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THE RELATIONSHIP OF MANAGEMENT STYLE

TO THE ORGANIZATION LIFE-CYCLE

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PREFACE

Research often comes about through man's efforts to explain an observed phenomenon. A popular story in history tells of Sir Isaac Newton's notice of a falling apple, and how his further research led him into the mathematical explanation of the law of gravity.

So it is in this case. Years of observation of the American business scene shows a recurring phenomenon of failing companies--and of rescue actions. The typical rescue action involves the naming of a new chief executive. His drastic new efforts, whether for success or failure, are usually in the authoritarian mode.

If organization theory precepts could aid in avoiding such crises, much economic and social gain would result. The research described herein extends the present theory and offers predictors relating the manager's style to the organization life-cycle.

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THE RELATIONSHIP OF MANAGEMENT STYLE TO THE ORGANIZATION LIFE-CYCLE

CHAPTER I

INTRODUCTION

Objective

This research will identify possible relationships between the organization's life-phase and the chief executive's management pattern. From the research data presented, the hypothesis will be offered that the decision patterns of the manager are not constant throughout his career. His organization preference and style of management may change over the years. These changes may have a cause-effect relationship on profitability decline in the latter life-phases of an organization.

Definitions

Management Patterns

This term is used to mean both the organizational structure preference and the management style of an industrial executive. At one end of the continuum is the completely autocratic manager who operates through a very flat structure. His opposite would be a completely participative manager who has a narrow pyramid of structure with many levels. This participative type would involve the various organizational levels in much of the decision making.

It is recognized that both structure and style are being combined in one definition, but it is believed to be generally applicable in real industrial organizations. Where a conflict exists, the management style will prevail. Among other systems, Blake's[1] Managerial Grid offers a lucid description of management styles. Authoritative management will be used to describe one end of the spectrum, participative management the other.

Organization Life-Cycle

As suggested on Chart I, organizations often follow a predictable life-cycle. The changes in the base-line data of size, or sales volume can be described as:

Phase I   Inception-increases at an increasing rate

Phase II   Growth-increases at a steady rate

Phase III   Maturity-increases at a decreasing rate

Phase IV   Decline-increases stop and decreases set in

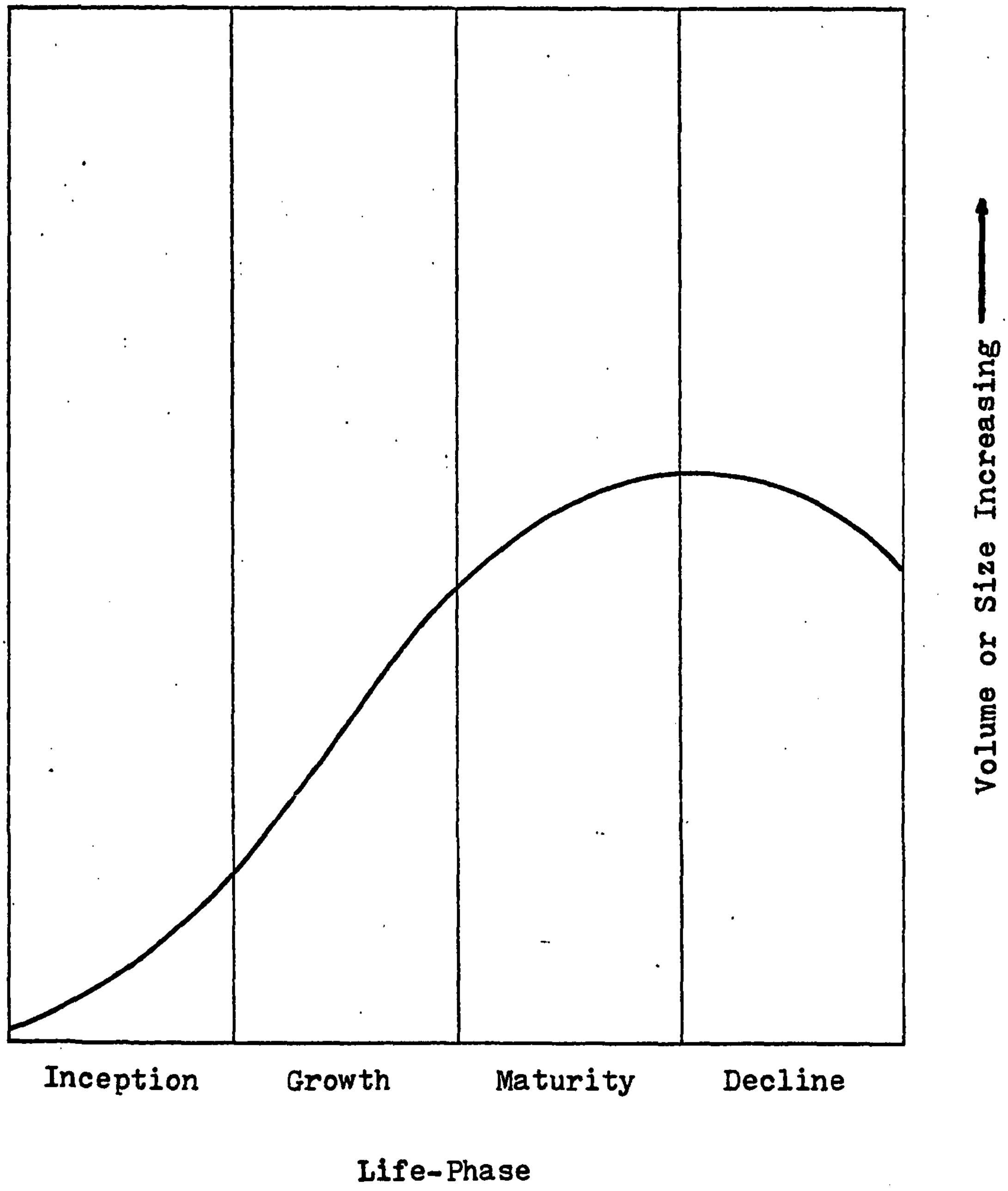
Procedure

First, a review of historical management writings

[1] Robert R. Blake, Jane S. Mouton, Louis B. Barnes, Larry Griener, "Breakthrough in Organization Development," Harvard Business Review, Nov-Dec 1964, pp. 133-155.

Chart I

ORGANIZATION LIFE CYCLE



will be presented, to establish the state of the art. These writings will be researched for any pertinent knowledge bearing on the hypothesis stated in the objective.

Second, areas requiring further research will be noted and a specific topic within these areas will be chosen and defined.

Third, a research project will be designed in order to gather data relative to management style and organization life-phase.

Fourth, the results will be tabulated and correlated so that logical conclusions can be drawn.

Chart II represents graphically the project design.

Scope and Limitations

The scope of this research encompasses the entire process of management, but obviously must be limited as to both area and depth.

