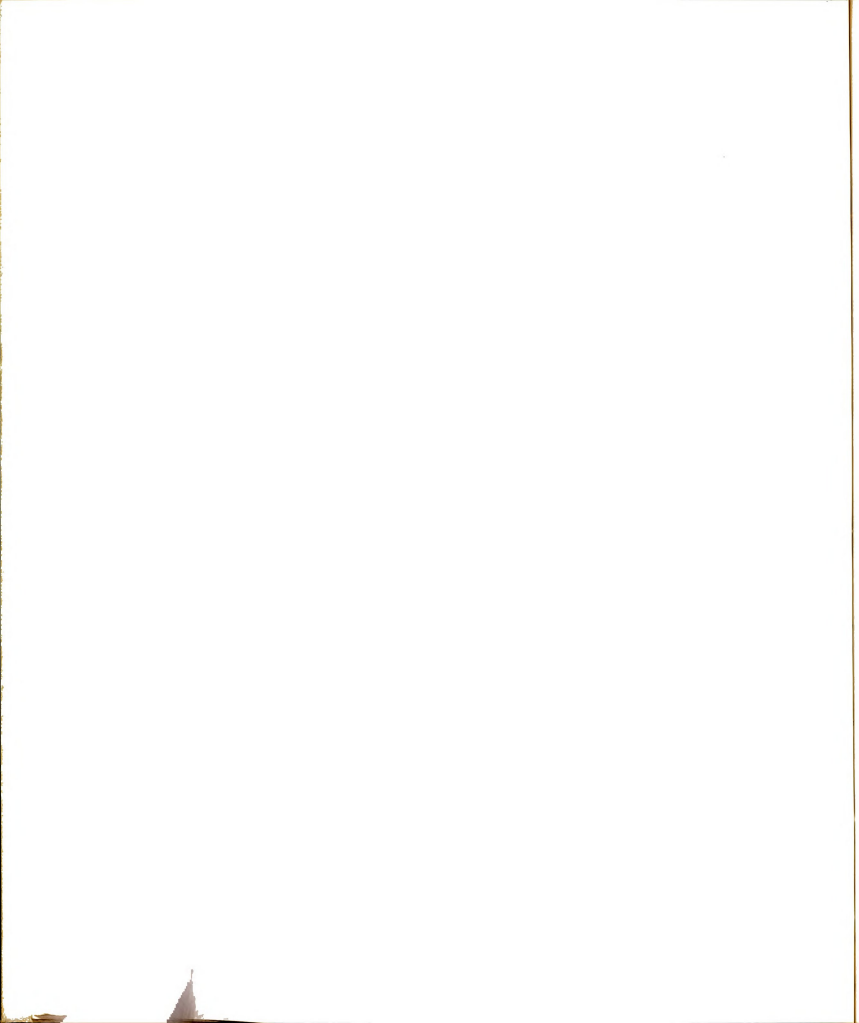
(3) Size; and (4) Objectives of Organization.

Geography - As was mentioned before, values and value systems evolve through the elements of culture and socialization. Social studies have found a number of cultures that differ in many respects from one another. There is no universal standard for establishing boundaries among the cultures. Some studies use the yardstick of "sovereinty" to define a "nation" and then equate the nation with the culture. For example, the American culture versus the Spanish or German cultures. This element is by no means capable to establish a clear-cut boundary among the cultures. For, there are some areas which fall in the twilight zone with some similarities with a neighboring culture and some distinct cultural characteristics. For example, Holland and Switzerland share some of the Germanic culture and yet have some distinct cultural characteristics different from that of the Germans.

To find out the predominant value system in the universe of this study, the Lansing, Michigan standard metropolitan area[21] was chosen. By limiting the geographical area, greater cultural homogeneity was assured.

Occupation - Dividing, very broadly, the positions of an organization into managerial and operational, I believe

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[21] U.S. Bureau of the Census, <u>U.S. Censuses of Population and Housing, 1960</u>, (Washington, D.C.: U.S. Government Printing Office, 1962).
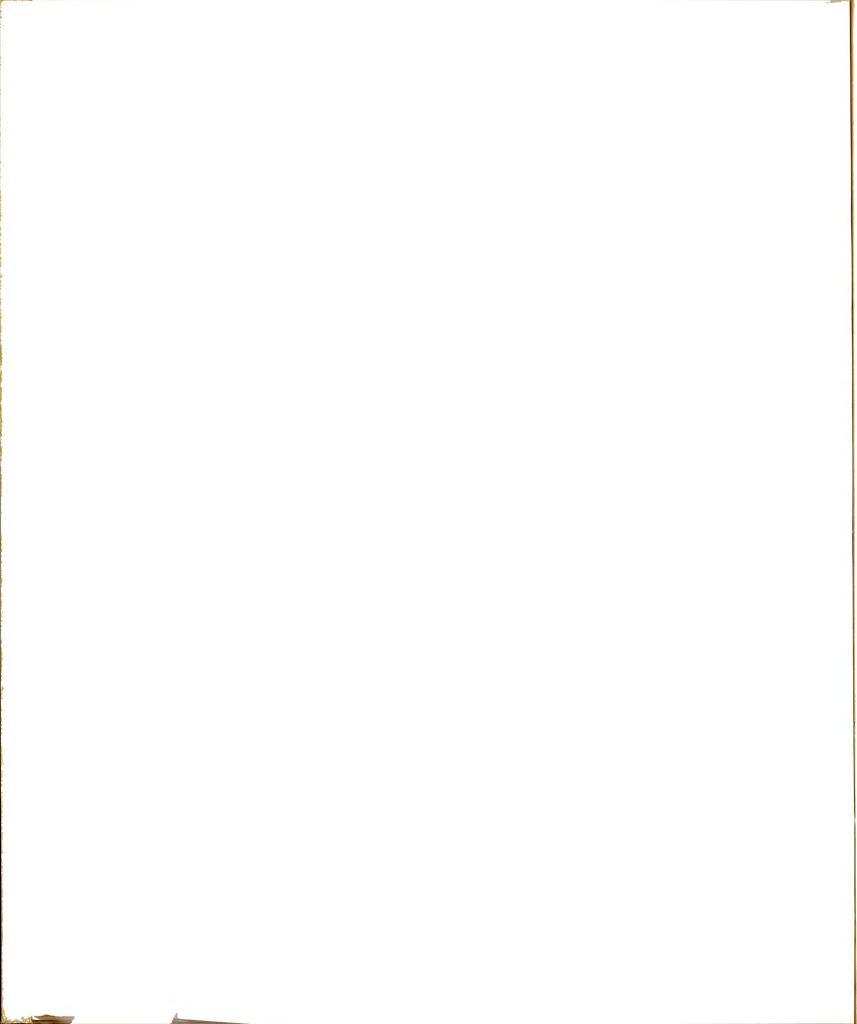
that managerial positions require more discretionary action. Therefore, it was assumed that this stratum was engaged in the selection of alternatives and decision-making which was a direct function of their value systems.

Additionally, managerial positions were assumed to be, for the purpose of this study, those jobs that required decision-making both in cases of supervising the works of a number of employees and technical or staff positions. Hence, those who performed a technical job without the supervision of a supervisor were also included in the sample. This category of positions was exemplified by legal advisors, non-secretarial staff members, physicians, consultants, and teachers.

Size of the organization - Organizations that grow very large inevitably and invariably break up into several divisions through the process of decentralization. Being geographically decentralized, the organization may contain elements from several regions and cultures that may lead to the development of an institutional - regional value system much different from the other factions of the mother organization.

I limited this study to those organizations whose departments, sections, or branches were geographically centralized and had no more than 500 employees. The 500 level was arbitrarily selected.
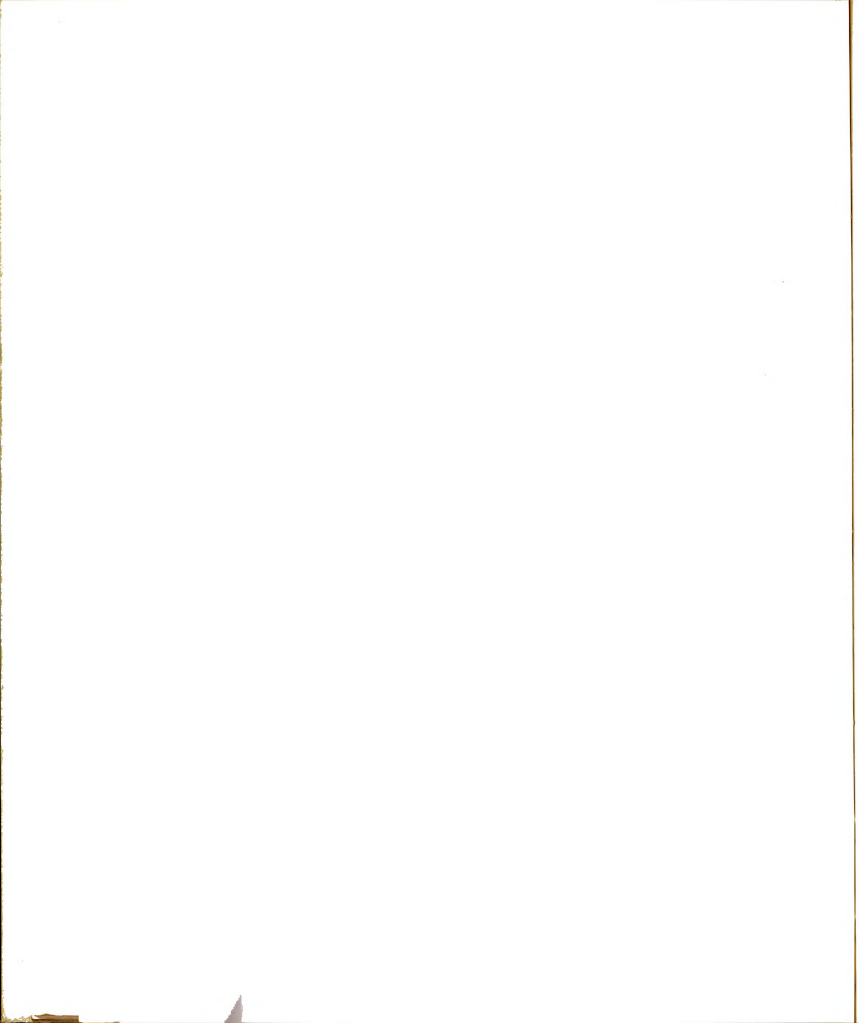
Objectives of organization - Organizations have evolved to accomplish a purpose. As long as an organization has a purpose to achieve, its effectiveness can be measured. Whether an organization is in the public sector or the private, whether it is in the production of goods or provision of services, it is a source to absorb a number of people with certain value systems. For the purpose of this study however, I contained in the sample a few organizations whose objectives were not similar. Although this research did not attempt to study the correlation between <u>certain</u> value systems and organizational objectives, I was desirous of gaining some insights about the prevailing value systems in organizations with different objectives. With the above criteria in mind, three organizations were selected on a non-random sample basis. These organizations were directly involved in the provision of services of banking, insurance, and education. All managerial positions in the three organizations were selected for the purpose of interviewing and responding to a questionnaire.

<u>The educational institution'</u>

This subuniverse was composed of two departments of a multi-departmental division of an educational institution. The two departments were selected subsequent to an interview with the top executive of the division.

The top executive officer of the division was asked to rank his four subordinate departments according to the
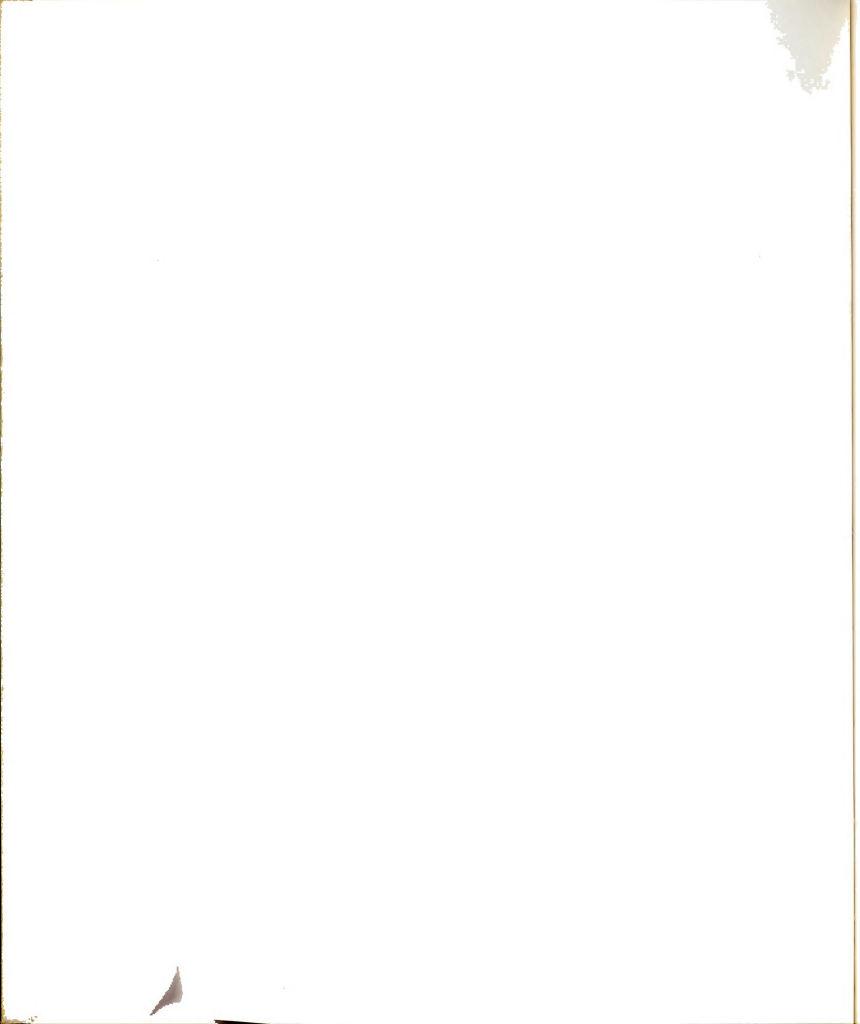
effectiveness criteria that was described in the previous section.[22] The division contained four departments that will be called A,B,C, and D in order to keep them anonymous. The top executive ranked these four departments before the criterion of productivity 2,1,4 and 3 respectively. The same measure was repeated for the seven criteria developed for this purpose. From among these four departments, the one that had earned the lowest mean score in the ranking by the top executive was taken as the _most effective_ department of the division. A department that obtained highest mean score in the ranking was chosen as _the least effective_ department of the division.

Since the analysis of data involved determination and differentiation between the value systems of the more effective personnel and the less effective personnel, the above criteria that was employed for the selection of the most effective and the least effective departments were used, once again, and the employees of each organization were categorized in the most effective and the least effective groups.[23]

22
    For the text of criteria used in the interview in order to select the most effective and the least effective departments see Appendix A.

23
    See Table 12, Chapter 3. For this analysis see Chapter 4, Section 2.
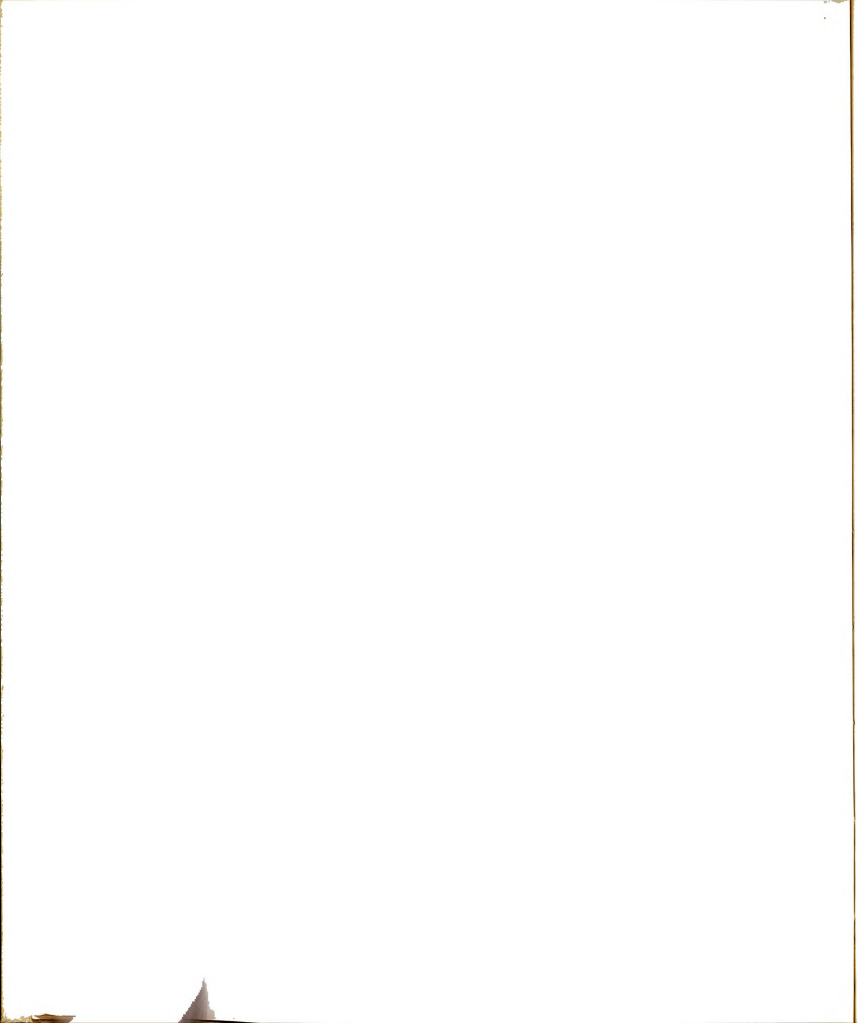
The Insurance Company

The insurance company was the largest organization in terms of the number of managerial positions. In order to select the sample, the general manager of the company was interviewed in the manner explained previously for the educational institution. The <u>most effective</u> and the <u>least effective</u> sections were thus selected.

The Bank

This was the smallest organization compared with the educational institution and the insurance company. Managerial positions in the most effective and the least effective branches were 15 in each.

The sample, in general, contained a relatively large organization, a medium size, and a small organization. Interviews were conducted in both "most effective" and "least effective" sections of the three organizations.

Summary of the sample characteristics

Table 2 shows the total number of persons in managerial positions, the number of usable questionnaires, and the sample size in relation to the managerial positions held in the organizations.[24]

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[24]
For a breakdown of the sample taken from each organization see Appendix C.
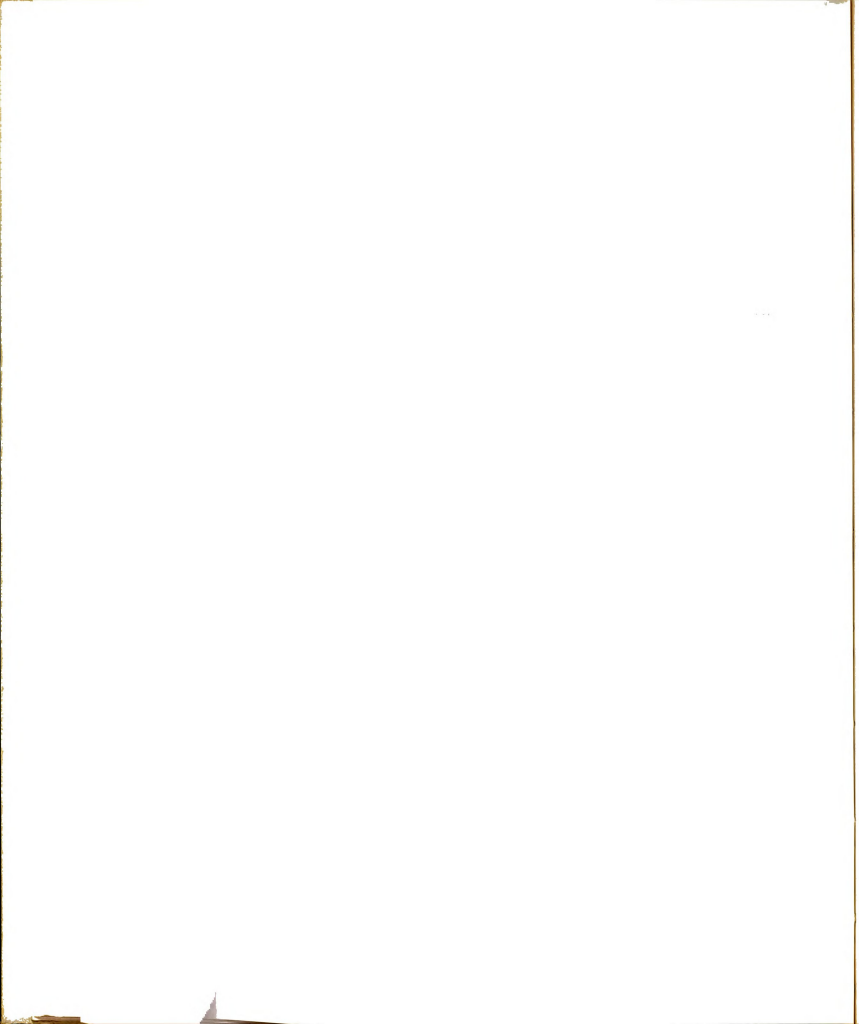
TABLE 2 - Sample Size

Organizations	No. in Managerial Positions	Usable Question- naires	Sample Size
Most effective sections	163	117	71.7%
Least effective sections	220	128	58 %
Total	383	245	64 %

Tables 3 through 13 provide a summary of the sample showing the number of subjects in each category based on the variables to be used in the analysis.

TABLE 3 - Sample structure of the most effective sections based on religion

Religion	No. of Strata	% of Sample Total
Protestant	84	71.8
Catholic	25	21.3
Jewish	0	0
No answer	8	6.9
Total	117	100.
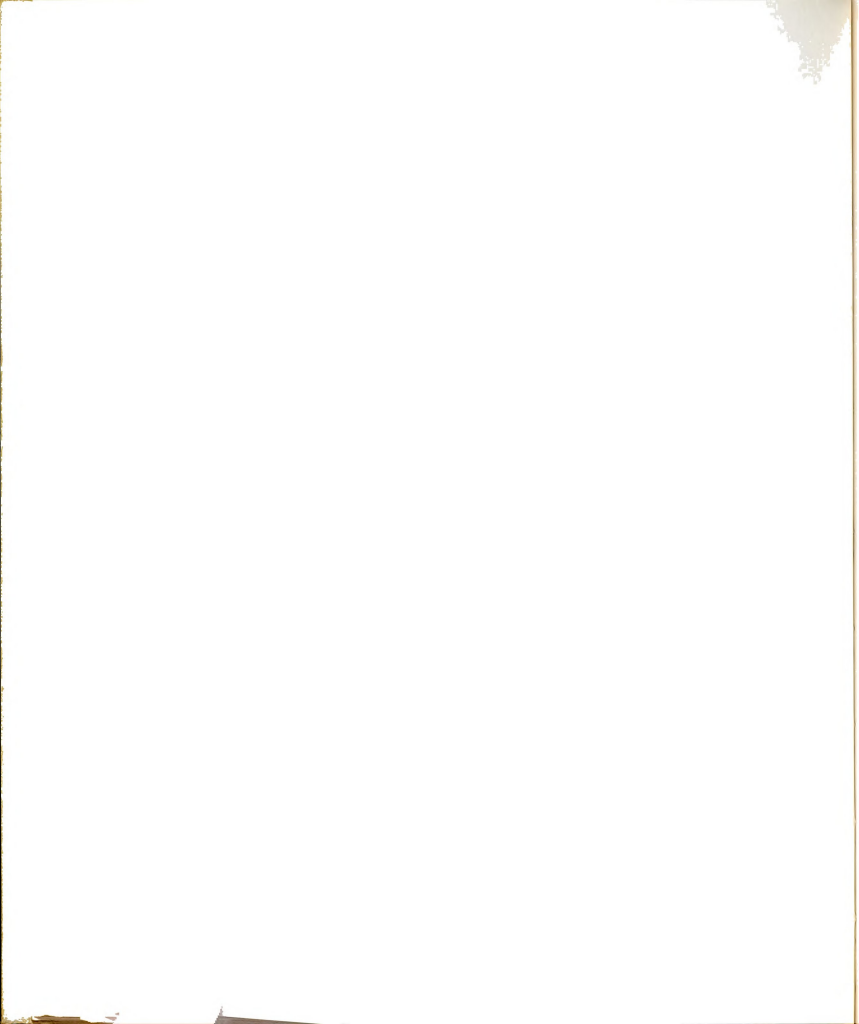
TABLE 4 - Sample structure of the least effective
sections based on religion

Religion	No. in strata	% of sample total
Protestant	85	66.4
Catholic	29	22
Jewish	0	0
No answer	14	11.6
Total	128	100

TABLE 5 - Sample structure of the most effective
sections based on sex

Sex	No. in strata	% of sample total
Male	92	78
Female	25	22
Total	117	100

TABLE 6 - Sample structure of the least effective
sections based on sex

Sex	No. in strata	% of sample total
Male	51	39.8
Female	77	60.2
Total	128	100
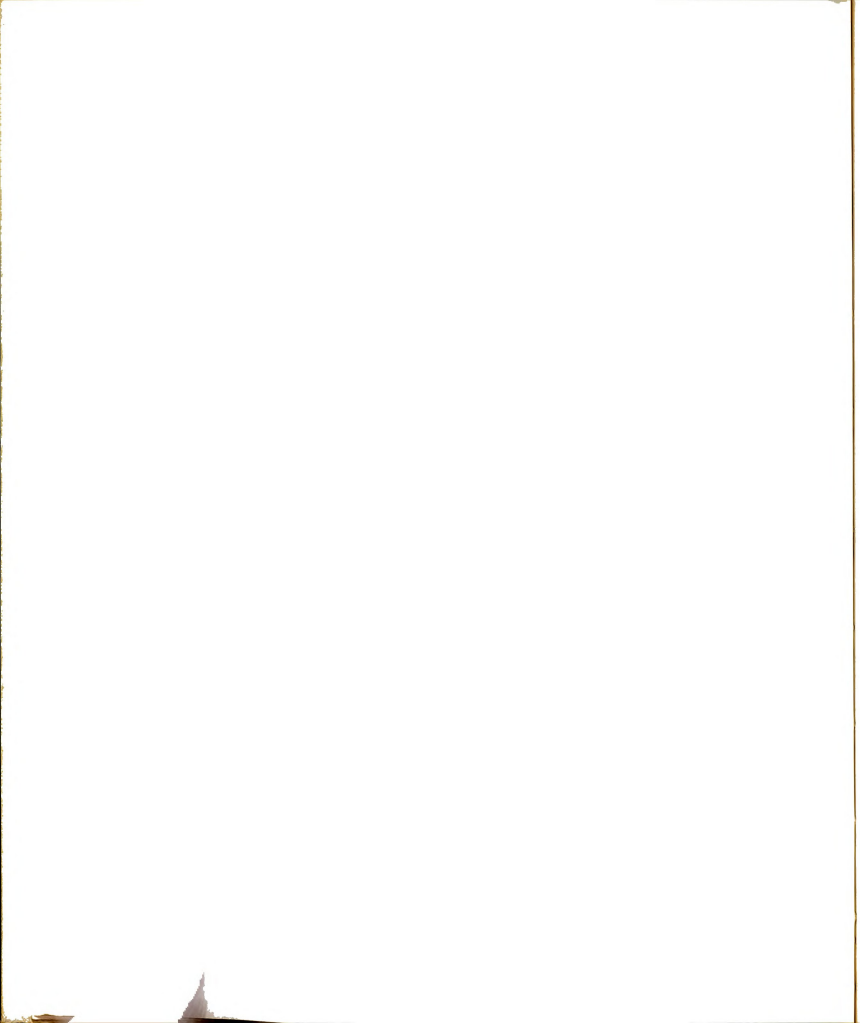
TABLE 7 - Sample structure of the most effective
sections based on age

Age	No. in strata	% of sample total
18-35	39	33.3
36-50	45	38.4
51-over	33	28.3
Total	117	100

TABLE 8 - Sample structure of the least effective
sections based on age

Age	No. in strata	% of sample total
18-35	58	45.3
36-50	38	29.6
50-over	32	25.1
Total	128	100
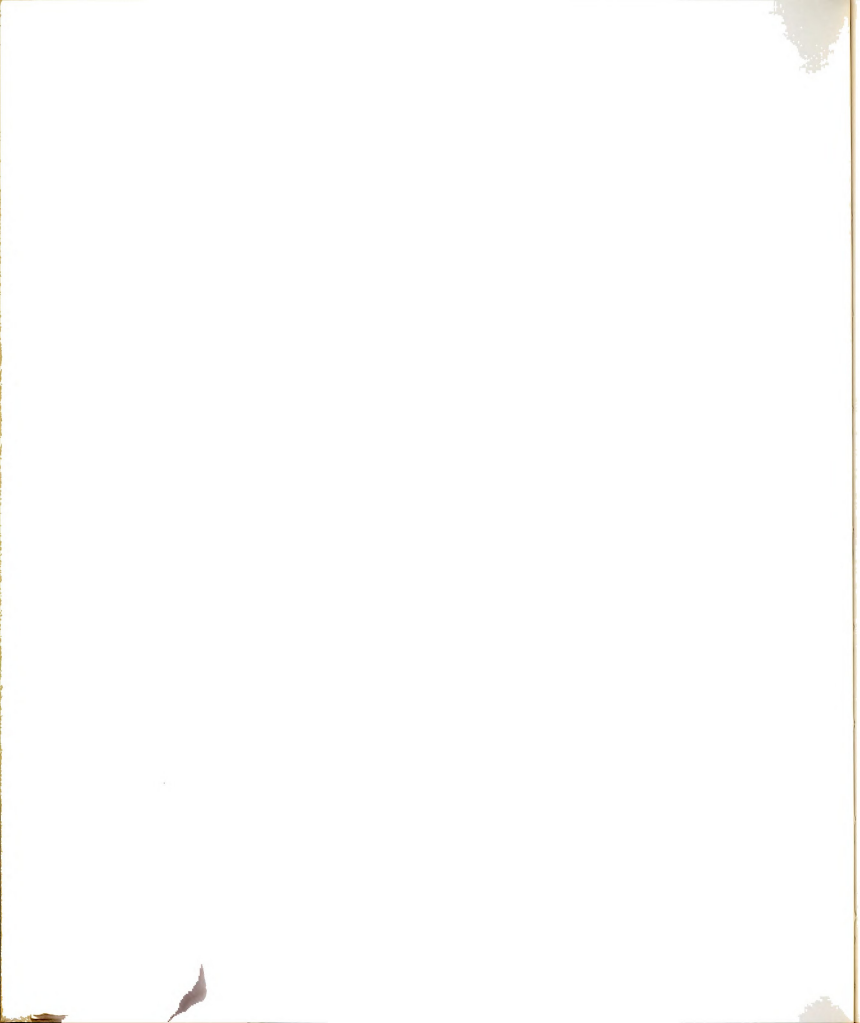
TABLE 9 - Sample structure of the most effective
sections based on education

Education	No. in strata	% of sample total
Elementary	3	2.5
High school	55	4.7
College	50	42.8
Graduate	9	7.7
Total	117	100

TABLE 10 - Sample structure of the least effective
sections based on education

Education	No. in strata	% of sample total
Elementary	1	0.78
High school	56	43.71
College	61	47.45
Graduate	10	7.8
Total	128	100
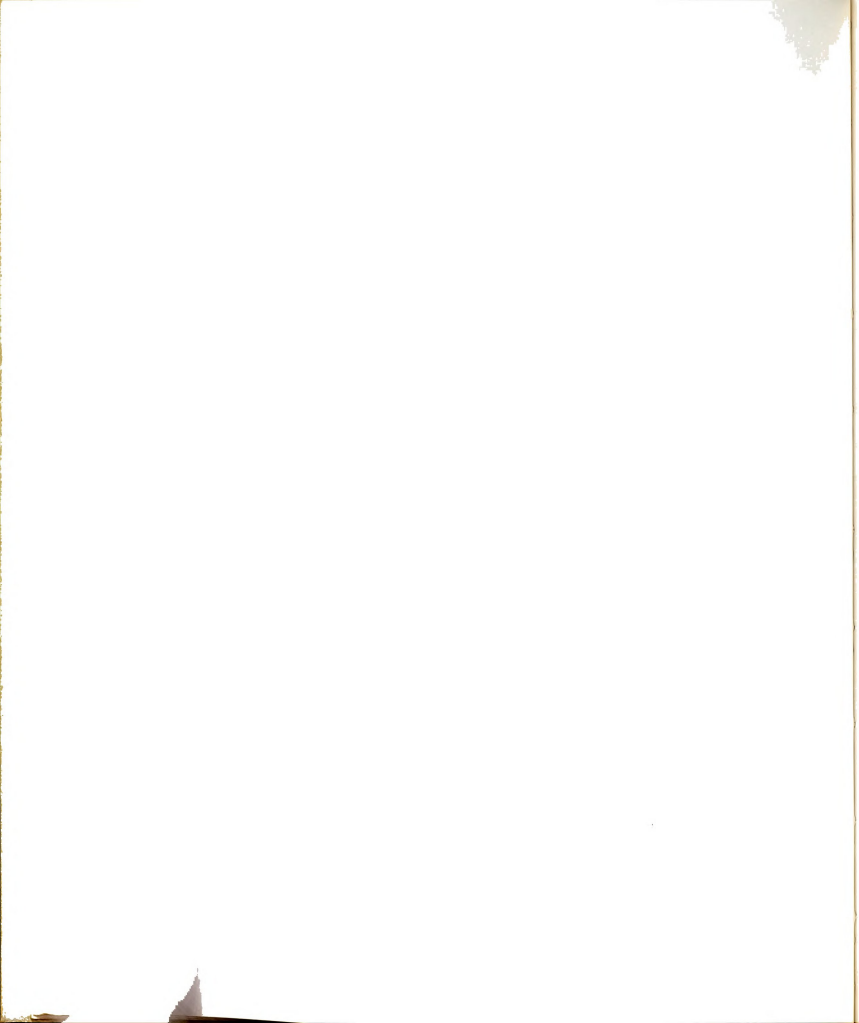
TABLE 11 – Sample structure of the most effective
sections based on income

Income	No. in strata	% of sample total
Under $8000	37	31.62
$8001-10,000	34	29.11
$10,001-12	22	18.8
$12,001-14	12	10.25
$14,001-16	6	5.12
$16,001-18	1	0.85
$18,001-20	2	1.70
$20,001-over	3	2.56
Total	117	100

TABLE 12 – Sample structure of the least effective
sections based on income

Income	No. in strata	% of sample total
Under $8000	76	59.37
$8001-$10,000	26	20.31
$10,001-12	10	7.81
$12,001-14	8	6.25
$14,001-16	3	2.34
$16,001-18	2	1.56
$18,001-20	1	0.81
$20,001-over	2	1.56
Total	128	100
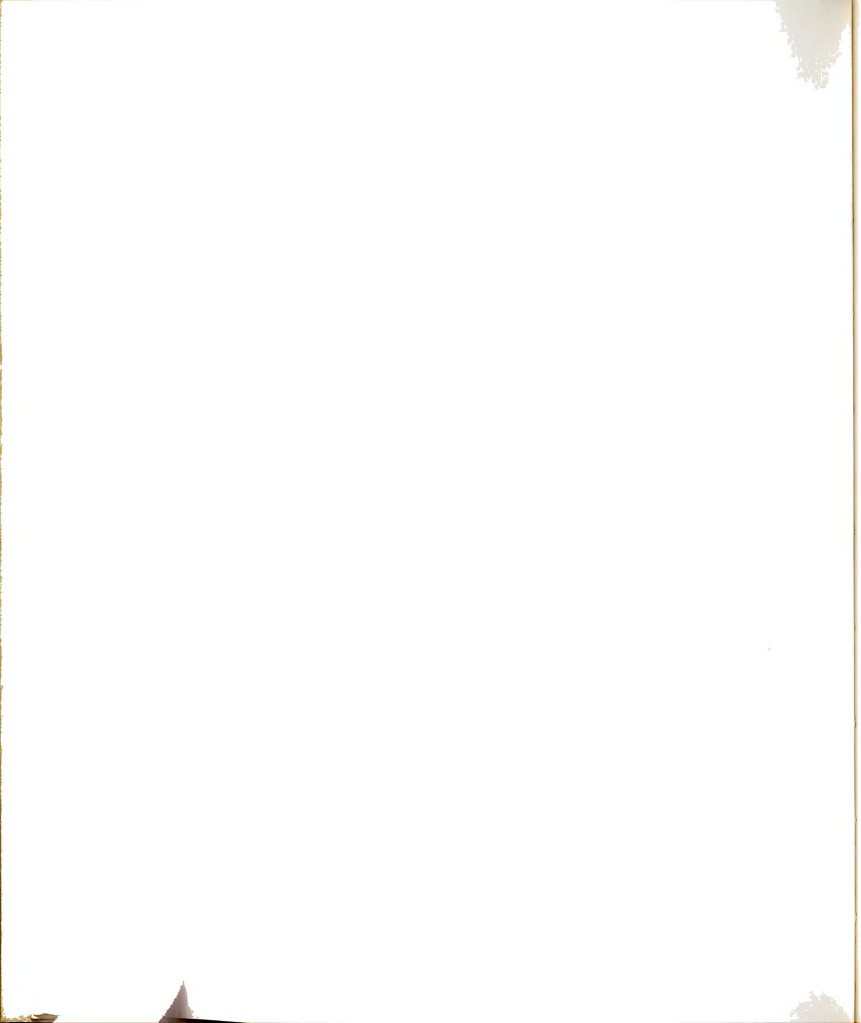
TABLE 13 - Sample structure based on the effectiveness
of the persons as ranked by their superiors.

Degree of effectiveness	No. in all organizations	% of total sample
More effective	138	56
Less effective	107	44
Total	245	100

Method of Analysis

Having selected the data collection techniques and
chosen the sample organizations and executives, data were
collected. To analyze the data appropriate statistical
tools were needed. The criterian used for the selection of
statistical tools was to have instruments capable of testing
the differences or similarities among groups. Since statis-
tical analyses employed in social sciences are generally
designed to test hypotheses, restatement of the present
study's hypotheses is in order. The hypotheses were:

(1) Organizations and executives that are rated
"effective" have a pattern of values that is
distinctively different from that of organiza-
tions and executives that are rated "ineffec-
tive."

(2) Organizations that have homogeneous age, sex, religion, income, and educational groups are more likely to have value similarity than organizations which do not have such homogeneity. Therefore, the more homogeneous the organization, the more value similarity it will have, and the more effective it will be.

(3) Value systems correlate significantly with the perception of organizational effectiveness. Therefore, a set of values can be identified that affect the level of organizational effectiveness.

To test and analyze these hypotheses, which are based on the differences between effective and ineffective groups, a statistical test of significance was employed. The test of significance was based on formulas taken from S. Siegel.[25] This test is designed to compare statistical values assigned to two or more groups based on the "group median." Using the Rokeach's Value Survey, comparison was made between value systems of the effective and ineffective organizations as well as the effective and ineffective executives. The test computed a group median for each of the groups, for each of the values. In this computation

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[25] S. Siegel, <u>Non-Parametric Statistics,</u> (McGraw-Hill, 1956).
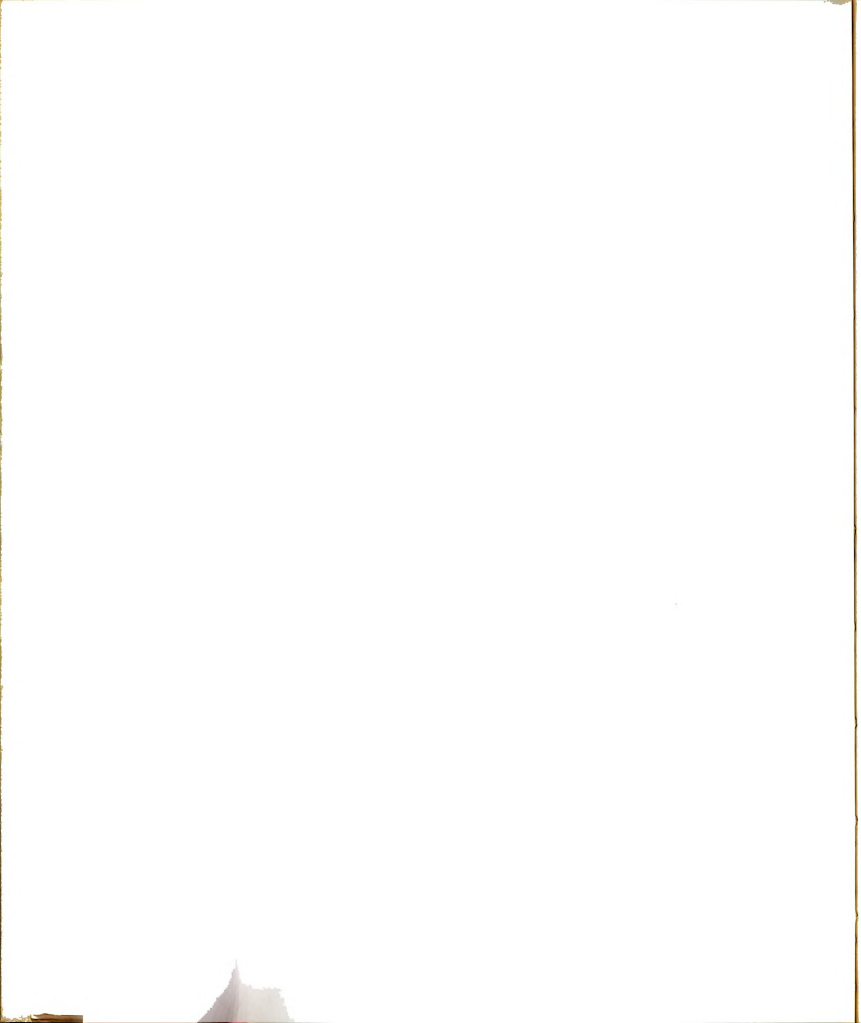
effectiveness was the "independent variable" and each of the
values in turn was a "dependent variable."

The medians were derived directly from the group
frequency distributions. These frequency distributions
showed how many of the effective and ineffective executives
ranked each value number 1, number 2, and so on up to 18.
On the basis of group medians and frequency distributions, a
chi square value and its probability of occurrence under a
two-tailed test was computed. To compute the chi square
values a "grand median" based on the median test for K
Independent Groups was calculated for the entire sample.
Each group was then divided into those above and below the
grand median. The chi square test performed on the frequency
table gave a test of the significance of the difference be-
tween the groups. Two and more levels of difference among
the medians of groups were considered significant difference.

The same test was performed for the value differ-
ences of the subgroups of the organizations under survey.
The subgrouping was based on five independent variables of
religion, sex, age, income, and education.