This research examines the interface between organization theory and economic theory. But since organization theory is the writer's major area of study, the bulk of the literature search and data gathering will be of this discipline. Economic theory, as expressed in the life-cycle concept, will be only reviewed. The ideas of Rostow [1] and Patton[2]

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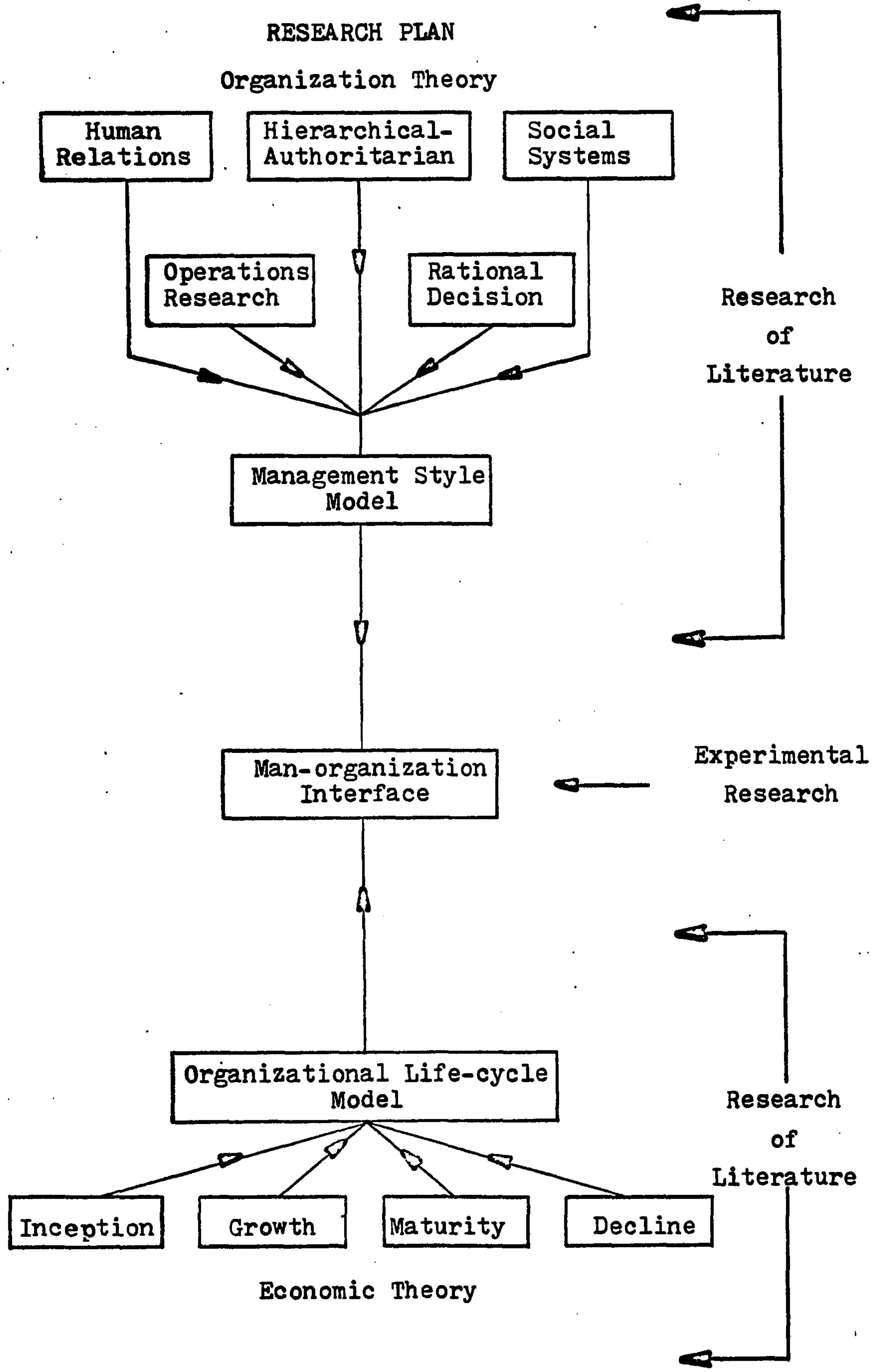
[1] W. W. Rostow, The Process of Economic Growth (New York: W. W. Norton & Company, Inc., 2nd ed., 1961).

[2] Arch Patton, Top Management's Stake in the Product Life-Cycle, The Management Review, XLIIX (June 1959), 9-14. New York: McKinsey & Company.

Chart II


RESEARCH PLAN
Organization Theory
Human Relations
Hierarchical-Authoritarian
Social Systems
Operations Research
Rational Decision
Research of Literature
Management Style Model
Man-organization Interface
Experimental Research
Organizational Life-cycle Model
Research of Literature
Inception
Growth
Maturity
Decline
Economic Theory

are integrated into this concept, without extensive exposition.

In order to confine the project to a manageable size, and also to get a closer comparison of similar situations, only industrial organizations will be examined. Due to the population available in this locality, this will generally consist of small to medium-sized light industrial firms. Also considered in this selection was the experience and interests of the author. He has had 25 years experience as an engineering executive in such firms. It was felt the rapport he might attain with the subject executives would substantially increase the input of relevant data.

To substantiate the hypothesis with correctly generated data, lengthy interviews will be held with industrial executives. Time and expense considerations will limit this number. The results obtained will be definitive, within the limits of the experimental design construction, but may only point out a need for additional research.

CHAPTER II

IDENTIFICATION OF CURRENT STATE-OF-THE-ART

> And thou shalt teach them ordinances and laws, and shalt shew them the way wherein they must walk, and the work that they must do.
>
> Moreover thou shalt provide out of all the people able men, such as fear God, men of truth, hating covetousness; and place such over them, to be rulers of thousands, and rulers of hundreds, rulers of fifties, and rulers of tens.
>
> And let them judge the people at all seasons: and it shall be, that every great matter they shall bring unto thee, but every small matter they shall judge: so it be easier for thyself, and they shall bear the burden with thee.[1]

Organization theory was first recorded for man's use thousands of years ago; Jethro's counsel to Moses is not greatly different from Fayol's[2] scalar chain many centuries later.

The history of Organization Theory is to a considerable extent an account of managers. The earliest rulers managed armies, cities, countries, and even empires. Later civilizations grew and prospered as they practiced good management techniques. And just as surely, declined and

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[1]Exodus 18:20-22.

[2]Henri Fayol, General and Industrial Management (London: Sir Isaac Pitman & Sons, LTD, 1949).

died when poorly managed. The rise and fall of Rome was largely a history of the application of first good, and then poor, management theory. In the Middle Ages, the Roman Church came to be a well-managed and powerful institution. Today it is still studied as a model for organization.[1]

But only recently has man realized that perhaps management patterns are a separate field of endeavor of study. Management Consultant says:

> The basic insight resulting from reflection of the actual process of management in historical perspective is that always and everywhere it is the process of insuring the managerial and economic performances of the institutions of society. But it was not until the beginning of the twentieth century that we began to understand that "managing" is a specific kind of work performed at several different levels in the various institutions of society, that the "manager occupies a special role and performs a distinct function in society."[2]

Now that man has realized that management patterns can be examined as an entity, how should they be approached? For the purpose of this historical review the theory will be divided into several different viewpoints similar to those identified by Koontz.[3] These are Hierarchical-Authoritarian, Human Relations, Social Systems, Rational Decision and

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[1]James D. Mooney, The Principles of Organization (New York: Harper & Row, 1947), p. 102.

[2]Management Consultant (New York: Association of Consulting Management Engineers, 1966), Series 1, p. 1.

[3]Harold Koontz, Journal of the Academy of Management, IV, No. 3 (Dec. 1, 1961), pp. 174-88.