The second hypothesis, specifically, involved homo-
geneity of groups. A test of the degree of homogeneity of
the responding groups was necessary for an accurate analysis.
The concordance coefficients (an index of intragroup agreement),
therefore, was computed. The concordance coefficient is an
index of the degree of correlation between the "value
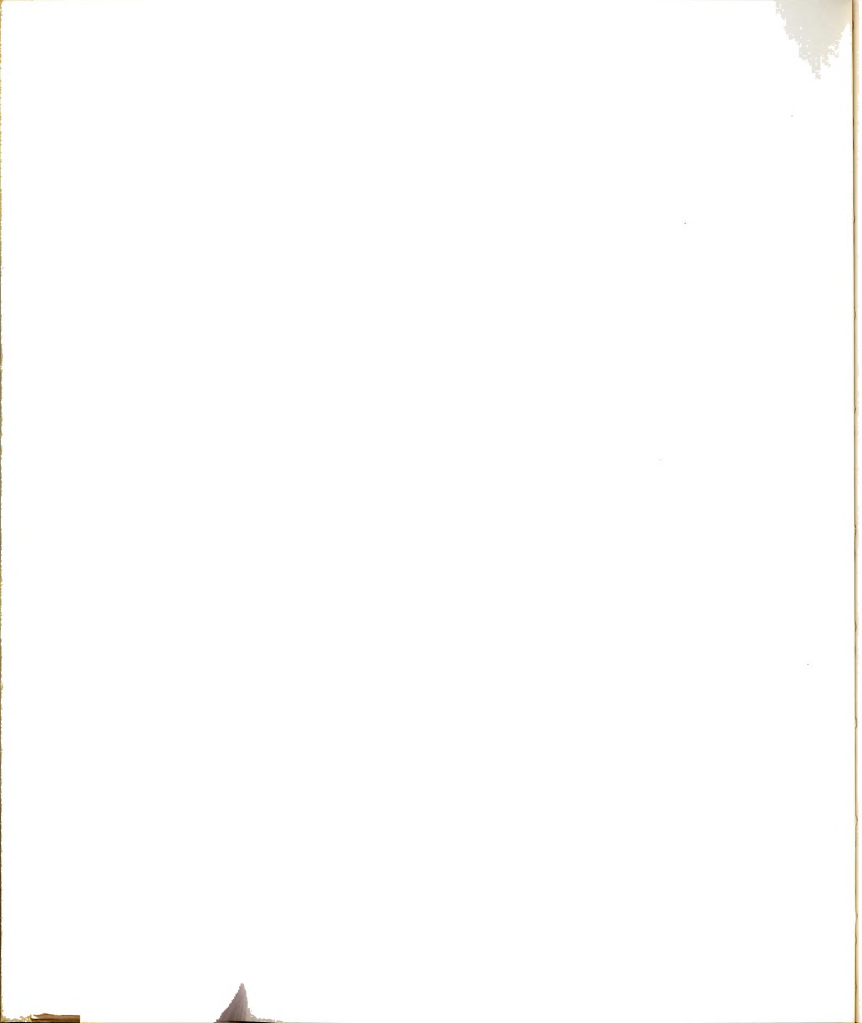
profiles" of all group members. It is mathematically equiva-
lent to the average of the Spearman rank-order (rho)
correlations between all possible pairs of group members.
Similarly, a simple correlation analysis based on Spearman
rank-order was made between value systems and organizational
effectiveness.

Computations were accomplished through the use of a
CDC 3600 computer. The computer program used for the
statistical analysis and tabulation of data is called Routine
Oneway.[26]

Summary

In this chapter we discussed the data collection
techniques, the nature of the sample, and the method of
analysis. The Rokeach value survey along with several ques-
tions was employed to collect data from an educational in-
stitution, an insurance company, and a bank. Appropriate
methods were chosen for the analysis of the data. Presenta-
tion and analysis of the data is the subject of Chapters 4,
5, and 6.

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[26]
For a discussion of the statistical tools used in
the analysis as well as the computer program Routine Oneway
see Appendix B.
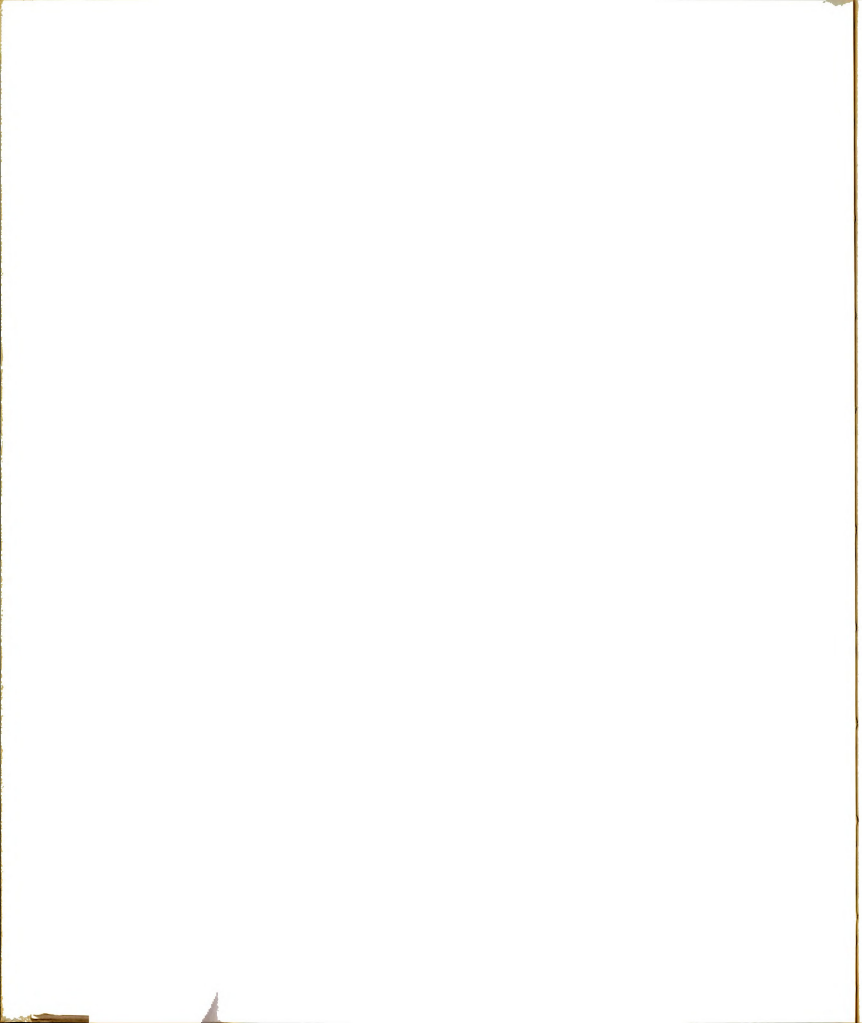
CHAPTER 4

VALUE DIFFERENCES AND SIMILARITIES

Introduction

The purpose of this chapter is to present an analysis of the field study data relative to the first hypothesis (i.e., organizations and executives that are rated "effective" have a pattern of values that is distinctively different from that of organizations and executives that are rated "ineffective"). The analysis was conducted to detect what differences or similarities existed between the value systems of departments rated "the most effective" and those rated "the least effective."

The discussion in this chapter concerns value differences and similarities among groups controlled by the independent variable of effectiveness. This is approached in four stages:

> (1) Value systems were analyzed to find the differences (and similarities) between values of the "organizations which were rated "most effective" and values of the organizations that were rated "least effective."
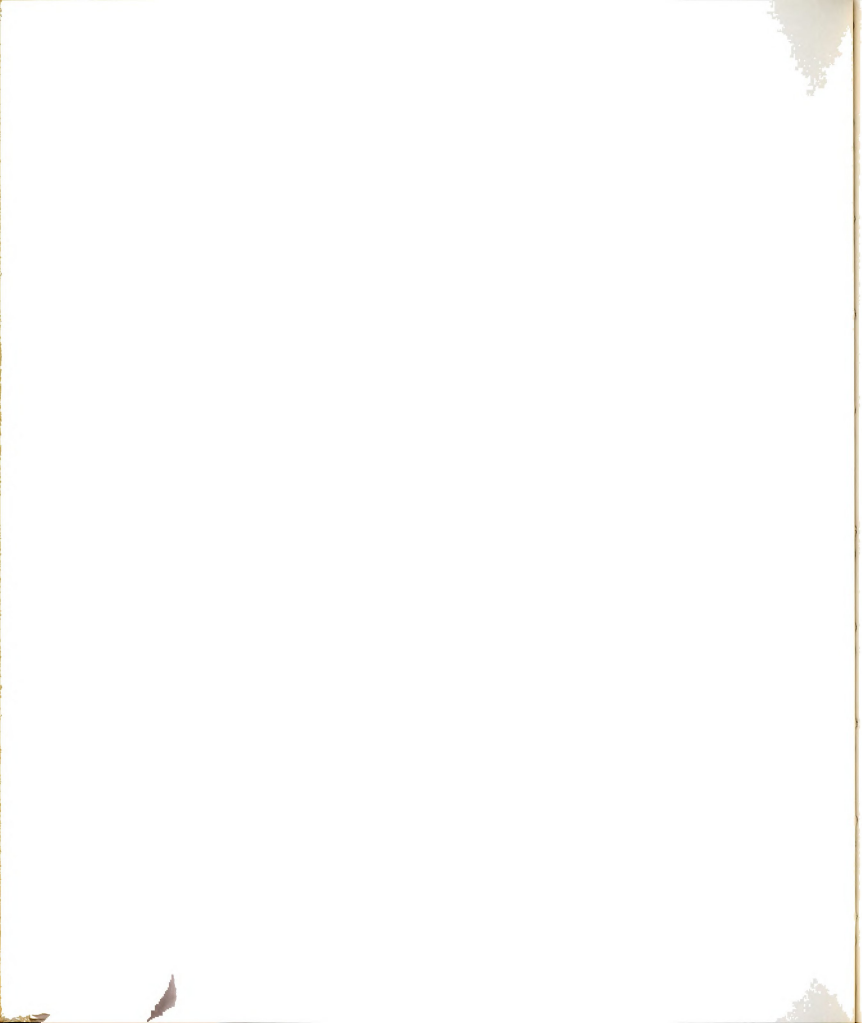
(2) A number of the executives of the "most effec-
tive" organizations were rated ineffective by
their superiors. Also, the "least effective"
organizations contained several individuals who
were rated effective by their superiors. To
further clarify the value differences and simi-
larities among groups, this stage of analysis
was performed.

(3) Value systems were analyzed for similarities
and differences between two organizations that
were rated "most effective."

(4) An analysis of value systems was made to show the
differences and similarities between two organi-
zations that were rated "least effective".

In all stages of analysis tests of significance were
used to make inter-group comparisons on both a quantitative
and qualitative basis.

Comparison of the Value Systems of the "Most" and the "Least" Effective Organizations

As a first approximation to the assessment of value
similarities and differences between two groups or organiza-
tions that are rated "most effective" and "least effective,"
one question should be kept in mind throughout the discussion.
Do the executives of the effective organizations rank-order
their values in a different pattern compared to the rank-
ordering of values performed by the executives of
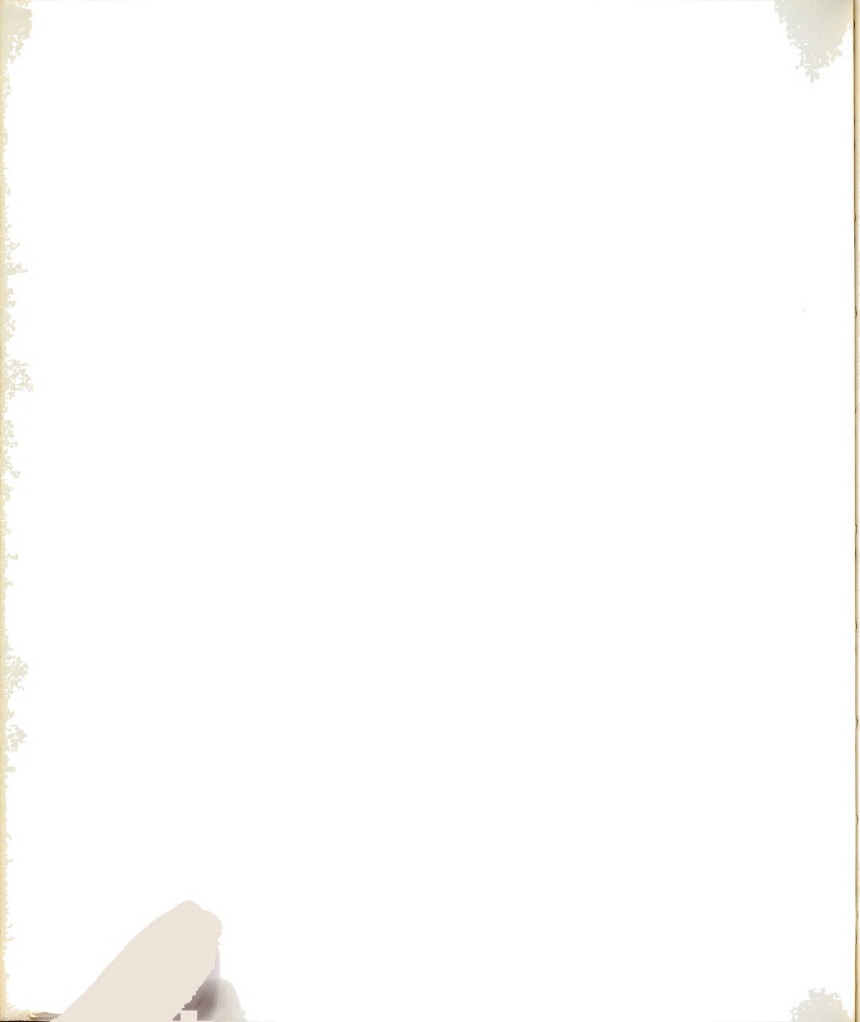
ineffective organizations?[1]

As was noted in Chapter 3, Table 1, the values under consideration are broadly classified into two categories - Terminal and Instrumental. Furthermore, each category has eighteen values. Thus the question may be rephrased: Do effective organizations rank A COMFORTABLE LIFE significantly higher (or lower) than ineffective organizations do? The question must be repeated 36 times, each time with a different value in it.

Table 14 shows the median ranks and the composite rank orders of these median ranks for each of the terminal values held by the effective and ineffective organizations. Table 15 shows the same data for the instrumental values. The two tables reveal that eight of the 36 values show no differences between the two groups, while 18 of the 36 values indicate significant differences (two or more levels of difference in median ranks).

Considering first the results shown in Table 14, it is immediately evident that the largest terminal value similarity is found for: A WORLD OF BEAUTY, FAMILY SECURITY, MATURE LOVE, and TRUE FRIENDSHIP. Both effective and ineffective organizations ranked the above values 15, 16, 1, 12, and 11 respectively. These values are socio-economic

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[1]
    For the sake of simplicity of the discussion, I shall refer to the "most effective" organizations as "effective" group and to the "least effective" organizations as "ineffective" group.

rather than organizational. The two groups showed other significant terminal value similarities that are essentially cultural values. These values are FREEDOM, NATIONAL SECURITY, PLEASURE, SALVATION, and SELF RESPECT. The two groups, however, exhibited significant differences in three values - A SENSE OF ACCOMPLISHMENT, SOCIAL RECOGNITION, and WISDOM. The effective group ranked A SENSE OF ACCOMPLISH-MENT 3 and the ineffective organization ranked it 7. SOCIAL RECOGNITION was ranked 15 and 18 by the effective and ineffective groups. WISDOM was ranked by the effective and ineffective groups 9 and 6 respectively. FAMILY SECURITY was the most important factor to both groups.

Analysis of Table 15 reveals that a very signifi-cant similarity exists between the instrumental values - guidelines of behavior - of the two groups. Both groups attached the same amount of importance to AMBITIOUSNESS, CHEERFULNESS, HONESTY, IMAGINATIVENESS, and RESPONSIBILITY. There is no difference between the two groups in ranking the most important and the least important instrumental values. Both groups ranked HONEST 1 and IMAGINATIVE 18.

The difference between the two groups is evidenced through the importance they attached to COURAGEOUS, and LOGICAL. Table 16 shows the differences between the two groups in two important values for a better accomplishment of tasks.

TABLE 14 - Terminal value medians and composite rank
orders for effective and ineffective organizations

N = 245	Effective 117		Ineffective 128	
	Median	Rank	Median	Rank
A comfortable life	8.00	8.	9.93	10
An exciting life	12.72	14	13.20	15
A sense of accomplishment	6.33	3	8.06	7
A world at peace	6.83	5	5.39	2
A world of beauty	13.88	16	13.50	16
Equality	7.80	7	8.50	9
Family security	2.69	1	4.21	1
Freedom	6.40	4	6.60	5
Happiness	7.50	6	6.21	4
Inner harmony	10.06	10	8.08	8
Mature love	11.08	12	10.33	12
National security	11.50	13	12.42	14
Pleasure	14.95	18	13.68	17
Salvation	12.70	17	11.83	13
Self-respect	5.28	2	5.61	3
Social recognition	12.74	15	14.88	18
True friend-ship	10.31	11	10.00	11
Wisdom	8.38	9	6.70	6
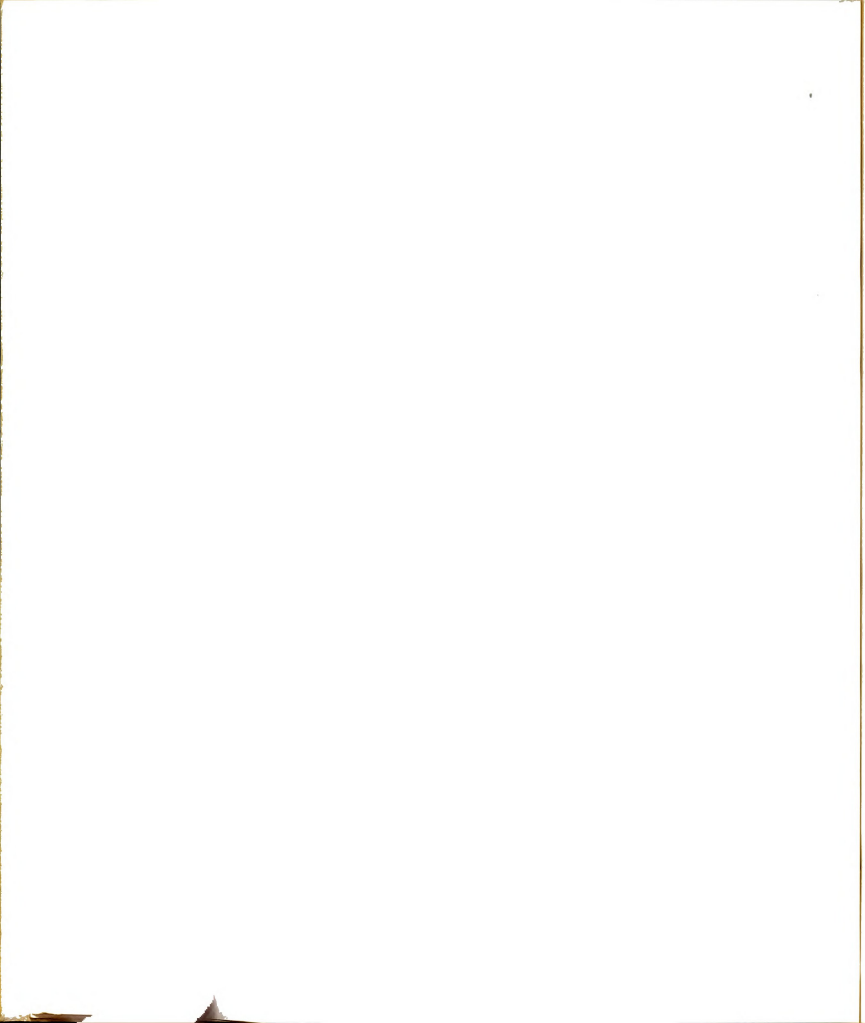
TABLE 15 - Instrumental value medians and composite
rank orders for effective and ineffective organizations

N = 245	Effective 117		Ineffective 128	
	Median	Rank	Median	Rank
Ambitious	5.25	3	6.50	3
Broadminded	7.46	5	8.50	6
Capable	6.00	4	8.06	5
Cheerful	10.30	9	9.17	9
Clean	10.56	11	7.33	4
Courageous	8.58	6	10.25	11
Forgiving	10.96	12	8.59	7
Helpful	10.50	10	10.63	12
Honest	2.45	1	2.92	1
Imaginative	14.20	18	14.50	18
Independent	11.00	13	11.00	14
Intellectual	12.13	14	12.25	16
Logical	10.19	8	11.90	15
Loving	13.19	17	10.63	13
Obedient	12.96	16	13.92	17
Polite	12.30	15	8.80	8
Responsible	4.27	2	4.40	2
Self controlled	8.91	7	9.50	10

TABLE 16 - Two instrumental value composite rank orders
for effective and ineffective groups

N = 245	Effective 117	Ineffective 128
	Rank	Rank
Courageous	6	11
Logical	8	15

The history of economic prosperity and business success in-
dicates that individuals or organizations that were logical
and calculative in their operations under the guidance of
Courageous managers obtained better standards of achievement.[2]

The dominant values in the most effective organiza-
tions can,thus, be isolated as FAMILY SECURITY, A SENSE OF
ACCOMPLISHMENT, HONEST, RESPONSIBLE, COURAGEOUS, and
LOGICAL. The dominant values in the least effective organi-
zations are, namely: FAMILY SECURITY, A WORLD AT PEACE,
SELF-RESPECT, FORGIVING, HONEST, and RESPONSIBLE. Further
significant differences between the two groups can be dis-
covered through the analyses performed in the following
sections.

[2] See Alfred D. Chandler, Strategy and Structure,
(Cambridge, Mass.: MIT Press, 1962) and Ernest Dale,
Great Organizers, (New York: McGraw-Hill, 1960).

Comparison of the Value Systems of More Effective
and Less Effective Individuals

The purpose of this section is to make comparisons
between the values held by effective and ineffective indi-
viduals regardless of the organization that they come from.

The comparison and analysis was made between the
executives who were rated effective by their superiors and
the executives who were rated less effective through the same
channel. Therefore, the analysis was based on the responses
received from 138 effective individuals from the Educational
Institution, the Insurance Company, and the Bank and 107
less effective people from the same organizations. Table
17 shows the median rank and the Composite rank orders of
these median ranks for each of the terminal values held by
the effective and ineffective individuals. Table 18 shows
the same data for the instrumental values.

A careful consideration of Table 17 indicates that
the terminal values WISDOM, FREEDOM, PLEASURE, A WORLD OF
BEAUTY, and a COMFORTABLE LIFE showed the sharpest difference
between the two groups. Effective individuals ranked these
five values fourth on the average, ineffective people ranked
them fifth. To the ineffective individuals WISDOM and
FREEDOM were less important than PLEASURE, A WORLD OF BEAUTY,
and A COMFORTABLE LIFE. On the other hand, the effective
individuals attached more value to WISDOM, FREEDOM, A SENSE
OF ACCOMPLISHMENT, and SALVATION. The pattern of value

TABLE 17 - Terminal value medians and composite rank
orders for effective and ineffective individuals

N = 245	Effective 138		Ineffective 107	
	Median	Rank	Median	Rank
A comfortable life	9.75	10	4.00	4
An exciting life	13.05	15	15.02	18
A sense of accomplishment	7.59	7	9.09	12
A world at peace	5.21	2	4.33	5
A world of beauty	13.60	16	6.01	7
Equality	7.86	8	6.39	8
Family security	3.35	1	3.25	1
Freedom	6.38	4	6.57	9
Happiness	7.32	6	3.52	2
Inner harmony	9.05	9	5.21	6
Mature love	10.69	12	7.24	10
National security	12.40	14	12.30	14
Pleasure	14.55	17	8.91	11
Salvation	11.63	13	13.01	15
Self-respect	5.46	3	3.71	3
Social recognition	15.31	18	14.00	16
True friendship	10.66	11	10.11	13
Wisdom	7.14	5	14.12	17
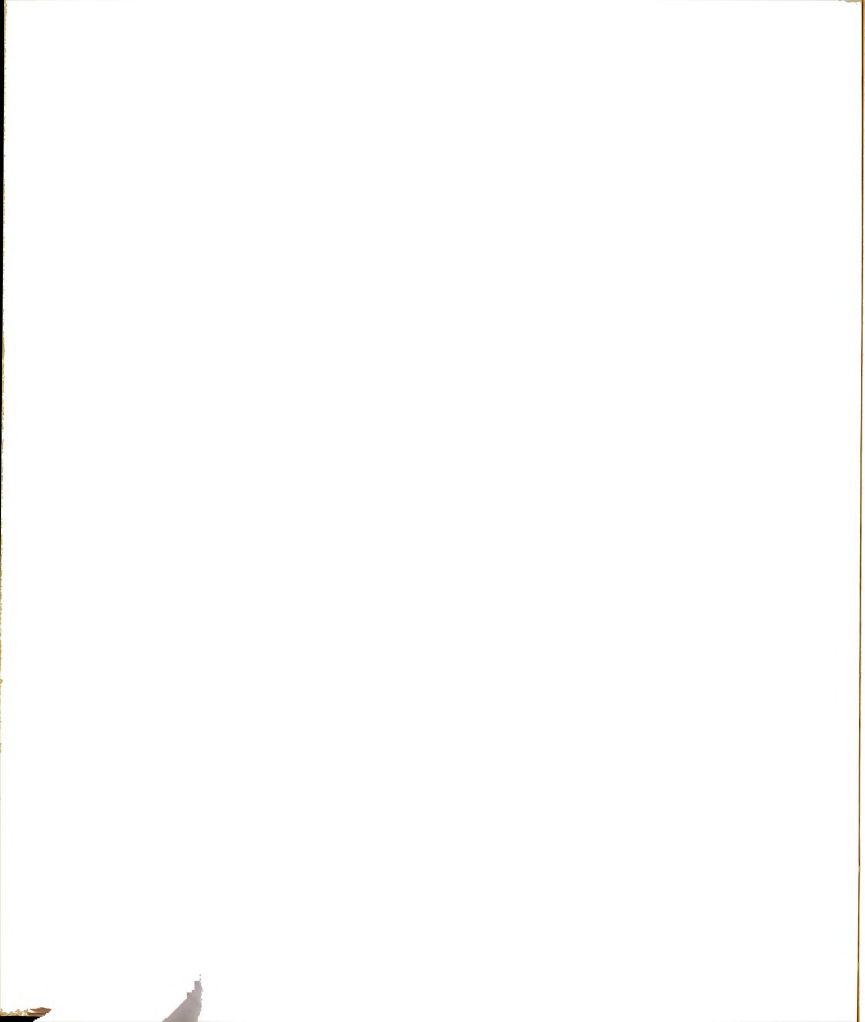
TABLE 18 - Instrumental value medians and composite
rank orders for effective and ineffective individuals

N = 245	Effective 138		Ineffective 107	
	Median	Rank	Median	Rank
Ambitious	5.89	3	5.96	8
Broadminded	7.94	5	6.12	9
Capable	7.25	4	4.82	6
Cheerful	9.00	7	4.73	5
Clean	9.38	8	3.01	3
Courageous	9.69	10	11.07	15
Forgiving	8.75	6	2.70	2
Helpful	10.17	11	8.41	11
Honest	2.80	1	3.39	4
Imaginative	14.68	18	13.00	18
Independent	10.44	12	5.31	7
Intellectual	12.50	16	12.63	17
Logical	11.38	14	11.76	16
Loving	11.93	15	9.02	12
Obedient	13.39	17	9.50	13
Polite	10.64	13	10.11	14
Responsible	4.41	2	6.32	10
Self-controlled	9.56	9	2.25	1
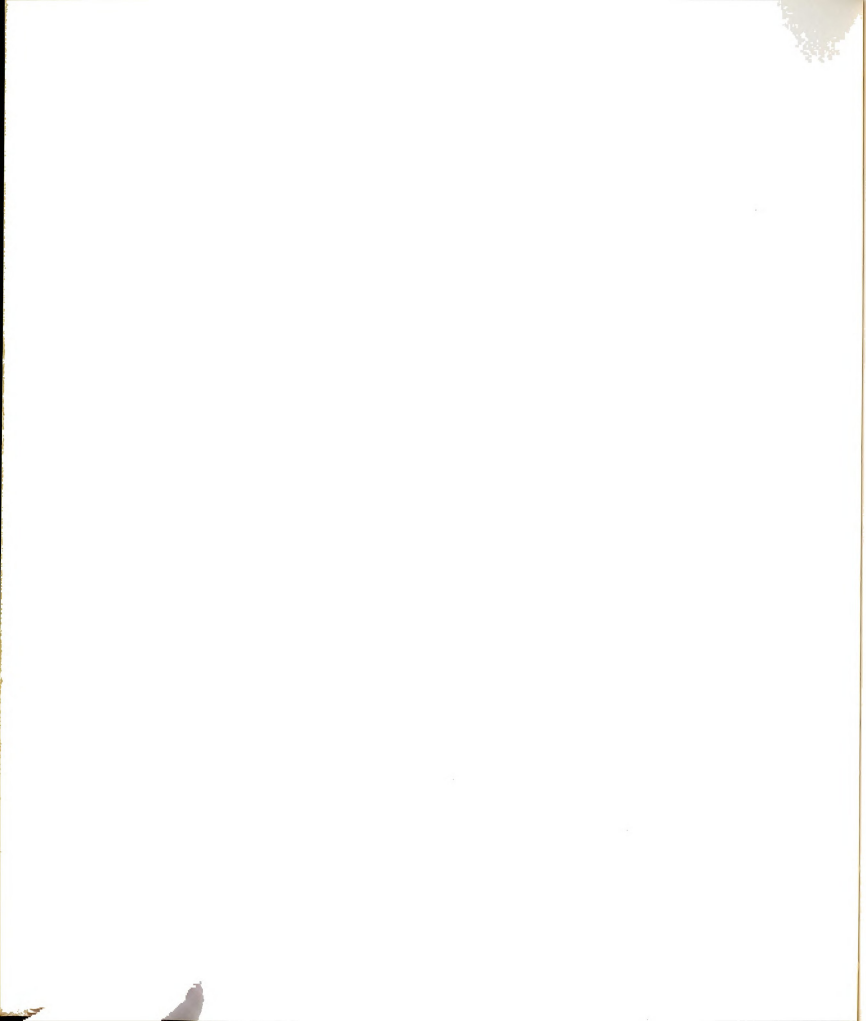
ranking of the effective individuals symptomized a dominant
ethic and philosophy of hard labor, sacrifice, and achieve-
ment.

There were, however, some similarities between the
value systems of both groups. Effective individuals as well
as ineffective ones attached the highest value to FAMILY
SECURITY. Equal importance was given to EQUALITY, NATIONAL
SECURITY, and SELF-RESPECT.

Turning now to Table 18, it is noted that the in-
strumental values RESPONSIBLE and SELF-CONTROLLED showed the
sharpest and the most significant difference between the
two groups. Effective individuals ranked RESPONSIBLE and
SELF-CONTROLLED 2 and 9, respectively, whereas the ineffec-
tive individuals ranked them 10 and 1. RESPONSIBLE is clear-
ly a common value that is central within effectiveness; the
data indicate that effective people did indeed place a con-
siderably higher value on RESPONSIBLE, AMBITIOUS, HONEST,
and COURAGEOUS. On the other hand the ineffective personnel
clearly attached a significantly higher importance to CLEAN,
FORGIVING, INDEPENDENT, LOVING, and SELF-CONTROLLED. In
general, the dominant value system held by the effective
individuals consisted of: FAMILY SECURITY, PEACE, SELF-
RESPECT, HONEST, RESPONSIBLE, CAPABLE, and A SENSE OF
ACCOMPLISHMENT.

The dominant value system held by the ineffective in-
dividuals clearly contained: FAMILY SECURITY, HAPPINESS,

SELF-RESPECT, SELF-CONTROLLED, HONEST, FORGIVING, CLEAN, and CHEERFUL.

A comparison between the two dominant value systems shows that the major difference lies in such values as RESPONSIBLE, CAPABLE, A SENSE OF ACCOMPLISHMENT - all of them in effect, contributors to effectiveness. In the ineffective group the three so-called contributors to effectiveness have been replaced by SELF-CONTROLLED, FORGIVING, CLEAN, and CHEERFUL that in no direct way affect the level of effectiveness.

Comparison of the Value Systems of Two Different Effective Organizations

This section contains an analysis and discussion of similarities and differences between the value systems of two organizations that were rated effective by their top executives. The area probability sample for this analysis consists of 75 respondents from the Insurance Company, and 32 observations from the Educational Institution. The third group of the effective organizations, i.e., Bank with ten respondents has intentionally been excluded from this analysis due to the small size of its sample.

The assessment of the value systems of the two effective organizations showed very significant similarities and considerably low differences in the ranking of the values. Table 19 shows the Median rank and the Composite
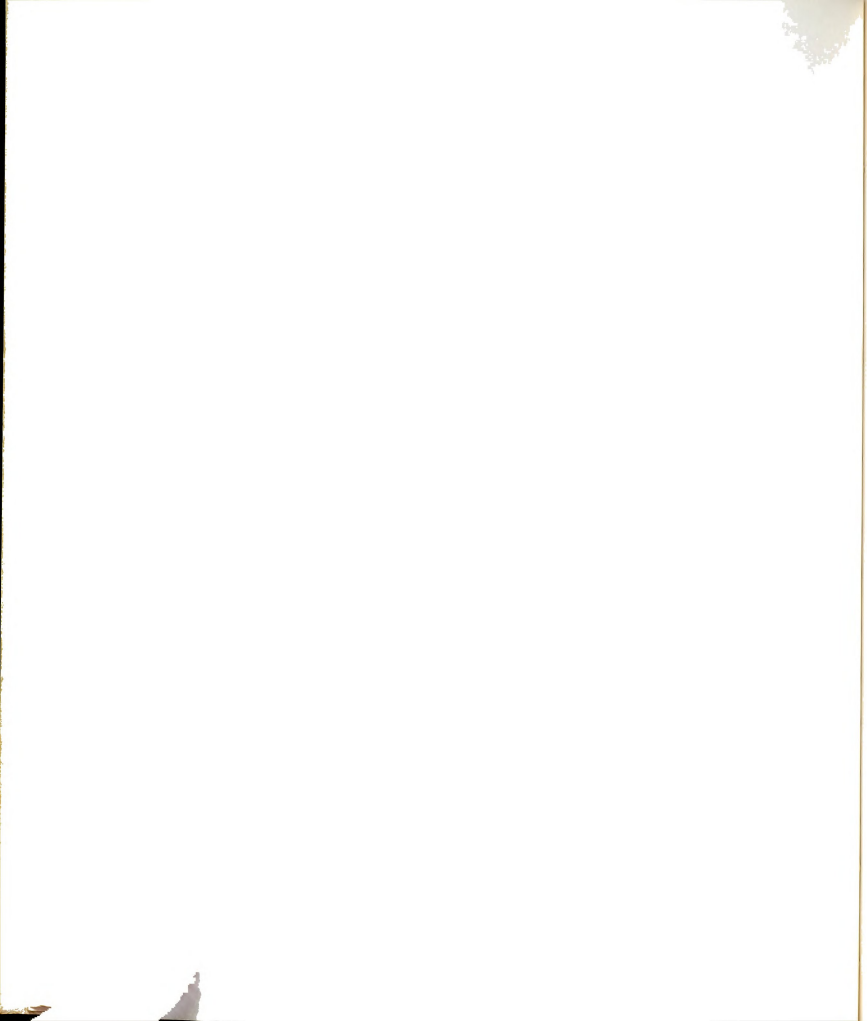
rank orders of these median ranks for each of the terminal values held by the effective organizations. Table 20 shows the same data for the instrumental values.

Consideration of the rank columns of Table 19 indicates that both groups gave equal importance to ten out of 18 values. Six other values also were ranked with a very little difference. Both groups assigned their highest priority to FAMILY SECURITY and the lowest to MATURE LOVE. A very clear distinction was seen in the pattern of rank-ordering of the two groups on the values that led to the achievement on individual basis with no apparent contribution to the group's success. These values are FAMILY SECURITY, A SENSE OF ACCOMPLISHMENT, and SOCIAL RECOGNITION. The three values are clearly competence values that are central within capitalistic ideology. A society that respects the right of private ownership undoubtedly promotes competition for the accumulation of wealth and capital. For, in a non-capitalistic society, with a very limited right of private ownership, FAMILY SECURITY is not in dispute at least in terms of the basic financial needs. Also social recognition in a socialist society is strived for incredibly less than in a capitalistic society. Therefore, the three values that the two effective organizations are subscribing to could be counted as a dominant value for achievement.

The sharpest differences, although statistically of little significance, between the values of the two groups
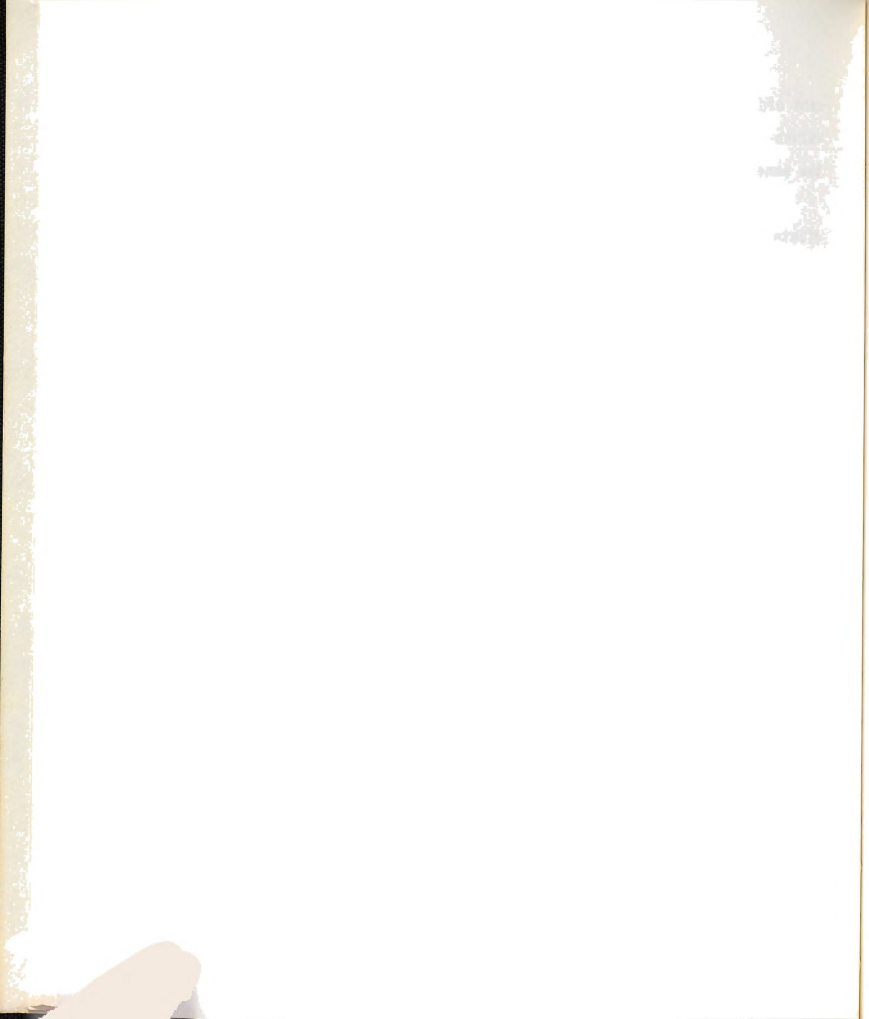
stood out on TRUE FRIENDSHIP and A COMFORTABLE LIFE. These values, however, can not be conceived as direct determinants of organizational achievement. It must be noted that the analysis related to a composite rank-ordering of values on the organizational level, not individual. TRUE FRIENDSHIP and A COMFORTABLE LIFE may play an important role toward the achievement of individual goals, but could not be a determining factor in the organizational level. Therefore, it can be seen from the data that the two effective organizations enjoy the presence of a number of values that are central to the organizational effectiveness. The areas of difference were on an individual basis, not organizational, and it can be questioned whether they have arisen from differences in other category variables such as age, education, income, sex, or age rather than effectiveness. Presentation of data concerning these category variables is the subject of Chapter 5.

Turning now to Table 19 it is evident that both organizations emphasized the importance of values that are within the category of competence values. No significant statistical difference existed between the instrumental values of the two organizations.

Comparison of the Value Systems of Two Different Ineffective Organizations

This section describes the final basis for testing and analyzing similarities and differences between the value
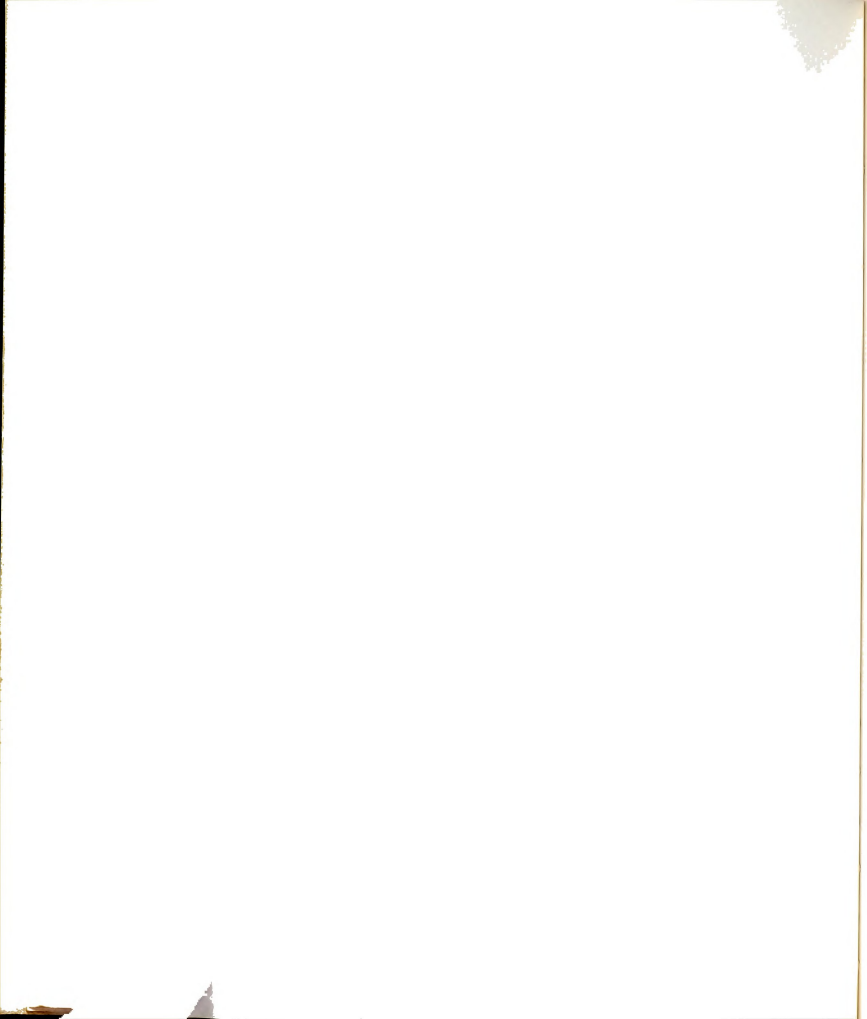
TABLE 19 - Terminal value medians and composite
rank orders for two effective organizations

N = 107	Insurance Company 75		Educational Institution 32	
	Median	Rank	Median	Rank
A comfortable life	6.41	12	6.21	10
An exciting life	3.72	4	4.00	4
A sense of accomplishment	2.35	2	3.21	2
A world at peace	5.00	8	5.21	7
A world of beauty	8.80	16	8.73	16
Equality	3.97	5	4.39	6
Family security	2.21	1	3.17	1
Freedom	5.46	9	6.12	9
Happiness	8.63	15	8.02	15
Inner harmony	8.72	14	7.99	14
Mature love	9.29	18	9.79	18
National security	5.77	10	7.01	11
Pleasure	9.11	17	9.29	17
Salvation	7.25	13	7.30	12
Self-respect	4.51	7	5.90	8
Social recognition	3.01	3	3.40	3
True friendship	6.36	11	7.45	13
Wisdom	4.22	6	4.18	5
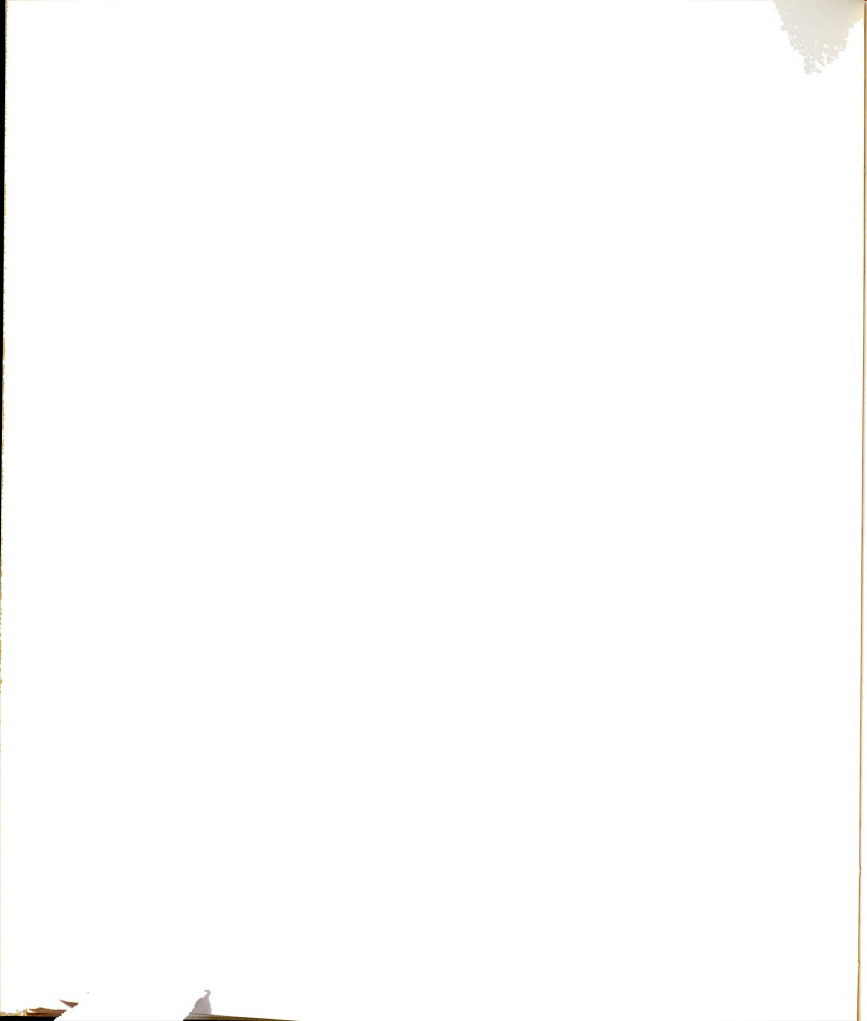
TABLE 20 - Instrumental value medians and composite
rank orders for two effective organizations

N = 107	Insurance Company 75		Educational Institution 32	
	Median	Rank	Median	Rank
Ambitious	2.73	1	2.71	2
Broadminded	4.31	7	4.00	8
Capable	2.79	2	2.33	1
Cheerful	8.30	17	9.26	18
Clean	8.00	16	7.61	15
Courageous	3.01	3	3.22	4
Forgiving	8.90	18	9.00	17
Helpful	6.07	12	6.26	13
Honest	4.52	8	3.81	7
Imaginative	5.69	11	6.17	12
Independent	4.86	9	4.70	9
Intellectual	3.98	6	3.73	6
Logical	3.25	4	2.99	3
Loving	7.91	15	8.02	16
Obedient	5.12	10	5.11	10
Polite	7.21	14	7.53	14
Responsible	3.93	5	3.37	5
Self-controlled	6.70	13	5.96	11
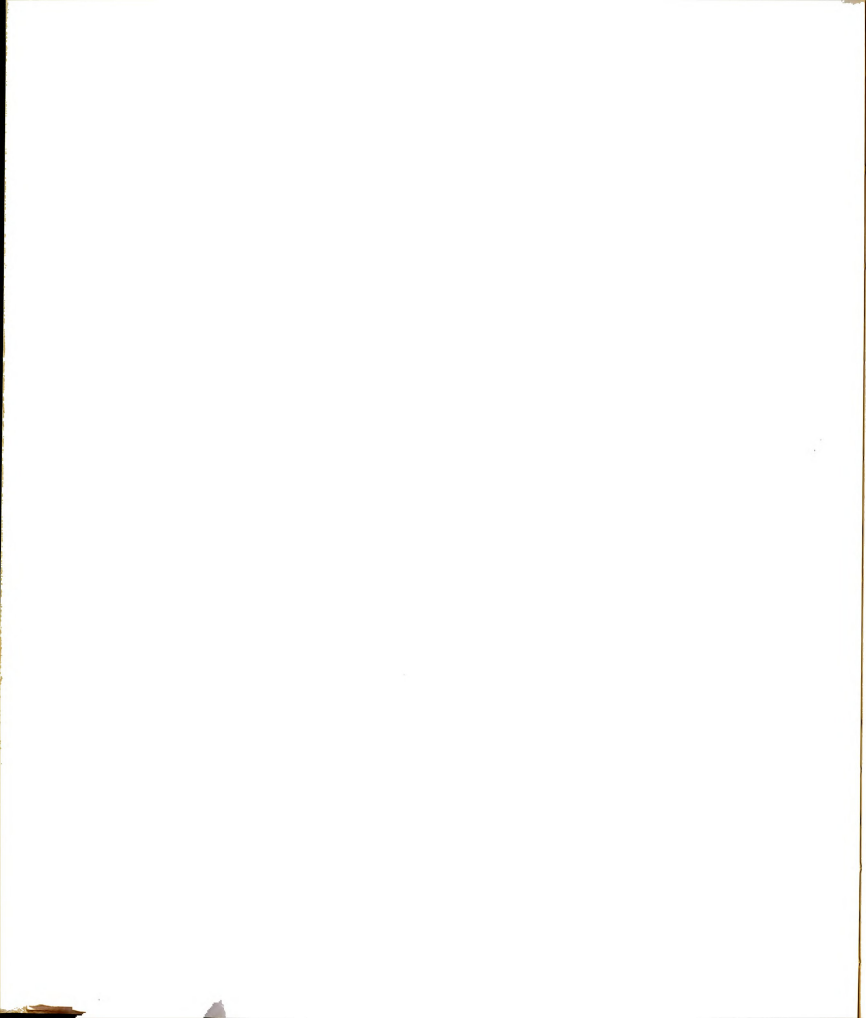
systems of two organized groups. In the previous sections, the value rankings were analyzed in order to determine the dominant values of the organizations or groups of individuals under the survey. This section is similar to the three previous analyses, especially the last. The area probability for this analysis comprised 56 respondents from one organization and 64 from another.

Table 21 shows the median rank and the composite rank orders of these median ranks for each of the terminal values held by the ineffective organizations. Table 22 shows the same data for the instrumental values.

Looking down the rank columns on Table 21 indicates clearly that the two ineffective organizations had no difference in almost half of the values. The areas of significant difference was on the values of SALVATION, SOCIAL RECOGNITION, and TRUE FRIENDSHIP. Except for the value of SOCIAL RECOGNITION, the other two are values central within the religion of the respondents. Value differences can occur due to the variable of religion.[3] SOCIAL RECOG- NITION value has been a matter of controversy throughout this study. This value is considered a competence value, contributor to the level of effectiveness, and yet gained

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[3] Milton Rokeach, *Beliefs, Attitudes, and Values*, (San Francisco: Jessey-Bass, 1968).
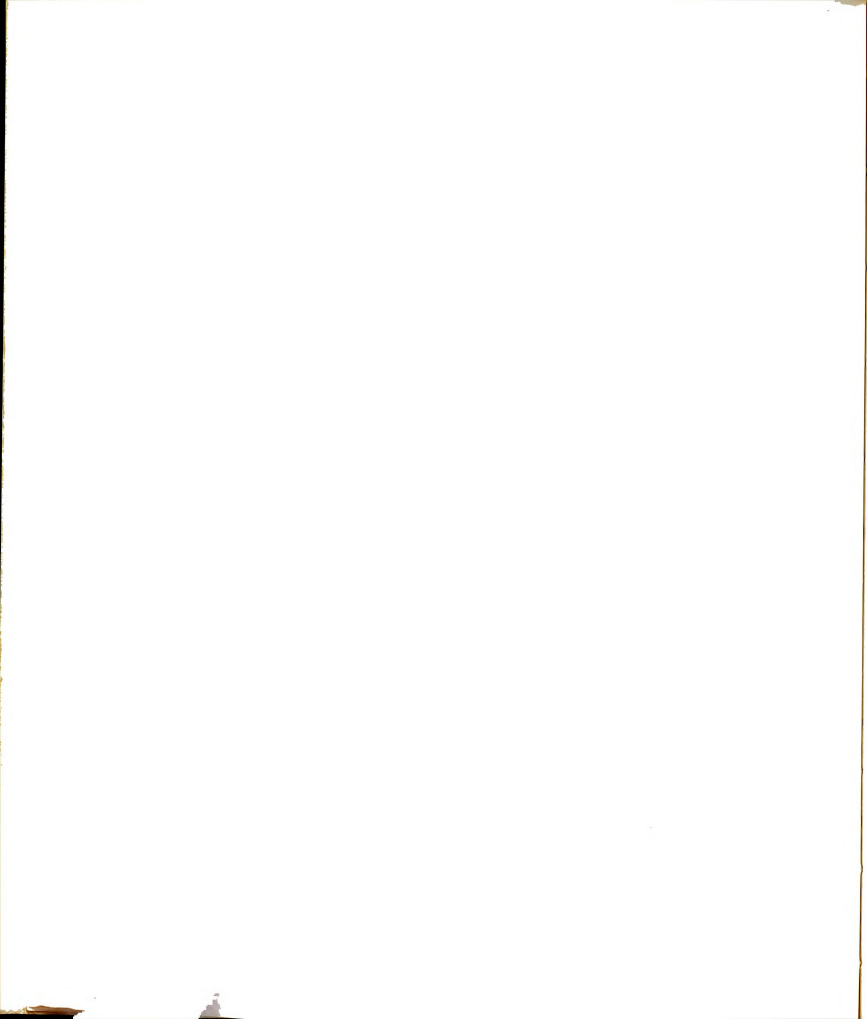
TABLE 21 - Terminal value medians and composite rank
orders for two ineffective organizations

N = 120	Insurance Company 56		Educational Institution 64	
	Median	Rank	Median	Rank
A comfortable life	3.72	3	3.01	2
An exciting life	6.33	11	5.95	10
A sense of accomplishment	4.76	7	4.82	7
A world at peace	9.71	18	8.43	17
A world of beauty	8.47	16	8.13	16
Equality	3.41	2	3.32	3
Family security	3.35	1	2.83	1
Freedom	7.25	14	7.81	14
Happiness	4.00	4	3.36	4
Inner harmony	9.09	17	9.00	18
Mature love	5.52	9	5.31	9
National security	6.91	12	6.27	11
Pleasure	5.01	8	5.07	8
Salvation	6.07	10	6.80	12
Self-respect	4.26	5	4.60	5
Social recognition	7.22	13	8.02	15
True friendship	8.07	15	7.50	13
Wisdom	4.39	6	4.65	6
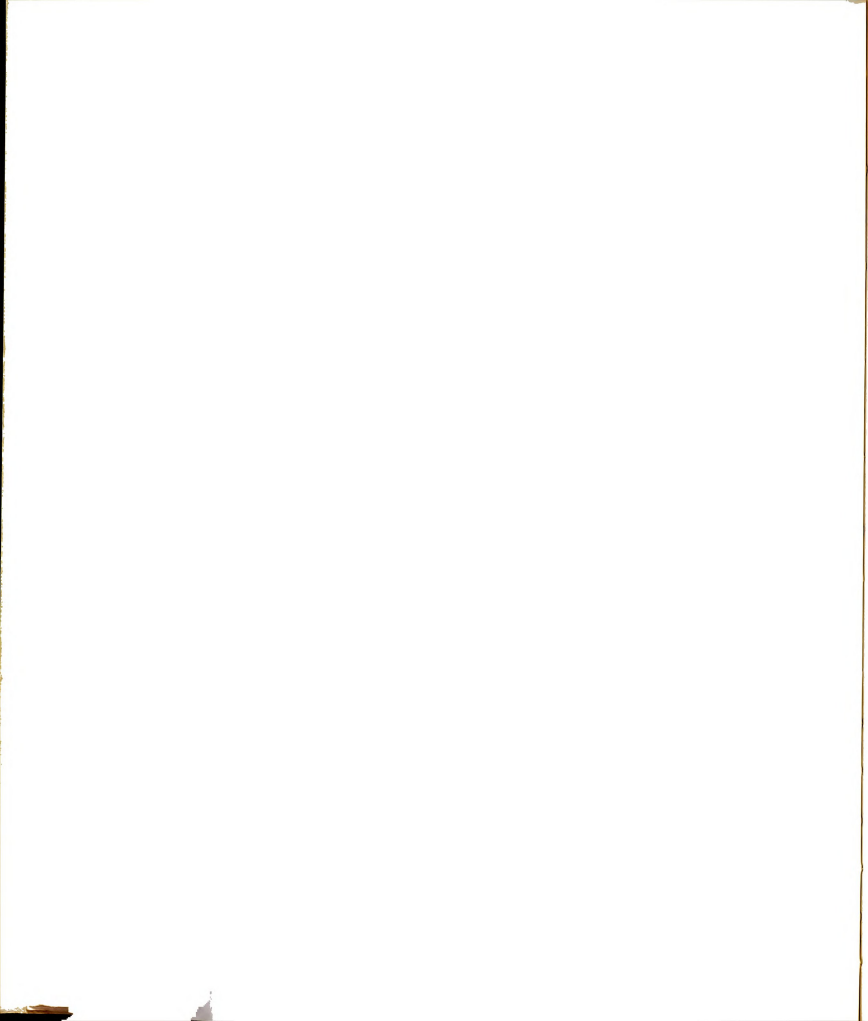
TABLE 22 - Instrumental value medians and composite
rank orders for two ineffective organizations

N = 120	Insurance Company 56		Educational Institution 64	
	Median	Rank	Median	Rank
Ambitious	4.76	7	4.21	6
Broadminded	5.06	8	5.01	8
Capable	4.25	6	3.92	5
Cheerful	4.01	5	4.46	7
Clean	3.41	4	3.01	2
Courageous	5.93	10	6.00	11
Forgiving	3.36	3	5.29	9
Helpful	3.00	2	3.26	3
Honest	2.71	1	2.92	1
Imaginative	9.03	18	8.25	17
Independent	5.80	9	3.39	4
Intellectual	6.25	11	5.85	10
Logical	8.88	17	9.00	18
Loving	6.61	12	6.46	12
Obedient	6.80	13	6.81	14
Polite	7.60	15	7.30	15
Responsible	8.09	16	7.44	16
Self-controlled	7.03	14	6.52	13

different importance from various groups of effective and less effective executives.

A look at Table 22 reveals no significant differences in the value systems of these two groups of less effective executives. Both groups attached the highest importance to HONEST and the least to LOGICAL and IMAGINATIVE. Honesty, of course, can play a great role in the individual and organizational achievement, but it can not stand alone. The importance that honesty gains should be coupled with LOGICAL, IMAGINATIVE, and RESPONSIBLE as well as CAPABLE, AMBITIOUS, and COURAGEOUS. The two groups under survey agreed on the low level of importance to these competence values.

It can be interpreted that the dominant value of these ineffective groups is a secure family with a comfortable life, although not exciting, full of love and equality with very little attention to the well-being of others or a common peace - a life that is full of honesty, forgiveness, and cleanliness but little responsibility, obedience, and imagination.

Summary of the Results of Values Differences and Similarities

From the data of this study the following points are evident:

1) There was a significant difference between the value systems of effective organizations and ineffective organizations. Value similarities of the two groups of

organizations lie in socio-economic values rather than competence values that make contribution to the achievement of organizational goals.

2) Effective organizations indicated, on a cross-reference analysis, that a value system consisting of those values that are necessary for the accomplishment of purpose was predominantly existing in the organization.

3) Similarly the ineffective organizations and individuals had a predominantly accepted value system that consists of those values that contribute to a sweet life, no anxiety and much fun. A SENSE OF ACCOMPLISHMENT, RESPONSIBILITY, COURAGE, AMBITION, and capability that can serve as a drive and motive toward higher levels of achievement was sensibly weak in these organizations.

Having established the difference between the value systems of the effective and ineffective organizations, the reasons for the difference must be sought. Chapter 5 is geared to this end.

CHAPTER 5

VALUE SYSTEMS OF THE SUBGROUPS
AND THE GROUP HOMOGENEITY

Introduction

The purpose of this chapter is to present the analy-
sis of the field study relative to the second hypothesis
(i.e., organizations that have homogeneous age, sex,
religion, income, and educational groups are more likely to
have value similarity than organizations that do not have
such homogeneity. Therefore, the more homogeneous the
organization, the more value similarity it will have, and
the more effective it will be). The analysis was conducted
to determine the extent to which the respondents from both
the most effective and the least effective organizations
rank-ordered their value systems homogeneously. Since value
differences occur due to differences in religion, age, sex,
income, and education, the respondents were stratified under
these category variables controlling, at the same time, the
organizations (effective or ineffective) that they came from,
for the relationship of these variables with organizational
effectiveness. By this measure four factors were checked:
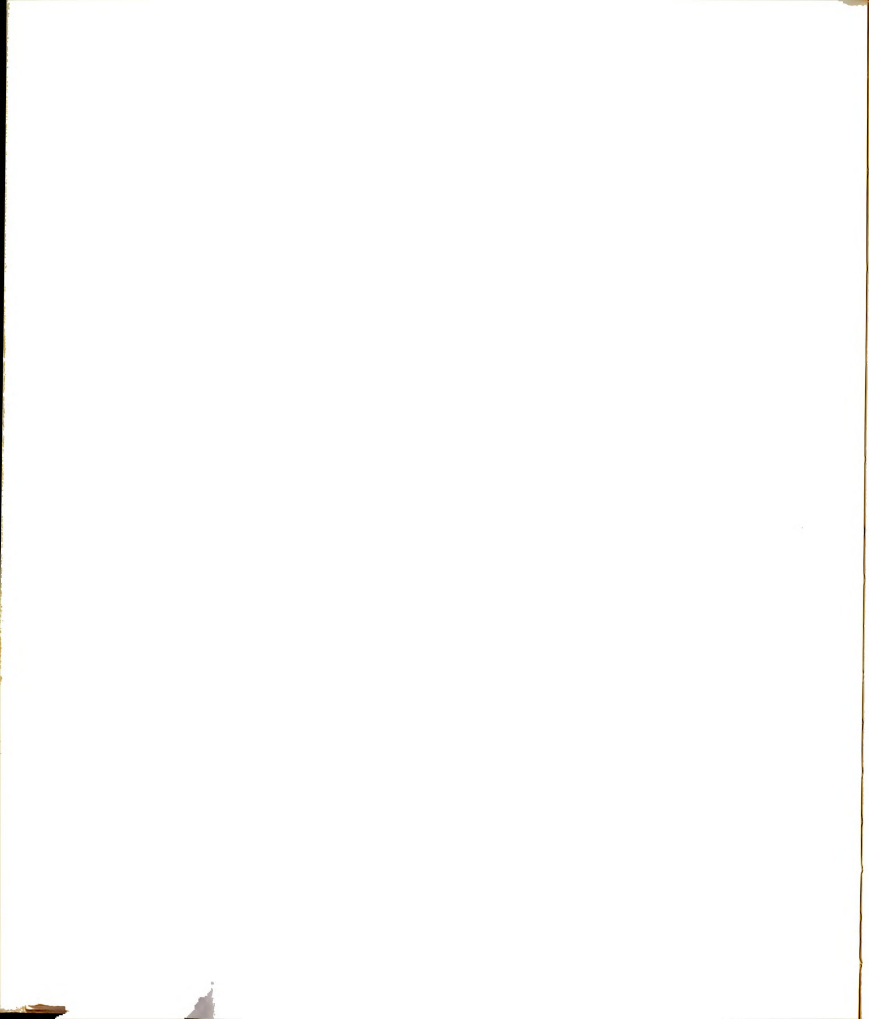
(1) The degree of homogeneity of ineffective and effective groups with respect to the pattern of rank-ordering of the values.

(2) The extent to which value similarities and differences existed among groups stratified under above category variables.

(3) The value orientation of each organization with regard to the configuration of its members.

(4) The extent of adherence to competence values, contributors to organizational effectiveness, by each of the above groups.

To conduct this analysis statistical tests of concordance, and significance of variance were utilized.

Analysis of Value Systems of Effective and Ineffective Organizations Under Various Category Variables

General

The discussion in Chapter 4 centered around the similarities and differences between the value systems of effective organizations and individuals on one hand, and on the other hand with that of ineffective organizations and individuals. Also attempts were made to diagnose what similarities and differences existed in the value systems of all groups surveyed. The fact that effective organizations or individuals, and ineffective organizations or individuals differed so markedly from one another on essentially the same sets of terminal and instrumental values raises
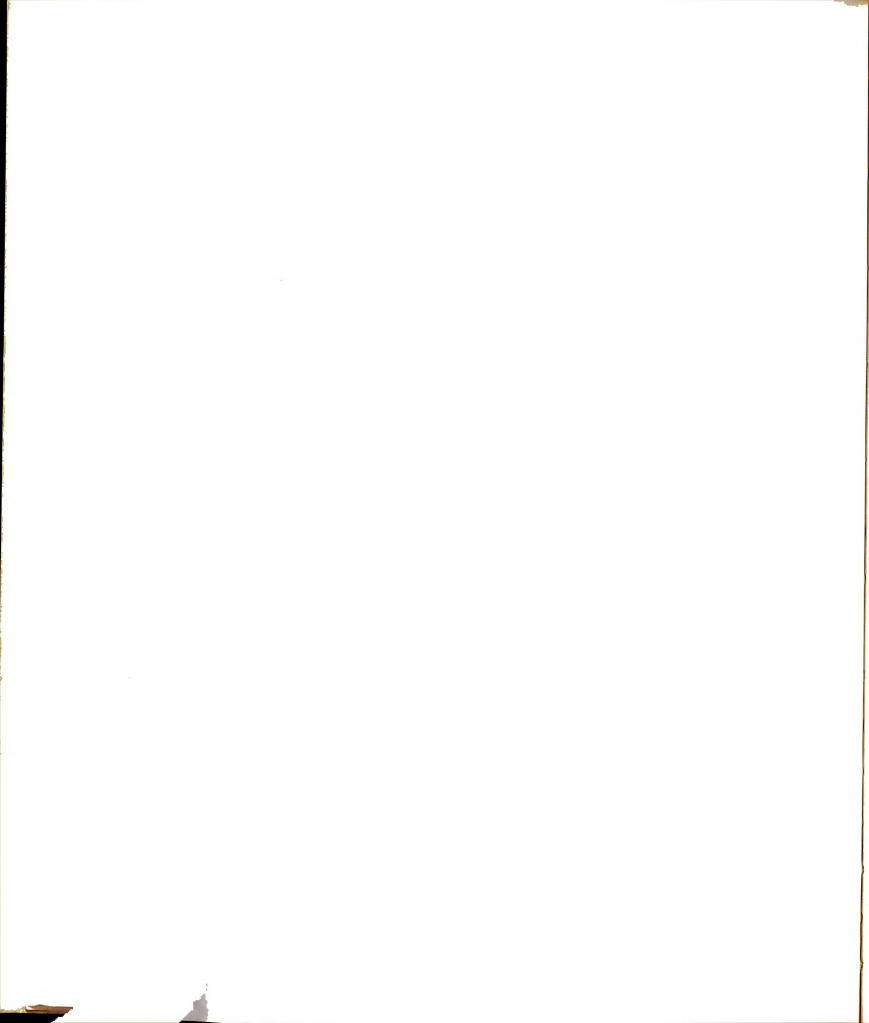
the question as to whether the observed differences could have arisen from differences in religion, age, sex, income, and education. In other words, Chapter 4 looked at <u>what</u> differences not <u>why</u> differences. Chapter 5 treats the subject from both of these standpoints.

The analyses under the variable of effectiveness or ineffectiveness - as the organizations and individuals were rated by the superiors - showed that although the people rank-ordered their value systems in their respective groups, they had variances and differences among themselves. For example, all those who were rated effective individuals did not rank FAMILY SECURITY number one; rather there were a number of rankings assigned to the same value. The logic of coming up with the rank of one, as is seen in the tables presented, for this value is that the statistical median of the group was adopted as the composite median rank. To determine how the members of each group had ranked a set of values homogeneously, the concordance coefficients were computed.[1]

The following is a presentation of the value systems of groups stratified under religion, age, sex, income, and education as controlled by the organization from which the respondents came.

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[1] For a description of this statistical test see: Chapter 3, method of analysis.
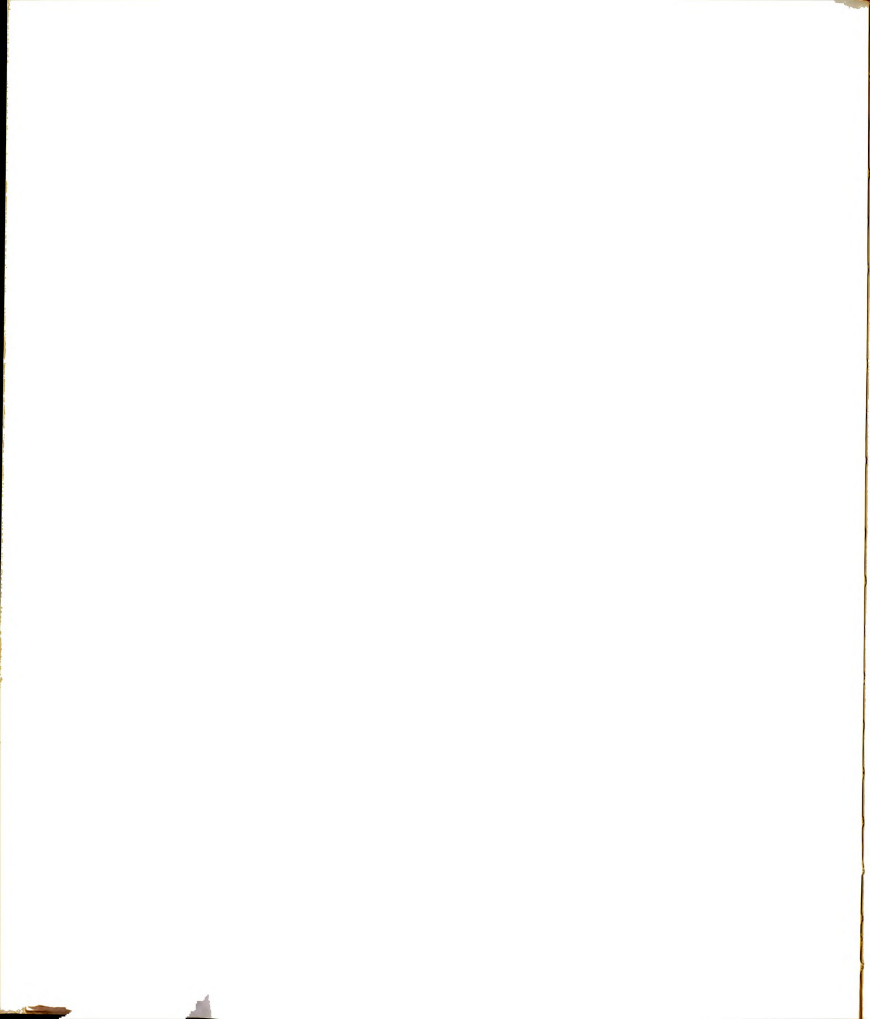
Religion

An area probability of 117 observations were pooled from the most effective departments of an Educational Institution, an Insurance Company, and a Bank. Also, an area probability of 128 respondents were pooled from the least effective departments of the same organizations. Table 23 shows the median rank and composite rank orders of these median ranks for each of the terminal values held by the effective organizations based on religion. Table 24 shows the median rank and composite rank orders of these median ranks for each of the instrumental values held by the effective organizations based on religion. Tables 25 and 26 show the same data for the ineffective organizations based on religion.

The data in Table 23 gave a mixed impression. The value priorities of the Catholics stood on one extreme and those of those who profess in no religion on the other extreme. The Protestant group was situated in between. The three groups, however, had no significant differences in half of the 18 terminal values. It can be interpreted that the members of the three effective organizations had value similarities in several cases regardless of the respondents' religion. The sharp differences were evident among the three groups on such matters as A SENSE OF ACCOMPLISHMENT, HAPPINESS, INNER HARMONY, and SALVATION. These are moral values which, except for A SENSE OF ACCOMPLISHMENT, do not firmly

TABLE **23** - Terminal value medians and composite rank-orders
for the effective organizations based·on religion

Total N=117	Catholic 25		Protestant 84		None 8	
	Md.	Rank	Md.	Rank	Md.	Rank
A comfortable life	9.00	10	8.25	7	5.00	5
An exciting life	13.00	15	13.00	14	8.00	8
A sense of accomplishment	7.13	6	5.25	3	8.00	9
A world at peace	8.67	9	6.81	5	3.50	2
A world of beauty	14.25	17	13.91	16	11.00	13
Equality	7.00	4	8.67	8	4.00	3
Family security	2.75	1	2.61	1	3.00	1
Freedom	6.33	2	6.80	4	4.17	4
Happiness	6.33	3	7.78	6	9.83	10
Inner harmony	8.25	8	10.17	10	11.50	14
Mature love	11.25	13	11.17	13	10.00	11
National security	13.00	14	10.40	12	13.50	15
Pleasure	15.63	18	14.57	17	15.50	18
Salvation	10.67	12	13.38	15	14.50	16
Self-respect	7.00	5	5.19	2	5.00	6
Social recognition	14.00	16	14.72	18	14.83	17
True friendship	10.25	11	10.33	11	10.50	12
Wisdom	7.75	7	9.10	9	5.50	7
Concordance coefficients	0.26		0.24		0.31	

* Md. = Median

Amc

Brc

Ca

Ch

Ol

Cc

Fc

H

H

I

I

TABLE **24-** Instrumental value medians and composite rank orders for the effective organizations based on religion

N = 117	Catholic		Protestant		None	
	25		85		8	
	Md.*	Rank	Md.	Rank	Md.	Rank
Ambitious	4.08	2	5.50	3	10.50	11
Broadminded	9.25	6	7.42	5	3.50	1
Capable	6.67	4	5.74	4	6.50	5
Cheerful	9.63	9	10.69	11	11.50	15
Clean	11.88	15	9.88	8	12.00	16
Courageous	8.00	5	8.75	7	9.00	9
Forgiving	11.25	13	10.85	12	11.50	14
Helpful	11.00	11	10.00	9	10.00	10
Honest	3.13	1	1.79	1	6.00	3
Imaginative	16.13	18	14.19	18	10.50	12
Independent	9.33	7	11.83	13	6.50	4
Intellectual	11.00	12	12.60	15	11.00	13
Logical	9.63	8	10.67	10	8.00	8
Loving	14.25	17	13.11	17	8.00	7
Obedient	12.80	16	12.93	16	16.00	18
Polite	11.75	14	12.33	14	14.00	17
Responsible	5.00	3	4.20	2	4.00	2
Self-controlled	9.67	10	8.75	6	8.00	6
Concordance coefficients	0.23		0.22		0.20	

* Md. = Median
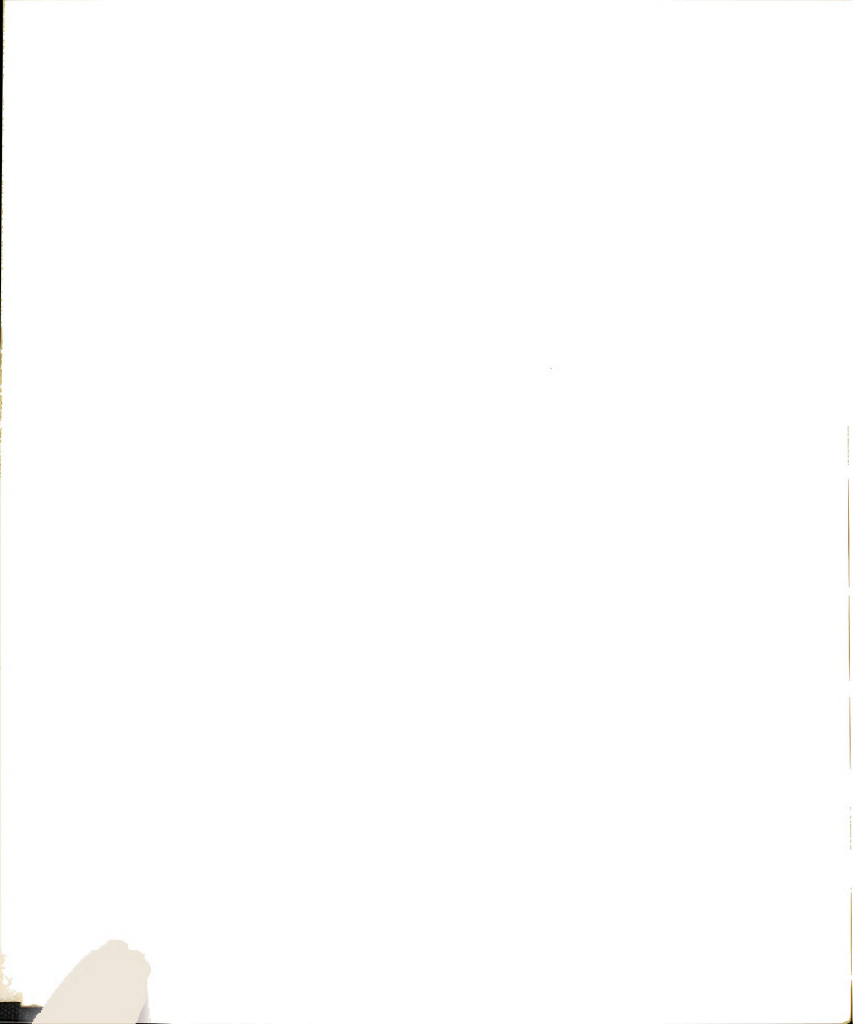
relate to organizational effectiveness. Those who believed
in no religion differed from the religious groups by assign-
ing less importance to the above mentioned values and more
importance to A COMFORTABLE LIFE, AN EXCITING LIFE, A WORLD
AT PEACE, and EQUALITY. These values seem to have a very
low association with hard working and higher achievements.
The differences between the religious and non-religious
groups within effective organizations was noted in the com-
petence values Table 24. Religious groups attached more
importance to COURAGEOUS, AMBITIOUS, CAPABLE, LOGICAL,
whereas the non-religious groups emphasized the value of
BROADMINDED, IMAGINATIVE and INDEPENDENT. From this data it
was very hard to determine whether religion accounts for the
effectiveness of the group. However, two facts were observ-
able in this analysis and they were the concordance co-
efficient, and the percentage of each group in proportion
to the whole sample. The concordance coefficient of the
Protestant group was 0.23 (the average of concordance co-
efficients for terminal and instrumental values), indicating
the lowest degree of difference in the opinion of the group
members. Also, the protestants comprised 71.8% of the
effective group.[2]

With respect to the effective organizations and the
data presented above, one general interpretation could be

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[2]
See Table 3, Chapter 3.
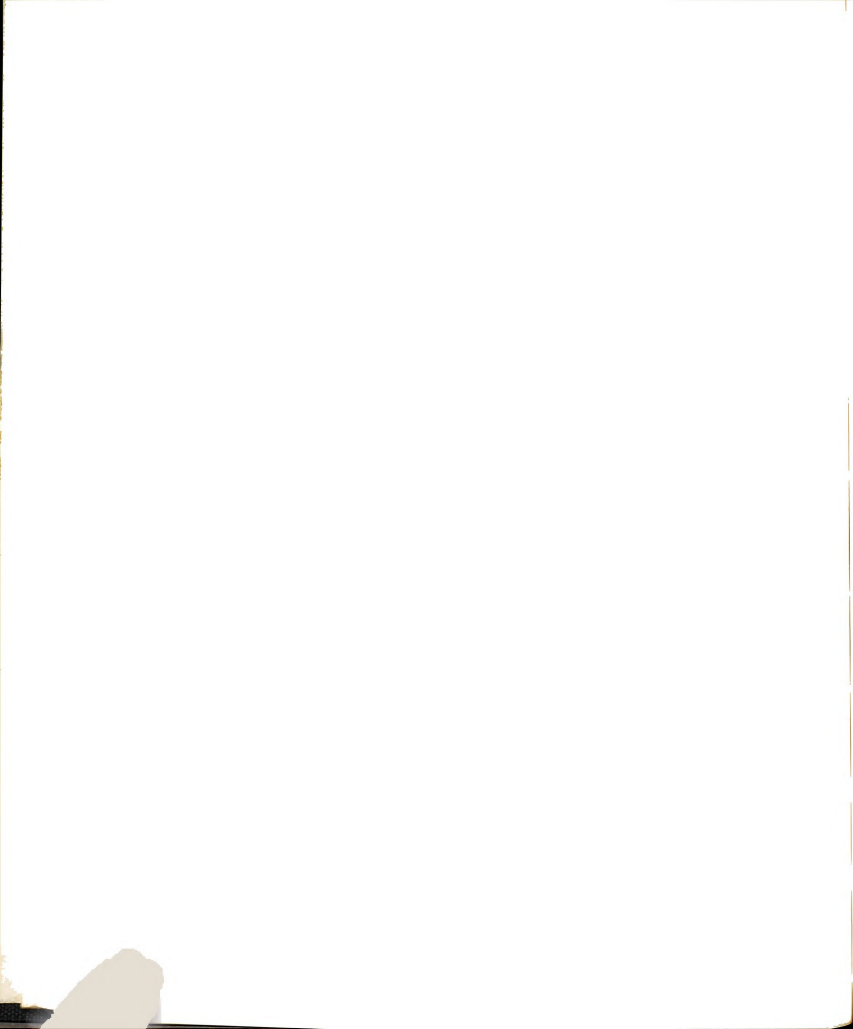
made and that was: the effective organizations were composed of predominantly Protestants with a high degree of homogeneity. Further conclusion whether this homogeneity and the dominant religion affects the dominant values of the organizations and eventually the level of effectiveness is pending the analysis of the same data for the ineffective organizations.

Tables 25 and 26 indicate that the religious groups of ineffective organizations emphasized the values of COMFORTABLE LIFE, FAMILY SECURITY, SALVATION, CHEERFUL, CLEAN, FORGIVING and POLITE. These are a combination of socio-economic and religious values that can hardly affect effectiveness. But, on the other hand, the same group gave less attention to AMBITIOUS, BROADMINDED, IMAGINATIVE, INDEPENDENT, LOGICAL and AN EXCITING LIFE. These competence values are determinants of effectiveness.

By and large, a comparison between each value of each religious or non-religious groups of the two effective and ineffective groups revealed that: Although Protestants comprised the majority in both groups, they did not rank-order the competence values similarly. This was interpreted that the religious groups had apparent agreement on the importance of the values that are non-contributors to effectiveness. They sharply differed on competence values which did not seem to be under the direct influence of the religious convictions. The analysis of this sample size under the stratification of religion did not find any

TABLE 25 - Terminal value medians and composite rank orders
for the ineffective organizations based on religion

N=128	Catholic 29		Protestant 85		None 14	
	Md.*	Rank	Md.	Rank	Md.	Rank
A comfortable life	8.33	8	10.00	11	11.50	13
An exciting life	14.00	15	13.31	17	9.00	11
A sense of accomplishment	8.00	6	7.92	7	8.50	10
A world at peace	4.75	2	5.43	2	7.50	8
A world of beauty	14.80	17	12.85	15	13.00	14
Equality	8.75	10	8.63	9	7.50	7
Family security	2.36	1	4.20	1	6.50	4
Freedom	7.00	4	6.81	6	5.00	2
Happiness	8.00	7	5.75	3	6.50	3
Inner harmony	7.00	5	8.56	8	7.00	6
Mature love	10.75	13	9.67	10	10.75	12
National security	12.33	14	12.31	14	13.50	15
Pleasure	14.20	16	13.00	16	15.00	16
Salvation	10.00	12	11.38	13	17.00	18
Self-respect	6.00	3	5.92	4	4.50	1
Social recognition	15.71	18	14.56	18	15.75	17
True friendship	10.00	11	10.31	12	8.50	9
Wisdom	8.67	9	6.13	5	6.83	5
Concordance coefficients	0.25		0.20		0.32	

* Md. = Median

TABLE **26** - Instrumental value medians and composite rank-orders for the ineffective organizations based on religion

N = 128	Catholic		Protestant		None	
	29		85		14	
	Md.*	Rank	Md.	Rank	Md.	Rank
Ambitious	5.75	3	6.75	4	5.00	2
Broadminded	9.25	10	8.43	6	8.00	5
Capable	7.00	4	8.44	8	6.50	4
Cheerful	8.63	7	9.00	10	13.50	16
Clean	8.63	6	6.42	3	10.00	11
Courageous	9.25	11	10.67	12	10.25	12
Forgiving	7.75	5	8.86	9	8.50	6
Helpful	11.33	14	9.88	11	12.00	14
Honest	2.80	1	2.75	1	4.00	1
Imaginative	15.63	18	14.92	18	8.50	7
Independent	11.25	13	11.33	14	9.50	9
Intellectual	11.75	15	12.25	16	13.00	15
Logical	14.58	16	11.33	15	10.50	13
Loving	8.75	8	11.00	13	10.00	10
Obedient	15.25	17	13.29	17	17.17	18
Polite	9.13	9	8.29	5	14.00	17
Responsible	4.75	2	4.29	2	5.00	3
Self-controlled	10.40	12	8.44	7	9.50	8
Concordance coefficient	0.22		0.17		0.19	

* Md. = Median

necessary association between the level of organizational
effectiveness and religious values. A larger sample, how-
ever, is required to provide reliable information to test
this notion.

Age

Stratification of the sample by religion did not
present a firm answer as to whether the religion had a sig-
nigicant association with these differences. Since it is
thought that values do not remain constant throughout the
person's life, it was asked whether age associated with value
differences and, therefore, whether the age configuration
in an organization could affect the level of its effective-
ness.

Tables 27 and 28 show the median rank and composite
rank orders of these median ranks for each of the terminal
and instrumental values held by the effective organizations
based on age. Tables 29 and 30 show the same data for in-
effective organizations.