Operations Research. Koontz will be used only as a convenient reference point. The titles and scope of his categories will be somewhat changed. The emphasis of each viewpoint will be discussed and appropriate references cited.

In order to develop a proper background for research into the actions and decisions of managers, it was judged best to search a broad spectrum of authoritative writings. The main beliefs and practices of executives could thus be identified and compared to a scale of known and measured norms. This identification can establish the state of the art at this point of organization theory.

The method used is basically historical. Early writings are noted briefly, with more detailed scrutiny given writers who appeared at the start of the Industrial Revolution, about 1800, when definite acceleration of all technical and management knowledge can be noted. From this date on, the opinions of the most influential writers have been reviewed in more detail.

The summary points out that very little concern for the direct application of these theories has been shown. Most writers addressed themselves only to a theory having universal application to all organizations. No cognizance was given the vast differences to be found in the organizations themselves and their environment. Research and data on specific application should therefore prove valuable.

Hierarchical-Authoritarian

Henri Fayol,[1] who wrote from 1890 to 1920, can be called, with some accuracy, the father of modern management thought. While his works cover several approaches, probably most of his thought falls in line with the Hierarchical-Authoritarian theory. The statements preceding the listing of "14 Principles of Management" indicate he feels them to be universal.

> THE MANAGERIAL FUNCTION finds its only outlet through the members of the organization (body corporate). Whilst the other functions bring into play material and machines the managerial function operates only on the personnel. The soundness and good working order of the body corporate depend on a certain number of conditions termed indiscriminately principles, laws, rules. For preference I shall adopt the term principles dissociating it from any suggestion of rigidity, for there is nothing rigid or absolute in management affairs, it is all a question of proportion. Seldom do we have to apply the same principle twice in identical conditions; allowance must be made for different changing circumstances, for men just as different and changing and for many other variable elements.[2]

When Fredrick Taylor[3] appeared on the management scene, about 1910, engineering was just becoming accepted as the "practical" science of industry. He saw management as a scientific process which could be implemented by applying his "Principles of Scientific Management."

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[1]Henri Fayol, General and Industrial Management (London: Sir Isaac Pitman and Sons, OTD, 1949).

[2]Fayol, p. 217

[3]Fredrick Taylor, Principles of Scientific Management (Hanover, N.H.: Dartmouth College, 1919).

> Let me repeat briefly these four principles of Scientific Management. I want you to see these four principles plainly as the essence of the illustration I am going to give you of Scientific Management. They are the development of a science to replace the old rule-of-thumb methods; the scientific selection and then the progressive teaching and development of the workmen; the bringing of the scientifically selected workmen and the science together; and then this almost equal division of the work between the management and the men.[1]

While not specifically stated, it is plain that his approach to management was similar to the classic scientific approach which is to:

1. Observe
2. Define the Problem
3. Formulate a Hypothesis
4. Experiment (for Validation)
5. Verify and Modify

Although his view of management theory was somewhat narrow, Taylor was a valuable contributor. He believed management patterns could be taught and he believed they should be contained in a unified body of knowledge. Most of all, he preached the immense importance of good management.

As early as 1912, Frank Gilbreth saw management through the eyes of an industrial engineer, so it is natural that he felt the scientific method was the correct approach. He could not abide inefficiency, and perhaps caused some of the distrust that today plagues the "efficiency expert." It

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[1]Fredrick Taylor, Principles of Scientific Management (Hanover, N.H.: Dartmouth College, 1919), p. 22.

does appear, though, that he honestly thought this efficiency would bring better things for business and labor alike. As an example:

> In scientific management the most constructive, desirable, successful, and ethical unit of measurement is a "Minute of Happiness," here or hereafter.
>
> Obviously, other things being equal, that which affects favorably the largest number of people will cause the greatest quantity of happiness minutes. It must be remembered that to enlist the ability and zeal of those fitted to lead an aggregation or organization to greatest success, sufficient motivation must be offered; or the one best leader, as desired in each division of the organization, will devote his efforts and time to something which will bring him what he thinks will be greater returns.[1]

Mrs. Frank Gilbreth's recent death, in January, 1972, pointedly demonstrates that much of the development of management theory has taken place in less than a lifetime.

The more modern the approach to management, the broader and more inclusive it becomes. The disciplines of psychology, sociology, and anthropology are represented by such modern inclusions as human relations, social systems, and decision theory. Where production management under Fayol, Taylor, or Gilbreth would largely have been the application of the right numbers of men and machines, recent approaches cover much more area. Franklin Moore tells us:

> Were space available we could write a whole book on the introduction and growth of new ideas since the days of Taylor and the others who were active in the pioneer period. Our subject, however, is manufacturing management today, not yesterday, so we have to

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[1]Frank Gilbreth, Science in Management for the One Best Way to Do Work (Lafayette, Ind.: Engineering Library, Purdue University, 1919), p. 72.

concern ourselves about present-day practices. Today's practices differ from those of the past in several important aspects. Here, we want just to enumerate and comment briefly on them.

Particularly since World War II, managers have become much more aware of the human relations side of managing business organizations. This interest has been fostered in part by the work of behavioral scientists whose findings have pointed up the need to recognize that employees are people. They are people who behave and react like people. Today most universities have required courses in business relations or in industrial relations, and most companies are quite conscious of this facet of the job of managing companies.

Another post-World War II development is the heavy emphasis we now place on research. Today we spend, in the United States, nearly 3 per cent of all of our national income on research. A good bit of this is spent on moon missiles and military products. Many companies not making moon missiles, however, spend from 1 to 2 per cent of all the money they take in on developing new products, materials, and processes for their regular business.[1]

Perhaps the most recent viewpoint is given by Batten.[2] He rejects the idea that structure alone can manage and insists it must be combined with judgment.

Time after time we see struggling companies being governed by hunch, intuition, and fancy. Sometimes they have grown rapidly because of a product lead on their competitors. Sometimes a son has taken over from a father who practiced one-man rule in the days when competition was virtually nil. Such businesses seem to be up against constant crises. Sales campaigns, cost reduction campaigns, and rashes of union grievances keep both top and middle management in a state of chronic nervousness and anxiety.

Surprisingly, though, we also see struggling companies whose executives can glibly recite the

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[1]Franklin Moore, Manufacturing Management, 4th ed; (Homewood, Ill.: Richard D. Irwin, Inc., 1965), p. 162.

[2]J. D. Batten, Developing a Tough-Minded Climate for Results (New York: American Management Association, 1965).

> "principles" of management. It's when you begin to ask penetrating questions about the substance and fiber of planning, for instance, that you often find a distinct lack of conceptual underpinning. Why and how does a company plan? What information is needed? Who should be involved?[1]

The above are samples of opinion on management from many famous writers, ancient through modern. They all generally believe in the same system of managing; specifically, that managing consists of following a prescribed hierarchical-authoritarian process which is largely universal.

Human Relations

Human relations have been a baffling study for hundreds of years, so it is not surprising that some consider it the most important aspect of management thought. Certainly if one is to get things done through people, the behavior of people is of vital importance to managing.

Koontz describes the human behavior viewpoint as

> The Human Behavior School. This approach to the analysis of management is based on the central thesis that, since managing involves getting things done with and through people, the study of management must be centered on interpersonal relations, Variously called the "human relations," "leadership," or "behavioral sciences" approach, this school brings to bear "existing and newly developed theories, methods, and techniques of the relevant social sciences upon the study of inter and intrapersonal phenomena, ranging fully from the personality dynamics of individuals at one extreme to the relations of cultures at the other." In other words, this school concentrates on the "people" part of management and rests on the principle that, where people work together as groups in order to accomplish objectives, "people should

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[1] Batten, pp. 18-19.

understand people."[1]

While early writers did not use the term "Human Behavior," they did show a certain awareness of this factor. In 1813 Robert Owen said

> If then due care as to the state of your inanimate machines can produce such beneficial results, what may not be expected if you devote equal attention to your vital machines, which are far more wonderfully constructed?
>
> When you shall acquire a right knowledge of these, of their curious mechanism, of their self-adjusting powers; when the proper main spring shall be applied to their varied movements, you will descover that the latter may be easily trained and directed to procure a large increase of pecuniary gain, while you may also derive from them high and substantial gratification.[2]

Owen showed here that he had an appreciation for the human values in an organization. It appears that his "proper main spring" suggestion is not at all unlike McGregor's Theory Y. McGregor's contention that human beings will respond to positive (leading) motivation rather than negative (driving) motivation is universally taught.[3]

Fredrick Taylor also considered human problems, if not human behavior, in many of his articles.

> There is one fact which has been impressed on me more than any other during the past six months. It is the fundamental and the very sad fact that almost every workman who is engaged in the mechanic arts, who

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[1]Harold Koontz, Toward a Unified Theory of Management (New York: McGraw-Hill, 1962), p. 11.

[2]Harwood Merrill, Classics in Management (New York: American Management Association, 1960), p. 22, quoting Robert Owen, To the Superintendents of Manufactories.

[3]Douglas McGregor, The Human Side of Enterprise (New York: McGraw-Hill, 1960), pp. 33-43.

> is engaged in anything like cooperative work, looks upon it as his duty to go slow instead of to go fast.[1]

While this is a strong statement, it would still be agreed to by many manufacturing managers today. To Taylor's credit, he did go on with an explanation of how to change this typical workman's attitude.

Even military organizations must consider human behavior in their management. General william Mitchell said

> When orders are not obeyed, it is usually the commanding officer that is at fault. Either orders have not been delivered or they are so written that no one could understand them. I always kept an officer in my headquarters, whose name I will not mention, to whom I had read all the orders. If he could understand them, anybody could. He was not particularly bright but he was one of the most valuable officers I had for that reason.[2]

Certainly Mitchell had an appreciation for the human behavior factor and took rather elaborate steps to cope with it.

Gantt, while essentially an efficiency expert, showed many times his interest in the human behavior side of management. For instance, in describing his bonus system he said

> The general policy of the past has been to drive, but the area of force must give way to that of knowledge, and the policy of the future will be to teach and to lead, to the advantage of all concerned. The vision of workmen in general eager to cooperate in carrying out the results of scientific investigations must be dismissed as a dream of the millennium, but results so far accomplished indicate that nothing

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[1]Merrill, Classics in Management (New York: American Management Association, 1960), p. 82, quoting Frederick Taylor, Principles of Scientific Management.

[2]General William Mitchell, Leaves From My War Diary (New York: New American Library, Signet Books, 1966), p. 153.

> will do more to bring about the millennium than training workmen in habits of industry and cooperation. A study of the principles on which such training has been successfully established will convince the most skeptical that if they are carried out good results must follow.[1]

Mayo certainly pioneered the science of human behavior, by linking it to his industrial engineering problems at Western Electric's Hawthorne Works.[2] He showed that while many technical changes could be made in a production process, such as lighting, work place arrangement, etc., the resulting production did not vary accordingly. He deduced there was a "Human Factor" which needed study. Interviews conducted among the workers traced a complicated pattern of interpersonal relationships, attitudes and feelings. How the work-place was arranged, the attitude toward the supervision, and other seemingly non-work related factors all had an effect on the productivity of the group. Many modern management doctrines can be traced to Mayo's important research.

Today's management thought is almost top-heavy with human relations considerations. Personnel managers have become essential, high-ranking people in all industrial organizations. Today's employee must often submit to an elaborate series of psychological "tests" before being selected by a

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[1]Henry L. Gantt, "A Bonus System for Rewarding Labor." Transactions of ASME, XXIII, p. 341.

[2]Merrill, Classics in Management (New York: American Management Association, 1960), p. 417, quoting George Mayo in Management and the Worker.

particular company. And every new labor contract contains "fringe" benefits that generally are related to the ease and comfort of the employee. All these factors suggest an extreme awareness of the human factor.

Some current remarks are offered by Batten.

> It cannot be said too often that no matter how incisive the analysis, how thorough the planning, how lucid the memoranda and procedures, only people get things done. It is the job of a manager to manage people, not to administer through a plethora of reports, charts, memoranda, and the like.[1]

All of the writers quoted above show a knowledge of the human factor in management. Certainly a manager is powerless to manage without knowledge and control in this area. But a close analysis of all writings seems to say "the human factor is important, but it is mysterious, and we really don't know exactly how to handle it."

True, the modern psychologist attempts to help the manager predict the actions of his people, but the results have been far from spectacular. The average manager may not have the tools, time, or ability to make good use of sophisticated human behavior knowledge.

Another factor has tended to discredit the human relations emphasis in industry. Financial writers seem to believe that the hard-boiled, productivity-minded companies

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[1] J. D. Batten, Developing a Tough-Minded Climate for Results (New York: American Management Association, 1965), pp. 150 & 199.

are often the high profit companies, and the records of the managers who worried too much about their employees' happiness and comfort are usually dismal.[1]

But human relations continues to be the problem area in management and therefore an important viewpoint in management thought. Here is a list of remarks made by the foremen in a local industrial plant in just one day.[2]

"My men just don't care."

"I need an office where I can talk to a man alone."

"You just can't hire good men anymore."

"Don't pay on Friday, we won't have anyone here on Monday."

"You can't believe what these men tell you."

"That's a good method, but the men just won't do it."

These are recognizable cliches, but they are prevalent in any foreman's conversation and proof that human relations occupy a great deal of his time and thought. It is no wonder that the manager has to give even more of his thought and energy to this subject.

The human relations school of management thought has a necessarily broad area to cover. It seems that the scholars in this area have uncovered much basic knowledge in recent years, but there is still a wide gap between those who study the subject and those who put it into practice.

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[1] Personal files, author.

[2] *Ibid*.

Man is becoming increasingly expensive,[1] so it would be well if this gap between knowledge and implementation were closed. Certainly managers who understand the human relations viewpoint can help. The experimental data gathered in connection with this study may indicate what effect on productivity can be expected from variations in management patterns.

Social Systems

Just as there are those who see management as exercises in human behavior, there are also those who see it as an interplay of social systems. One school is more concerned with the individual, the other with social and business groupings. Koontz describes this viewpoint as

> Heavily sociological in flavor, this approach to management does essentially what any study of sociology does. It identifies the nature of the cultural relationships of various social groups and attempts to show these as a related, and usually an integrated, system.[2]

Perhaps Gantt, in his famous Parting of the Ways,[3] started this line of thinking. He openly advocated the subjugation of profit to service--practically a socialistic or communistic society. This important statement, made over 50 years ago, went largely unheeded by industrial managers. Not until recently have industries had to concern themselves with the social or environmental impact of their activities.