Attention to Tables 27 and 28 indicates that the
three groups of executives had a general agreement on FAMILY
SECURITY, SELF-RESPECT, SOCIAL RECOGNITION, HAPPINESS, FREE-
DOM, and A WORLD OF BEAUTY. They also concured on the in-
strumental values of BROADMINDED, CAPABLE, CHEERFUL, HONEST,
INTELLECTUAL, LOVING, RESPONSIBLE, and SELF-CONTROLLED.
The sharpest difference was noted in the area of A WORLD AT
PEACE, EQUALITY, INNER HARMONY, MATURE LOVE, NATIONAL
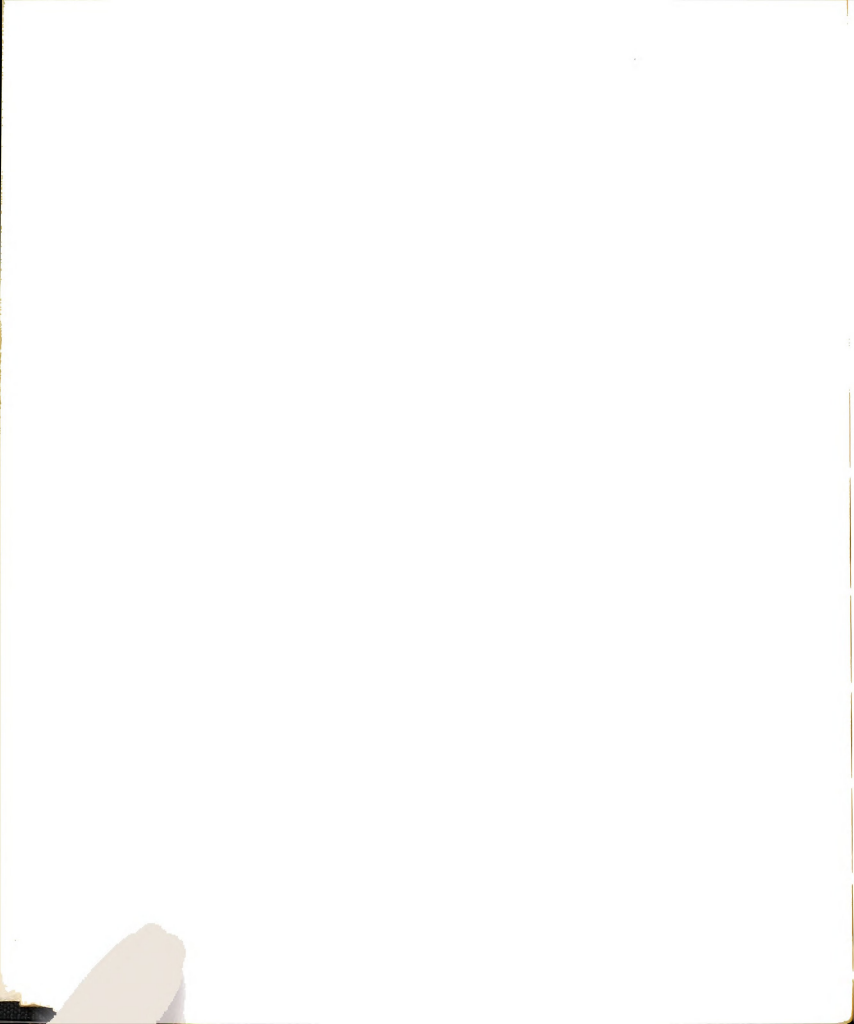
TABLE 27 - Terminal value medians and composite rank-orders
    for the effective organizations based on Age

	18 to 35 years		36 to 50 years		51-Over	
N = 117	39		45		33	
	Md.*	Rank	Md.	Rank	Md.	Rank
A comfortable life	7.75	7	10.00	10	6.88	4
An exciting life	9.88	12	14.71	16	12.70	15
A sense of accomplishment	5.80	3	9.25	9	4.00	2
A world at peace	8.75	10	4.42	2	5.90	5
A world of beauty	14.80	17	13.92	15	12.50	14
Equality	9.20	11	7.08	5	7.33	6
Family security	2.60	1	2.32	1	3.25	1
Freedom	6.20	4	6.38	4	7.50	7
Happiness	7.25	6	7.38	6	8.00	8
Inner harmony	11.00	13	10.00	11	8.25	9
Mature love	7.75	8	12.33	14	14.67	17
National security	14.88	18	8.38	8	11.50	13
Pleasure	12.88	14	15.56	18	15.25	18
Salvation	14.80	16	11.75	13	10.83	12
Self-respect	4.25	2	5.94	3	5.75	3
Social recognition	14.25	15	15.19	17	13.20	16
True friendship	8.42	9	11.75	12	10.67	11
Wisdom	7.00	5	8.00	7	10.25	10
Concordance Coefficient	0.27		0.29		0.26	

* Md. = Median

TABLE 28 - Instrumental value medians and composite
rank-orders for the effective organizations based on age

N=117	18-35 years 39		36-50 years 45		50-over 33	
	Md.*	Rank	Md.	Rank	Md.	Rank
Ambitious	4.60	2	5.63	3	5.67	4
Broadminded	6.29	5	8.75	6	8.00	5
Capable	5.80	4	6.88	4	5.50	3
Cheerful	10.63	10	9.88	8	10.50	12
Clean	12.33	16	10.00	9	10.33	11
Courageous	9.00	8	8.31	5	10.00	9
Forgiving	11.75	14	10.88	12	9.83	8
Helpful	11.25	12	10.67	11	9.30	7
Honest	3.75	1	2.13	1	2.00	1
Imaginative	11.25	11	14.13	18	15.70	18
Independent	7.33	6	12.13	14	11.80	15
Intellectual	11.63	13	12.33	15	12.83	16
Logical	9.58	9	10.38	10	11.50	14
Loving	12.20	15	13.13	17	14.50	17
Obedient	14.88	18	12.38	16	11.25	13
Polite	13.05	17	11.63	13	10.17	10
Responsible	5.42	3	3.22	2	4.00	2
Self-controlled	8.60	7	9.33	7	9.00	6
Concordance coefficients	0.22		0.22		0.25	

* Md. = Median

SECURITY, SALVATION, TRUE FRIENDSHIP and WISDOM. They also differed in CHEERFUL, CLEAN, FORGIVING, IMAGINATIVE, LOGICAL, and OBEDIENT. The young executives from effective organizations were after A SENSE OF ACCOMPLISHMENT, A COMFORTABLE LIFE, AN EXCITING LIFE, A MATURE LOVE, PLEASURE, SOCIAL RECOGNITION, TRUE FRIENDSHIP, and WISDOM. They also emphasized AMBITIOUS, IMAGINATIVE, INDEPENDENT, INTELLECTUAL, LOGICAL. This group gave its least priority to OBEDIENT, a value adhered to by the older and very well established individuals. NATIONAL SECURITY did not appeal to the young as much as it did to the old. The young executive, in general, valued the competence values higher than the old one. A trend analysis showed that the older the executives become, the less they value AMBITIOUS, IMAGINATIVE, INDEPENDENT, INTELLECTUAL, LOGICAL, AN EXCITING LIFE, FREEDOM, HAPPINESS, MATURE LOVE, and PLEASURE. This line of thought can establish an attitude toward work and organization which can result in stagnation, immobility, and incompetence.

Those executives who were in the age group of 36-50 shared some of their values with the young and others with the old executives. This group has not established its values and attitude as firmly as the older group. However, less turbulance was noted in their values, especially when the concordance coefficient was considered. This middle group had a higher level of homogeneity and can, if assigned to the key positions, steer the organization towards greater achievements.
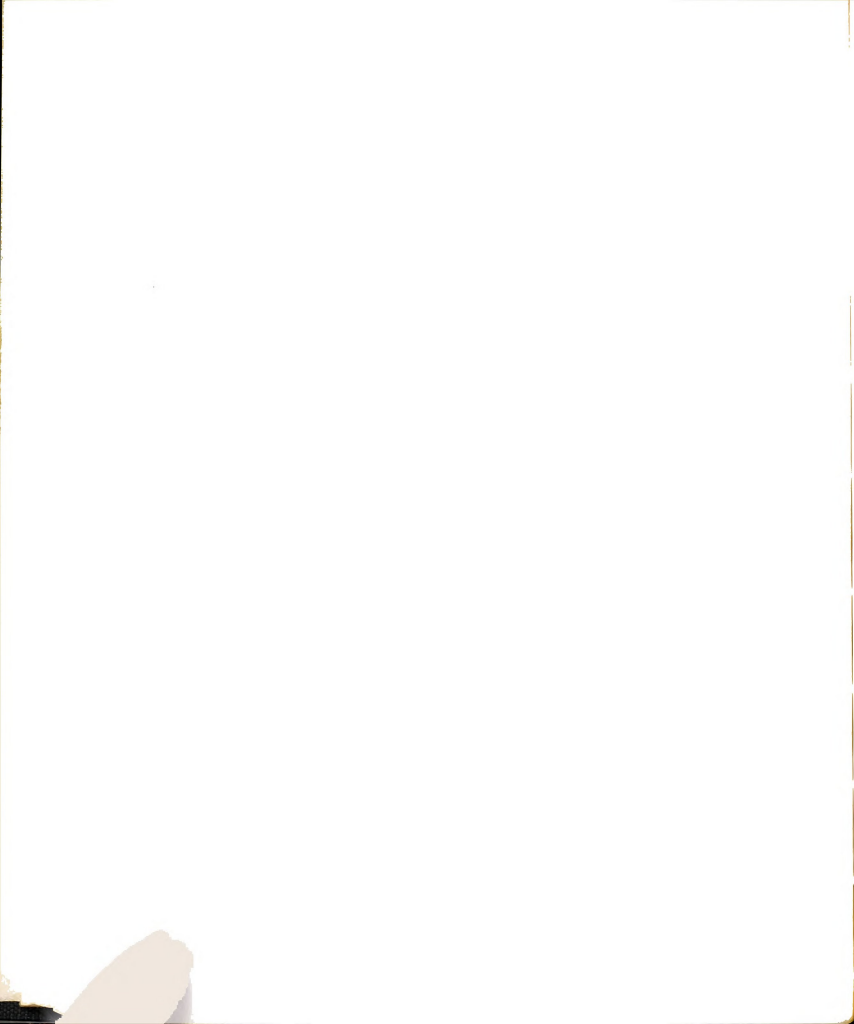
Turning to Tables 29 and 30 for the comparison of
the ineffective organizations with effective ones, it is
noted that the young executive in effective organizations
was to some extent unlike his counterparts in the effective
organizations. He was less worried about FAMILY SECURITY,
PLEASURE, SOCIAL RECOGNITION, AMBITIOUS, BROADMINDED,
CAPABLE, COURAGEOUS, IMAGINATIVE, INDEPENDENT, INTELLECTUAL,
RESPONSIBLE and SELF-CONTROLLED. The comparison between the
two groups of young executives was clear evidence that in-
effective executives did not attach much importance to the
competence values. Taking into consideration that over 45
percent of the executives in the least effective organiza-
tions were in the age bracket of 18-35, more than the other
two age groups percentage-wise, the data lends itself to an
interpretation that the group had a hard impact on the total
incompetence of the organizations. Furthermore, the Age,
as a control variable, seems to have created a dominant value
system in the organization that can be geared to effective-
ness. But, before a generalization could be made, it was
necessary to note two things: (1) whether sex can dis-
criminate between value system; and (2) if so, whether the
sex configuration of effective and ineffective organizations
is such that an interpretation can be made on the associ-
ation between value systems and Effectiveness. I will dis-
cuss these questions in the next subsection.
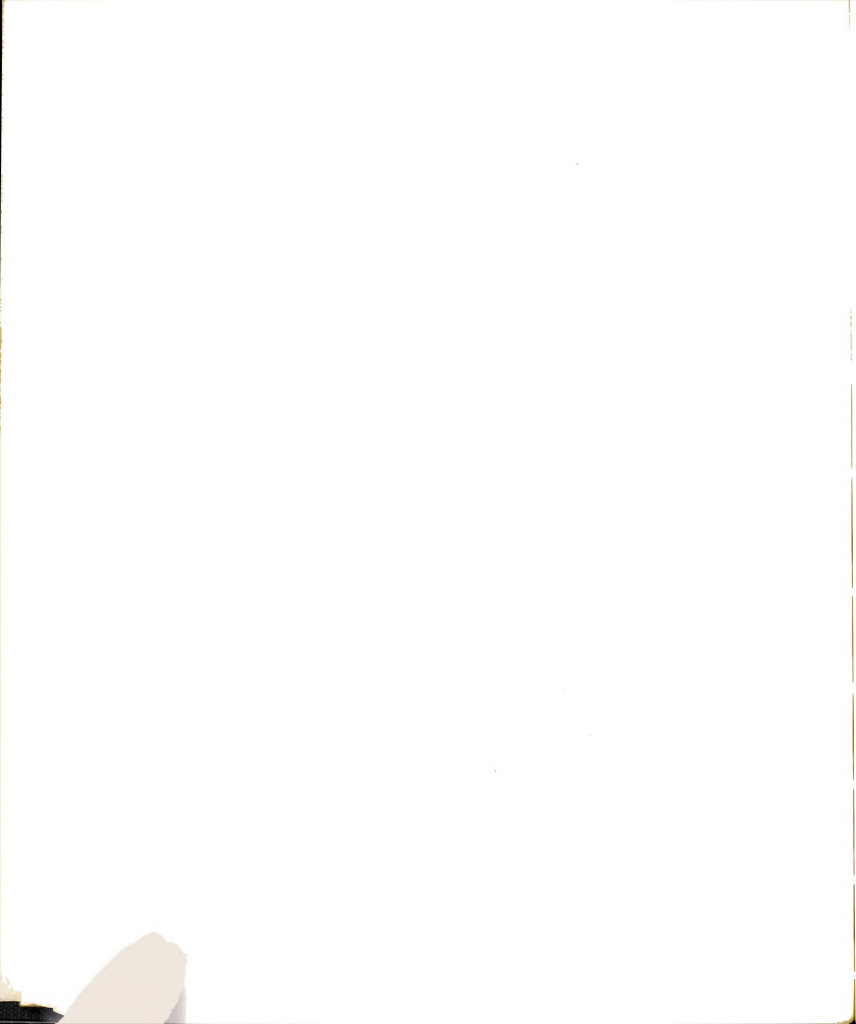
TABLE 29 - Terminal value medians and composite
rank-orders for the ineffective organizations based on Age

N = 128	18-35 years 58		36-50 years 38		51-over 32	
	Md.*	Rank	Md.	Rank	Md.	Rank
A comfortable life	10.67	12	8.17	8	11.17	11
An exciting life	13.50	16	12.00	13	13.00	16
A sense of accomplishment	9.83	11	6.83	6	6.50	4
A world at peace	3.25	1	8.50	9	5.67	3
A world of beauty	13.61	17	12.25	15	14.17	17
Equality	7.50	7	9.75	11	8.17	5
Family security	6.30	4	2.90	1	2.40	1
Freedom	4.88	2	6.70	5	8.25	6
Happiness	5.00	3	5.50	4	8.50	8
Inner harmony	8.50	8	7.17	7	8.25	7
Mature love	8.50	9	9.50	10	12.50	14
National security	12.50	14	12.50	16	12.25	13
Pleasure	13.30	15	12.83	17	15.07	18
Salvation	11.75	13	12.17	14	11.50	14
Self-respect	7.10	5	4.50	2	4.17	2
Social recognition	15.50	18	14.90	18	13.00	15
True friendship	9.38	10	10.90	12	10.50	10
Wisdom	7.21	6	4.70	3	8.83	9
Concordance coefficients	0.21		0.21		0.29	

* Md. = Median

TABLE 30 - Instrumental value medians and composite
rank orders for the ineffective organizations based on Age

N = 128	18-35 years 58		36-50 years 38		51-over 32	
	Md.*	Rank	Md.	Rank	Md.	Rank
Ambitious	6.64	3	6.33	3	6.00	3
Broadminded	8.36	6	8.25	5	9.50	11
Capable	8.50	8	7.75	4	7.50	4
Cheerful	8.17	5	9.17	10	12.10	14
Clean	6.25	2	8.50	7	9.00	9
Courageous	12.25	15	9.00	8	8.00	6
Forgiving	8.50	9	10.50	11	7.83	5
Helpful	10.75	13	11.50	12	8.75	7
Honest	3.00	1	3.83	2	2.21	1
Imaginative	14.75	18	13.50	18	15.50	18
Independent	10.10	11	12.50	15	12.50	15
Intellectual	12.75	16	12.50	16	11.17	12
Logical	11.25	14	12.25	14	12.50	16
Loving	8.50	10	12.00	13	11.83	13
Obedient	14.38	17	13.50	17	12.83	17
Polite	8.36	7	9.17	9	8.90	8
Responsible	7.00	4	2.50	1	3.50	2
Self-controlled	10.25	12	8.50	6	9.50	10
Concordance coefficients	0.16		0.18		0.23	

* Md. = Median

Sex

To determine if the category variable of Sex had any-
thing to do with the level of organizational effectiveness
through the value systems of the groups, value data were
stratified for respondents of different sex groups of both
effective and ineffective organizations. The area prob-
ability of 117 people from the effective organizations con-
tained 92 male and 25 female. Also from among 128 indivi-
duals who work in the ineffective organizations under survey
51 were male and 77 female. Tables 31 and 32 show terminal
and instrumental value medians and composite rank-orders
for effective and ineffective organizations based on sex.

The value systems of both effective and ineffective
organizations has already been analyzed while the whole group
regardless of their sex were under consideration. It was
noted in the analysis of Tables 31 and 32 that the male
group from both the effective and ineffective organizations
had value similarities in 17 of 36 terminal and instrumental
values. The most significant differences were found in the
values of CHEERFUL, POLITE, LOVING, INDEPENDENT, SELF-
CONTROLLED, AN EXCITING LIFE, EQUALITY, FREEDOM, INNER
HARMONY, NATIONAL SECURITY, and WISDOM all, more or less,
cultural or moral values. The same groups had value simi-
larities with no significant difference on AMBITIOUS, BROAD-
MINDED, CAPABLE, COURAGEOUS, IMAGINATIVE, and OBEDIENT - all
competence values, contributors to effectiveness.

TABLE 31 - Terminal value medians and composite rank
orders of values for effective and
ineffective organizations based on sex

N = 245	In Effective Organizations				Effective Organizations			
	Male		Female		Male		Female	
	51		77		92		25	
	Md.*	Rank	Md.	Rank	Md.	Rank	Md.	Rank
A comfortable life	8.38	9	10.67	12	7.75	7	10.00	11
An exciting life	9.00	10	15.00	17	12.56	14	14.58	16
A sense of accomplishment	6.40	3	9.08	9	6.38	3	6.25	5
A world at peace	6.44	5	4.56	1	6.94	5	5.00	3
A world of beauty	14.42	18	12.89	15	14.00	16	13.25	15
Equality	10.60	12	7.75	7	8.50	8	6.38	7
Family security	2.39	1	5.38	2	2.34	1	5.00	2
Freedom	7.60	7	6.00	4	6.43	4	6.33	6
Happiness	6.80	6	5.92	3	7.75	6	6.75	8
Inner harmony	7.63	8	8.31	8	10.33	11	9.00	9
Mature love	11.40	13	9.33	10	11.17	13	11.00	13
National security	14.14	17	11.42	14	10.25	10	12.88	14
Pleasure	13.00	16	14.08	16	14.56	18	16.13	18
Salvation	12.38	14	11.00	13	13.63	15	10.25	12
Self-respect	5.08	2	6.08	5	5.42	2	4.67	1
Social recognition	12.88	15	15.69	18	14.50	17	15.13	17
True friendship	10.33	11	9.86	11	10.50	12	10.00	10
Wisdom	6.42	4	6.78	6	8.75	9	6.25	4
Concordance Coefficients	0.22		0.23		0.23		0.30	

* Md. = Median

TABLE 32 - Instrumental value medians and composite rank orders of values for effective and ineffective organizations based on sex

N = 245	Ineffective Organization				Effective Organization			
	Male		Female		Male		Female	
	51		77		92		25	
	Md.*	Rank	Md.	Rank	Md.	Rank	Md.	Rank
Ambitious	5.38	2	6.78	4	4.86	3	9.00	9
Broadminded	8.38	5	8.60	8	7.50	5	7.33	7
Capable	5.40	3	9.40	10	6.00	4	6.00	3
Cheerful	11.13	13	8.06	6	10.08	8	10.75	12
Clean	9.75	8	6.29	3	11.00	11	7.13	5
Courageous	9.25	7	11.38	13	9.10	7	8.00	8
Forgiving	10.38	10	7.75	5	10.79	10	12.25	14
Helpful	11.63	14	9.60	12	11.19	12	7.00	4
Honest	4.00	1	2.43	1	2.60	1	2.00	1
Imaginative	13.57	18	15.55	18	14.08	18	14.38	18
Independent	10.13	9	11.40	14	11.61	13	7.25	6
Intellectual	12.38	16	12.13	15	11.86	14	13.75	17
Logical	11.00	12	12.42	16	10.19	9	10.20	10
Loving	12.33	15	8.75	9	13.29	17	13.08	16
Obedient	13.38	17	14.05	17	12.94	16	13.00	15
Polite	10.60	11	8.15	7	12.53	15	11.25	13
Responsible	5.75	4	3.94	2	4.05	2	5.13	2
Self-controlled	9.00	6	9.58	11	8.00	6	10.75	11
Concordance coefficients	0.17		0.20		0.21		0.25	

* Md. = Median

A comparison between the value systems of the female group from both types of organizations indicated that the female from effective organizations had value similarities with the female group from ineffective organizations in the following values: A COMFORTABLE LIFE, AN EXCITING LIFE, A WORLD OF BEAUTY, EQUALITY, FAMILY SECURITY, NATIONAL SECURITY, SALVATION, and WISDOM. Also, they ranked BROADMINDED, HONEST, IMAGINATIVE, RESPONSIBLE, and SELF-CONTROLLED similarly. The differences between them, however, stood out in AMBITIOUS, CAPABLE, COURAGEOUS, FORGIVING, HELPFUL, INDEPEND-ENT, LOGICAL, LOVING, and POLITE. The female group from the effective organization attached more importance to compe-tence values than its counterpart in ineffective group.

A similar comparison between the value systems of the effective and ineffective organizations with consideration of sex configuration indicated that ineffective organization with a majority of females (60%) had a dominant value com-posed of A WORLD AT PEACE, FAMILY SECURITY, HAPPINESS, MATURE LOVE, SELF RESPECT, CLEAN, FORGIVING, and CHEERFUL. This group, specifically, and their organization (the least effective ones) attached less importance on such values as LOGICAL, INDEPENDENT, COURAGEOUS, and CAPABLE - all compe-tence values. The effective organizations had no more than 22 percent of female and had distinctively different value systems from the ineffective organizations. The difference was remarkable in the competence values.

Tables 31 and 32 also showed much difference between the concordance coefficients of the female and male groups from the two different organizations. From these Tables the average concordance coefficient of the effective male group was 0.185, whereas that of the ineffective group was 0.22 (the difference of 0.35 is not significant in group homogeneity).[3] The effective female group's concordance coefficient was significantly smaller than the ineffective female group - an indication of greater homogeneity in the former group than the latter one. In both cases, however, the female group was less homogeneous than the male group. Considering the majority of the individuals in both groups of organizations, (22% female in effective and 60% female in ineffective organizations) and the level of homogeneity as stated above, the data was interpreted that the female group with a great adherence to moral values and little emphasis for the competence values may have affected the level of organizational effectiveness.

Income and Education Indices of Social Class

The fact that effective and ineffective organizations differed so significantly from one another on essentially the same sets of terminal and instrumental values raised the question as to whether the observed differences among

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[3] See Appendix B for the detail discussion of concordance coefficients.

executives could be related to differences in social class.
To determine if this is indeed the case, value data were
stratified for respondents of different income groups and
education groups on the assumption that income and education
are two of the best indices of social class.[4] The results
of stratification by income are shown in Tables 33-37.
The results of stratification by education are found in
Tables 38-41.

Income

Tables 33 and 34 show terminal and instrumental
value medians and their composite rank orders for the effec-
tive organizations based on income. Tables 35 and 36 show
the same data for ineffective organizations. A comparison
between the terminal value systems of the effective and in-
effective organizations revealed that those who were in the
middle and upper levels of income had a great value similar-
ity. But considering the distribution of income and the per-
centage of such people in the two organizations indicated
that they were in a distinguishable minority. Almost 80%
of the executives of the effective organizations and 88% of
the ineffective organizations were in the income bracket of
something less than $12,000.

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[4]
Sociologists have employed income, education, occu-
pation and family origin as the indices of social class. In-
come and education have been used in their studies more fre-
quently than any other index. For example, Milton Rokeach

TABLE 33 - Terminal value medians and composite rank
orders for the effective organizations based on income

	Under $12,000		$12,001-$18,000		$18,001-over	
N = 117	93		19		5	
	Md.*	Rank	Md.	Rank	Md.	Rank
A comfortable life	8.00	8	7.05	7	7.25	7
An exciting life	14.21	17	12.11	13	13.00	15
A sense of accomplishment	5.73	3	4.21	3	4.20	3
A world at peace	6.30	5	5.96	5	4.59	4
A world of beauty	14.00	16	13.70	15	10.33	12
Equality	7.79	7	7.66	8	7.39	8
Family security	2.69	1	2.56	1	2.39	1
Freedom	6.21	4	5.73	4	5.00	5
Happiness	7.01	6	6.70	6	6.73	6
Inner harmony	8.93	10	11.21	12	12.60	13
Mature love	9.29	12	12.15	14	12.79	14
National security	10.11	13	8.36	10	10.02	11
Pleasure	14.90	18	14.50	18	14.99	18
Salvation	10.90	14	13.93	16	14.71	17
Self respect	5.28	2	3.95	2	3.21	2
Social recognition	13.70	15	14.01	17	14.50	16
True Friendship	9.02	11	9.27	11	10.00	10
Wisdom	8.66	9	8.00	9	8.01	9

* Md. = Median
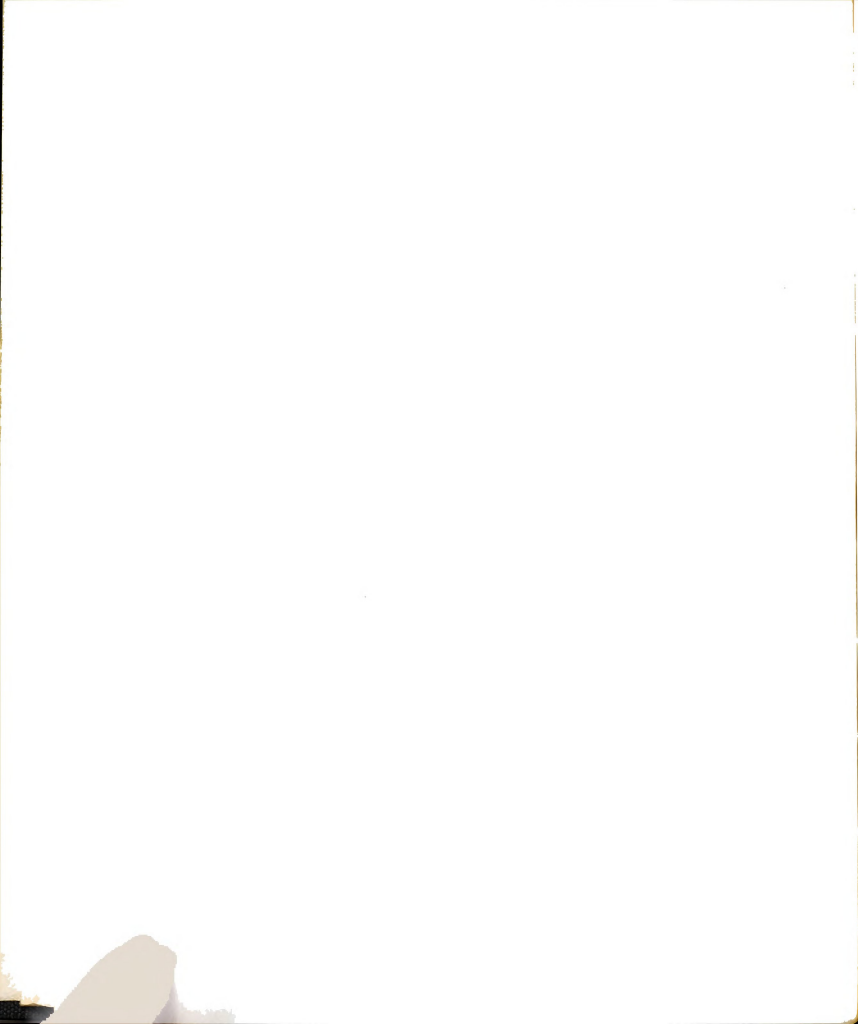
TABLE 34 - Instrumental value medians and their composite
rank orders for the effective organizations based on Income

| N = 117 | Under $12,000 | | $12,001-18,000 | | $18,000-over | |
| | 93 | | 19 | | 5 | |
	Md.*	Rank	Md.	Rank	Md.	Rank
Ambitious	3.70	3	3.15	3	4.71	3
Broadminded	4.23	5	5.01	5	5.09	5
Capable	3.99	4	5.07	6	4.76	4
Cheerful	7.50	9	9.00	11	6.33	8
Clean	8.29	11	7.00	8	8.50	11
Courageous	4.62	6	3.90	4	6.02	7
Forgiving	8.76	12	8.20	10	8.00	10
Helpful	7.93	10	6.12	7	8.80	12
Honest	2.45	1	2.23	1	3.20	1
Imaginative	12.02	18	12.00	18	11.65	18
Independent	9.00	13	9.29	12	9.21	13
Intellectual	9.90	14	9.71	13	9.53	14
Logical	6.00	8	9.90	14	7.26	9
Loving	11.77	17	11.40	17	11.00	17
Obedient	11.00	16	10.11	15	10.26	16
Polite	10.21	15	10.36	16	9.71	15
Responsible	3.21	2	2.71	2	3.90	2
Self-controlled	5.09	7	7.77	9	5.95	6

* Md. = Median
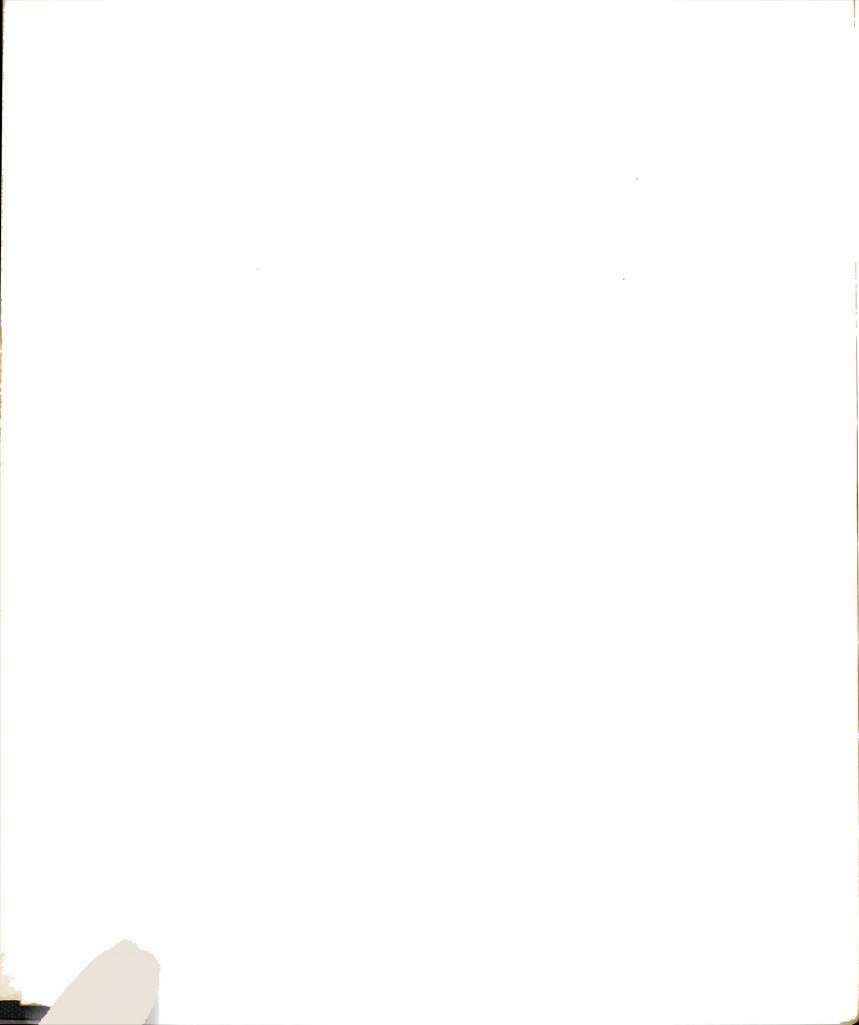
TABLE 35 - Terminal value medians and their composite
rank orders for the ineffective organizations based on income.

N = 128	Under $12,000 112		$12,001-18,000 13		$18,000-over 3	
	Md.*	Rank	Md.	Rank	Md.	Rank
A comfortable life	16.07	12	8.38	9	6.26	8
An exciting life	15.00	17	9.00	10	6.63	9
A sense of accomplishment	9.08	9	6.40	3	3.95	3
A world at peace	4.56	1	6.44	5	4.80	5
A world of beauty	12.89	15	14.42	18	13.00	18
Equality	7.75	7	10.60	12	7.75	10
Family security	5.38	2	2.39	1	3.25	1
Freedom	6.00	4	7.60	7	8.02	12
Happiness	5.92	3	6.80	6	5.00	6
Inner harmony	8.31	8	7.63	8	5.39	7
Mature love	9.33	10	11.40	13	8.41	13
National security	11.42	14	14.14	17	10.11	16
Pleasure	14.08	16	13.00	16	9.00	14
Salvation	11.00	13	12.38	14	9.50	15
Self-respect	6.08	5	5.08	2	3.71	2
Social recognition	15.69	18	12.88	15	10.92	17
True friendship	9.86	11	10.33	11	7.94	11
Wisdom	6.78	6	6.42	4	4.22	4

* Md. = Median

TABLE 36 - Instrumental value medians and their composite
rank orders for the ineffective organizations based on income

N = 128	Under $12,000 112		$12,001-18,000 13		$18,001-over 3	
	Md.*	Rank	Md.	Rank	Md.	Rank
Ambitious	6.78	4	5.38	2	4.01	3
Broadminded	8.60	8	8.38	5	5.00	5
Capable	9.40	10	5.40	3	3.95	2
Cheerful	8.06	6	11.13	13	7.88	12
Clean	6.29	3	9.75	8	6.70	8
Courageous	11.38	13	9.25	7	5.77	7
Forgiving	7.75	5	10.38	10	7.22	10
Helpful	9.60	12	11.63	14	8.50	13
Honest	2.43	1	4.00	1	3.22	1
Imaginative	15.55	18	13.57	18	11.02	17
Independent	11.40	14	10.13	9	6.93	9
Intellectual	12.13	15	12.38	16	9.50	15
Logical	12.42	16	11.00	12	7.36	11
Loving	8.75	9	12.33	15	8.99	14
Obedient	14.05	17	13.38	17	10.20	16
Polite	8.14	7	10.60	11	12.00	18
Responsible	3.94	2	5.75	4	4.23	4
Self-controlled	9.58	11	9.00	6	5.49	6

* Md. = Median
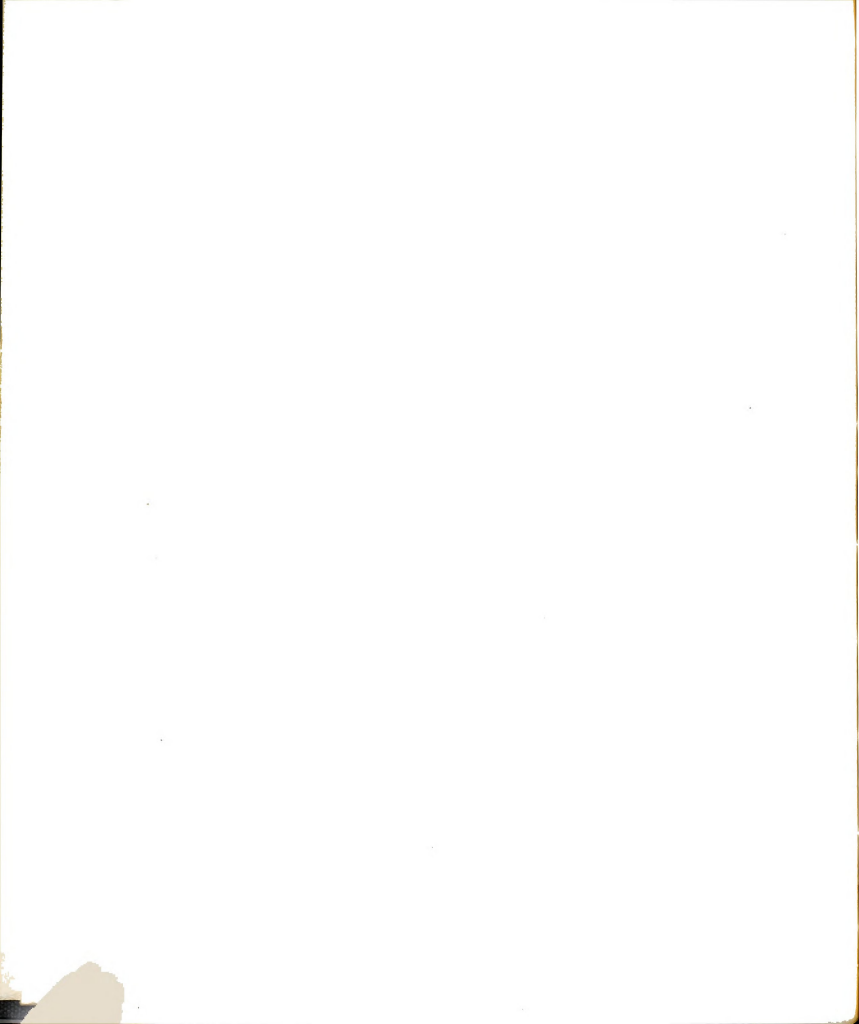
According to Tables 11 and 12 (Chapter 3) those members of the two organizations who drew less than $8,000 were almost 32% and 60% in effective and ineffective organizations respectively. Additionally, Tables 33, 34, 35, and 36 revealed the following:

1) Those who had lower income attached much importance to such moral values as CLEAN, FORGIVING, HELPFUL, OBEDIENT, SALVATION, COMFORTABLE LIFE, and TRUE FRIENDSHIP. However the competence values, at the same time gained more importance from this group than the more affluent groups. Table 37 shows composite value medians for the effective and ineffective groups based on income under $12,000 matched on sex. Matching these responses to sex it was further revealed that, in the ineffective organizations the lower income group was mostly young-female who comprised a majority of 60% of the organization members.[5]

2) The higher income groups possessed conservative values that are evidenced through the importance they attach to pleasure and happiness. They have a rather established pattern of behavior, living, and values which is pro status-quo. This pattern of differences distinguishing the male

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took income as a single criterion of social class. See: Milton Rokeach, "Value Systems in Religion," Review of Religious Research, Vol. 11, No. 1, 1969.

[5] See Tables 6 and 8, Chapter 3.

TABLE 37 - Composite value medians for the effective and in-effective groups based on income under $12000 matched on age and sex

N =	Effective 93*		Ineffective 112*	
	Median	Rank	Median	Rank
Clean	8.29	11	6.29	3
Forgiving	8.76	12	7.75	5
Helpful	7.93	10	9.60	12
Obedient	11.00	16	14.05	17
Salvation	10.90	14	11.00	13
Comfortable Life	8.00	8	16.07	12
True Friend-ship	9.02	11	9.86	11

*77 out of 112 individuals from ineffective group are female. Only 20 out of 93 persons from the effective group are female.

lower income from both the old higher income people, and the female lower income class reinforced two things:
a) Sex, once again, is a value discriminator and may be a determinant of the level of effectiveness. b) Income level as an indication of social class may be the basis of the value differences found between effective and ineffective organizations.

Education

Social class, as measured by income level, revealed the differences in value systems which were not directly related to income. But, a matching with sex variable showed that under the conditions of difference in sex the level of effectiveness differed among the groups. To determine whether this is indeed the case, education as another index of social class, which has been used in a great number of social studies, was used. Value data were stratified and analyzed for respondents of different education groups.

Tables 38, 39, 40, and 41 show the terminal and instrumental value medians and composite rank order of values for effective and ineffective groups based on education.

An examination of the rank columns of these tables indicated the following:

1) The less educated group had different value system from the more educated group both in comparison within and without the effective or ineffective organization.

TABLE 38 - Terminal value medians and composite rank order of values for effective organizations based on education

	Elementary*		High School		College	
N = 117	3		55		59	
	Md.†	Rank	Md.	Rank	Md.	Rank
A comfortable life			4.74	8	5.23	10
An exciting life			10.11	17	6.60	12
A sense of accomplishment			3.00	3	3.91	5
A world at peace			3.97	5	4.41	7
A world of beauty			10.00	16	9.00	16
Equality			4.36	7	4.88	8
Family security			2.43	1	2.36	1
Freedom			3.29	4	4.00	6
Happiness			4.02	6	3.72	4
Inner harmony			5.60	10	4.95	9
Mature love			7.39	12	6.00	11
National security			8.09	13	8.50	15
Pleasure			11.00	18	7.21	13
Salvation			9.01	14	9.90	17
Self-respect			2.71	2	3.07	2
Social recognition			9.70	15	7.96	14
True friendship			7.20	11	10.39	18
Wisdom			4.93	9	3.26	3

*Excluded from analysis due to the sample size.

† Md. = Median

TABLE **39** - Instrumental value medians and composite
rank order of values for effective organizations based on
education

	Elementary*		High School		College	
N = 117	3		55		59	
	Md.†	Rank	Md.	Rank	Md.	Rank
Ambitious			3.24	3	3.25	3
Broadminded			3.90	4	4.29	5
Capable			4.73	6	3.81	4
Cheerful			6.33	10	6.33	10
Clean			5.20	7	5.12	8
Courageous			4.41	5	4.60	6
Forgiving			7.11	11	7.40	11
Helpful			5.46	8	5.02	7
Honest			2.61	1	2.36	1
Imaginative			11.00	18	11.01	18
Independent			8.25	14	7.93	12
Intellectual			9.09	16	8.39	14
Logical			7.72	12	8.24	13
Loving			9.00	15	9.18	15
Obedient			7.91	13	10.02	17
Polite			10.23	17	9.91	16
Responsible			2.79	2	6.11	9
Self controlled			6.02	9	2.84	2

*Excluded from analysis due to the sample size.
† Md. = Median

TABLE 40 - Terminal value medians and composite
rank orderof values for ineffective organizations based on
education

	Elementary*		High School		College	
N = 128	1		56		71	
	Md.†	Rank	Md.	Rank	Md.	Rank
A comfortable life			7.01	10	6.11	8
An exciting life			10.11	15	11.90	17
A sense of accomplishment			4.00	3	4.79	5
A world at peace			4.81	5	5.19	6
A world of beauty			9.50	14	10.18	15
Equality			6.27	9	5.57	7
Family security			3.26	1	2.79	1
Freedom			4.39	4	7.99	11
Happiness			5.33	7	4.25	4
Inner harmony			7.66	11	7.21	10
Mature love			8.13	12	6.31	9
National security			11.20	17	11.53	16
Pleasure			10.39	16	9.00	13
Salvation			8.91	13	9.13	14
Self respect			3.79	2	3.32	2
Social recognition			12.00	18	12.02	18
True friendship			4.95	6	3.66	3
Wisdom			5.41	8	8.25	12

*Excluded from analysis due to the sample size.
† Md. = Median

TABLE 41 - Instrumental value medians and composite
rank order of values for ineffective organizations based on
education

N = 128	Elementary* 1		High School 56		College 71	
	Md.†	Rank	Md.	Rank	Md.	Rank
Ambitious			4.79	4	4.79	5
Broadminded			5.70	6	5.21	6
Capable			6.00	7	5.97	7
Cheerful			5.39	5	4.00	4
Clean			4.35	3	6.12	8
Courageous			6.19	8	3.25	3
Forgiving			7.12	9	6.39	9
Helpful			7.80	10	8.00	12
Honest			3.21	1	2.63	1
Imaginative			12.79	18	11.12	17
Independent			12.02	17	10.11	15
Intellectual			10.00	13	9.50	14
Logical			10.46	14	10.75	16
Loving			3.45	2	2.99	2
Obedient			8.45	11	8.81	13
Polite			9.01	12	7.23	10
Responsible			11.30	15	7.80	11
Self controlled			11.91	16	12.00	18

*Excluded from analysis due to the sample size.

† Md. = Median

2) Those who were in the effective organizations and had a higher level of education emphasized the importance of competence values more than did their counterparts in the less effective organizations. Examination of the rank columns of Tables 38 and 40 revealed similarities and differences between the value systems of different educational groups within effective and ineffective organizations. A comparison between those with high school education from the effective organizations and those of the ineffective groups showed that the two groups had no difference of values in 6 out of 18 terminal values. Both groups attached their highest importance to FAMILY SECURITY, SELF-RESPECT, and A SENSE OF ACCOMPLISHMENT. The sharpest difference between the two groups, however, existed in TRUE FRIENDSHIP, SOCIAL RECOGNITION, and NATIONAL SECURITY.