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[1]Economic Indicators, U.S. Government Printing Office, Washington, D.C., Jan. 1972, p. 15.

[2]Harold Koontz, Toward a Unified Theory of Management (New York: McGraw-Hill, 1962), p. 12.

[3]Henry L. Gantt, Parting of the Ways (New York: Harcourt Brace & Howe, 1919), pp. 151-57.

Now governmental rulings require strict compliance with personal safety and pollution regulations. This indicates that managing is linked heavily with all social systems. In 1919, Gantt summed it up this way:

> The lesson is this: the business system must accept its social responsibility and devote itself primarily to service, or the community will ultimately make the attempt to take it over in order to operate it in its own interest.[1]

A generation later, in 1938, Chester Barnard wrote his Functions of the Executive[2] and saw management patterns in the light of social systems. Families, businesses, political organizations were all considered the most important facets of civilization. He set the executive function against a background of cooperation between various social units, both formal and informal.

> It is in most cases evident that the social elements are an important aspect likewise of a concrete cooperative situation. The social factors may be regarded as entering into the situation by several routes: (1) through being components of the individual whose activities are included in the system; (2) through their effect upon individuals, whose activities are not included, but who are hostile to the system of cooperation or whose activities potentially are factors in any way; (3) through contact of the system (either cooperative or otherwise) with other collateral cooperative systems and especially with (4) superior systems; and (5) as inherent in cooperation itself. Indirectly, social factors, of course, are also involved in the changes of the physical environment, particularly as effected by prior or other existing cooperative systems.[3]

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[1]Henry L. Gantt, Parting of the Ways (New York: Harcourt Brace & Howe, 1919), p. 158.

[2]Chester Barnard, The Functions of the Executive (Cambridge, Massachusetts: Harvard University Press, 1938).

[3]Barnard, p. 67.

Barnard's concept of informal organizations is interesting, and at first somewhat puzzling. While not new (Fayol had mentioned similar relationships in the 1880's), it is perhaps the best articulated definition of this phenomenon.

To Barnard, the informal organization was any personal contact or relationship of people inside or outside of the ordinary formal units. These groupings did not need a common goal to start with, but usually would develop one, or else disband. He felt that for every formal organization there were usually associated informal groups.

Even though they haven't a formal structure, these organizations can affect formal units by the establishment of customs, ethics, habits and even superstitions. Every industrial plant thinks of itself as formally organized with tight rules and regulation of conduct and action. But actually much of the activity comes under the heading of "Shop Practice," which is just another name for habit. These activities are not covered by any engineering specification or company rule book, but they are probably stronger than either. Just try to change some process and the answer usually is, "we've always done it this way." And persistence usually gets the second classic answer, "we tried it your way before, and it didn't work."

As mentioned above, Barnard felt that for every formal organization there were matching informal organizations. In fact, he suggested using these units to facilitate action.

A formal unit in some ways denies effective communication, and informal arrangements can take over to fill the gap. Even military organizations have informal aspects. Often the company clerk, while of low rank in the formal organication, can exercise much more power and influence than some officers. And certainly, much of the communicating is done outside official channels. Sometimes such information is tagged rumor or scuttlebutt; nevertheless, it often gets to the proper place for action.

The concept of informal organization is perhaps the reason for the rise of the sociologist and the social system approach to management theory. After all, many actions of organization cannot be explained through formal lines of authority, so the sociologist explains them in terms of social units.[1] It has helped in the understanding of the "whys" of managed groups, and it certainly should be a part of management knowledge.

Mayo, in his Hawthorne experiments, found many instances of group situations affecting productivity. More recently, Simon defined organizational theory as "systems of independent activity, encompassing at least several primary groups and usually characterized, at the level of consciousness of the participants, by a high degree of rational

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[1]Rensis Likert, New Patterns in Management (N.Y.: McGraw-Hill, 1961), pp. 33-60.

direction of behavior toward ends that are objects of common knowledge."[1]

Our social systems have become so important in the modern world that at least one writer ascribes almost human abilities to them. Parkinson, when describing (only partly in jest) his famous Parkinson's Law, tells how social systems tend to grow and perpetuate themselves. Most students of the modern American political and industrial scene can only agree that much of his argument is true.

Surveying all the above thinking, it is evident that social systems are an important part of management patterns. The managing of any organization must necessarily involve one or more social systems.

Rational Decision

The most important single ability of a manager is certainly to have good judgment. Looking at successful managers, nothing in their background seems to indicate a training which could give them judgment, so perhaps it is something acquired naturally--like an "ear for music."

The importance of judgment is reflected by the amount of attention given the rational decision viewpoint of management. This viewpoint suggests that management is largely a series of decisions, and most managers would agree with this to some extent. Their day is continually taken up with

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[1]Herbert Simon, "Comments of the Theory of Organizations," American Political Science Review, New York, Nov., 1952, p. 1130

decisions as to when, who, what, and where. Koontz expands the area to include the approaches to the decision.

> Another approach to management theory, undertaken by a growing and scholarly group, might be referred to as the decision theory school. This group concentrates on rational approach to decision--the selection from among possible alternatives of a course of action or of an idea.[1]

Richard F. Neuchel stressed the importance of decision making and problem solving, saying:

> Most managers feel--and they are probably right--that their major contribution to corporate welfare rests on the decisions they make. These decisions are arrived at by some process of problem solving. The process may be highly structured and visible or it may be unstructured and quite personal.[2]

As with all theories, there can be many variations and viewpoints. Schlaifer says:

> Normative decision theory starts by considering the problem of the decision maker who is consciously aware that more than one course of action is open to him and who wishes to make a conscious, reasoned comparison of the advantages and disadvantages of each of these courses of action before choosing one among them. Observe that I have <u>not</u> said that he wishes to consider all possible courses of action and pick the best; a man could devote his whole life to developing the best of all possible buggy whips and never come to a solution.[3]

Here the decision theory has been narrowed down to the making of deliberate choices in the face of uncertainty.

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[1]Harold Koontz and Cyril O'Donnel, <u>Management--A Book of Readings</u> (New York: McGraw-Hill, 1964), p. 13.

[2]Harold Koontz, <u>Toward Unified Theory</u>,p. 176 quoting Richard F. Neuschel, <u>Management's Need for Theory and Research</u>.

[3]Koontz, p. 69, quoting Robert Schlaifer, <u>Decision Theory and Management Theory</u>.

Schlaifer goes on to describe the various techniques of making this uncertainty less uncertain. He points out that much of management consists of obvious choices, and these are excluded from the normative area.

All this leads to the conclusion that decision-making is an accepted and important part of management thought. The problem is that almost any action can be expressed within the concept of decisions. Even the simplest of activities obviously involve decisions. "What time shall I get up in the morning? What street will I take to work? Will I have my coffee black or with cream?" Every day of life is filled with decisions; but if only one decision after another is studied it gives knowledge of the trees but not the forest.

It is interesting to speculate at this point as to whether management ability is an acquired or a natural trait. Looking from the judgment or decision perspective, it often appears that a person is either born with good judgment or else never has it. Everyone can recall individuals with little or no formal education who had an unusual amount of "horse sense." Some of our early inventors and business leaders may have had this ability. Conversely, it is easy to find examples of those who have vast amounts of formal education, but lack the judgment to relate it to the practical.