Turning to the instrumental values of the same educational group within both organizations showed that no significant difference, two levels of difference or more in the median ranks, existed between them in such values as AMBITIOUS, CAPABLE, HONEST, and IMAGINATIVE, all of which are competence values. The sharpest difference between the two groups of equal education was noted in CHEERFUL, CLEAN, LOVING, POLITE, RESPONSIBLE, and SELF CONTROLLED.

A comparison of terminal and instrumental values of the college educated individuals within both organizations indicated that the two groups attached almost equal

importance to such competence values as A SENSE OF ACCOM-
PLISHMENT, IMAGINATIVE, and INTELLECTUAL. The differences
between these groups are in the importance of values
assigned to CHEERFUL, HELPFUL, LOVING, OBEDIENT, POLITE,
and SELF CONTROLLED, all of which are moral values.

Another comparison between the value systems of the
less educated group with the more educated group within and
without the effective and ineffective organizations reveal-
ed considerable differences in CLEAN, COURAGEOUS, RESPONS-
IBLE, SELF CONTROLLED, FREEDOM, HAPPINESS, PLEASURE, WISDOM,
TRUE FRIENDSHIP, and AN EXCITING LIFE.

In general, those who are in the most effective
organizations and have a higher level of education emphas-
ized the importance of competence values more than did their
counterparts in the least effective organizations. Having
equal level of education and differing so markedly in the
competence values, the members of the two organizations may
have been under the influence of other variables like sex,
age, religion, and income. Looking back to Tables 3 through
8 and 11 and 12 in Chapter 3 indicated that the dominant
religion of both groups of effective and ineffective organi-
zations is Protestant. They have a similar educational
group but different age, sex, and income configurations.

Summary of the Analysis of Value Systems of Sub groups and the Group Homogeneity

Chapter 4 determined **what** differences existed between
the value systems of the "effective" and "ineffective" groups.

The purposes of this chapter were to investigate the extent
to which such differences existed among groups stratified
by religion, age, sex, income, and education. The chapter
also investigated the degree of homogeneity of the above
groups and the relationship between their value systems and
organizational effectiveness.

It was realized that the two organizations had
similar religious and educational configurations. The in-
effective organizations had more homogeneity in respect to
sex and age than the effective organizations. Also, intra-
group homogeneity in expression of value systems existed in
the ineffective organizations more than it existed in the
effective organizations.

Both the effective and ineffective organizations
displayed considerably high differences of value systems
when studied under the variables of sex, age, and income.
On the other hand, the same groups did not react much
differently from each other when they were studied under the
variables of religion and education.

The discussion in Chapters 4 and 5 related to the
differences and the probable reasons for such differences
in the value systems of the "effective" and "ineffective"
organizations. These chapters analyzed the data with major
concentration on the first two hypotheses of this study.
Chapter 6 is to evaluate the data regarding the third hypo-
thesis (i.e., the correlation between value systems and how

the organizational effectiveness is perceived by the organizational members.

CHAPTER 6

CORRELATION OF THE PERCEIVED ORGANIZATIONAL
EFFECTIVENESS WITH THE EXECUTIVES' VALUE SYSTEMS

Introduction

Chapter 4 involved primarily a comparison of value
systems between those organizations nominally identified as
effective and those which were rated ineffective. The
differences and similarities thus obtained were interesting
in their own right in that they described the value systems
of representative sub-samples of executives differing in
merit ratings performed by their superiors. Chapter 5 was
more analytical in that it dealt with the reasons why their
value systems were different. The past two chapters, there-
fore, analyzed the data with major concentration on the
first two hypotheses of this study.

This chapter deals with the perceptions of the same
executives concerning how they viewed the phenomenon of
organizational effectiveness and how they rated their organi-
zation, i.e., the third hypothesis (value systems correlate
significantly with the perception of organizational

142

effectiveness. Therefore, a certain set of values can be identified that affect the level of organizational effectiveness). The purposes of this chapter are to present analysis relative to three questions:

1) Whether there were any factors other than those discussed in Chapter 6 that influence the value systems of the employees and the extent of their effectiveness.

2) How the perceptions of the employees correlate with their expressed value systems.

3) Whether a set of values can be identified that affect the level of organizational effectiveness.

The analysis in this chapter is based on an opinion poll of the subjects as to how they perceive of their organizations in terms of leadership, motivation, satisfaction, organization structure, organization's development policies, and the employee attitude.

The data to be presented in this chapter was collected through a number of questions answered by the executives simultaneously with their value survey.[1] To make the analysis median tests of significance of variance, Chi square, and probability analyses were performed.

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[1] For the text of these questions see Appendix A, Part 2.
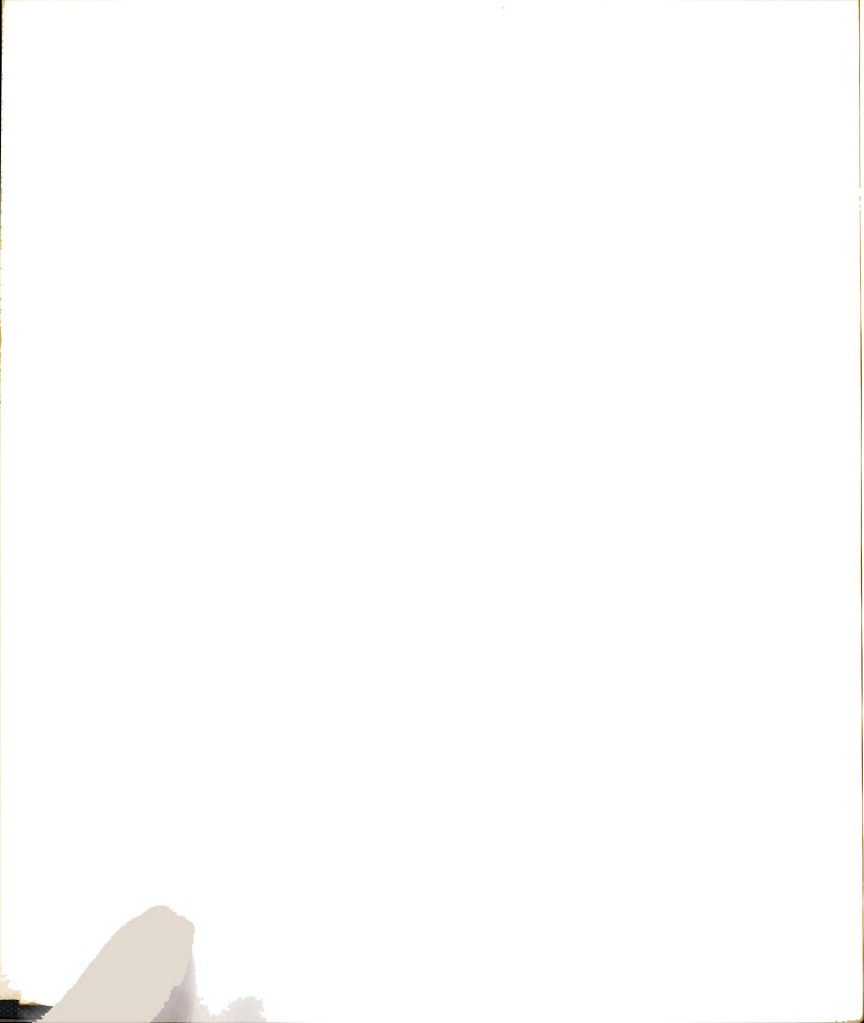
Presentation and Analysis of Data

Presentation of the Executives' Perceived Organizational Effectiveness.

Since the data collected for this analysis were obtained from three organizations that were rated effective and another three organizations that were rated ineffective, it seems appropriate to perform the presentation under the category variables of effective-ineffective grouping. The significance of this kind of grouping is that a later comparison between the perceived organizational effectiveness and the group's value system will be facilitated.

Although interviews with the superiors of several organizations under survey resulted in the determination and labeling of a number of organizations as effective or ineffective, the organization members are also a valuable source for any appraisal of their respective organization.

One way to determine whether a consensus exists between superiors and subordinates is to have the subordinates express their opinion. Table 42 shows the opinion of the members of effective and ineffective organizations on the question whether the organization had lived up to the expectations they had before they entered the organization. From Table 42 an overwhelming majority of the effective group (98%) viewed their organization as having satisfied their expectations. On the other hand, a little more than half of the ineffective group (55%) thought their organization
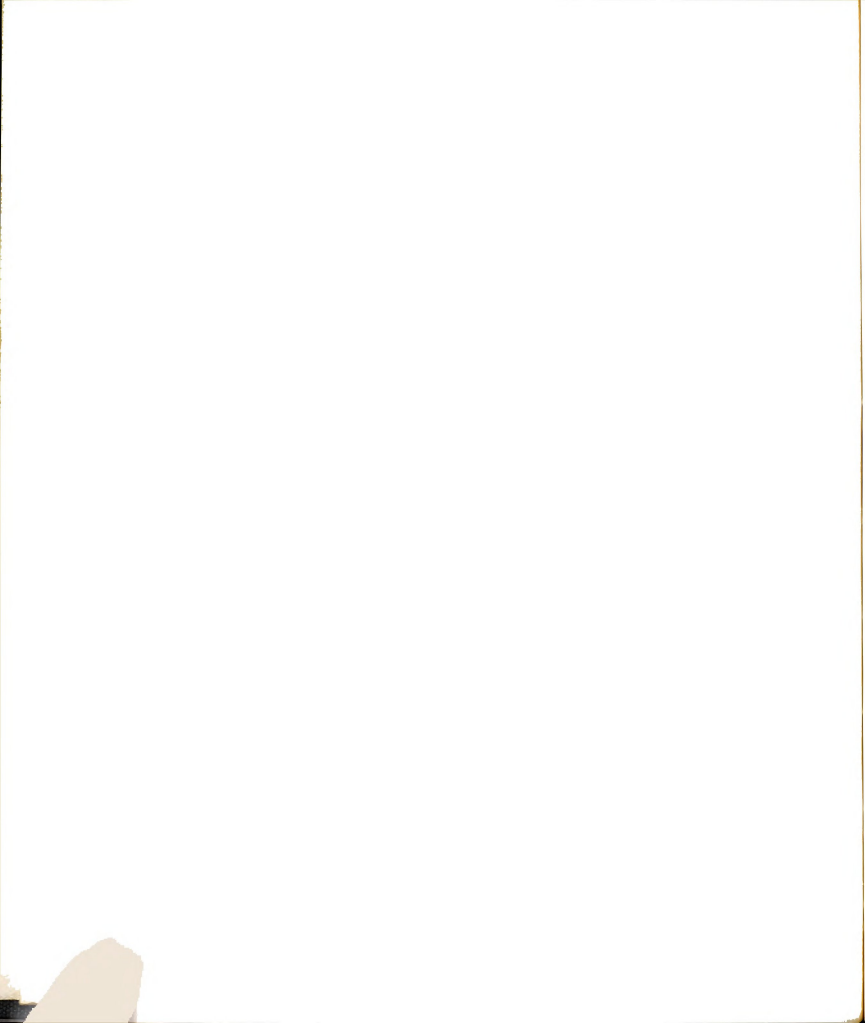
TABLE 42 - Comparison between effective and ineffective groups based on opinions expressed about how the organization has met the employee expectations (all figures in percentage)

	In all respects	In most ways	In a few ways	Not at all	Percent-age
Effective	81	17	2	0	100
Ineffective	25	30	40	5	100

has satisfied them. A similar piece of evidence is the answer given by the same two groups to a question whether they would join their present organization if they had to do it again. Table 43 shows the opinion expressed to this question.

TABLE 43 - Comparison between effective and ineffective groups based on opinions about whether they would join their organization again (all figures in percentage)

	Certainly Yes	Probably Yes	Probably No	Certainly No	Percent-age
Effective	75	11	8	6	100
Ineffective	35	25	27	13	100

In Table 43 the percentage of those people who would join their ineffective organization increased from 55% in the previous question to 65%. One possible reason consisted of
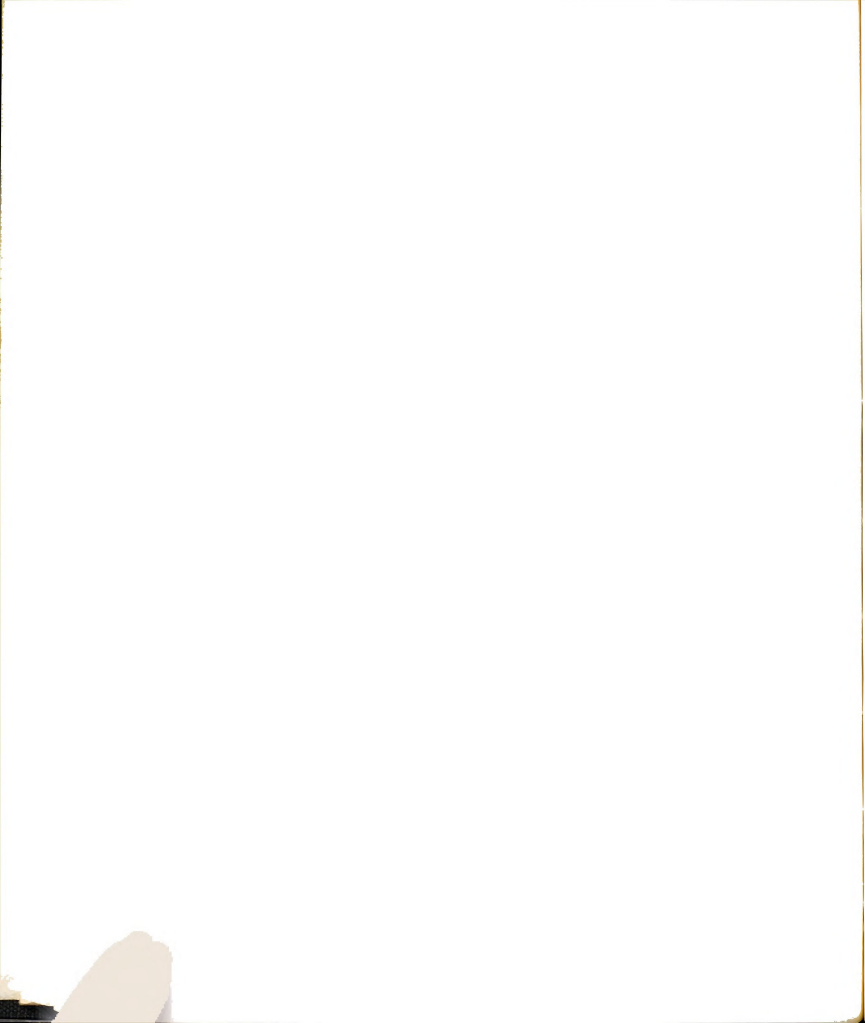
the effort to maintain a degree of balance between contribution and inducement.[2] Another related to the labor market demand for their profession or geographical considerations. At any rate, there were 86% of the effective group members who would rejoin their organizations, whereas only 60% of the ineffective group members would do it over. Still another piece of evidence, that reinforced the notion that a number of employees became calculative, was shown in the responses given to the question on whether they would spare some of their energy from work due to any reason. Table 44 shows the opinions expressed to this question.

TABLE 44 - Comparison between effective and ineffective groups based on opinions about whether the employees would spare energy from work (all figures in percentage)

	Yes due to improper salary	Yes because don't like boss	Yes due to improper job	Do not spare energy
Effective	25	6	9	60
Ineffective	30	16	19	35

From this table, one sees that 65% of the ineffective group (cumulative columns 1, 2 and 3 from left) would spare its

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[2] For a discussion on contribution/inducement equilibrium see: James March and Herbert Simon, Organizations, (New York: John Wiley and Sons, Inc., 1958).

energy, whereas only 40% of the effective group would do the same thing. Additionally, the employees of the ineffective organizations, in comparison with the effective ones, comprised a majority who believed there was something wrong with their organizations' remuneration policies, leadership methods, and division of labor.

Concerning the perception of the respondents on the quality and quantity of training received on the job while working for their organizations, some 57.3 percent of the members of the effective organizations believe their group received satisfactory training. The ineffective group had only 28 percent of such people. Table 45 shows the response to how satisfied the organization members felt with on the job training as matched with their previous education. As can be seen from these statistics, the more effective organizations have emphasized organizational training as well as the employee's previous education more than ineffective organizations.

Perhaps the ineffective organizations have neglected the importance of training and development of the executives while they work for the organization. Considering the fact that 72% of the ineffective organization's employees were dissatisfied with the amount and quality of training it is no wonder why the total achievement of the organization was so low.

TABLE 45 - Effective and ineffective organizations'
response on satisfaction with training as matched with their
previous education (figures in percentage)

Education Level	Satisfied	Dissatis- fied	No. in strata	Satisfied	Dis- satis- fied	No. in Strata
Elementary	1.7	0.85	2.55	0	0.5	0.5
High school	30	17	47	12.5	31	43.5
College	20	22	42	14	33.5	47.5
Graduate work	5.6	2.85	8.45	1.5	7	8.5
Total	57.3	42.7	100	28	72	100

The distribution of the employee's formal education
in both types of organizations was rather the same.[3] The
difference between the two types of organizations stood out
by the emphasis they had placed on the organizational train-
ing. Everything else being equal, the lack of proper train-
ing may be the cause for failure in ineffective organizations.

Another measure to obtain the perceptions of the
employees in both effective and ineffective organizations
was to look at the answers they had given to the question on

[3]See Tables 9 and 10, Chapter 3.

the division of labor and autonomy in the job. There was again a considerable difference between the two organizations relating to the organization structure and the leadership method. The effective organizations had, in general, satisfied a majority of their members in regard to the delegation of authority and the work load. Table 46 shows the opinion expressed to the question whether the employees felt satisfied with the level of autonomy in their job. Table 47 shows their opinion on their work load.

TABLE 46 - Comparison of the opinions of the
effective and ineffective organizations on whether
they were satisfied with the level of autonomy in job
(figures in percentage)

	Very satisfied	Fairly satisfied	Dis- satisfied	Very dissatisfied
Effective	41	35	16	8
Ineffective	35	14	30	21

From Table 46 a great majority of the effective organizations' employees (76%) felt satisfied with the level of autonomy in their job, whereas only about half of the ineffective organizations' employees (49%) felt the same way. Table 47 indicates that both organizations had satisfied a majority of the employees in terms of the work load. To the respondents of the ineffective organizations, the

delegation of authority was more of a problem than the work load.

Having presented the raw data on the perception of organizational effectiveness, it must be seen how did these data correlate with value systems. This is discussed in the next section.

Correlation between the perceived executive effectiveness and value systems.

The main purpose of this section is to show to what extent terminal, instrumental, and specifically competence values are related to organizational effectiveness as perceived by the organization members. Perception of organizational effectiveness was determined through responses given by the employees to a large variety of questions relating to productivity, conformity with policies, smoothness of operations, absenteeism, creativity, adaptiveness to changes, employee satisfaction, leadership methods, division of labor, development policies, and attitudes toward work.

Empirical findings reported in Chapters 4 and 5 suggested that the effective organizations and the ineffective organizations were characterized by value systems that were distinguishably different from one another. The effective organizations consistently ranked the terminal values of A SENSE OF ACCOMPLISHMENT and SOCIAL RECOGNITION higher and PLEASURE lower than those organizations that were rated less effective. The effective groups, moreover, typically ranked
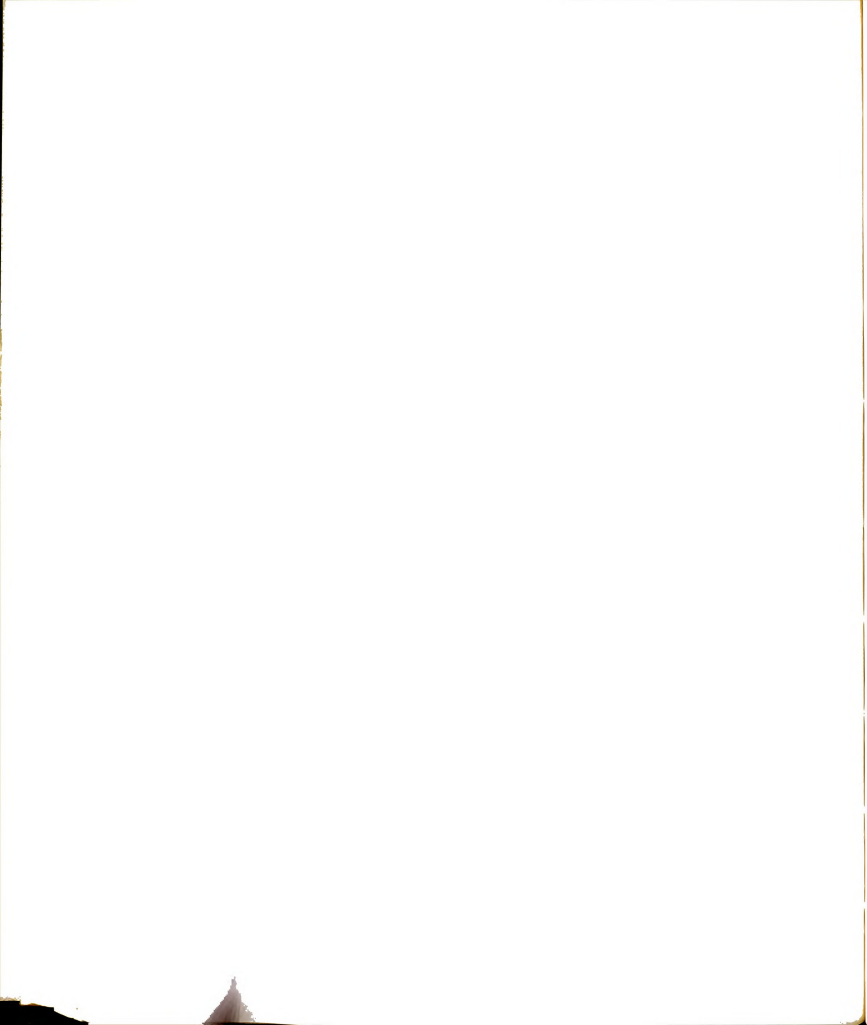
the competence values of INDEPENDENT, INTELLECTUAL, CAPABLE, and LOGICAL higher than the ineffective groups. When magnitude of value difference was considered as well as statistical significance of differences, several values such as: AMBITIOUS, BROADMINDED, CAPABLE, IMAGINATIVE, INDEPENDENT, INTELLECTUAL, RESPONSIBLE, LOGICAL, COURAGEOUS, SOCIAL RECOGNITION, and A SENSE OF ACCOMPLISHMENT, emerged as the most distinctive achievement values.

Some questions may now be raised about these achievement values, and by implication, about the social and cultural institutions that fostered them. These institutions include: education and social class. Questions can be raised as to what kinds of standards the competence values represented and what functions they served. Are they more often employed as standards to guide organizational action and a concern for the improvement of the organization, or are they more often employed as standards to rationalize the individual actions as evidenced by the decisions made by the organization members?

As was pointed out already, the data supported the idea that there is a positive rather than negative relationship between effectiveness and the possession of a certain set of values. The relationship was discovered through the examination of several category variables of age, sex, income, education, and religion. The influence of each variable was readily apparent in the value findings previously
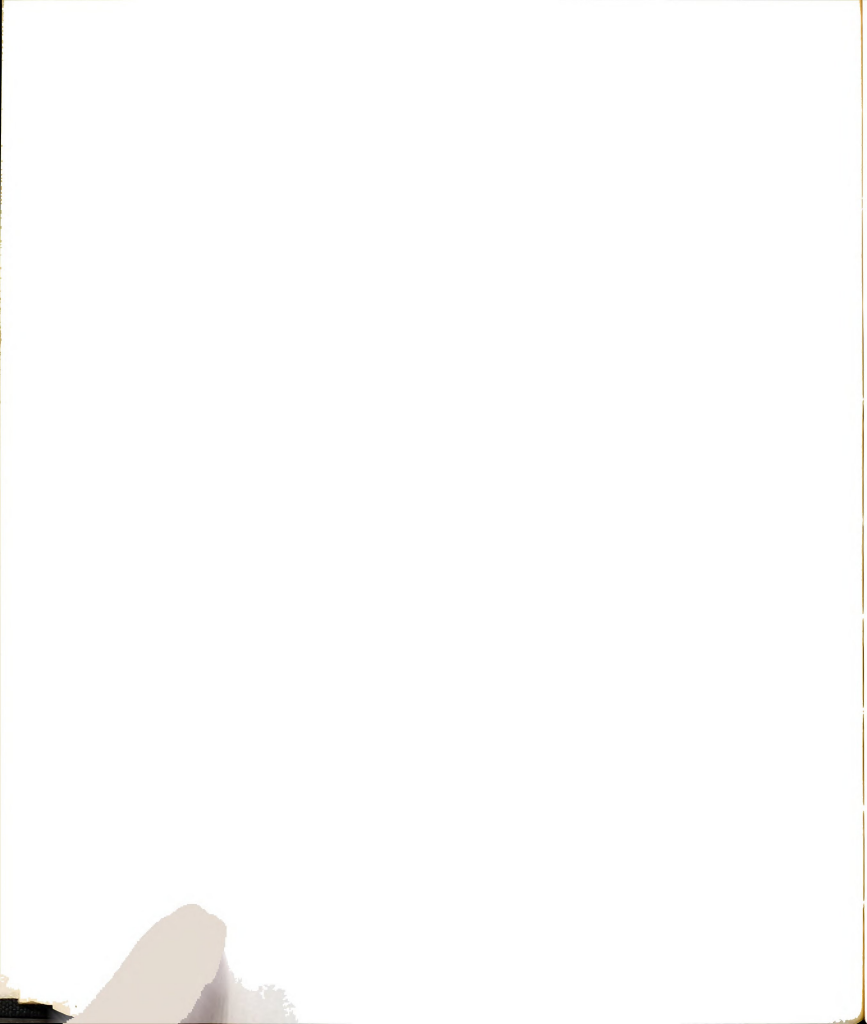
reported. Individuals and organizations who were nominally rated effective shared a common set of competence values that set them apart from those not nominally rated effective. This section examines the relationship between the value systems of the effective and ineffective groups (i.e., effective groups are those groups of people who attached distinctively higher importance to the competence values than moral values) and the position of both groups on the organizational issues explained in the previous section.

To conduct this portion of the study, two sets of data were used. One was the Rokeach's value survey relative to the effective and ineffective groups, which was analyzed in Chapters 4 and 5, and the other was the questions pertaining to the organizational issues as presented in the previous section of this chapter. Since both the value survey and the questionnaire were prepared on a multiple choice basis, they gave the respondent an opportunity to select one answer from among four to eighteen, it was assumed that the pattern of response exhibited by the two groups could be taken as a sample of how they usually made decisions concerning their organizational tasks.

For each of the questions put to the respondents those varying in response were compared for similarities and differences in values. The purpose here is to report the data thus obtained on the relation between competence values and the perception of organizational effectiveness. Two questions were examined as follows:
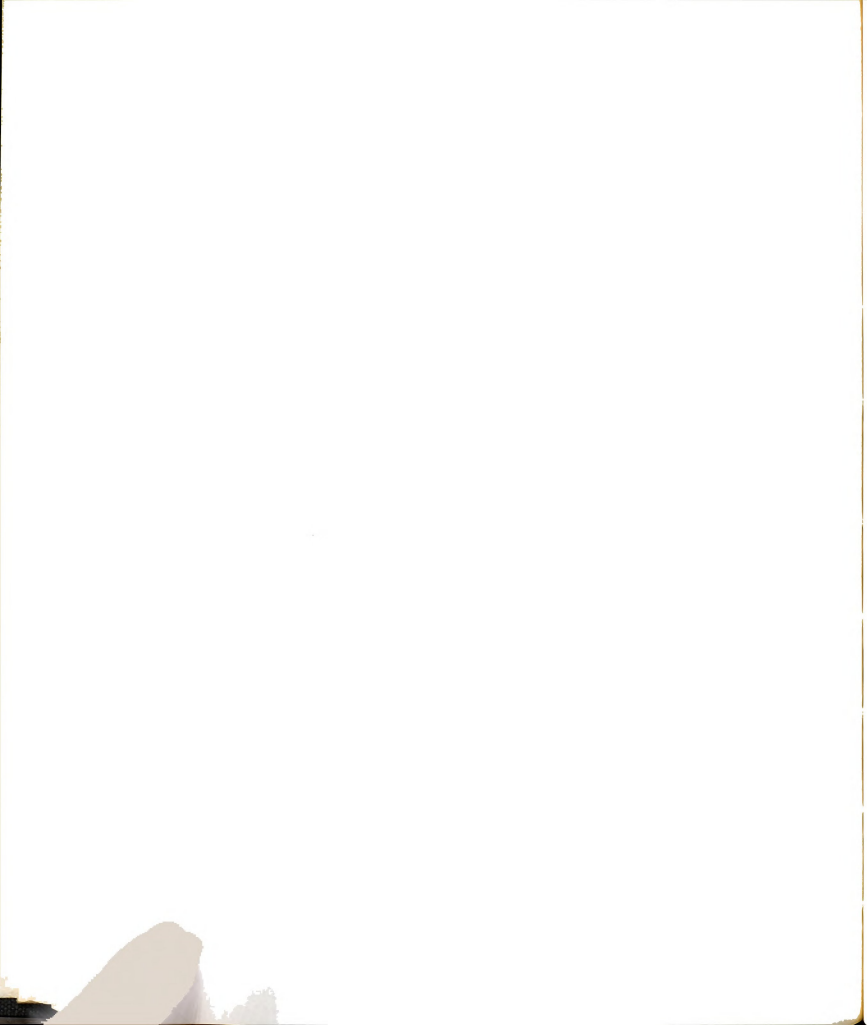
(1) Value systems and position on whether the

organization had lived up to the employee

expectations:

(2) Value systems and the rating of the organiza-

tion by its members.

Value Systems and Position on Whether the Organization Had Lived Up to The Employee Expectation

Table 48 shows the effective organizations' compo-

site rank orders of terminal values for four types of res-

ponders to the question "Has the organization lived up to

the expectations you had before you entered it?"

Table 49 shows the same data for instrumental values.

Tables 50 and 51 present the above data for ineffective

organizations. Looking down the last column of all four

tables indicated that several values were shared equally by

the members of the effective and ineffective organizations

regardless of the response they gave to the question. These

values were HONEST, IMAGINATIVE, and FAMILY SECURITY. Also,

it can be noted that the two groups did not have much differ-

ence on most of the moral values.

Eventually, the difference between the two groups

appeared when the answers were matched with competence values.

A comparison between the first column of Table 49 and the

third column of Table 51 indicated that the majority of the

members of both organizations perceived of their organizations

differently. From these Tables the association between seven

TABLE 48 - The effective organizations' composite
rank orders for terminal values and four types of responders
to the question:
"Has the organization lived up to the expectations you had
before you entered it?"

	In all respects	In most ways	In only a few ways	Not at all*	
N = 117	95	19	3	0	p+
A comfortable life	8	8	10		N.S.
An exciting life	14	15	13		N.S.
A sense of accomplishment	3	2	5		0.021
A world at peace	5	4	7		0.073
A world of beauty	16	13	17		0.127
Equality	7	7	6		N.S.
Family security	1	1	1		0
Freedom	4	3	8		0.840
Happiness	6	5	9		0.721
Inner harmony	10	9	12		0.546
Mature love	12	10	14		0.491
National security	13	11	15		0.380
Pleasure	18	17	18		N.S.
Salvation	17	18	16		N,S.
Self respect	2	14	3		1.261
Social recognition	15	14	41		0.980
True friendship	11	12	11		N.S.
Wisdom	9	6	2		0.820

*Obtained by Median Test. All significance values shown in succeeding tables are likewise obtained by the Median Test.

+P = Probability of occurrence.

TABLE 49 - The effective organizations' composite rank orders for instrumental values and four types of responders to the question:
"Has the organization lived up to the expectations you had before you entered it?"

	In all respects	In most ways	In only a few ways	Not at all	P^+
N = 117	95	19	3	0	P^+
Ambitious	3	4	5		0.029
Broadminded	5	6	8		0.076
Capable	4	5	6		0.721
Cheerful	9	8	10		0.540
Clean	11	9	12		0.678
Courageous	6	7	9		0.242
Forgiving	12	10	14		0.129
Helpful	10	7	11		0.980
Honest	1	1	1		0
Imaginative	18	18	18		0
Independent	13	11	15		0.900
Intellectual	14	15	16		0.771
Logical	8	9	10		0.642
Loving	17	17	13		0.091
Obedient	16	15	17		N.S.
Polite	15	14	5		1.026
Responsible	2	3	4		1.033
Self controlled	7	16	3		1.097

$^+$P = Probability of occurrence.
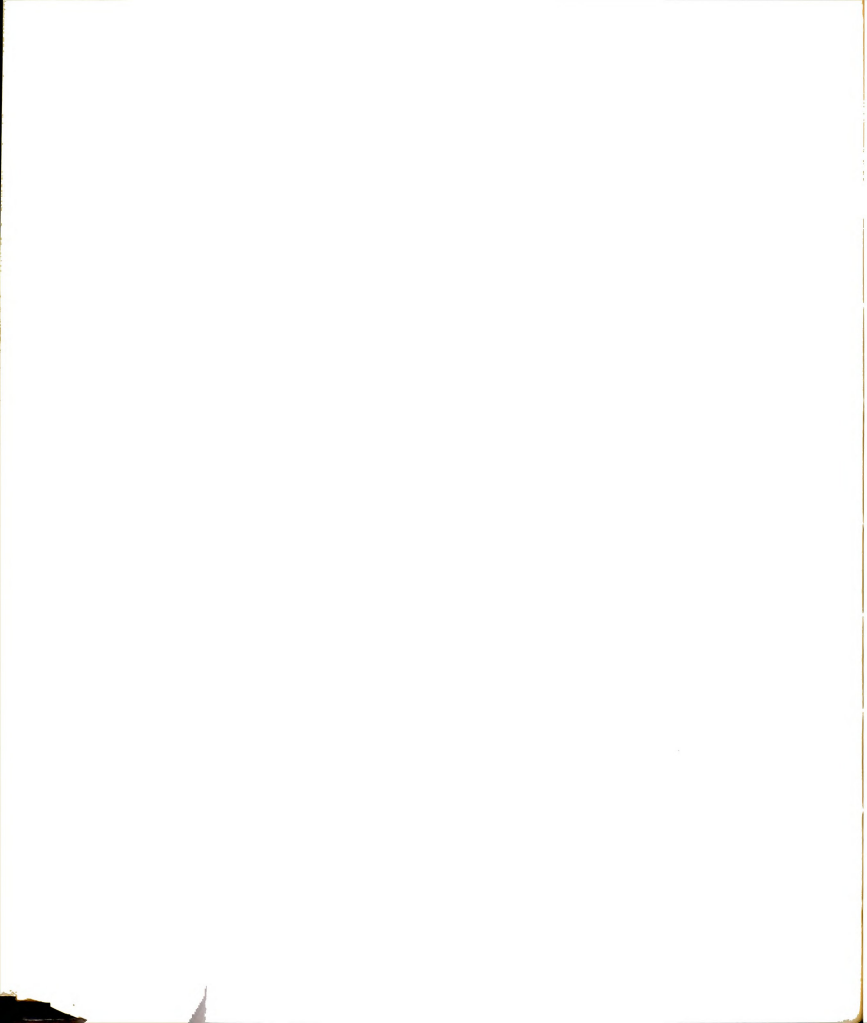
TABLE 50- The ineffective organizations' composite
rank orders for terminal values and four types of respondents
to the question:
"Has the organization lived up to the expectations you had
before you entered it?"

	In all respects	In most ways	In only a few ways	Not at all	
N = 128	32	38	49	9	P[†]
A comfortable life	9	4	10	11	0.121
An exciting life	12	17	15	15	0.039
A sense of accomplishment	5	8	7	9	0.027
A world at peace	4	2	2	6	0.011
A world of beauty	18	14	16	12	0.019
Equality	8	9	9	10	N.S.
Family security	1	1	1	1	0
Freedom	3	5	5	4	N.S.
Happiness	10	6	4	5	0.073
Inner harmony	13	10	8	8	0.036
Mature love	14	11	12	11	0.079
National security	15	13	14	13	N.S.
Pleasure	16	16	17	17	N.S.
Salvation	2	3	13	2	0.729
Self respect	7	7	3	3	0.431
Social recognition	17	15	18	18	0.082
True friendship	11	12	11	7	0.033
Wisdom	6	18	6	16	0.840

† P_i = Probability of occurance

TABLE 51 - The ineffective organizations' composite
rank orders for instrumental values and four types of respondents
to the question:
"Has the organization lived up to the expectations you had before
you entered it?"

N = 128	In all respects	In most ways	In only a few ways	Not at all	P†
	32	38	49	9	
Ambitious	5	6	5	8	0.322
Broadminded	6	7	8	10	0.280
Capable	7	8	9	11	0.906
Cheerful	9	5	2	4	0.560
Clean	3	4	4	7	0.392
Courageous	12	13	11	15	0.480
Forgiving	15	2	7	9	1.211
Helpful	11	12	12	13	N.S.
Honest	1	1	1	1	0
Imaginative	18	18	18	18	0
Independent	14	14	14	14	0
Intellectual	16	17	17	17	N.S.
Logical	13	15	16	16	0.926
Loving	10	11	13	13	0.780
Obedient	8	16	15	15	0.826
Polite	7	9	6	8	N.S.
Responsible	2	3	5	5	0
Self controlled	4	10	10	10	0.023

† P = Probability of occurance
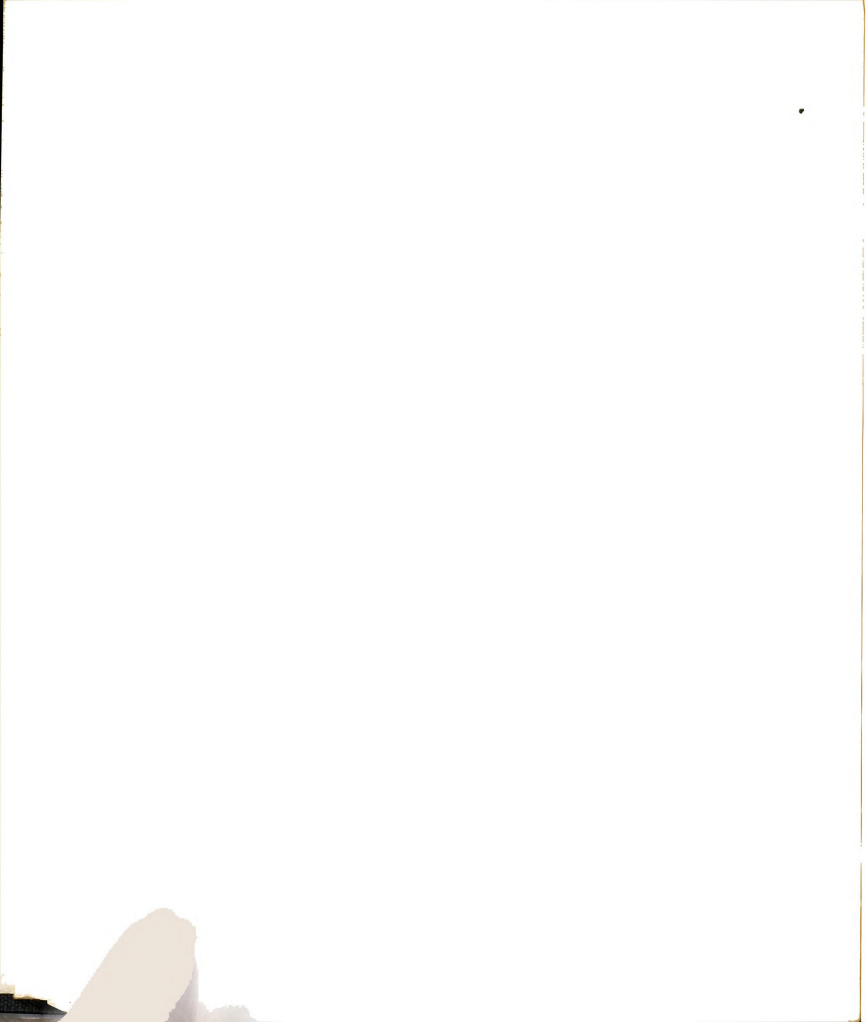
competence values and the response given by both organizations was indicative of a close relationship between the two phenomena. The most satisfied people of the effective organizations as well as those in the ineffective organizations attached more importance to AMBITIOUS than the less satisfied people. A comparison between the majority of the two groups indicated that the effective organizations valued AMBITIOUS more than ineffective organizations. Therefore, it was interpreted that the association between satisfaction and AMBITIOUS was positive and was a reason for the success of one organization over another.

<u>Value System and the Rating of the Organization By Its Members</u> - Primarily it must be noted that certain values simply did not discriminate among the various groups under study. These were values that were clearly shared by all groups. Such values included at least seven terminal values - A WORLD AT PEACE, HAPPINESS, INNER HARMONY, MATURE LOVE, SELF RESPECT, TRUE FRIENDSHIP, and WISDOM. There were also some other values that thus far in the analyses performed in the present study had constantly shown no difference among the groups. These values included FAMILY SECURITY, HONEST, and IMAGINATIVE. In other words there was no correlation, according to the data of this study, between these values and the questions related to organizational effectiveness.

Table 52 shows the composite rank order of competence values for both effective and ineffective groups with the rating they have made of their respective organizations. The data apparently showed that about two out of every three members (68.5%) of the effective organizations reported that their organizations were either highly effective or fairly effective. On the other hand a little less than two out of every three members (57%) of the ineffective organizations rated their organizations either highly ineffective or solidly ineffective. These statistics indicated that those members of both organizations that rated their organizations highly effective placed more emphasis on A SENSE OF ACCOMPLISHMENT than the others who felt their organizations were less effective. Another correlation existed between the rating performed by those who ranked their organization as fairly effective and the value they attached to A SENSE OF ACCOMPLISHMENT. Both groups ranked this value higher than those who believed their organizations were ineffective or highly ineffective. Interestingly enough, each group of the effective organization had significantly ranked each value higher. For example A SENSE OF ACCOMPLISHMENT was ranked three by those who rated their effective organization as Highly Effective, and seven by those who rated their ineffective organization as Highly Effective. The same pattern of choice was found for other competence values. For example, the competence values of AMBITIOUS, BROADMINDED, and CAPABLE

TABLE 52 - Composite rank order of competence values
for effective and ineffective organizations matched with the
rating they have made of their organization

N = 245	Effective Organizations				Ineffective Organizations				* P+
	H.E. 50	F.E. 30	I.E. 22	H.I. 15	H.E. 25	F.E. 30	I.E. 45	H.I. 28	
A sense of accomplishment	3	3	4	5	7	8	8	9	1.323
Social recognition	11	12	11	13	12	14	14	15	0.971
Ambitious	3	4	4	5	3	4	5	5	0.022
Broadminded	5	5	6	6	6	7	7	8	0.093
Capable	4	5	6	6	5	7	7	9	0.100
Imaginative	18	17	18	16	18	17	16	17	0.001
Independent	13	13	14	15	14	15	15	15	0.722
Intellectual	14	15	16	16	16	17	17	16	0.930
Logical	8	9	10	10	15	16	16	18	2.311
Courageous	6	7	8	8	11	12	13	13	2.090
Responsible	2	3	4	4	2	4	5	5	1.034

*H.E. = Highly Effective
 F.E. = Fairly Effective
 I.E. = Ineffective
 H.I. = Highly Ineffective

+P = Probability of occurrence.

were more important to the effective groups than ineffective ones. Also, for the same values the importance attached decreased with the decrease in satisfaction.

In general, the data analyzed led to the interpretation of the following: 1) Competence values closely correlated with the perception of organizational effectiveness; and 2) the effective organizations contained a majority of people who not only attached higher importance to these values compared with their counterparts in the ineffective organizations, but also felt more satisfied with their organization and thus rated it as effective.

Summary

A summary of the results of the two sections of the chapter is as follows:

1) In accord with the studies cited in Chapter 2 concerning organizational effectiveness, the data showed that a value system is not the only factor that affects the total achievement of an organization. Such factors as organization structure, method of leadership, and amount and quality of training and development can, too, affect the level of organizational effectiveness.

2) It was shown that the effective organizations had significant value differences with the ineffective organizations. The perception of the members of

both organizations of how satisfactory their organization was indicated the same pattern of difference.

3) It was also determined that several values had no correlation with organizational effectiveness. Competence values were the only discriminators between the perception of the two groups.

4) It was realized that the effective organizations contained a majority of members that felt satisfied with the organization and rated it effective. This same group attached a high degree of importance on values that are considered as the contributors to effectiveness. Their counterparts, on the other hand, did not care for accomplishment and therefore were not satisfied with the organization.

Presentation and analysis of data concluded with this Chapter. The remaining task is to integrate the findings and to describe the implications for further study. This is done in Chapter 7.

CHAPTER 7

FIELD STUDY RESULTS AND CONCLUSIONS

Introduction

The purposes of this chapter are to integrate and report the findings and conclusions of the study relative to its three hypotheses. The chapter also, presents an evaluation of the study results in comparison with similar studies performed by other researchers and discusses the implications of these findings for further study.

To achieve these purposes, the study hypotheses are tested and the findings are evaluated and related to other studies. Then the possible contributions and limitations of the study are discussed. Finally, the study is summarized and implications for further study are presented.

Test of Hypotheses

Test of First Hypothesis

Organizations and executives that are rated "effective" have a pattern of values that is distinctively different from that of organizations and executives that are rated "ineffective."

163

The results in testing the first hypothesis are con-
clusive. The evidence strongly leads to a support of the
hypothesis. The data indicated that organizations and
executives rated effective displayed a similar pattern of
value systems to that of the ineffective organizations and
individuals only as long as they were rank ordering socio-
economic, moral, and cultural values. The statistically
significant differences between the two groups emerged in
attaching importance to values that are central within the
success of an individual or organization. The pattern of
the rank-ordering of values, in general, when all 36 values
are considered simultaneously, was distinctively different
in the two groups of organizations and executives. What
was very important to the effective executives did not gain
much attention from the ineffective executives. The data
(Chapter 4) revealed that the two groups had different pre-
ferences, interests, and desires. The value orientation of
the ineffective individuals and organizations was toward a
sweet life, a world free of anxiety, a secure and comfort-
able life, friendship, freedom, and peace. Whereas, the
effective individuals and organizations displayed a pre-
dominantly accepted value system that consisted of interest
and desire for better accomplishment and higher achievements
through the acceptance of responsibility, exhibition of
courage, and capability.

The data led to the conclusion and corroboration of the hypothesis that the pattern of value systems in the effective and ineffective groups was distinctively different.

Test of second Hypothesis

Organizations that have more homogeneous age, sex, religion, income, and educational groups are more likely to have value similarity than organizations which do not have such homogeneity. Therefore, the more homogeneous the organization, the more value similarity it will have, and the more effective it will be.

The results in testing the second hypothesis are inconclusive. The analysis of data showed that homogeneity of an organization tends to bring about an environment in which individuals may have value similarity. But, it must be a similarity in a certain number of values, not all, within their value systems that can lead to the effectiveness of the organization.

To test this hypothesis three phenomena were examined:

1) homogeneity of the organization and its subgroups,

2) value similarity or differences of both organizations and subgroups, and

3) the effects of each category variable of groupings on organizational effectiveness.
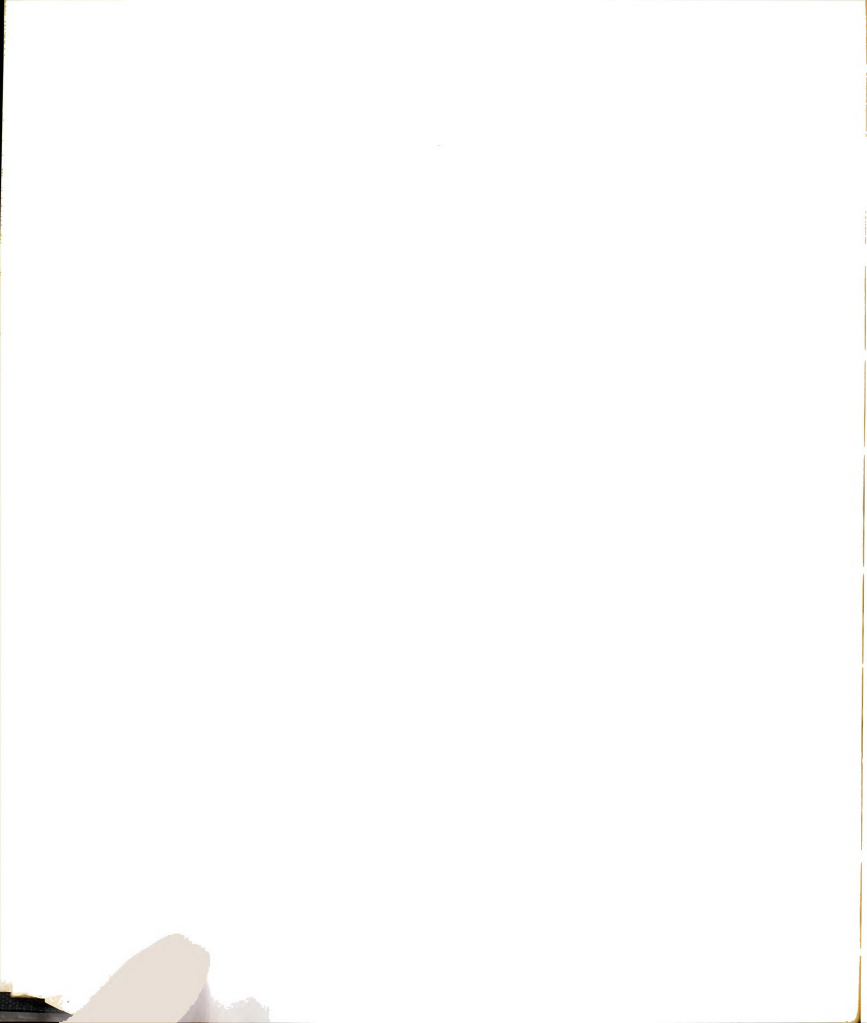
Homogeneity of organization and its subgroups - the
comparison between effective and ineffective organizations
showed different levels of concordance. Grouping of the
organizations under effective and ineffective did not show
where the differences in value systems come from. Besides,
the members of each set of organizations did not show con-
sistency and concordance in their value systems. It was
realized that variables such as sex, income, age, religion,
and education affect the level of homogeneity in the organi-
zations. The groupings under sex, age, income, religion,
and education proved that a group of people working for the
same purpose have value differences in all of the above
variables. Therefore, making the organization under which
they have gathered heterogeneous.

Subgroups showed value similarities and differences.
For example, a comparison among different religious groups
of the organizations indicated that the religious groups
differed significantly from one another in terms of value
systems. But, also, it was found out that stratification of
the religion shows higher homogeneity within the group.

Adherence to the competence values by each group was
examined and it was noted that income, age, and sex groups
had more similarity in competence values, contributors to
organizational effectiveness, than groups stratified by
religion and education. It was concluded that an organization
can be quite homogeneous in terms of any of the above

criteria and yet be totally effective or ineffective.

Differences in age, sex, religion, income, and education, of course, create value similarities and differences. But, an organization can not be so established that all participants have the same religion, income, age, sex, and education. Therefore, it can be concluded that it is only the adherence to certain values, competence values, that relates to organizational effectiveness, rather than solid homogeneity of the organizational groups. The data as gathered and analyzed in this study lend to the rejection of the second hypothesis in its present form.

Test of Third Hypothesis

Value systems correlate significantly with the perceptions of organizational effectiveness. Therefore a set of values can be identified that affect the level of organizational effectiveness.

The results in testing the third hypothesis are conclusive. The evidence strongly points to a support of the hypothesis. Analysis of Tables 23 through 41 indicate that an organization can consist of a certain configuration of executives with different age, sex, religion, income, and education groups that will lead to a total achievement. Also, Tables 42 through 52 confirm that a number of values have a very close association with what the executives perceive of the organizational effectiveness. These correlations suggest that all competence values and only two of the moral
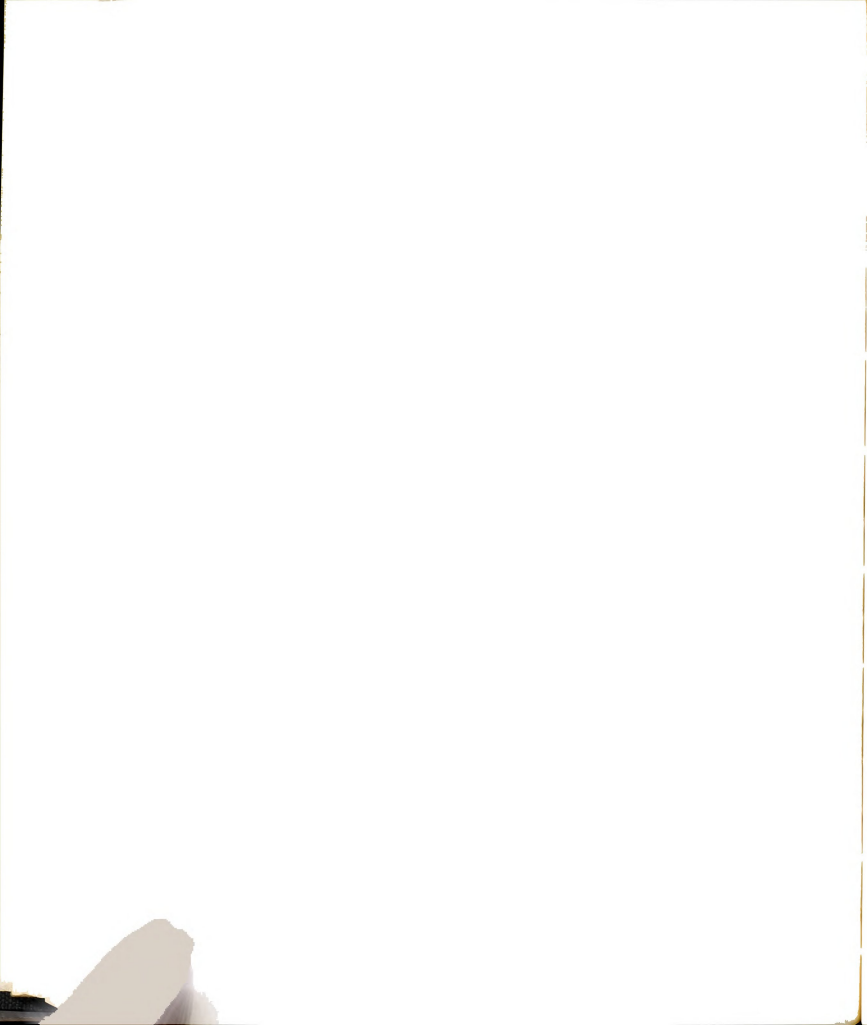
values - A SENSE OF ACCOMPLISHMENT and SOCIAL RECOGNITION - can be identified in an organization as values that influence organizational behavior and the process of decision making. Effective organizations under this study proved to have a higher emphasis on competence values than did the ineffective organizations.

Relationship of Findings to Other Studies

Other studies comparing value systems, and using the Rokeach value survey, revealed both similarities and differences with the results of this project. Studies concerned with opinions and attitudes of employees yielded results similar to the conclusions reached in this study. Results of selected studies are reviewed to determine where the similarities and differences exist with the findings of this research.

Analysis of Value Systems

Several research projects have been conducted using the Rokeach value survey as a means for determining value differences or similarities of sample groups stratified in a manner similar to that used in this study. Results of these studies, examined by category variables, follow.

Religion. There is general agreement in the findings of research on value systems of different religious groups. Many empirical studies show significant differences in beliefs, attitudes, and values between groups varying in

religion, between Jew, Catholic, and Protestant, and between various Protestant denominations.[1] Findings of the present study relating to the differences between the value systems of various religious groups support the above mentioned studies. However, there is no study in the literature to indicate whether such differences in the value systems of the religious groups affect the magnitude of organizational performance.

The Protestant Ethic has long been known as the major factor for the United States' economic prosperity. Rokeach in a study[2] found that Protestants ranked A SENSE OF ACCOMPLISHMENT lower than the remaining groups. He pointed out that "this finding provides little support for the notion that Protestants are more motivated by a Protestant Ethic than non-Protestants." The present study found that when the level of effectiveness was controlled in two groups of protestant executives, those who were rated effective group attached more importance to A SENSE OF ACCOMPLISHMENT than those who were rated ineffective (Tables 23-25). This study's finding agrees with Rokeach's finding that Protestant Ethic has not provided motivation for achievement. The data proved that a certain configuration of sex, age, and income leads

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[1]
G.W. Allport and J.M. Ross, "Personal religious orientation and prejudice," Journal of Personality and Social Psychology, 1967, No.5, pp. 432-443. Also: Milton Rokeach, Beliefs, Attitudes, and Values, (San Francisco, Calif.: Jessey-Bass, 1968).

[2]
Milton Rokeach, "Value Systems in Religion," Review
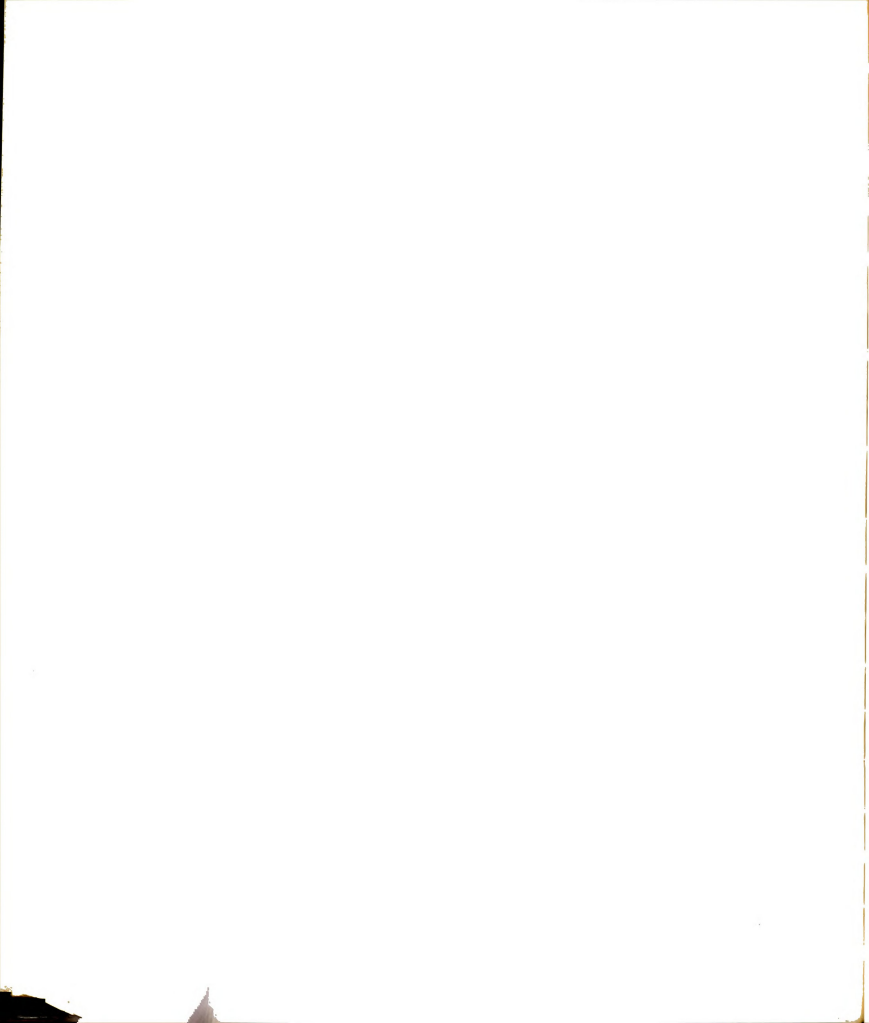
to more achievement than a certain religion and education group.

Age. Several studies have stratified their samples by age levels. They found that moral and competence value dimensions had a converse relationship with age. In other words, the older the person becomes, the more conservative he will be and thus the more anxious he will be to maintain the status quo. Socio-economic and moral values become more important than competence values to the older executive. What any organization, and especially a business organization, needs in a competitive environment as ours is a desire for change, an ambition for a better achievement, and a drive for expansion. The findings of this research indicated that the young executive was more achievement-oriented and change-aspirant than the old. Bender's study[3] found similar results in terms that religious and economic values become more important as age increases. The findings of another study by Rokeach[4] indicates that age has a positive correlation with moral values and a negative correlation with competence values. Several reasons have been proposed to explain the rise of moral values as an individual

of Religious Research, Vol. 11, No. 1, 1969, p. 6.

[3] I.E. Bender, "Changes in Religious Interest, A Re-Test After 15 Years," Journal of Abnormal and Social Psychology, Vol. LVII (1958), p. 42.

[4] Milton Rokeach, "Religious Values and Social Compassion," Review of Religious Research, Vol. 11, No. 1, 1969.
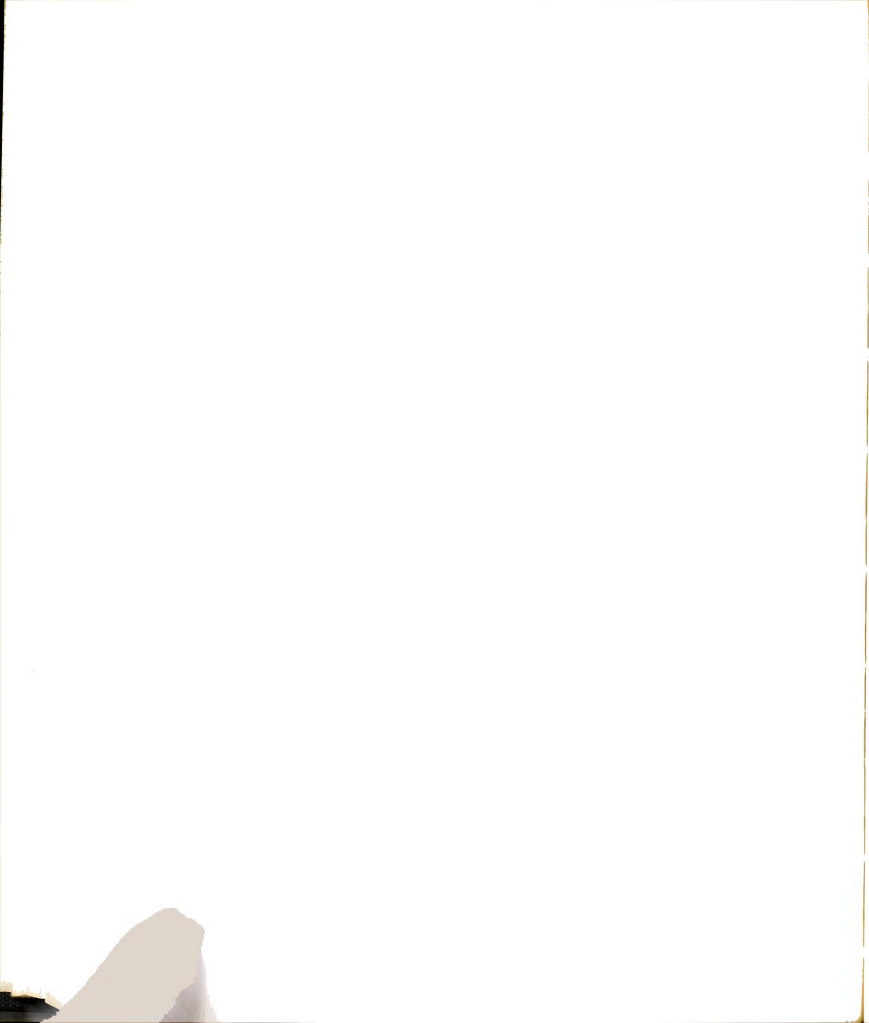
ages: (1) maturity and stability in behavior due to the responsibility of family life and occupation; (2) an evolution in the cultural values of the society; and (3) nature of the time - troubled times cause people to look to religion for solution. When these reasons are weighed against the results in Tables 27 through 30, all three reasons appear to be logical to some extent. From this data the young executive was striving for change, had not established his family life yet, and even did not probably intend to stay long with his present organization. On the other hand, the older executive had settled down, had established his reputation, and had assumed more responsibility for his family life and occupation. Besides, he had matured and become more conservative. He was after prestige rather than income, therefore he valued <u>Obedient</u> higher than did the young executive. To be obedient is not considered procreativity and change. Therefore, the old executive identified with moral values and placed less emphasis on competence values. This is probably not fruitful for the organization in a competitive environment.

 <u>Sex</u>. Studies made of college students,[5] stratified by sex, show results similar to those of this study. Namely,

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 [5]
 Charles C. Hollen, <u>Value Test</u>, Unpublished mimeograph, Dept. of Psychology, <u>Michigan State University</u>, (1969), p. 15.

the relative rank order of the value systems in the two studies were very nearly alike. Moral and socio-economic values were rated more important by female than what was rated by male. The female in both studies was more obedient, equality-conscious, and much less ambitious than the male. The male, on the other hand, strived for competence, accomplishment, and change. The male group ranked CAPABLE, AMBITIOUS, and BROADMINDED higher than the female.

Education. Research is inconclusive about the effects of formal education on values. One study found that an undergraduate college experience does not change values.[6] Data in Tables 37 through 41 of the present study tend to support this finding. The only difference was that the present study found no relationship between the amount of formal education and the level of effectiveness. On the basis of the data provided, it assumed that under conditions of equal education and the same religion the two groups differed in the extent of effectiveness due to age, sex, and income. If a test of value change was to be conducted it would probably be known whether formal education could account for this change. Studies examining the effect of informal education (short periods of training to gain skill

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[6] Paul L. Whitely, "The Constancy of Personal Values," Journal of Abnormal and Social Psychology, Vol. XXXIII (July, 1938), p. 408.
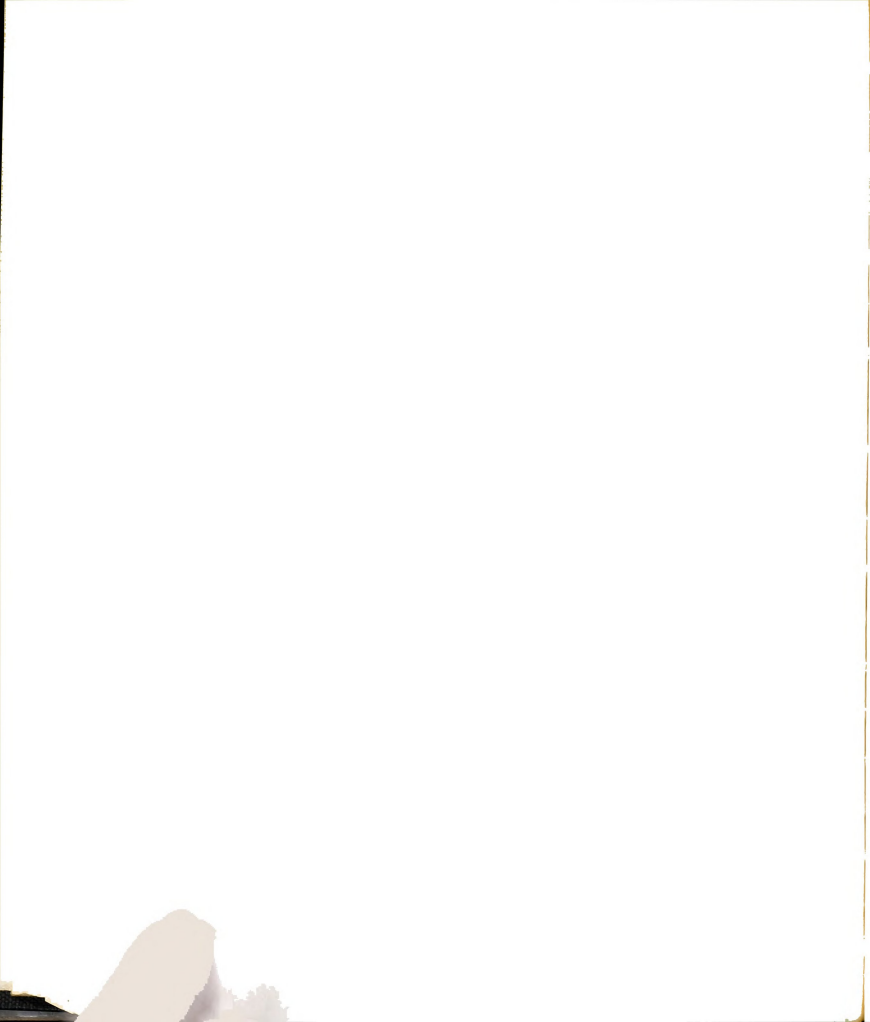
for the performance of a certain job) were not available for comparison.

Unless there is some certainty that a significant number of studies similar to this research has been conducted, no generalization concerning the effects of formal education on the level of organizational effectiveness can be made.

Income. Results of this study supports the findings of a study by Rokeach on the differences of value systems in various income groups.[7] Rokeach found that A SENSE OF ACCOMPLISHMENT accounts for the sharpest difference in the value systems of several income groups. His sample group showed that those in the lower level of income ranked this value lower than other groups. And those in the highest level of income ($15,000 and over) placed much emphasis on competence values. The present study indicated that the higher the income level, the more emphasis is placed on A SENSE OF ACCOMPLISHMENT. But, a comparison between an effective group and an ineffective group revealed that (Tables 33 and 35) the more effective group attached more importance to this value than the ineffective group. Besides, if the importance given to this value is looked at in conjunction with other competence values as well as category

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[7] M. Rokeach, Value Systems in Religion, op. cit., p. 11.
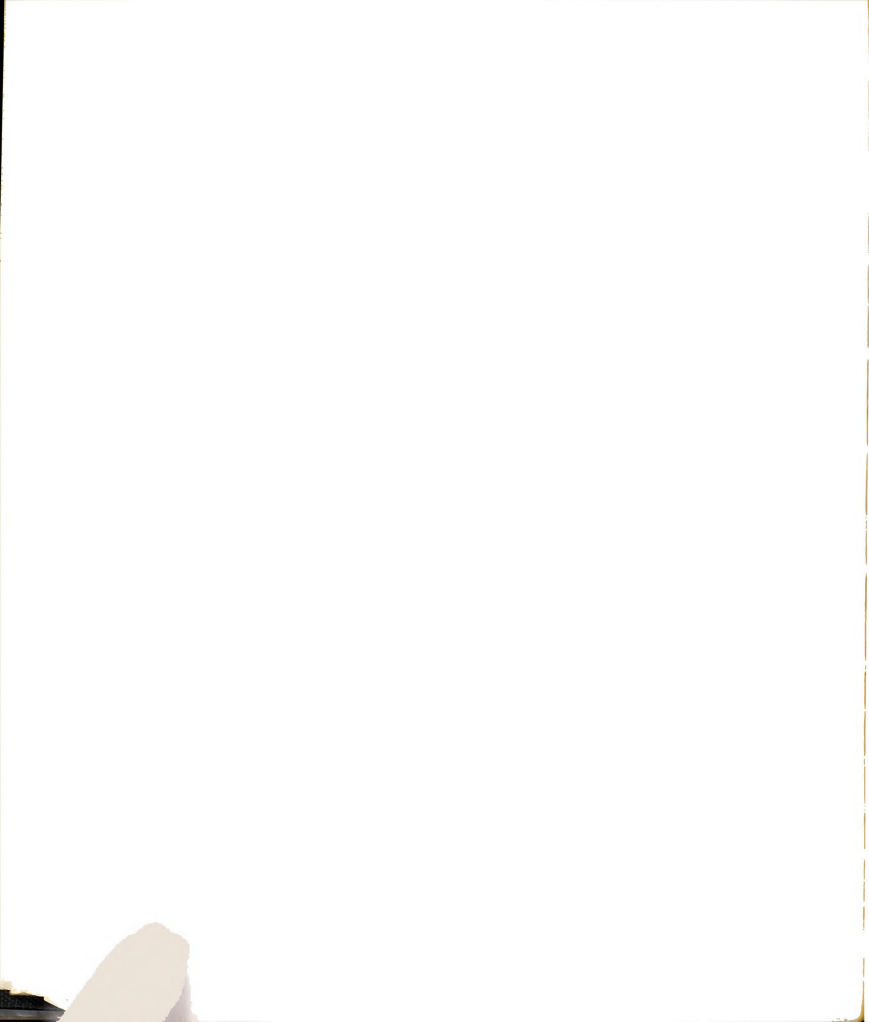
variables like age[8], it will be noted that a certain income
and age group (the young executives with incomes between
$10,000 to $12,000) proved to be more effective than both
groups in the lower and higher income bracket. It can be
concluded that in relating age and income to accomplishment,
the middle age group is still aspiring to rise in the
managerial hierarchy via accomplishment in hopes of achiev-
ing higher incomes. In comparison the higher income and
higher age group is no longer aspiring to higher levels of
achievement because of age and a sufficient income therefore
it emphasizes accomplishment less; and the low age low in-
come group is concerned with security above financial gain
therefore deemphasizes A SENSE OF ACCOMPLISHMENT and the
competence values, and assigns more importance to economic
values.

Relationship between effectiveness and value systems

The literature does not contain any study on the
effects of value systems on organizational effectiveness.
But, if organizational effectiveness can be conceived of as
a phenomenon that includes several dimensions such as
employee satisfaction, productivity, attitudes toward work,
creativity, change consciousness, as well as efficiency,

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[8]
See Tables 7, 8, 11, and 12, Chapter 3.
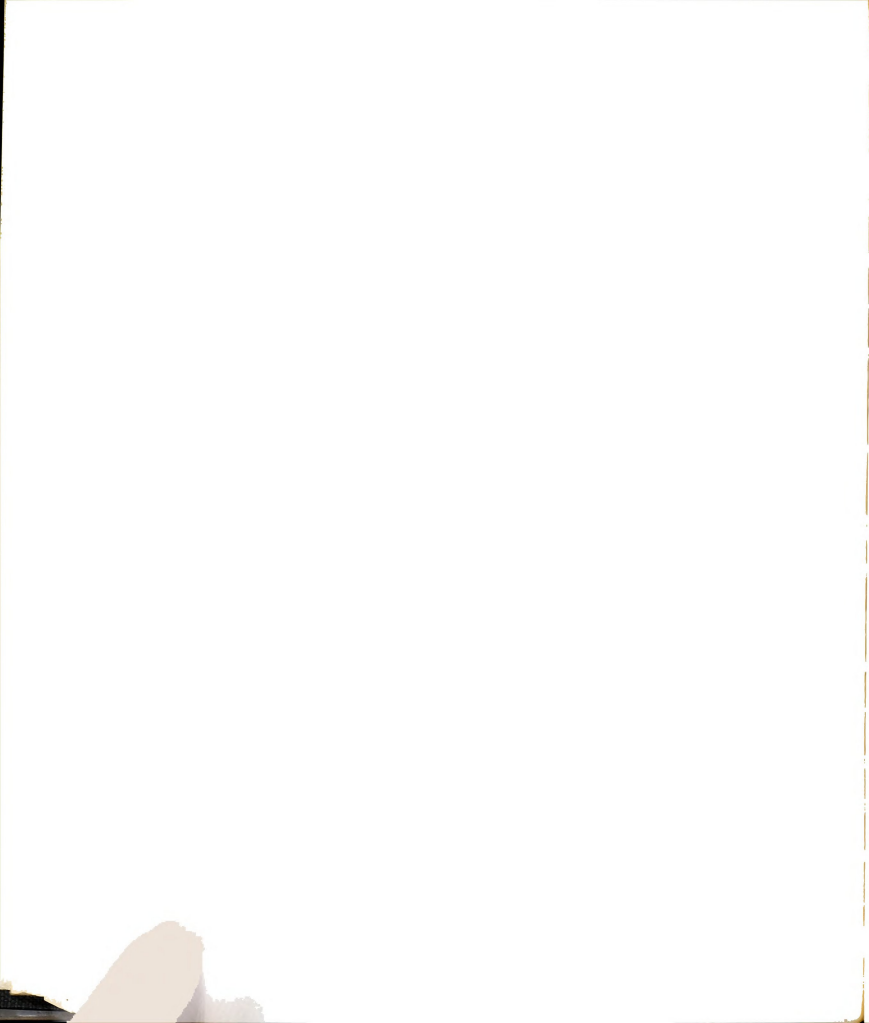
the present study supports the findings of the studies
cited in Chapter 2, and this study found that positive
interrelationships existed between satisfaction and organi-
zational effectiveness; productivity and effectiveness; and
value systems and organizational effectiveness. Also it
was found that competence values were correlated with
effectiveness as were the factors of leadership methods,
organization structure, and employee satisfaction.

Some Contributions of the Study

Values have long been the domain of the philosophers
and, lately, the social scientists. If values provide much
of the bedrock for decision making as claimed, then an
examination of values as they related to such an important
phenomenon as organizational effectiveness may have been
fruitful.

In general, this study was a contribution to the
general knowledge of value systems, as a factor different
from attitudes. This can be a step forward to the realiza-
tion of value measurement in contrast to attitude appraisals.
Evaluation of the value system can ultimately show the
effects of values on human behavior which influence organi-
zational behavior. This study, also, may contribute to
social psychology theory, to the field of sociology, and the
theory and practice of management. The findings of this

study that established a difference in value systems among various groups studied under the variables of religion, age, sex, income, and education, could contribute to behavioral theories in progress in both social psychology and sociology.

The examination of factors that affect the level of organizational effectiveness and the surprising findings that competence values correlate with organizational effectiveness is a possible contribution to the synthesis of all variables that may affect the level of achievement. A future generalization of these factors through a systems approach may lead to an organizational theory of effectiveness. And, finally, to the management practitioners and personnel administrators, the finding of this study may be a step forward to a better understanding between supervisor and supervised, and a recognition of human preferences that can serve as a motivator.

Major Limitations of the Study

1) It was impossible to examine the variables of this study from the standpoint of cause/effect relationship. For, there were many unmeasured social, psychological, and environmental factors intervening the direct interaction between value systems and organizational effectiveness. Therefore, it necessitated the examination of a degree of correlation between the two variables.

2) The results of the study, like most behavioral researches, could not be viewed as representative of the entire society, culture, or economy. However, these results furnish some insights into the problem of values and effectiveness as independent variables as well as dependent variables like the subject matter of this study.

3) Perception of effectiveness and the value systems, in nature, are not static. In other words our value systems which are composed of dominant and variant sources do not remain the same in different points of time. Organizational effectiveness also has been measured differently in different periods of time. The present study is a static one, in regard to the factors which are dynamic. The study is a picture of several organizations at a certain time. The test should be conducted several times and at different intervals.

4) The variation of the level of awareness, on the part of members of the sample, as to the subject matter under investigation was a barrier. Some respondents had a high degree of awareness of both value systems and organizational effectiveness. Some others, however, were familiar with effectiveness, productivity, profitability, and efficiency but knew very little or nothing about values.

This limitation does not preclude the fact that persons can and do make choices (have opinions and attitudes)

when confronted with alternative situations.

Summary and Implications for Further Study

Values have been analyzed as they relate to organizational effectiveness. Decisions made in an organization are actually a selection from among several alternatives that are available. To make the decision, the decision maker relies on the information before him, but is at the same time influenced by his own value system. By measuring, comparing, and analyzing the value system of two groups of executives from three different organizations, one of the major findings of the study was that all values did not equally contribute to the individual and organizational performance. A number of values were isolated from instrumental and terminal values and were identified as competence values - those which had a greater relationship with effectiveness. This study indicated that the value system of effective individuals and organizations is significantly different from that of the ineffective individuals and organizations. Since the subjects did not have homogeneity in their so-called effective and ineffective groups, evidenced by concordance coefficients, the bases of difference in the value systems of the two groups were examined. Since value systems evolve through cultural backgrounds and personal associations and socialization, the subjects were stratified under

variables of age, sex, religion, income, and education to determine whether the value differences were a function of these variables. The study found that age, sex, and income correlated more closely to competence values than religion and education.

It was, however, concluded that an organization may consist of a homogeneous sex, age, or income group and yet be ineffective. Therefore, there is a certain configuration of age, sex, and income group that places more emphasis on competence values than other values.

An increasing number of writers are discovering values as important determinants of opinions, attitudes, and behavior in individual and group activities. The findings of this study support the idea in general, but emphasize that most of the values held by the organization members provide impetus for the evolution of some attitudes directed toward "other-worldliness" that do not necessarily affect the level of organizational performance. Such behavior as exemplified by how to pray to God or how to perform a micro-specialized work in the organization is not, of course, influenced by the competence values. Stated another way, there are times and situations when values are neither the only, nor the most important, determinant of behavior.

One study, at a single point in time, is an insufficient base from which to generate general conclusions

such as those presented by this study. Similar studies
should be conducted to confirm or reject the rather sur-
prising finding that value systems correlate with the
decision making and the total performance of an organization.

Recommendations

Further investigation is needed in the following
areas:

1) Measurement of effectiveness - A number of instruments
have been employed by many researchers to measure the degree
of an individual or organizational effectiveness. Each
measure has been developed for a specific case and can very
hardly be used in other circumstances. Research should
continue toward the development of a unified measure of
effectiveness. Of course, this measure can not be used
universally due to the nature of organizations and their
varying objectives. A near-optimum measure that can be
slightly modified to suit different situations is appreci-
ably needed in the field of organization and management.

2) Stratification of samples - Research is highly needed to
find more effective ways of stratifying a population for the
purpose of value analysis. In many cases, the single
dimension relationship may not be an effective way of strati-
fying a sample to determine behavioral differences. A
combination of demographic variables, as well as social,
psychological, and cultural dimensions should be experimented

with to discover if there are more effective methods of relating values to behavior.

3) Effects of religion and formal education - The findings in this study concerning the effects of religion and formal education on a person's behavior and thus his level of achievement were inconclusive. The probable reason was that majority of the executives in both the effective and ineffective organizations under survey were Protestant, with education ranging between high school diploma and college education. In addition the subjects were unanimously American in culture and life-time residents of the Midwest. In order to measure the effects of religion and education on organizational effectiveness, further study is recommended on a comparative basis first between the religions prevalent in the United States, and second among national and cultural groups.

4) Effects of training on value change - Values of a person can be broken down into dominant and variant values. The dominant values of a person evolve through his culture, whereas his variant values emerge through socialization. Studies have shown the latter changes over time very easily, while the former is relatively constant. Business and industrial organizations have, during the past few years, placed emphasis on various kinds of informal training with a contention that this type of training increases the extent

of individual and organizational performance. The present
study showed that certain values held by the executives
tended to influence their behavior and attitudes toward work
and decision-making. Further study is recommended for the
measurement of training on value changes. Argyris empha-
sizes that T-group training is effective in changing values
and bringing about organizational effectiveness.[10] The ex-
tent of such effects should be measured empirically.