Is this judgment, this special ability to relate all pertinent facts to a problem and arrive at a rational decision, teachable? If it is a special mental process it might prove difficult. But in actual practice, managers can at least improve their judgment. Modern engineering schools teach orderly decision making, the valuations of various data, planning processes, and many other guides to correct decisions.

Decisions seem to be the nuts and bolts which hold management theories together and relate them to practical action. For this reason the decision viewpoint is important and usually found to some extent in all theory.

Operations Research

Since our early management writings were usually from men who were industrial engineers, it is not surprising to find mathematical references frequently in their thoughts. But as management thought broadened, so did the application of mathematics. In 1832 Charles Babbage used mathematics to reach decisions for his famous divisions of labor.

> That the master manufacturer, by dividing the work to be done executed into different processes, each requiring different degrees of skill and force, can purchase exactly the precise quantity of both which is necessary for each process; whereas, if the whole work were executed by one workman, that person must possess sufficient skill to perform the most difficult, and sufficient strength to execute the most laborious, of the operations into which the art is divided.[1]

Several generations later Thomas Edison expanded the idea of mathematical decision into what could be termed operations research.

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[1]Merrill, Classics in Management (New York: American Management Association, 1960), pp. 33, 34, quoting Charles Babbage, On the Division of Labor.

As early as World War I, Thomas Edison was doing work that would now be called operations research. His problem, presented to him by the Navy, was to find out which of the possible maneuvers of merchant ships would be most effective in minimizing shipping losses to enemy submarines. In doing this work, he used a "tactical game board"; he did not risk ships in actual experimentation.[1]

While men probably had been using similar informal models for some time, these efforts by Edison, Gilbreth and others served to codify the science to some extent. Once data could be gathered and codified to cover many variables, the use of mathematics for assisting decision making was certain to increase. Gilbreth said in 1922

> This is the Age of Measurement. An epoch in the development of a nation is marked when it inventories its efficiency and gathers detailed records of successful methods and devices for doing work, in order that all may use the One Best Way available, or extant, wherever it be found, and improve constantly and cumulatively from the best that is known at any time; but unless measurement is applied, and the causes and reasons for success or efficiency are recorded sufficiently in detail for others than those who did the recording to understand, real, constant, cumulative, and lasting progress cannot result.[2]

Such thoughts paved the way for the measurement of many things under management control. This completed theory is perhaps best stated by Hopf when discussing his "management and the optimum."

> It is the thesis of this paper that the time is ripe for transformation of the science of management into a new and much more inclusive science--optimology,

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[1] Richard Levin, PhD and C.A. Kirkpatrick, D.C.S., Quantitative Approaches to Management (New York: McGraw-Hill, 1964).

[2] Harwood Merrill, Classics in Management, p. 246, quoting Frank Gilbreth, Management for the One Best Way.

the science of the optimum.[1]

Defining the optimum as that state of development of a business enterprise which tends to perpetuate an equilibrium among the factors of size, cost and human capacity and thus to promote in the highest degree regular realization of the business objectives, Hopf describes how, in the field of life insurance, he has made extensive measurements of business results and managerial capacity and established optimal areas of operation for ten large companies. He suggests that, by the application of similar techniques, the optimum can and should be ascertained for every business enterprise.

While it should be remembered that this was written in 1935, it was this type of thinking which led to the vast uses of computers today. This man saw the need for the collection and evaluation of such data. But in 1935 the cost of doing this by hand would have been prohibitive. Undoubtedly his theories had a certain impractical sound to his readers then; today, with the availability of the computer, his theory seems completely compatible with most management thought. Koontz gives his assessment of this viewpoint.

> The Mathematical School. Although mathematical methods can be used by any school of management theory, and have been, I have chosen to group under a school those theorists who see management as a system of mathematical models and processes. Perhaps the most widely

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[1]Merrill, Classics in Management, p. 355, quoting Harry Hopf, Management and the Optimum.

> known group I arbitrarily so lump are the operations researchers or operations analysts, who have sometimes anointed themselves with the rather pretentious name of "management scientists." The abiding belief of this group is that, if management, or organization, or planning, or decision making is logical process, it can be expressed in terms of mathematical symbols and relationships. <u>The central approach of this school is the model</u>, for it is through these devices that the problem is expressed in its basic relationships and in terms of selected goals or objectives.[1]

He goes on to note that mathematics is a valuable tool and that it does tend to make managers think logically and directly. No doubt it has done much to replace the "hunch" system of decision which was so prevalent in management until recently.

Franklin Moore describes a typical operations research climate:

> Both computers and operations research keep pushing managers into thinking more in terms of numbers. Nearly all of the things a computer does are arithmetic. It adds, subtracts, multiplies, or divides and gives answers. But it needs numbers to work with, and this forces managers to "quantify" things that they don't normally express as numbers.[2]

Numbers are only tools which can be used to make decisions more accurate and management more exact. True, with the advent of the complex computer, mathematics will play a more important part in management, but this is only because the tools are better and the large quantities present in mass production lend themselves to quantitative techniques.

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[1] Koontz, <u>Readings in Management</u> (New York: McGraw-Hill, 1964), p. 13.

[2] Moore, Manufacturing Management, pp. 12-13.

The fallacy of management by mathematics is that the right way may not be the best way. Those espousing the human behavior and social system outlook often advance this argument. Every manager knows of situations where the numbers showed that a certain action should be taken. But due to human or social considerations, something less than optimum had to suffice. This is often true when considering personnel replacement or assignment.

Anyone using mathematics to help with decisions should be cautioned about such use in two ways. First, as mentioned above, the right way may not be the best way. And second, unless the manager has a reasonable knowledge of mathematics, and knows how his data was prepared, he should be careful of purely mathematical decisions.[1]

The Chief Executive

The particular subject of research in this project will be the chief executive of the organization. It is in his office that the final control lies, and it is his management style that will most affect the fortunes of the company.[2] The chief executive has great power on legal grounds. Where he is also the owner, he has almost absolute power in both the financial and personnel areas. If it is an incorporated company, he generally can rule as he wishes within

[1]Moore, Manufacturing Management

[2]Ernest Dale, Management: Theory and Practice, 2nd ed. (New York: McGraw-Hill, 1969), p. 88.

broad policies laid down by a board of directors.

The astute chief executive knows how to hold and strengthen his power by judicious use of the punishments and rewards under his control. Subordinates who please him can expect to receive salary increases, bonuses, larger offices, and secure tenure. On the other hand, those who oppose him would not be surprised to be discharged, or, as is more common in this age, transferred to some sort of "management Siberia."[1] If the manager uses the powers he has available, it is not long before the organization fits into the mold he wishes. It is for this reason that he has been chosen as the interface point, man vs. organization.

Any research into executive actions or management must take into account the environment in which the executive operates. His actions and decisions will largely be a series of adjustments to this environment.

In the past, managers in this country have done a creditable job of environmental adjustment. One need only point to the high material standard of living which is enjoyed in the country today. The manager has taken the many natural resources available to our society and organized them so that they could satisfy the needs not only of our own population, but much of the world as well. Peter Drucker tells of this important concept:

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[1]John Kenney, interview held at Westinghouse Electric Corporation, Norman, Oklahoma, Feb. 3, 1972.