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[10]
    Chris Argyris, "T-Group for organizational effective-
ness" Harvard Business Review (March-April 1964). See also:
Charles Kepner and Benjamin Tregoe, The rational Manager, (New
York: McGraw-Hill, 1964). Robert Blake and Jane Mouton,
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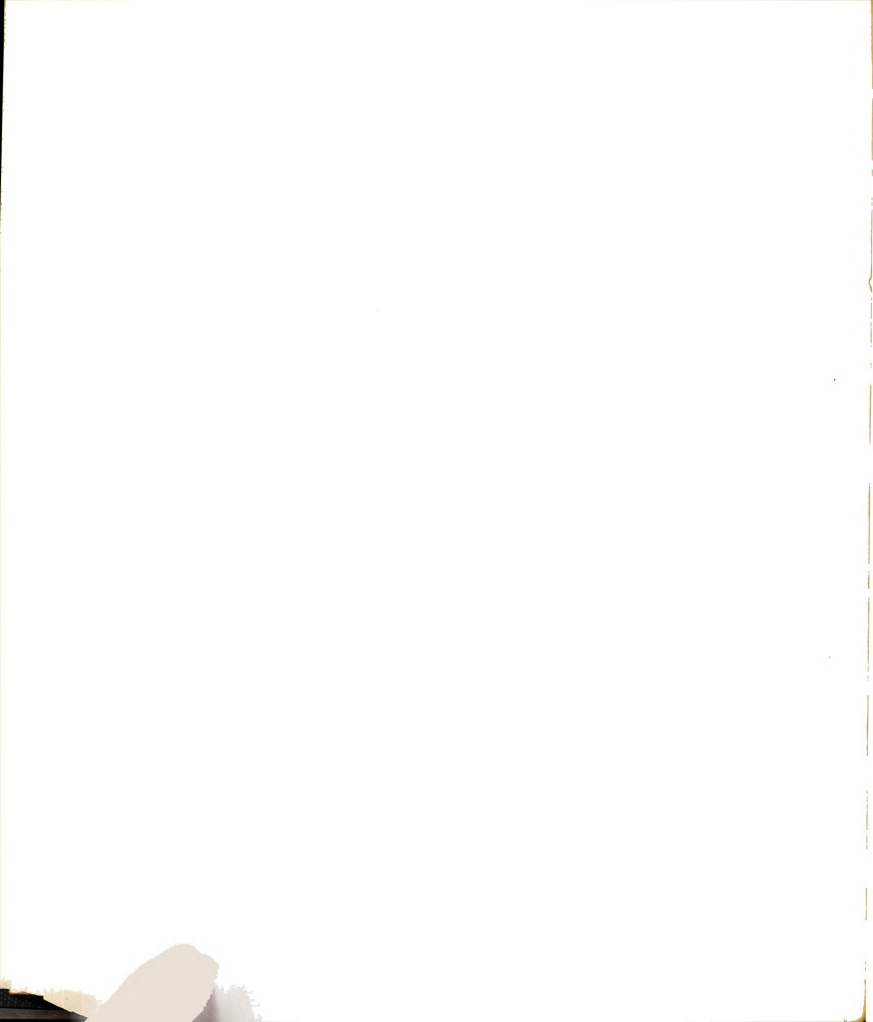
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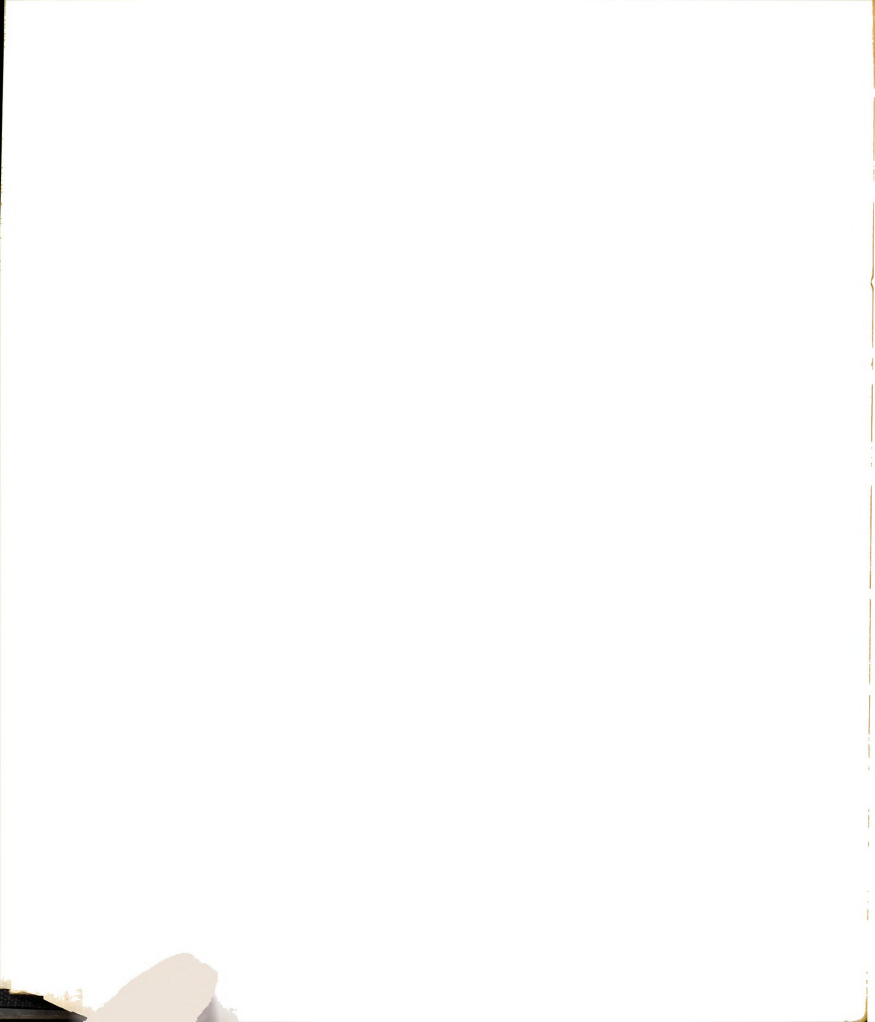
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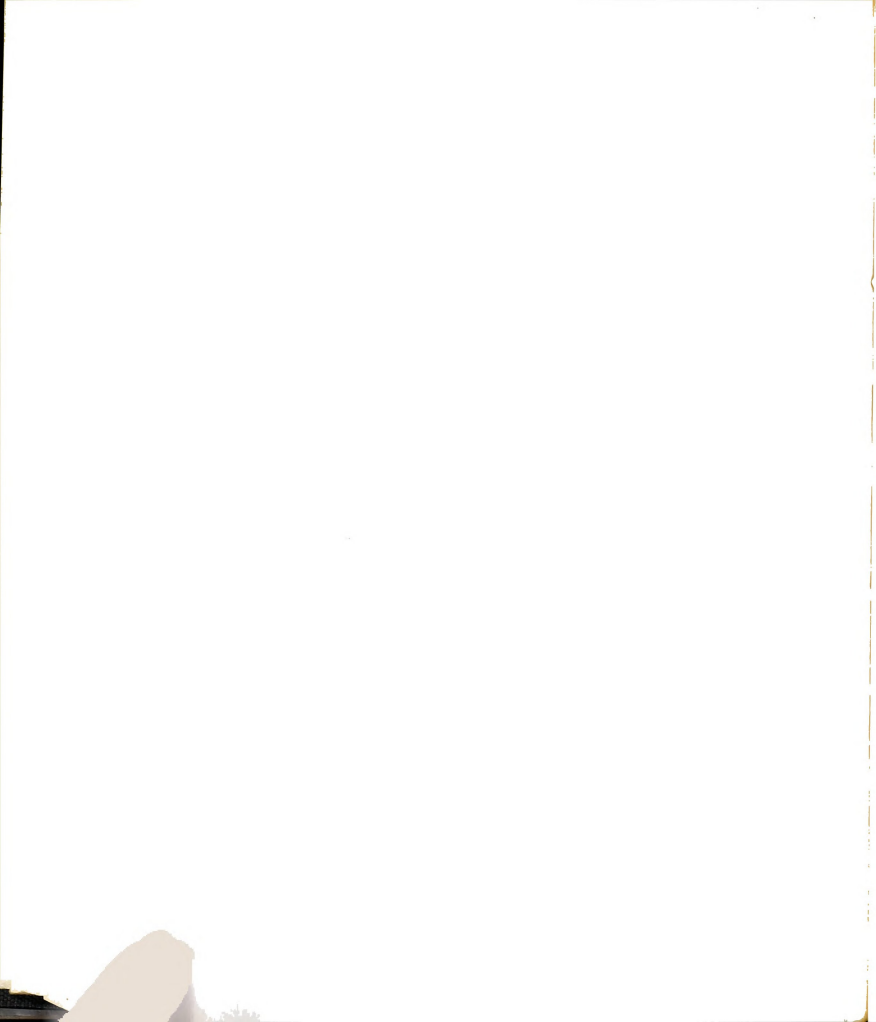
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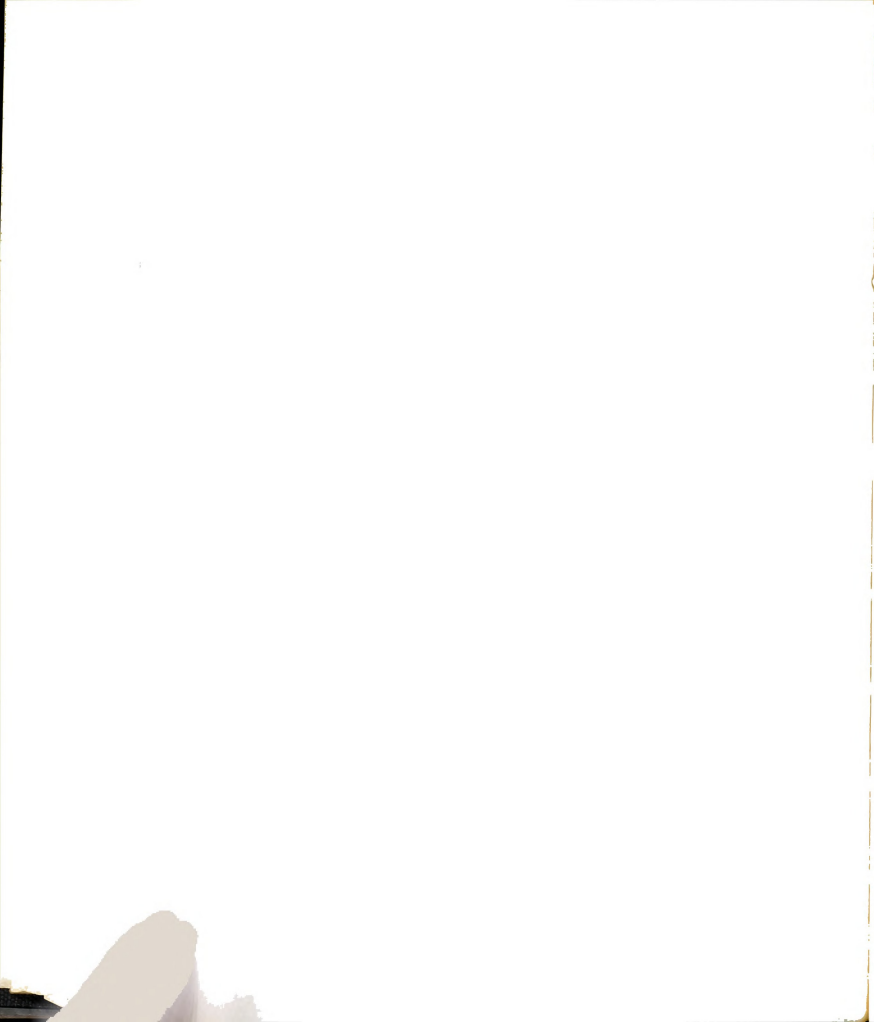
APPENDICES

APPENDIX A

QUESTIONNAIRES

(including the letter of introduction, parts 1, 2, and 3 of
the questionnaire, and the criteria used by the top execu-
tive officer in ranking his subordinate departments.)
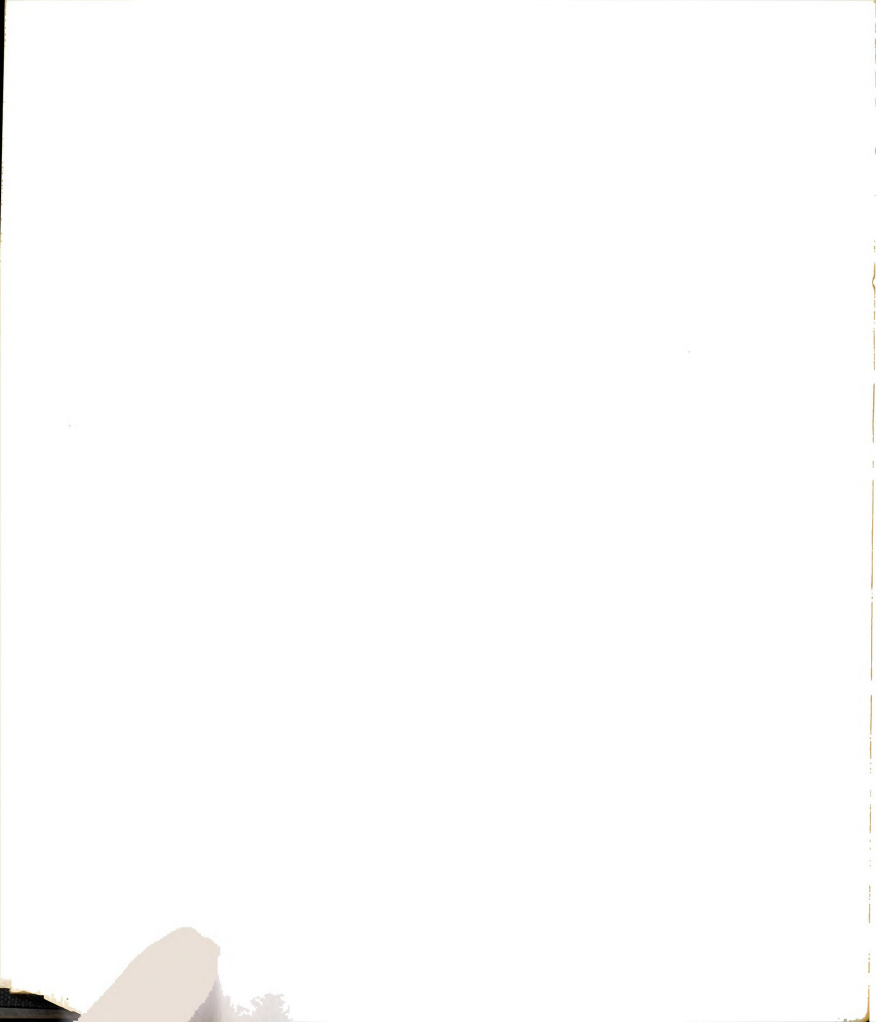
INTRODUCTION

This is a general study for a doctoral dissertation. It concerns the interrelationships between value systems and organizational effectiveness.

You are first asked to complete a general information sheet without identifying yourself or your organization. Then you will answer the questions of the second and the third parts of the questionnaire.

The information requested on the accompanying questionnaire is largely self-explanatory. The questionnaire is divided into three parts. Each part has complete instructions.

There is no good or bad answer. You are only expressing your opinion about these subjects.

This data will remain completely confidential and shall be used in this doctoral dissertation only.

I realize that asking you to complete a questionnaire may be an imposition. Your cooperation, however, is most important to this study. I would appreciate your taking time to respond to the items involved.

Respectfully,

M. Kashefi
Director of Research
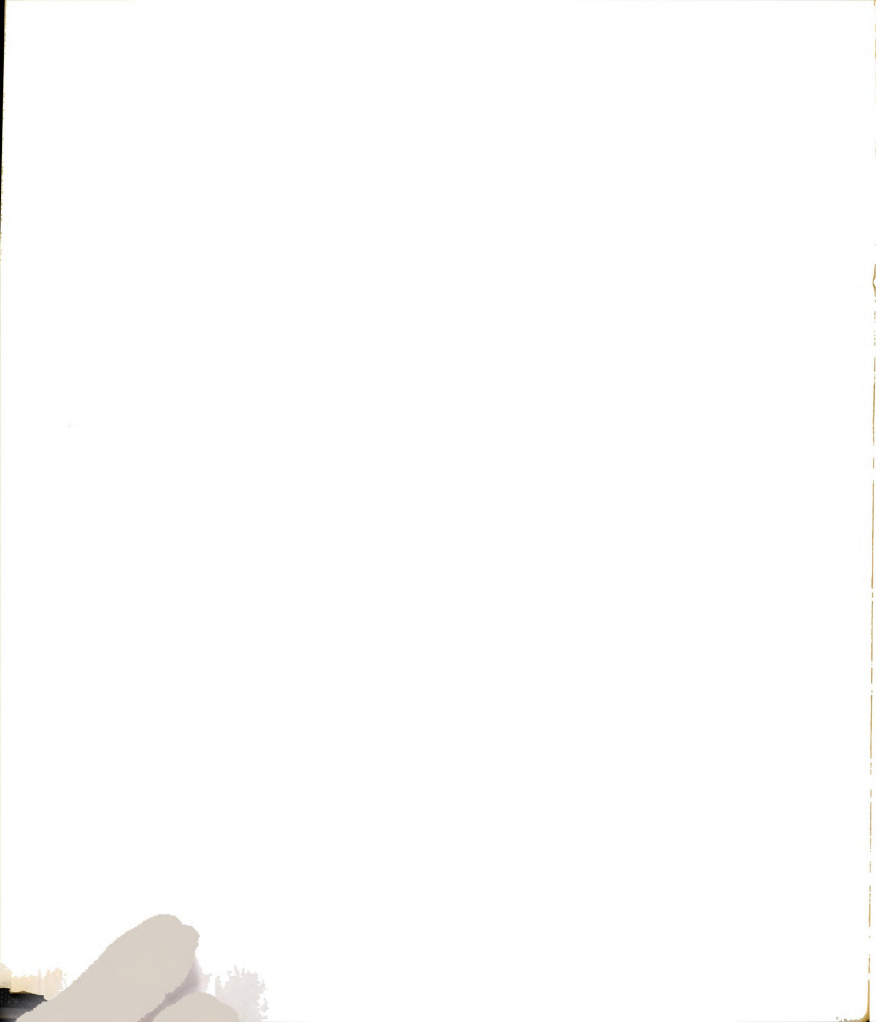
PART ONE

GENERAL INFORMATION

(Please print or place a check mark as needed)

1. Religion _____

2. Birth date _____

3. City and state of birth _____

4. Foreign born () Yes () No

    If yes, age entered U.S. ____ Country of origin _____

5. Sex ( ) Male   ( ) Female

6. Income ( ) Under $8000 ( ) $8001- 10000 ( ) $10001-$12000

    . ( ) $12001-14000   ( ) $14001-$16000 ( ) $16001-$18000

    ( ) $18001-$20000 ( ) $20001 and over.

7. Education (please circle the highest grade attended)

    Elementary School   High School   College   Graduate work

    1 2 3 4 5 6 7 8   9 10 11 12   1 2 3 4   M.A., Doctorate
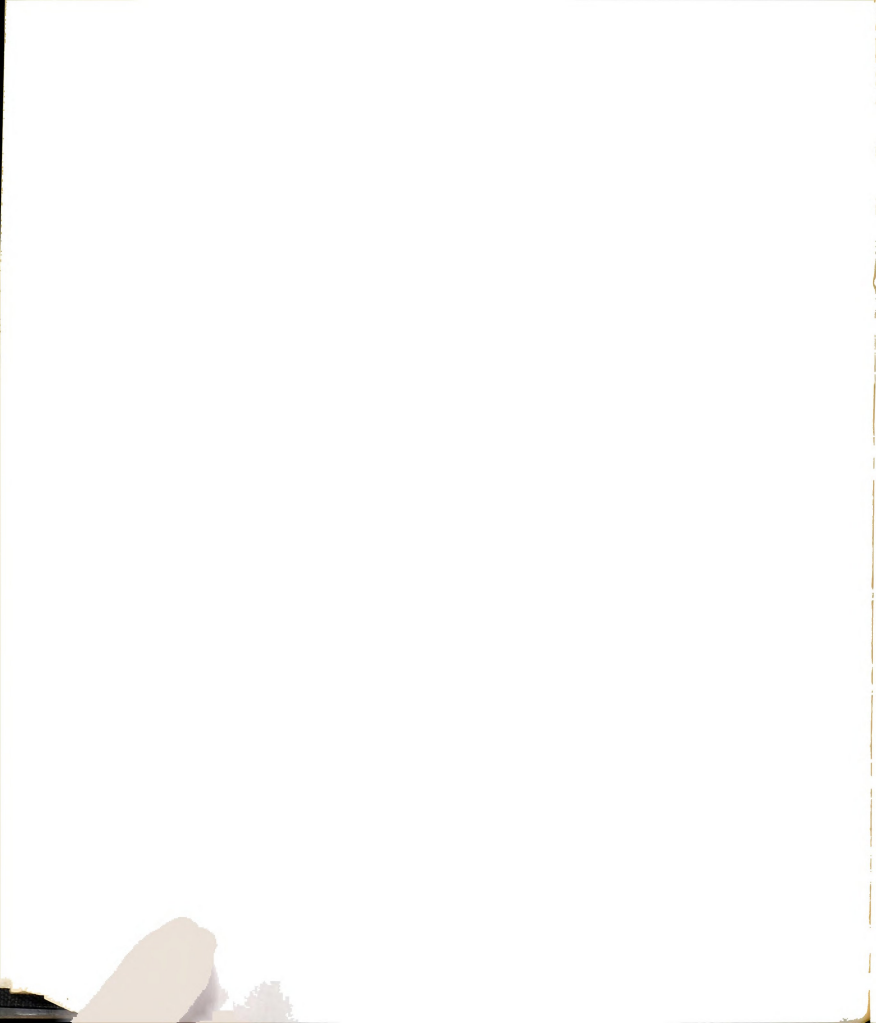
Part Two

Instructions

In this part I am asking your cooperation for a careful set of answers. There are ten questions, each with four answers. Please place a check mark in the space provided to the left of the answer that corresponds to your opinion. Be sure to answer all ten questions.

Please place only one check for each question.

1. Has the organization lived up to the expectations you had before you entered it?

    ( ) In all respects

    ( ) In most ways

    ( ) In only a few ways

    ( ) Not at all

2. Are you satisfied with the amount and quality of the formal training you received on the job while working for your organization?

    ( ) Extremely satisfied

    ( ) Fairly satisfied

    ( ) Dissatisfied

    ( ) Extremely dissatisfied

3. Do you think the authority you have had to perform your tasks has improved your skills and abilities?
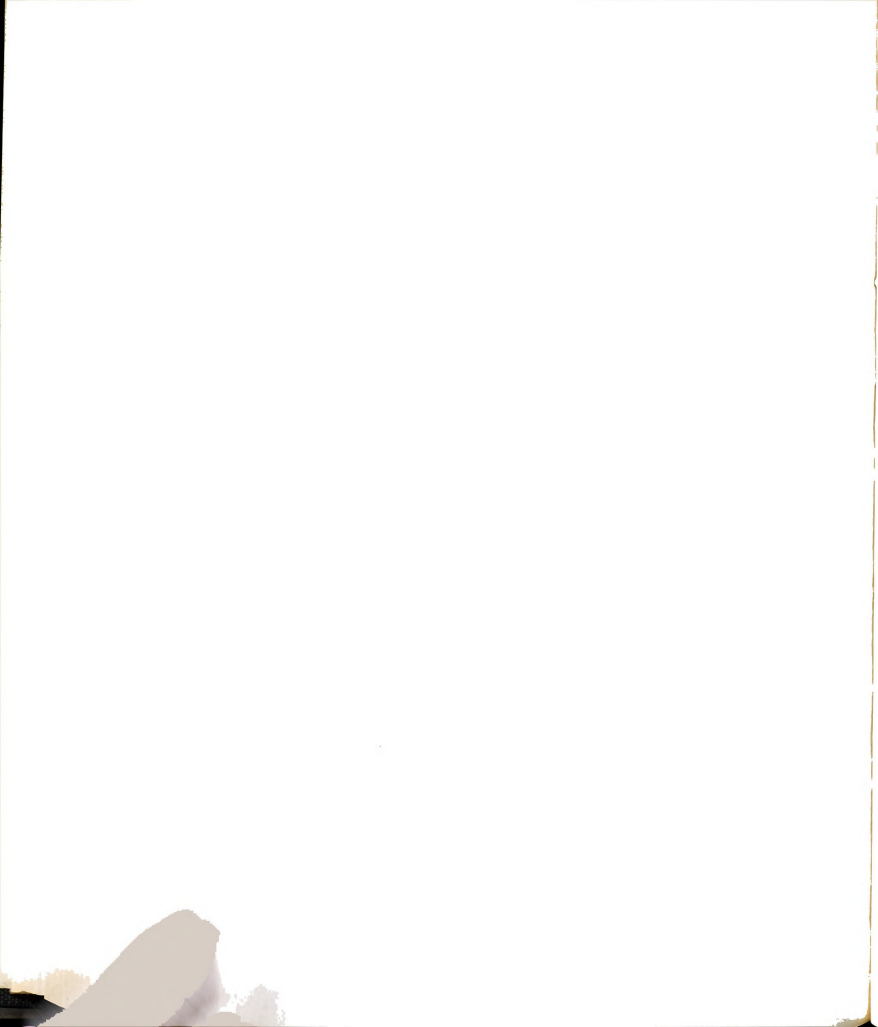
( ) Very much so

( ) To some extent

( ) Very little

( ) Not at all

4. Are you satisfied with the level of autonomy in your job:

( ) Very satisfied

( ) Fairly satisfied

( ) Dissatisfied

( ) Very dissatisfied

5. Are you satisfied with the amount of your workload:

( ) Very satisfied

( ) Fairly satisfied

( ) Dissatisfied

( ) Very dissatisfied

6. If you had "to do it over," would you enter this organization:

( ) Certainly yes

( ) Probably yes

( ) Probably no

( ) Definitely no

7. How would you rank your immediate superior's effectiveness:

( ) Highly effective

( ) Fairly effective

( ) Ineffective

( ) Highly ineffective

8. How would you rank your department, section, or branch compared to other sections:

      ( ) Highly effective

      ( ) Fairly effective

      ( ) Ineffective

      ( ) Highly ineffective

9. What would you do if you are doing a real important task and your superior interferes with the way you are doing your job:

      ( ) Ignore him and do my task

      ( ) Challenge him and leave my task

      ( ) Go along with him

      ( ) Resist him and do my task

10. Do you spare some of your energy because:

      ( ) You are not paid enough

      ( ) You do not get along with your superior

      ( ) You do not think you are on the right job

      ( ) None of the above
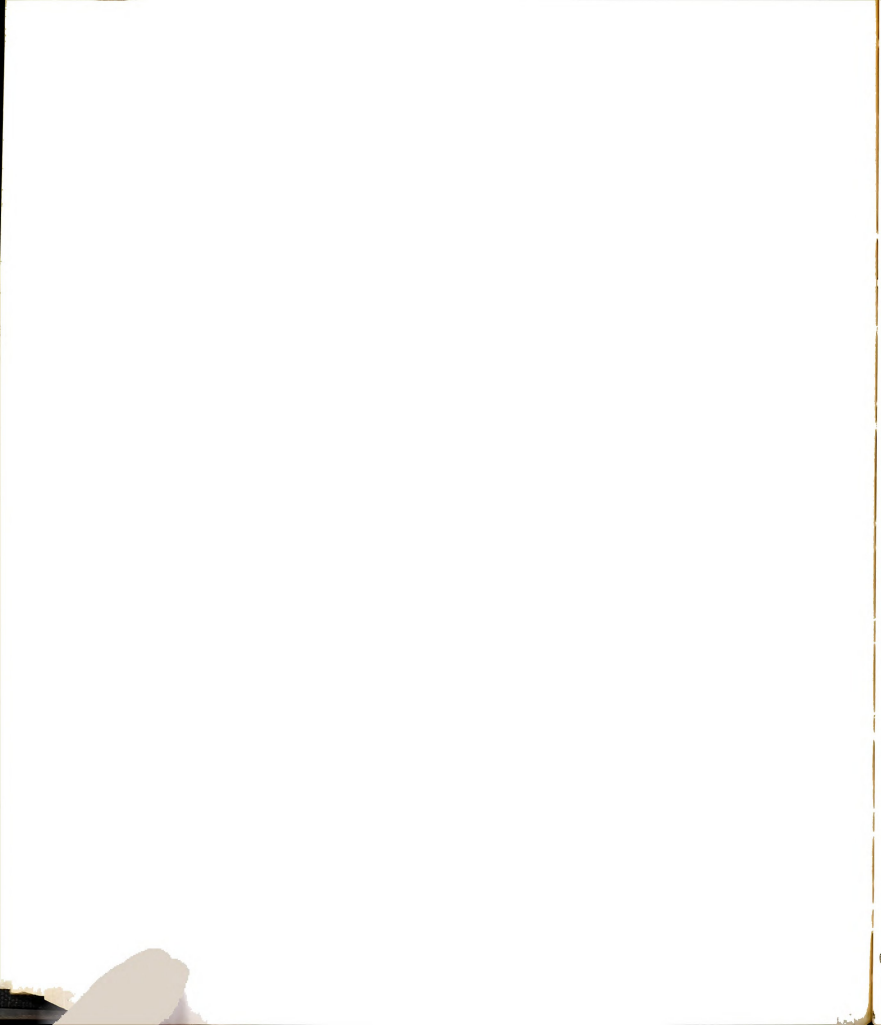
197

PART THREE

VALUE SURVEY

BIRTH DATE_____ SEX: MALE_____FEMALE_____

CITY and STATE OF BIRTH_____

NAME (FILL IN ONLY IF REQUESTED)_____

"Permission for using and inclusion granted by Dr. Milton Rokeach."

INSTRUCTIONS

On the next page are 18 values listed in alphabetical order. Your task is to arrange them in order of their importance to YOU, as guiding principles in YOUR life. Each value is printed on a gummed label which can be easily peeled off and pasted in the boxes on the left-hand side of the page.

Study the list carefully and pick out the one value which is the most important for you. Peel it off and paste it in Box 1 on the left.

Then pick out the value which is second most important for you. Peel it off and paste it in Box 2. Then do the same for each of the remaining values. The value which is least important goes in Box 18.

Work slowly and think carefully. If you change your mind, feel free to change your answers. The labels peel off easily and can be moved from place to place. The end result should truly show how you really feel.

1	**A COMFORTABLE LIFE** (a prosperous life)
2	**AN EXCITING LIFE** (a stimulating, active life)
3	**A SENSE OF ACCOMPLISHMENT** (lasting contribution)
4	**A WORLD AT PEACE** (free of war and conflict)
5	**A WORLD OF BEAUTY** (beauty of nature and the arts)
6	**EQUALITY** (brotherhood, equal opportunity for all)
7	**FAMILY SECURITY** (taking care of loved ones)
8	**FREEDOM** (independence, free choice)
9	**HAPPINESS** (contentedness)
10	**INNER HARMONY** (freedom from inner conflict)
11	**MATURE LOVE** (sexual and spiritual intimacy)
12	**NATIONAL SECURITY** (protection from attack)
13	**PLEASURE** (an enjoyable, leisurely life)
14	**SALVATION** (saved, eternal life)
15	**SELF-RESPECT** (self-esteem)
16	**SOCIAL RECOGNITION** (respect, admiration)
17	**TRUE FRIENDSHIP** (close companionship)
18	**WISDOM** (a mature understanding of life)

WHEN YOU HAVE FINISHED, GO TO THE NEXT PAGE.

Below is another list of 18 values. Arrange them in order of importance, the same as before.

1	**AMBITIOUS** (hard-working, aspiring)
2	**BROADMINDED** (open-minded)
3	**CAPABLE** (competent, effective)
4	**CHEERFUL** (lighthearted, joyful)
5	**CLEAN** (neat, tidy)
6	**COURAGEOUS** (standing up for your beliefs)
7	**FORGIVING** (willing to pardon others)
8	**HELPFUL** (working for the welfare of others)
9	**HONEST** (sincere, truthful)
10	**IMAGINATIVE** (daring, creative)
11	**INDEPENDENT** (self-reliant, self-sufficient)
12	**INTELLECTUAL** (intelligent, reflective)
13	**LOGICAL** (consistent, rational)
14	**LOVING** (affectionate, tender)
15	**OBEDIENT** (dutiful, respectful)
16	**POLITE** (courteous, well-mannered)
17	**RESPONSIBLE** (dependable, reliable)
18	**SELF-CONTROLLED** (restrained, self-disciplined)

Top executive's ranking of his subordinate departments

<u>Top executive only</u>

In light of the following criteria how would you rank your subordinate departments:

1) Productivity

2) Contribution to organizational goal achievement

3) Conformity with policies

4) Smoothness of operations

5) Absenteeism

6) Creativity

7) Adaptiveness to changes

<u>Criteria</u> Departments	Productivity	Contribution to organizational goal achievement	Conformity with policies	Smoothness of operations	Absenteeism	Creativity	Total Points	Mean Rank
A								
B								
C								
etc.								

APPENDIX B

Statistical tools of analysis and

Computer Routine Oneway

"ROUTINE ONEWAY"

Routine Oneway: A computer program for value test*

Routine oneway is a part of a tape overlay system, Valuetest, containing a series of routines written expressly for use with data from RoKeach's value survey. This routine is fully generalized, and may be used with any data from ranking scales, in which respondents are asked to rank K objects from 1 to K.

Routine oneway has been set up so as to produce final summary tables of the results, in a form most readily understandable to the user. This consumes slightly more computer time, but it frees the user from the time-consuming and often confusing process of constructing tables by copying numbers from computer output. Most of the statistical tests used in this routine are based on formulas taken from S. Siegel, Non-parametric Statistics, McGraw-Hill, 1956.

Routine oneway provides comparisons of the median value rankings of several groups, as defined by an independent variable. It is analogous to a one-way analysis of variance.

In terms of RoKeach's value survey, this routine compares the value rankings of groups (male versus female, open-minded vs. closed-minded, etc.) defined by category variables (sex, dogmatism, etc.) As shown in the example output on pages 203, 204 and 205 the results of computation

*Mr.Charles C. Hollen, The Author of Valuetest granted permission for the making and inclusion of this excerpt. For further information write to Mr. Hollen, Department of Psychology, M.S.U.

TABLE 53
SAMPLE OUTPUT FROM ROUTINE ONEWAY

MEDIAN TEST
FREQUENCIES ABOVE AND BELOW GRAND MEDIAN

CATEGORY VARIABLE   SEX
DEPENDENT VARIABLE A COMFORTABLE LIFE

MEDIAN SCORE = 14.00

GROUP	MALE	FEMALE
AT OR ABOVE MEDIAN	31	44
BELOW MEDIAN	27	37

ONE DEGREE OF FREEDOM   CHI SQUARE = 0.00501
SIGNIFICANCE LEVEL   1.0000 (PROB OF THIS OR GREATER CHI SQUARE -- TWO-TAILED TEST)

MEDIAN TEST
FREQUENCIES ABOVE AND BELOW GRAND MEDIAN

CATEGORY VARIABLE   SEX
DEPENDENT VARIABLE AN EXCITING LIFE

MEDIAN SCORE = 10.00

GROUP	MALE	FEMALE
AT OR ABOVE MEDIAN	31	45
BELOW MEDIAN	27	35

ONE DEGREE OF FREEDOM   CHI SQUARE = 0.04745
SIGNIFICANCE LEVEL   1.0000 (PROB OF THIS OR GREATER CHI SQUARE -- TWO-TAILED TEST)

MEDIAN TEST
FREQUENCIES ABOVE AND BELOW GRAND MEDIAN

CATEGORY VARIABLE   SEX
DEPENDENT VARIABLE A SENSE OF ACCOMPLIS

MEDIAN SCORE = 9.00

GROUP	MALE	FEMALE
AT OR ABOVE MEDIAN	34	39
BELOW MEDIAN	24	43

ONE DEGREE OF FREEDOM   CHI SQUARE = 1.41606
SIGNIFICANCE LEVEL   0.2339 (PROB OF THIS OR GREATER CHI SQUARE -- TWO-TAILED TEST)
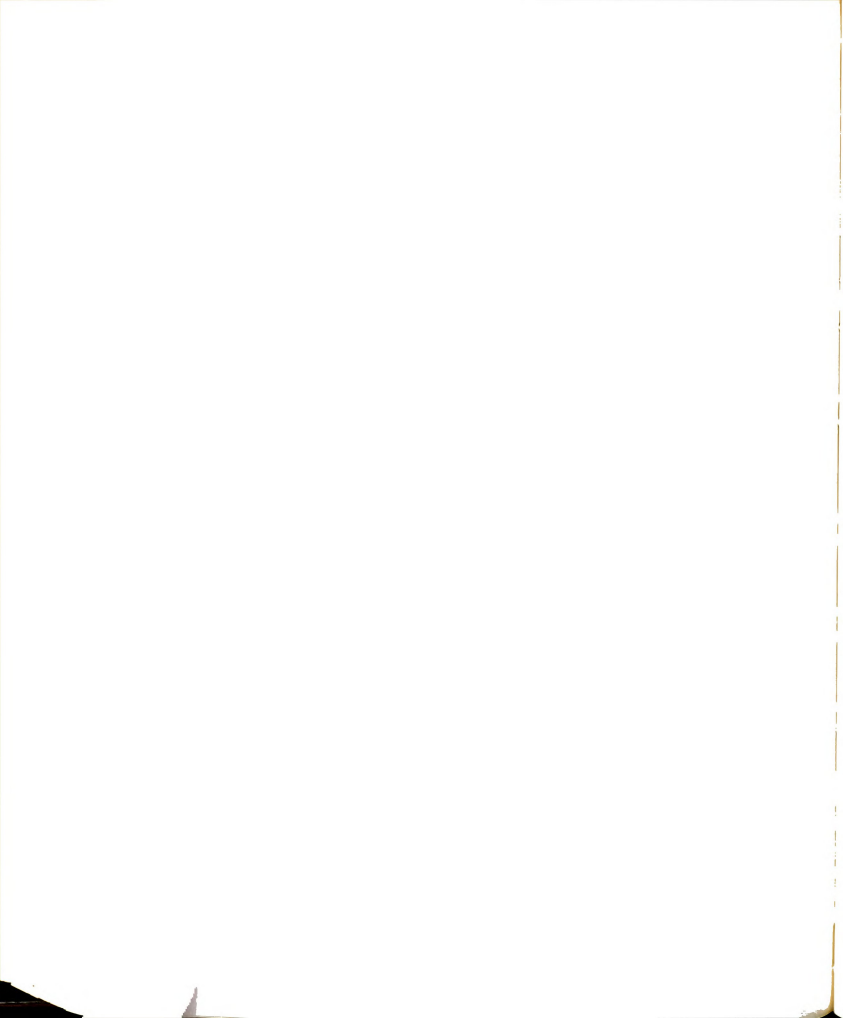
Routine descriptions - Routine Oneway
TABLE 54
SAMPLE OUTPUT FROM ROUTINE ONEWAY

FREQUENCY DISTRIBUTIONS, MEDIANS, AND QUARTILE DEVIATIONS

CATEGORY VARIABLE IS SEX

DEPENDENT VARIABLE IS A COMFORTABLE LIFE

DEPENDENT VARIABLE IS AN EXCITING LIFE

DEPENDENT VARIABLE IS A SENSE OF ACCOMPLIS

DEPENDENT VARIABLE IS A WORLD AT PEACE

DEPENDENT VARIABLE IS A WORLD OF BEAUTY

DEPENDENT VARIABLE IS EQUALITY

DEPENDENT VARIABLE IS FAMILY SECURITY

DEPENDENT VARIABLE IS FREEDOM

DEPENDENT VARIABLE IS HAPPINESS

DEPENDENT VARIABLE IS INNER HARMONY

DEPENDENT VARIABLE IS MATURE LOVE

DEPENDENT VARIABLE IS NATIONAL SECURITY

SAMPLE *OUTPUT* *FROM* *ROUTINE* *ONEWAY*
TABLE 55

ASU STUDENTS   GROUP MEDIANS - CATEGORY VARIABLE IS   SEX

	MALE N= 69		FEMALE N= 91		MEDIAN TEST	
GROUP	MED	RNK	MED	RNK	X2=	P=
A COMFORTABLE LIFE	13,36	14	14,06	14	0,005	1,000
AN EXCITING LIFE	10,21	12	9,58	10	0,047	1,000
A SENSE OF ACCOMPLIS	8,00	8	9,81	12	1,416	0,234
A WORLD AT PEACE	6,50	4	6,92	6	0,005	1,000
A WORLD OF BEAUTY	14,90	17	11,64	13	11,426	0,001
EQUALITY	6,94	5	5,91	3	2,446	0,118
FAMILY SECURITY	8,75	11	9,60	11	0,252	0,616
FREEDOM	4,10	1	4,91	1	0,092	0,763
HAPPINESS	7,00	6	8,00	8	0,109	0,742
INNER HARMONY	8,75	10	8,88	9	0,005	0,944
MATURE LOVE	7,13	7	5,29	2	3,641	0,056
NATIONAL SECURITY	14,75	16	14,55	15	0,019	1,000
PLEASURE	13,20	13	14,66	16	3,227	0,072
SALVATION	16,50	18	16,20	18	0,002	0,965
SELF RESPECT	5,63	2	6,05	4	0,352	0,554
SOCIAL RECOGNITION	14,30	15	15,67	17	2,106	0,146
TRUE FRIENDSHIP	8,05	9	7,85	7	0,011	1,000
WISDOM	5,67	3	6,67	5	1,096	0,295
CONCORDANCE COEFFS.	0,22		0,24			

appear in 3 sections. First for each category variable and for each dependent variable there is computed and printed an overall frequency table for the Median Test. Second, a detailed breakdown of the frequencies is printed showing how many people in each group ranked each object (value) first, second, third, etc. Finally a summary table is produced showing the group medians and rank numbers (rankings of the medians from "highest" to "lowest" within each group), for all groups across all dependent variables. On the right-hand side are shown the size of the Median Test statistic (chi-square) and its probability of occurrence under a two-tailed test.

At the bottom of the page are shown the coefficients of concordance for each group. This statistic is a measure of the degree of agreement among all the members of the group on the entire set of dependent variables. In terms of Rokeach's value survey, it provides an index of homogeneity of the groups values.

Routine size limits

ROUTINE ONEWAY will handle a data array of up to 84,000 items. Please note, however, the following routine size limits: Within one job, the number of category variables may not exceed 6, the number of dependent variables may not exceed 36, and the number of subjects (respondents) may not exceed 2000. Users whose data exceed one or more of these limits must divide their analyses into several separate jobs. For example, a user with 10 category variables may run the first six, and then the remaining four, as two separate jobs.
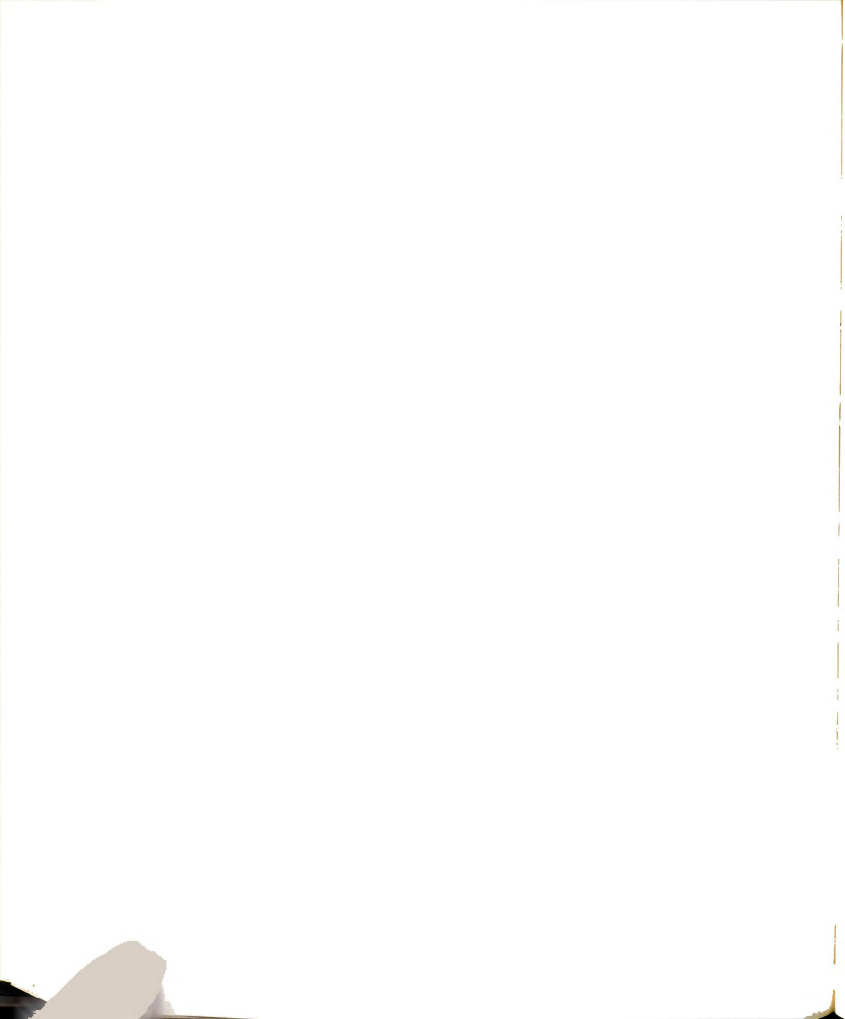
The routine may be used on other data than RoKeach's value scales. However, because it was formulated primarily for use with the value ranking scales, which contain either 12 or 18 items per scale, it assumes that the number of dependent variables will be an even multiple of 6. It also assumes that if there are 18 or less dependent variables, that these constitute one ranking scale, while if there are more than 18 dependent variables, these constitute two scales, and will be divided accordingly.

User options

1. Significance test option: The user is offered a choice of either of two significance tests, the Kruskal-Wallis H test or the Median Test for k Independent Groups. (for detailed descriptions of these tests, see S. Siegel, Non-Parametric Statistics). Experience has shown that the Kruskal-Wallis test is somewhat more sensitive to differences in "shape" of distributions, while the Median Test is more predominantly a test of differences in central tendency.

The two tests normally have been found to give nearly comparable results (i.e. if a given difference is significant according to one test, it will also be significant according to the other, and vice cersa). Unless the user has a hypothesis concerning differential shapes of distributions, the Median Test is recommended.

2. Echo check option: The user may specify that his data be printed out after being read in and recoded. This

uses slightly more computer time, especially in the case of very large samples, but it provides a useful safeguard to insure that the data are being read in and recoded correctly.

3. **Automatic recoding option:** Supposing, for example, that the user has punched each respondent's age on his data cards in its "raw" form. He now wishes to <u>combine</u> those who are in their teens, those in their twenties, in their thirties, etc. into groups for comparison. ROUTINE ONEWAY offers a simple means of accomplishing this "recoding" by the insertion of certain control cards specifying which variables (if any) are to be recoded, in what way.

Although the program will handle up to 10 groups per category variable, experience has shown that it is vastly easier to interpret the results if the number of groups is reduced to three or four. Thus, on variables such as age and social class, on which a large or small number of groups may be used, it may be well to utilize the automatic recoding option to combine and reduce the number of groups. In addition, care should be taken to eliminate groups of N size 5 or less (20 or less in large samples) by combining them with other groups or recoding them as o's (see Missing Data).

4. **Entire sample option:** The user may specify whether he wishes to obtain frequency distributions and medians for his entire sample. Normally this option would be utilized on only the first run-through on a particular sample of data.
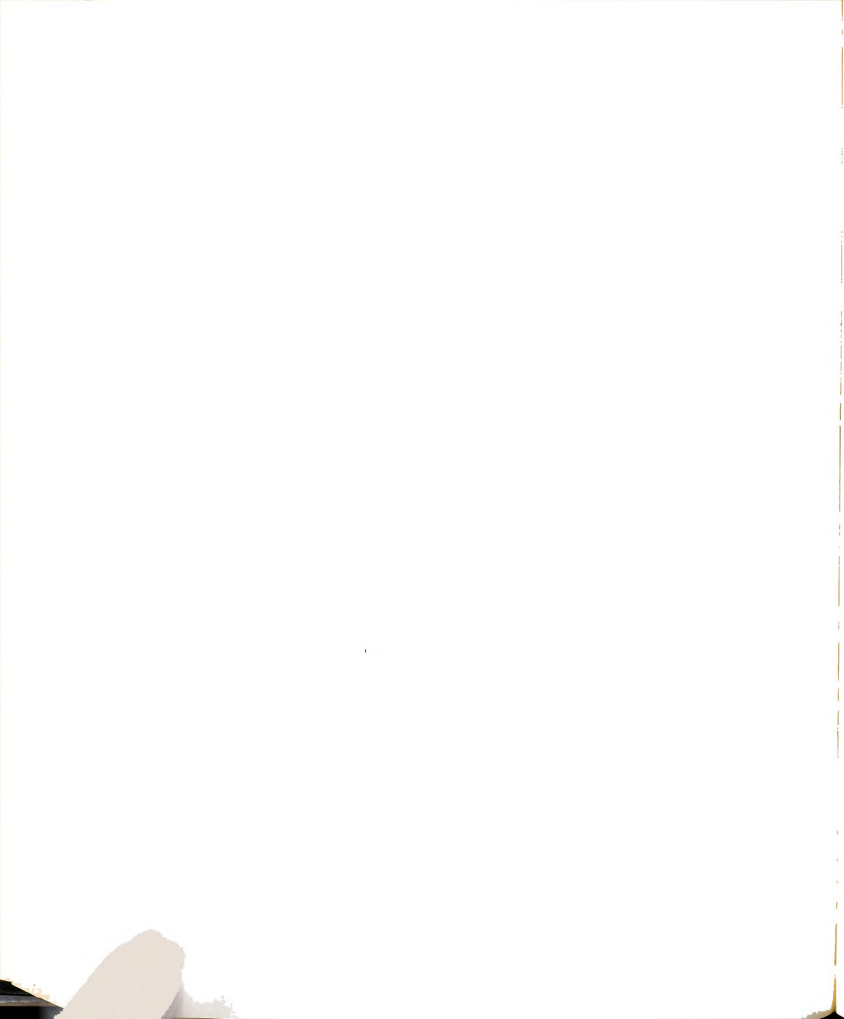
5. <u>Identification variables option:</u> Data decks on which this routine is used will frequently contain more than one card per subject. It is absolutely essential that these decks be "match-merged" correctly, in order that each subject's independent variables are matched with his own dependent variables, not someone else's.

On numerous occasions in the past we have found that match-merged data decks contained cards out of order or cards missing. These cause mis-matches which lead to worthless results. I cannot emphasize too strongly the frequency and ease with which this kind of "data foul-up" can occur.

The routines in this program contain a safeguard against mismatches due to missing or out-of-order cards. This is done by reading in a "subject identification number" from <u>each</u> <u>card</u> and comparing these to be sure that they are the same for each of that subject's cards.

For example, suppose we have 100 subjects, with 4 cards per subject. These are match-merged so that each subject's four cards are together, in order from 1 to 4. Each card has a subject I.D. number punched somewhere on the card. (These numbers need not be consecutive; they need not run from 1 to 100; but they should be in the same columns on all cards).

Thus we wish to read in four "I.D." variables. The total number of variables (as specified on the main parameters card) should include these four variables. An
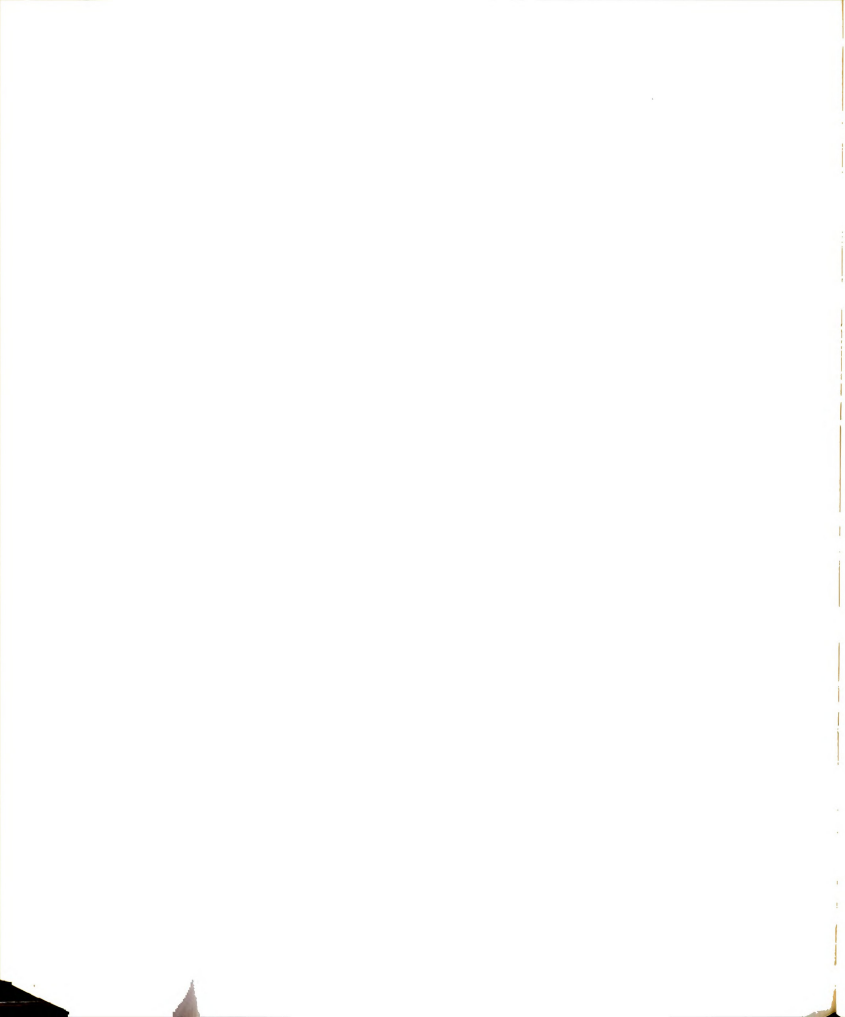
identification variables numbers card is then inserted along with the other control cards which specifies which ones, of all the variables read in, are the identification numbers. The format card will, of course, also reflect this inclusion.

If the program finds a subject whose identification numbers do not match, it will print out the "wrong numbers" it found, and stop. This feature may be used on any number of cards per subject, up to 40.

If the user has only one card per subject, or wishes to "short-circuit" this safeguard, he may insert a blank cardin place of the I.D. variables numbers card or put in the same variable number twice (e.g. "4141").

6. Control variablesoption: This option offers the opportunity to analyze "subgroups" from within a sample without physically separating their data cards from the rest.

Suppose, for example, the user has a large volume of data, either on cards or on tape. He wishes to run a comparison between, say, males and females but for Catholics only. Thushe wishes to use Sex as his category variable and Religion as a "selector variable" or control variable, excluding from the analysis all other religious groups except Catholics. This is possible through the insertion of a few additional control cards, thus obviating the bothersome necessity of presorting data decks by hand or constructing special indices.

The user may select a group for analysis on the basis of more than one control variable at once, and more than one
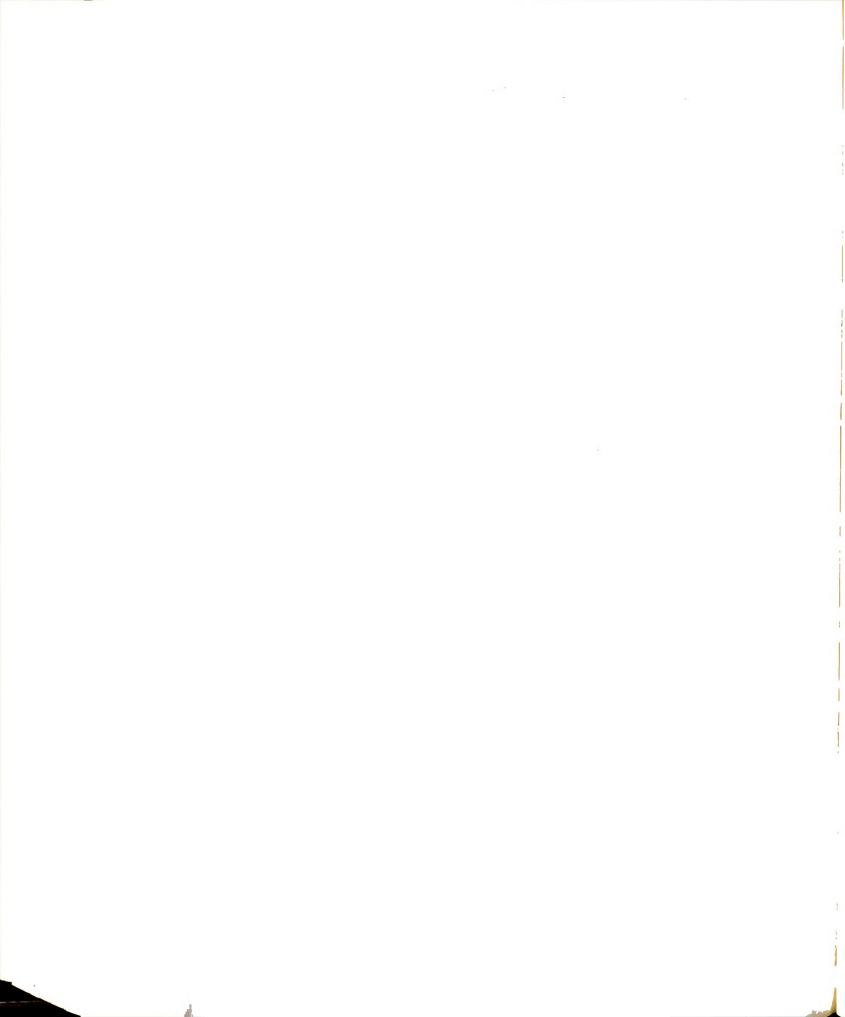
value per variable. Thus if he wishes to select just the White, Middle-and-Upper Class Catholics, he would use Race, Social Class, and Religion as "control variables," and specify one value to be retained for Race (white) two values for Social Class (middle and upper) and one value for religion (Catholic).

Note that the number of subjects <u>used in a given analysis</u> may not exceed 2000. However, the routine may, if necessary, read in up to 9999 subjects in the process of searching for 2000 or less subjects to be used in the actual analysis.

Missing data

All 0's or blanks on the data cards will be treated as "missing data". Any respondent with a zero or a blank on his data card for a particular variable will automatically be dropped from the analysis of <u>that variable only</u> and the N size will be reduced by 1.

Thus a 0 or a blank should be used to represent a "No Answer" or "Did not respond" code. If, for example, on the category variable "sex", males and females are punched on the cards as 0's and 1's, the user <u>must</u> make use of the automatic recoding option to recode these groups as 1's and 2's.

Input

Data may be input from punched cards or from tapes. If input is from tape, the logical unit number must be between 1 and 49 inclusive, and <u>must not be 20 or 25</u>. (The
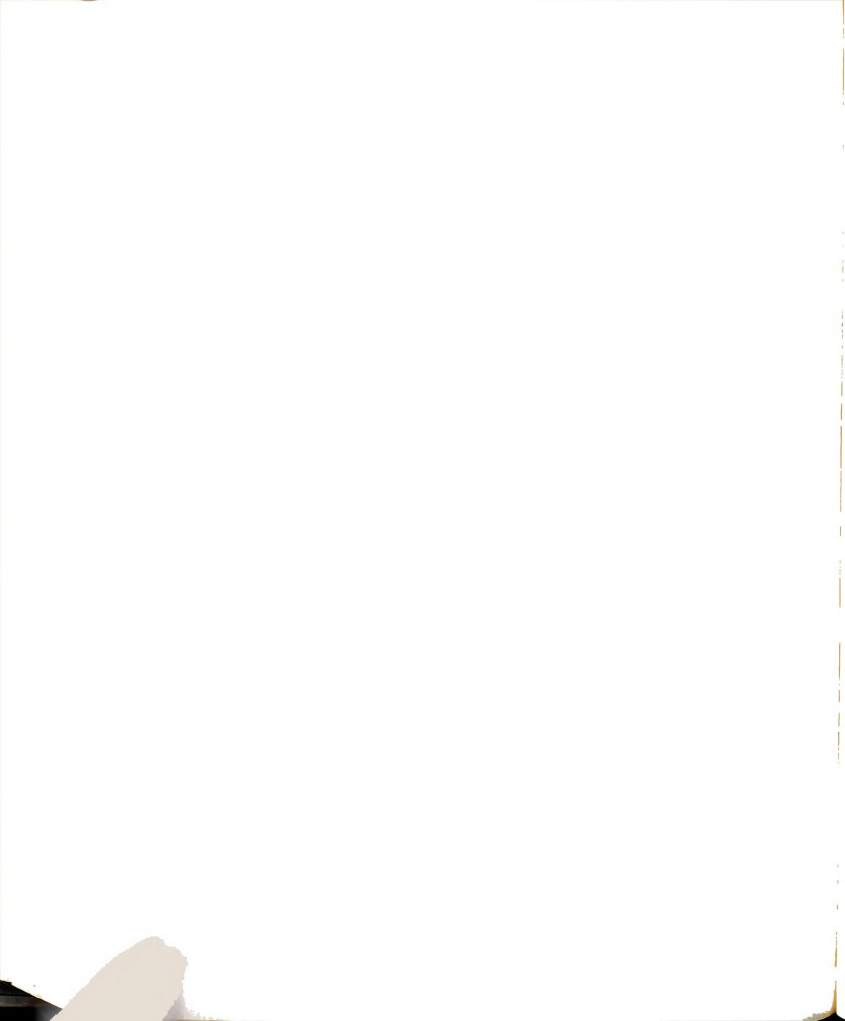
program uses tape unit 25 as a scratch unit for input of control cards). Data decks (or tapes) may contain more than one card per subject, but each subject's cards must be together (match-merged). One card must contain values of variables for one respondent only, and each variable must appear in the same column on every card.

Timing

For an "average-sized" run of 300 subjects, 36 dependent variables, and 4 category variables, the program used approximately one minute of computing time. The amount of time needed varies chiefly with the number of subjects, so that with 1400 subjects, 36 dependent variables, and 2 category variables, approximately 3 minutes is used.

HOW TO USE THE VALUTEST SYSTEM

PROGRAM VALUTEST is a tape overlay system, which means that the user may gain access to it simply by "calling" it from a tape which is on file at the MSU Computer Center. Thus, he need not obtain a "program deck" for the routine he wishes to use.

Following his PNC (Problem Number Card), his JOB card, and the Valutest System control cards, the user must submit a series of "control cards" which tell the program the number of subjects, the number of variables, the format for reading in these variables, the names of the variables, and other instructions for the program.
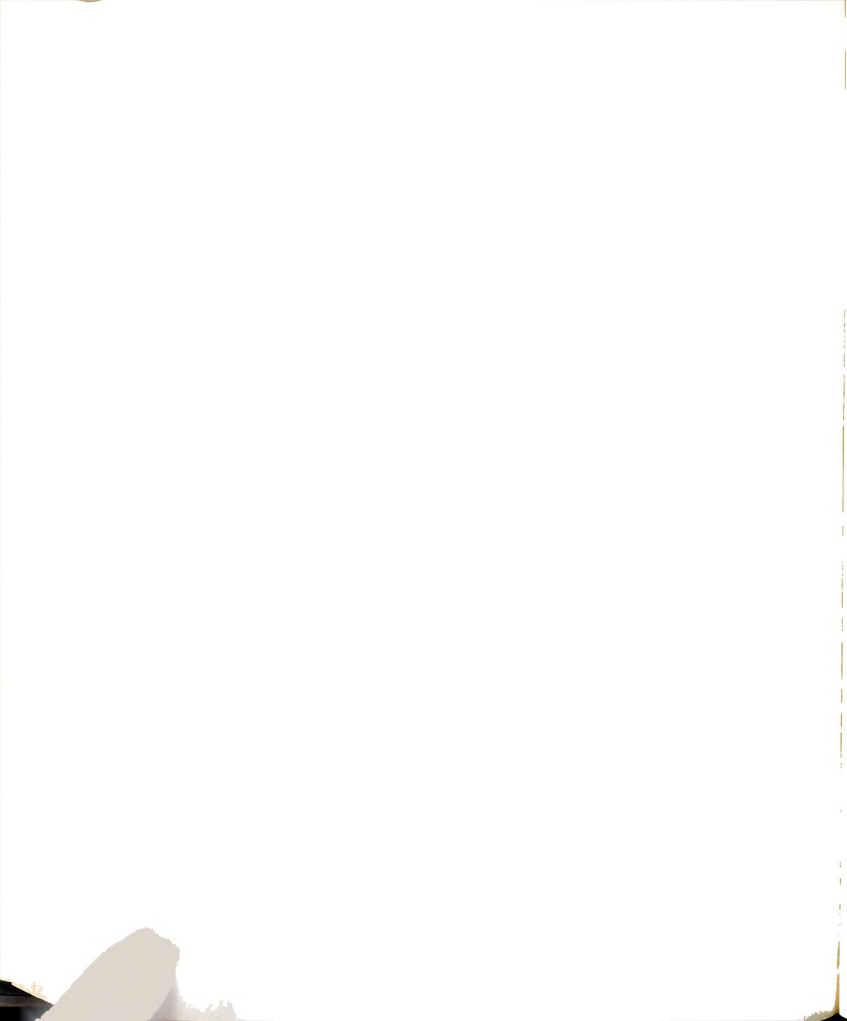
All control cards must be precisely correct in order for the program to execute its job properly and provide accurate results. This means that an attitude of extreme exactitude must be exercised in preparing control cards. After punching the cards, the user should obtain a printed copy of his complete set of control cards by running them on the 407 line printer, and scrutinize this "printout" carefully for possible "bugs," such as:

1. Has every card necessary been included, but no "extra" cards?

2. Is everything in the right columns on the cards?

3. Are all the numbers correct (for example, does the number of variables on the main parameters card correspond to the number of variables on the format card)?

4. Are the cards in the correct order?

In the following section, example sets of control cards are provided for Routine oneway. The user should study the exanple carefully and use it as a model for his control cards.

VALUTEST SYSTEM CONTROL CARDS

Following your PNc and JOB card, the following control cards are necessary for calling PROGRAM VALUTEST for use of any of its routines:

1. **Equip card**

7 EQUIP,20=(VALUTEST),MT(290),RO

This card "equips" tape unit 20 with the VALUTEST tape. The last character on this card is a letter 0, not a
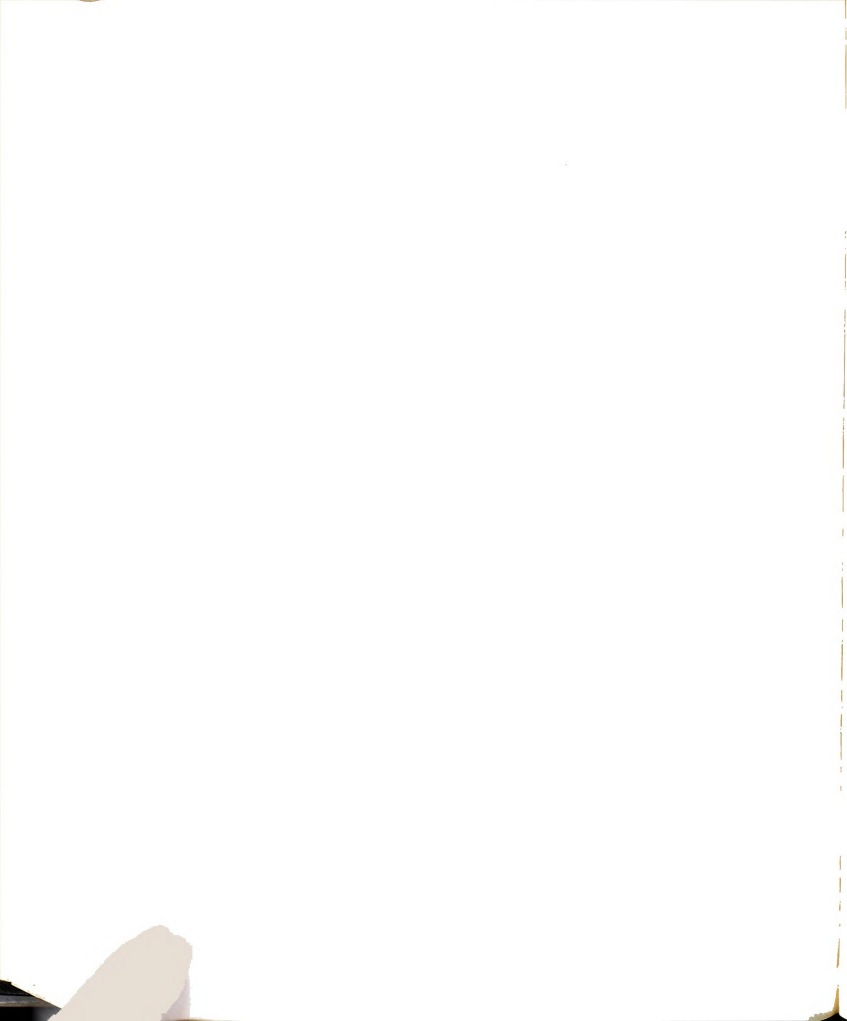
zero. The tape unit number used on this card must correspond to the tape unit number on the "Loadmain" card.

2. **Loadmain card**

7LOADMAIN,20,5,2000
9

This card loads the main program from tape unit 20. In this example, the "5" is the user-designated time limit and the 2000 is the print limit (number of lines). These may be increased or decreased for specific jobs at the discretion of the user. This card takes the place of a "RUN" card.

3. **Routine Name Card**

ROUTINE ONEWAY

Note that this card (and all subsequent control cards) begins in Column 1. All control cards must begin in column 1. The routine name card specifies the name of the routine the user wishes to call, with the word "routine," followed by a space, then the name of the routine, beginning in column 9.

4. **Data Input Unit Card**

DATA ON UNIT 21

    or

DATA ON CARDS

This card specifies whether the data are to be read in from punched cards or from a user-supplied tape. If the latter is the case, the use must insert a 7EQUIP card, equipping a unit with his tape. The number of this unit is then
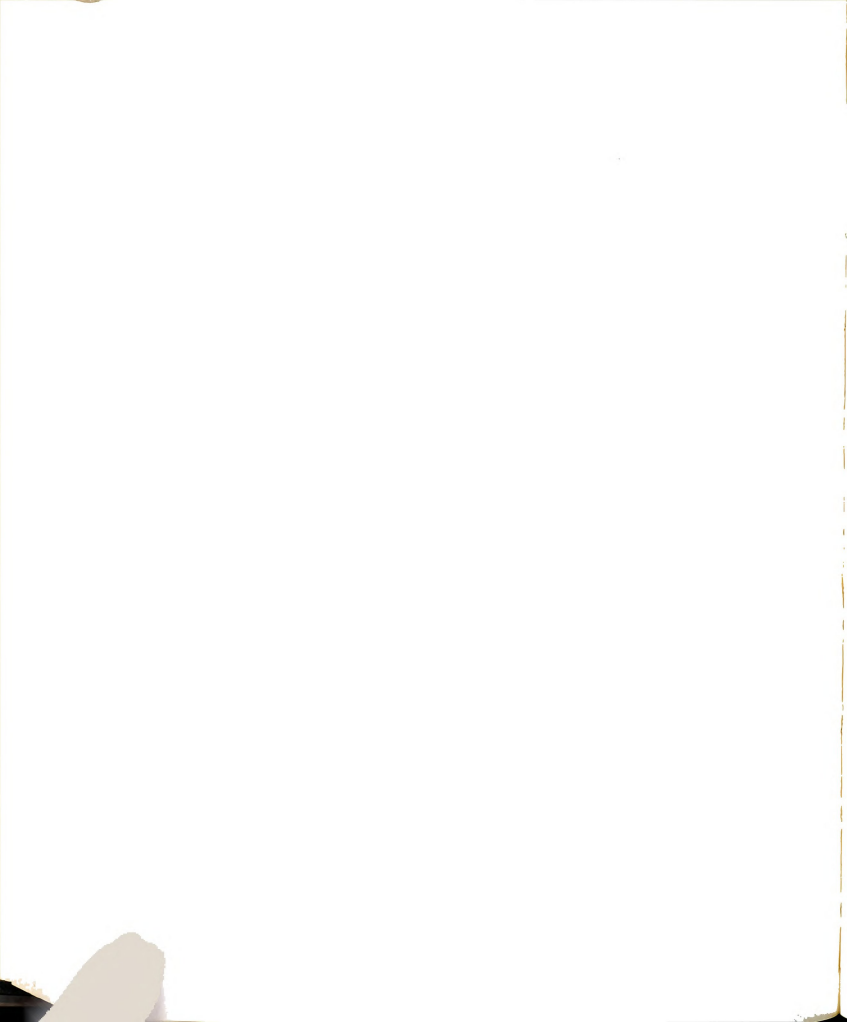
specified on the Data Input Unit Card. The program assumes
that data read in from tape will be in the form of BCD card
images.

5. Main Parameters and Options Card

(SEE PAGES 38 and 39)

This card specifies the number of subjects, the
total number of variables, (including both independent,
dependent, control, and identification variables). It also
specifies values for user options pertaining to various
choices which are offered by each routine.

Main Parameters Card for ROUTINE ONEWAY

0381, 40, 02,1,1,1, MSU STUDENTS FALL 67

Columns 1-4 = total number of subjects (respondents).

Columns 6-7 = total number of variables (including
independent, identification, dependent, and control
variables, if any)

Columns 9-10 = Number of variables to be recoded
(if any).

Column 12 = Significance test option. A "1" in this
column means that the user chooses the Median Test,
while a "2" means that the Kruskal-Wallis H test is
preferred.

Column 14 = Echo check option. User wishes to have
data printed out after being read in and recoded.
1=print data. 0=do not print.

Column 16 = Total sample medians option. 1=compute
and print medians for whole sample. 0=do not.

Column 18 through 37 = Study title (limited to 20
spaces).

Column 80 = Control variables option. C = control
variables will be used, blank = no control variables.

6. Independent Variables Numbers Card

01023940

The program having been instructed to read in 41 variables (or some other total number of variables as specified on the Main Parameters Card) it now must be told which of these are the so-called Independent or Category Variables. If the first, second, thirty-ninth, and fortieth variables read in are the independent variables, then the card would appear as above. Note that each variable number is a two-column integer. Variable numbers are consecutive, with no spaces in between.

7. Identification Variables Numbers Card

4178

This card specifies which variables are the "subject I.D. numbers". Each number is a two-column integer.

8. Control Variables Numbers Card (optional)

3738

This card should not be included unless one is making use of the "control variables" option (see page 11). It specifies which of the variables read in are the control variables. Each variable number is a two-column integer.

9. Dependent Variables Numbers Card

030405060708091011121314151617181920212223242526272829303132
333435363738

This card specifies which of the variables read in are the "dependent variables". Each number is a two-column integer. In the case of routines CHANGE and STABLE, where

up to 72 dependent variables may be read in (counting both pre- and post- measures) these numbers may be continued on a second card. However, before doing so one must fill the first card completely with 40 numbers.

10. <u>Format card</u>

(2I2,6X,18I2/20X,18I2,10X,2I2)

This card specifies the format by which the data are read in. The total number of variables specified on this card must correspond to the total number of variables speci-fied on the main parameters card. Data are read in under in-teger ("I") format. A slash means "skip to the next card", and should be used only if data is to be read in from more than one card <u>per subject</u>.

11. <u>Category Variable Name Card(s) followed by Group Name Cards</u>

02 SEX MALE FEMALE 05 AGE 1 TO 15	For each category (independent) variable, a name card must be provided. The integer number in the first two columns of this card specifies the <u>number of groups</u> for that variable.
16 TO 25 26 TO 35 36 TO 45 45 OVER etc.	Please note that (1) this refers to the number of groups <u>after</u> recoding. i.e. as they will appear in the <u>final</u> printout, and (2) the number of group name cards following each variable name card must be the same as the number of groups specified in columns 1 and 2 of the group name card.

Variable names are limited to 20 spaces. Group names are limited to 8 spaces and must appear in the same order as the groups are coded on the data cards, i.e. if females were coded "1" and males coded "2" then the group name cards for SEX should be in that order--first "FEMALE" and then "MALE".

12. Dependent Variable Name Cards

A COMFORTABLE LIFE
AN EXCITING LIFE
etc.

   For each dependent variable, a name card must be

provided. The name is limited to 20 spaces in length.

The number of dependent variable name cards must correspond

to the number of dependent variable numbers on the "DEpendent

variable numbers card", except in the case of routines

CHANGE and STABLE.

13. Recoding Cards (option for ONEWAY)

```
02        03      These cards should not be inserted unless one
00=01             is making use of the "recoding option" and has
01=02             specified as such on the main parameters card.
02=00
04        01      These cards are instructions to the program
05=00             concerning variables to be recoded.  If, for
05        02      example, "Sex" is variable number 2 and has
06=05             been coded 0=male, 1=female, 2=no answer, then
07=06             the recoding cards at the left should be used.
```
   Columns 1 and 2 of the first card contain a
two-column integer specifying the number of the variable to
be recoded (in this case, variable number 2, the second one
read in) and columns 10 and 11 contain the number of values
to be recoded. This two-column integer must be in columns
10 and 11. It must correspond to the number of "recode
values cards" which follow. In this case that is three.
A zero is recoded as a 1, a 1 as a 2, and a 3 as a zero.
Note that these also are two-column integers, in columns 1
and 2 and 4 and 5, separated by an equals sign. (or a comma,
or a space). A set of recoding cards like the ones above
must be inserted for each variable to be recoded. The number
of sets of recoding cards must correspond to the "number of
variables to be recoded", specified on the main parameters
card.

14. Control Variable Values Cards (optional for all routines
   except CHEKSUMS)

```
02    0002
03    0001
04    00010203
```

Immediately following the "recoding cards" (if any

or if there are none, then following the last dependent vari-

able name card) and immediately preceding the "EXECUTE" card,

the user must insert a set of "control variable values cards,"

one for each control variable.   This card specifies the

number of the control variable and the values of that vari-

able to be excluded from analysis.

Thus, referring to the example above, the first card

specifies variable number 2 (the second variable read in) as

a two-column integer in card columns 1 and 2, and two values

of that variable (00-02) as two two-column integers beginning

in card column 10.   Thus, if this variable were Sex, and the

variable were coded 1 for males and 2 for females, and the

user wished to run a particular comparison on the males only,

this card would cause the program to automatically exclude

from analysis all non-male subjects.

Note that zero is also specified as a code to be ex-

cluded.   If data cards contain zero's (as a no-response code,

for example) these subjects will be included along with the

males unless the user specifically indicates that they also

should be excluded.   One "control variable values card" is

necessary for each control variable.   Thus in the example

above there are three control variables.   If the user is not

making use of the control variable option these cards are not

necessary, and should simply be left out.

15. *EXECUTE Card

The final control card is a card with an asterisk in

column 1 followed by the word "execute". This is the last control card, and in the case of data read in from punched cards, this card is immediately followed by the user's data deck.

Statistical formulae used in this research

1) Mean $\overline{X} = \dfrac{X}{N}$

where $\overline{X}$ = mean ; X the sum of the scores; N = the number of respondents.

2) The mean for grouped data $\overline{X} = M' + \dfrac{fX'}{N}(i)$

where M'= arbitrary reference point, or midpoint

i = the size of the class interval.

3) standard deviation $S = \dfrac{X^2}{N}$

4) the variance $S^2 = \dfrac{X^2}{N}$

5) Coefficient of variation using the mean and standard deviation $J = \dfrac{6}{u}.100$

6) Test of significance

$t = \dfrac{\overline{X}_1 - \overline{X}_2}{6\overline{n}_1 - \overline{x}_2}$

where $\overline{X}_1$ = median of first sample

$\overline{X}_2$ = median of second sample

$6\overline{X}_1 - \overline{X}_2 = S \dfrac{1}{n_1} + \dfrac{1}{n_2}$

Distribution of differences between medians of a pair of samples.

Control cards

A Complete Set of Example Control Cards for ROUTINE ONEWAY

```
.....(your PNC)....                                          (PNC card)
7JOB,012345,TITLE,3,LASTNAME,FIRSTNAME                       (JOB card)
7EQUIP,20=(VALUTEST),MT(290),RO                              (EQUIP card)
7LOADMAIN,20,3,2000                                          (LOADMAIN card)
ROUTINE ONEWAY                                               (routine name card)
DATA ON CARDS                                                (data input unit card)
0231,41,02,1,1,1,MSU STUDENTS                                (main parameters card)
383940                                                       (independent variables numbers card)
3741                                                         (identification vars. numbers card)
0102030405060708091011121314151617181920212223242526272829303132333435 36(dep. vars.
                                                                           nos.)

(3612,5XI3/10X,I1,6X,2I2,56X,I3)                             (format card)
02 SEX                                                       (indep. variable name card)
MALE                                                         (group name cards)
FEMALE
03 AGE
YOUNG
MIDDLE
OLD
02 RACE
WHITE
BLACK
A COMFORTABLE LIFE                                           (dependent variable name cards)
AN EXCITING LIFE
 •
 •
 •
 •
RESPONSIBLE
SELF-CONTROLLED
38        03                                                (recoding cards - optional)
00=01
01=02
02=00
39        06
02=01
03=02
04=02
05=03
06=03
07=03
*EXECUTE                                                     ("*execute" card)
011805030702......                                          (your data deck)
```

APPENDIX C

Breakdown of the sample structure

based on organizations

TABLE 56 .   Sample size of the educational institution

Departments	No. in managerial positions	Usable Question- naire	Sample's relation to Department
Most effective	51	32	68%
Least effective	123	64	52%
Total	174	96	60%

TABLE 57.   Sample structure of the most effective department of the educational institution based on religion.

Religion	Number in strata	Percentage of sample total
Protestant	25	81%
Catholic	7	18%
Jewish	-	-
No answer	1	1%*
Total	32	100%

*All percentages have been rounded to the nearest figure.

TABLE 58. Sample structure of the least effective department of the educational institution based on religion.

Religion	No. in strata	% of sample total
Protestant	44	
Catholic	13	
Jewish	0	
No answer	7	
Total	64	

TABLE 59. Sample structure of the most effective department of the educational institution based on sex.

Sex	No. in strata	% of sample total
Male	29	93.75
Female	3	6.25
Total	32	100.00

TABLE 60. Sample structure of the least effective department of the educational institution based on sex.

Sex	No. in strata	% of sample total
Male	9	14
Female	55	86
Total	64	100

TABLE 61. Sample structure of the most effective department of the educational institution based on age.

Age	No. in strata	% of sample total
18-35	4	12.5
36-50	14	43.75
51 over	14	43.75
Total	32	100.00

TABLE 62. Sample structure of the least effective department of the educational institution based on age.

Age	No. in strata	% of sample total
18-35	42	56.25
36-50	15	34.37
51-over	7	4.38
Total	64	100.00

TABLE 63. Sample structure of the most effective department of the educational institution based on education.

Education	No. in strata	% of sample total
Elementary	0	0
High school	22	87.50
College	10	12.50
Total	32	100.00

TABLE 64. Sample structure of the least effective depart-
ment of the educational institution based on
education.

Education	No. in strata	% of sample total
Elementary	0	0
High school	27	42
College	35	54.8
Graduate	2	3.2
Total	64	100

TABLE 65. Sample structure of the most effective department
of the educational institution based on income.

Income	No. in strata	% of sample total
Under $8000	3	9.3
$8001-10000	7	21.9
$10001-12	9	28
$12001-14	6	18.7
$14001-16	4	12.5
$16001-18	1	3.2
$18001-20	1	3.2
$20001-over	1	3.2
Total	32	100.

TABLE 66 . Sample structure of the least effective department
of the educational institution based on income.

Income	No. in Strata	% of sample total
$8001-10000	47	73.4
$1001-12	9	14.2
$12001-14	3	4.8
$14001-16	2	3.1
$16001-18	1	2.4
$18001-20	2	3.1
$20001-over	0	0
Total	64	100.

It is interesting to mention that 98% of the subjects in the sample taken from the educational institution were born in the Midwest Region.

TABLE 67. Sample size of the InsuranceCompany

Sections	No. in managerial positions	Usable question- naire	Sample's size
Most effective	97	75	77.5%
Least effective	82	56	68%
Total	179	131	72%

TABLE 68. Sample structure of the most effective section of the insurance company based on religion.

Religion	No. in strata	% of sample total
Catholic	18	24
Protestant	52	69.3
Jew	0	0
No answer	5	6.7
Total	75	100.

TABLE 69. Sample structure of the least effective section
of the insurance company based on Religion.

Religion	No. in strata	% of sample total
Catholic	16	28.5
Protestant	36	64.8
Jew	0	0
No answer	4	6.7
Total	56	100.

TABLE 70. Sample structure of the most effective section of
the Insurance Company based on sex.

Sex	No. in strata	% of sample total
Male	54	72
Female	21	28
Total	75	100

TABLE 71. Sample structure of the least effective section of
the insurance company based on sex.

Sex	No. in strata	% of sample total
Male	36	64.2
Female	20	35.8
Total	56	100

TABLE **72.** Sample structure of the most effective section of the insurance company based on age.

Age	No. in strata	% of sample total
18-35	28	37.3
36-50	30	40.
51-over	17	22.7
Total	75	100.

TABLE **73.** Sample structure of the least effective section of the Insurance Company based on age.

Age	No. in strata	% of sample total
18-35	12	21.4
36-50	21	37.5
51-over	23	41.1
Total	56	100.

TABLE **74.** Sample structure of the most effective section of the insurance company based on education.

Education	No. in strata	% of sample total
Elementary	2	2.6
High school	30	40.
College	35	46.6
Graduate	8	11.8
Total	75	100.

TABLE 75. Sample structure of the least effective section of the insurance company based on education.

Education	No. in strata	% of sample total
Elementary	1	1.8
High school	27	48.2
College	22	39.2
Graduate	6	11
Total	56	100.

TABLE 76. Sample structure of the most effective section of the Insurance Company based on income.

Income	No. in strata	% of sample total
Under $8000	29	38.6
$8001-$10000	24	32.
$10001-$12000	11	14.6
$12001-$14000	6	8
$14001-$16000	2	2.6
$16001-$18000	0	0
$18001-$20000	1	1.6
$20001-over	2	2.6
Total	75	100.

TABLE **77.** Sample structure of the least effective section of the insurance company based on income.

Income	No. in strata	% of sample total
Under $8000	25	44.6
$8001-$10000	15	26.8
$10001-$12000	7	12.7
$12001-$14000	5	8.9
$14001-$16000	2	3.5
$16001-$18000	0	0
$18001-$20000	0	0
$20001-over	2	3.5
Total	56	100.

TABLE **78** Sample size of the Bank

Branches	No. in managerial positions	Usable question-naires	Sample's size
Most effective	15	10	66%
Least effective	15	8	53%
Total	30	18	60%

TABLE 79. Sample structure of the most effective branch of the Bank based on Religion.

Religion	No. in strata	% of sample total
Protestant	7	70
Catholic	0	0
Jewish	0	0
No answer	3	30
Total	10	100

TABLE 80. Sample structure of the least effective branch of the Bank based on Religion.

Religion	No. in strata	% of sample total
Protestant	5	62.5
Catholic	0	0
Jewish	0	0
No answer	3	37.5
Total	8	100.

TABLE 81. Sample structure of the most effective branch of the Bank based on sex.

Sex	No. in strata	% of sample total
Male	9	90
Female	1	10
Total	10	100.

TABLE **82.** Sample structure of the least effective branch of the Bank based on sex.

Sex	No. in strata	% of total sample
Male	6	75
Female	2	25
Total	8	100.

TABLE **83.** Sample structure of the most effective branch of the Bank based on age.

Age	No. in strata	% of sample total
18-35	7	70
36-50	1	10
51-over	2	20
Total	10	100

TABLE **84.** Sample structure of the least effective branch of the Bank based on age.

Age	No. in strata	% of sample total
18-35	4	50
36-50	2	25
51-over	2	25
Total	8	100

TABLE 85. Sample structure of the most effective branch of the Bank based on education.

Education	No. in strata	% of sample total
Elementary	1	10
High school	3	30
College	5	50
Graduate	1	10
Total	10	100

TABLE 86. Sample structure of the least effective branch of the Bank based on education.

Education	No. in strata	% of sample total
Elementary	0	0
High school	2	25
College	4	50
Graduate	2	25
Total	8	100

TABLE 87. Sample structure of the most effective branch of the Bank based on income.

Income	No. in strata	% of sample total
Under $8000	5	50
$8001-$10000	3	30
$1001-$12000	2	20
$12001-$14000	0	0
$14001-$16000	0	0
$16001-$18000	0	0
$18001-$20000	0	0
$20001-over	0	0
Total	10	100

TABLE 88, Sample structure of the least effective branch of the Bank based on income.

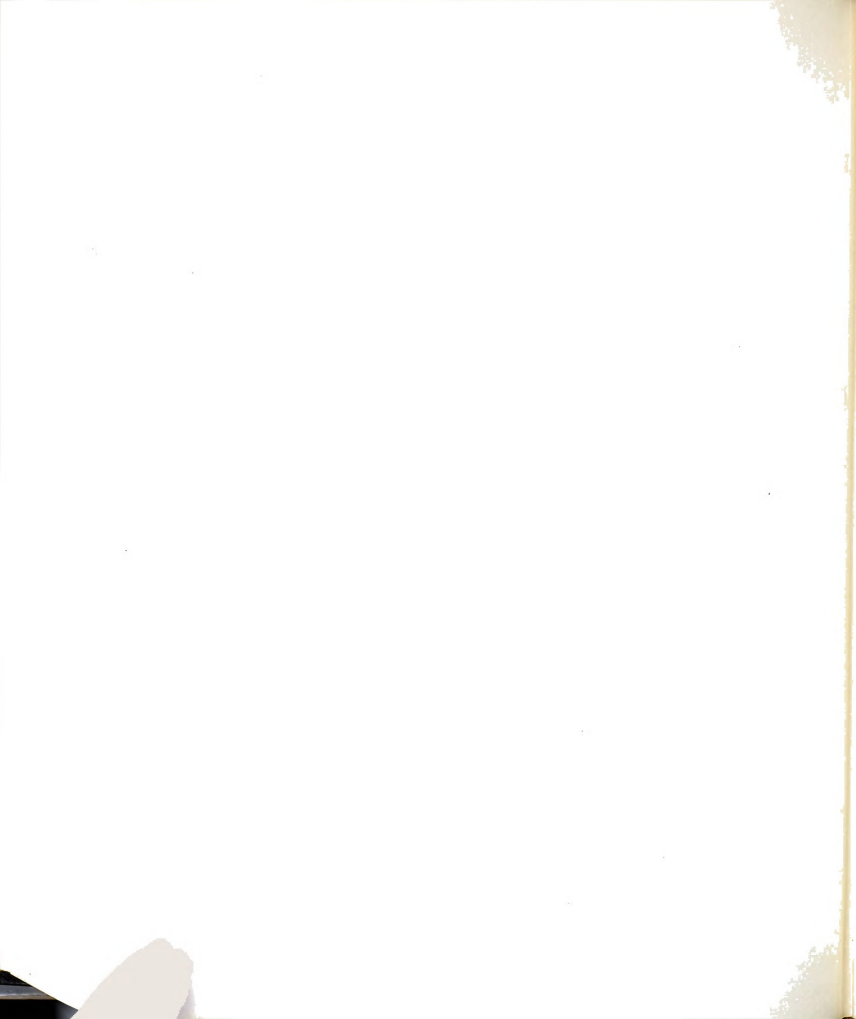| Income	No. in strata	% of sample total
Under $8000	4	50
$8001-$10000	2	25
$10001-$12000	0	0
$12001-$14000	1	12.5
$14001-$16000	0	0
$16001-$18000	0	0
$18001-$20000	1	12.5
$20001-over	0	0
Total	8	100

TABLE 89. Sample structure of the more effective and the less effective persons of the three organizations under survey based on the rating made by supervisors for their effectiveness.

Organization	More effectives	Less effectives	Total
Educational institution	58	38	96
Insurance Company	69	62	131
Bank	11	7	18
Total	138	107	245