> Management, which is the organ of society specifically charged with making resources productive, that is, with the responsibility for organized economic advance, therefore represents the basic spirit of the modern age. It is in fact indispensable--and this explains why, once begotten, it grew so fast and with so little opposition.[1]

But even allowing for the enviable record of American management so far, it is evident that it will face even greater challenges in the future; in fact, it may be facing them today. For instance, we have arrived at the point where our citizens are becoming more concerned with the quality of life than the quantity of material goods.

This can only mean that the manager will be confronting increasingly dynamic situations in the future. Drucker has offered some insights into what his new situation may be:

1. All institutions, including business, will be accountable for the "quality of life."
2. Entrepreneurial innovation will become the very heart and core of management.
3. Management's task will be to make knowledge more productive.
4. Management will have to be considered both a science and an art.
5. Economic and social development will be the results of management.[2]

Innovation, Drucker's second point, will be a key point in the proposed research. Innovation involves change, and change always involves risk. Therefore, the manager's ability to handle risk, and indeed, his attitude toward it,

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[1] Peter Drucker, The Practice of Management (New York: Harper and Company, 1954), p. 4.

[2] Peter Drucker, "Management's New Role," Harvard Business Review (Nov-Dec, 1969), 49-64.

will vitally affect the results achieved by the organization. Concurrent with his ability to handle risk, and innovate, the modern manager will have to satisfy item three above: he will have to make knowledge more productive.

Here the systems approach of the industrial engineer will come into play. No matter what his attitude toward risk, the manager will surely wish to minimize it, and insure so far as is possible that he will obtain optimum results from his decisions. His emphasis must be on the whole. The entire complex of activities must be his concern, rather than the individual departments or sub-systems. He must organize the whole of the various activities and operations required to accomplish the objective he has set for his particular organization. The different activities or departments will be connected together with set rules or patterns in such a manner that performance always not only enhances the individual efficiencies, but also effectively contributes to the accomplishment of the total organization objective.

Mr. O. D. Turner has suggested that this is a four-stage process:

1. Inflows of financial resources.
2. Transform into physical resources.
3. Use physical resources to produce physical output.
4. Transform (through sales), to financial outflows.[1]

The quantitative techniques of Operations Research will be most useful to the manager in this area. By properly

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[1] O. D. Turner, <u>A Concept of a Total Management System</u> (Fredrick, Md.: Business Science Corporation, 1970), pp. 2-3.

alloting his resources according to his quantitative analysis, and monitoring through the same methods, he can at least come closer to optimum results than was formerly possible.

In the future, this risk will not be limited to pure financial chance-taking. Equally important will be other less quantifiable risks. Innovations in organization structure, personnel selection, and motivation are sorely needed. Perhaps some risk-taking manager will yet rescue us from the clutches of Weber's "Bureaucratic Organization"[1] and Galbraith's "Technocracy."[2]

The literature search documented above centers around managers and management. It is believed to represent fairly current management thought.

The bulk of the writings show that much attention has been directed toward the discovery of management methods and techniques. Most of the authors assume some standard level of organization and executive ability, then suggest correct decision methods and controls. But all organizations are different, as are all managers. Perhaps this accounts for the difficulty managers encounter when they try to apply the theories noted above.

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[1]Max Weber, Essays in Sociology (Fair Lawn, N.J.: Oxford University Press, 1958).

[2]John K. Galbraith, The New Industrial State (Boston: Houghton Mifflin Co., 1967.

Organization Life-Cycle

Organizations, like their human counterparts, are born, grow, decline and die. Each year in this country, several hundred thousand businesses are started, and during the same period a similar number fail. Economists have described this phenomenon as a life-cycle which can be shown as a graph or chart and divided into definable phases.

Rostow[1] first identified these stages when describing the economic growth of nations. As he saw it, nations advanced through these benchmarks:

Traditional Society
Preconditions for Take-Off
The Take-Off
Drive to Maturity
High Mass Consumption

He traces the progress of Western Europe and the United States through these stages, and then asks the question "Beyond Consumption--What?" He has no data to show whether the curve of economic growth will continue upward, or trend in another direction.

Rostow's work provides support for the more micro-economic approach to the life-cycle of a single product.[2] The essentials of this product life-cycle concept are quite simple. They are:

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[1] W.W. Rostow, The Process of Economic Growth (New York: W.W. Norton & Company, Inc., 2nd., 1961), pp. 308-331.

[2] Arch Patton, "Top Management's Stake in the Product Life-Cycle," The Management Review, 48 (June 1959), 9-14.

Inception
Growth
Maturity
Decline

Products move through the phases of inception, growth, maturity and decline at different speeds. The perennial example of the hula-hoop indicates a product with an extremely short life-span. Mobile homes exemplify a product with an apparently long span.

The managerial emphasis necessary or desirable for success seems to vary from phase to phase. Engineering, Manufacturing, Marketing and Finance seem to change in their importance as the life-phase changes. It is to this point that much of this project's research will be directed.

British engineers studied a number[1] of different types of companies in these general categories:

Job Shops.
Process production.
Mass production.

The first and second types of companies tended to use a participative approach to management. The first-line supervisors made many decisions, and where a staff function existed it often had line authority. The third type of company tended to have a much more authoritarian organization, and abided by the classical principles: unity of command, separation of line and staff, short spans of control for the executives and a clear assignment of responsibility and authority.

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[1] Joan Woodward, Industrial Organizations: Theory and Practice (Fair Lawn, N.J.: Oxford University Press, 1965.

For the purposes of this research, the concept of the life cycle is being applied directly to the firm as a whole, not to a specific product. Dale[1] put forth a similar theme when he described an organization as having many properties in common with a living organism. To mention just a few: it comes into existence, then grows, reaches a peak, then often (or even usually) declines, and finally dies. This comparison appears valid, since the population of businesses from which data will be drawn consists largely of one-product companies. An examination of the 1972 issue of Oklahoma Directory of Manufacturers[2] shows that approximately eighty percent are engaged in the manufacture of a single product or products so similar that they can be considered as one so far as the market is concerned.

It is axiomatic that if the firm makes only one product, its life-cycle would be the same as that product. Of course, if the company adds another product, the economic results would be a sum of the results from each product. This would complicate the analysis, but would not make it impossible.

The life-cycle model described later in this chapter will use the characteristics listed by Patton as a guide.

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[1] Ernest Dale, Management: Theory and Practice, 2nd ed. (New York: McGraw-Hill, 1969).

[2] Oklahoma Directory of Manufacturers, Oklahoma Industrial Development & Parks Dept., Oklahoma City, 1972.

Research Needs

From complete readings of the resources noted, it appears that no attempt has been made to define a relationship between two very important inputs which bear on organizational productivity. These are:

Management style
Organizational life-cycle

Yet it would seem reasonable to assume, for the purpose of forming a hypothesis, that a change in one of these variables would have effects on the other and also the total system output.

Pertinent clues in this area can be found in recent financial periodicals. Due to the economic slowdown just experienced by this country, many companies have been forced to overhaul their management drastically in order to remain profitable. This overhaul often means a new chief executive who makes many much-needed changes.[1]

Why didn't the previous management make these changes? It can be assumed that in many cases the quantitative data for correct decisions was at hand. But were the management patterns inappropriate for the situation? The research proposed may give insight into this problem.

Industrial managers have so perfected their techniques

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[1] "Boise Cascade Loses Profitability," Wall Street Journal (December 29, 1971), 16: "Road to the Top," Wall Street Journal (Jan. 6, 1972), p. 1; Dr. Roger F. Murray, "Make Management Do Its Job," Forbes (Jan. 15, 1972), 34; "Norton Simon Co.; What Makes Dave Mahoney Run," Forbes (Feb. 15, 1972), 26.

over the past 50 years that they can calculate optimal solutions to almost every business or industrial situation. They can compute to the split second how long a certain task will take to perform. The highest profit product mix can be ascertained by the use of complex linear programming. The same technique can be used to set up the correct inventory control and production schedules. Economic analysis can show the best investment alternates for years in the future.

But both business and industry experience the utmost difficulty in applying this expert knowledge. Although new methods and techniques are being discovered at an increasing rate, our national productivity has practically stopped its historic increase.[1] This fact is rendered all the more unpalatable by looking at other nations: Our productivity growth now compares unfavorably with Japan and Western Europe.

Executives who are employed in industry would not be surprised by these statistics. Wherever they gather, the complaints rise like a Greek chorus:

"We've set accurate time standards, but they won't use them."

"Production Control sets up an optimum production run, but the Sales Department changes it."

"We ran a complete justification study for new machinery, but they built a new office instead."

The plain fact is that much of the technical

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[1] Professional Engineer, VI (Dec. 1971), 20.

knowledge now available to industrial management cannot be used, due to management and organization failures. If it were possible, a manager would like to select the appropriate management pattern for each industrial situation. At present, he does not have adequate guidance available, yet he knows that success comes only when the correct technique is applied in the correct organization pattern by a manager whose management style allows for optimum decisions.

Reflection upon actual business situations suggests that the decision maker's management style may change during the life phase of his organization. It seems plausible that during the earlier, and riskier, life of the company, the manager will take a number of calculated risks if the dollar returns are vital to growth. But after maturity is reached, along with his own personal, comfortable security; perhaps the onus of any failure will weigh greater with him than the possible dollar gain for the company. If such a relationship between the life-phase and management style could be established, it might explain why many firms fail, or why a new chief executive is often the only answer to the need for new vitality.

American business has an almost deathly fear of the "declining" phase of organization life, and rightly so. Witness the "Annual Report" of any corporation. All results are represented as compared to the year before, same quarter last year, etc. If misfortune has allowed the volume or profit to decline slightly, the most eloquent explanations are made, along with assurances that the next year will bring higher results. Growth appears the only way a business organization can judge its long-term actions.

Of course, it is not inevitable that a company reach the declining phase and then die. The DuPont Company is one-hundred and sixty-nine years old[1] and has survived by continually reviving itself whenever signs of decline were evident. However, it is interesting to note the manifestations of this renewal process. Basically, it involves the placing of a new man at the head of the organization, a man who will lead in new directions, away from the declining phase. Specifically, in DuPont's case, the latest decline set in in 1965. Between 1965 and 1970 earnings per share fell from $8.63 to $6.76. The price of the stock fell from $261 per share to $151 during the same period.

The answer was traditional. A new chief executive was named, Mr. Charles McCoy, and his actions were predictable for such situations:

> One of Mr. McCoy's first orders was to cut costs. In line with the new emphasis on profit centers, he left specifics up to his subordinates. Among the results: Domestic employment rolls have been slashed by 9%, or about 7,500 people.

The management style[2] changed to a more authoritarian mode, as evidenced by this organizational change.

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[1] John E. Cooney, "A Giant Stirs," Wall Street Journal (Jan. 20, 1972), 1.

[2] Douglas McGregor, The Professional Manager (New York: McGraw-Hill, 1967), p. 70.

Mr. McCoy has also revamped the duties of DuPont's executive committee, a body that was instituted in 1921 under the presidency of Irene DuPont.

The new executive committee consists of Mr. McCoy and eight vice presidents; each vice president is assigned to act as a "primary liaison" with one or more of the operating or staff departments. The new-style executive committee, one DuPont official says, "takes the committee members into the guts of the operation and makes the committee less of an abstract debating team.

But the most interesting change is the difference in thinking regarding risks. The new president is taking "gambles" in many fields completely new to the company, but which may prove to be extremely useful for future expansion and profit potential.

One of Mr. McCoy's first acts was to outline his goal for DuPont: "quicker, better decisions. . . ." And one of these decisions has been to lead the company in new directions.

DuPont, to be sure, overwhelmingly remains a manufacturer of chemical products, such as acids, weed killers, dyes, textile fibers and plastics. The company, however, has recently expanded into such diverse areas as consumer services, including a variety of instruction courses offered to schools, prisons and other companies on topics such as chemistry and water treatment; and finished products, such as a line of window shutters.

The actions of another industrial giant, General Motors, also fits this pattern. A recent article "A Swinger Tries to Cure Chevrolet's Ills" describes the traits of a new chief executive who has turned around a seven-year sales decline, specifically the return to tighter authoritarian controls.

Delorean has trimmed off layers of management fat and given the leaner executive body a transfusion of young blood. He has installed tighter controls and

> shortened communication lines in every area from materials flow to advertising.[1]

If the relationships such as suggested above between management style and organization life-cycle were identified, two benefits would accrue:

1. Managers with the appropriate skills and managerial styles could be matched to particular industrial situations.

2. Present managers could better understand their own behavior and modify it to achieve optimal organizational results.

The value and need for this specific area of research was explored with Lord Wilfred Brown during a seminar on March 21, 1971.[2] He corroborated the lack of data relating to the application of management theory to specific situations, and specifically noted the lack of American writings on the subject. Details of his remarks are reported in the appendix.

Finally, it is hoped that through this knowledge, some of the gap between theory and application may be closed. If the manager understands the intricate relationship between his own attitudes and the special management situation in which he finds himself, perhaps he can better apply the valuable theories and techniques of industrial management.

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[1] Business Week (Sept. 18, 1971), 60-64.

[2] Lord Wilfred Brown, Seminar lecture, Chicago, Ill., March 21, 1971.

CHAPTER III

DESIGN OF MANAGEMENT STYLE AND LIFE-CYCLE MODELS

Management Style

The foregoing review of organization theory writings indicates a continuum of thought, from the strict authoritarian or classical approach to the participative or behaviorist viewpoint. The authoritarians are not so prevalent in modern writings, but their ideas, as expressed by Fayol and others, are quite definite. Those who favor the behavioral approach are well represented in recent writings, but their ideas are somewhat less exact.

Lyndal Urwick expressed the extreme of the authoritarian view when he says:

> There are principles which should govern arrangements for human associations of any kind. These principles can be studied as a technical question irrespective of the purpose of the enterprise, the personnel composing it, or any constitutional, political or social theory underlying its creation.[1]

The opposing view put forth by the behavioralists is that the underlying sciences are sociology and psychology,

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[1] "Relationships in Organization," in Luther Gulick and Lyndall Urwick (eds.), Papers on the science of Administration, Institute of Public Administration, New York 1931, p. 49.

not the organization itself. Since the organization must be made up of human beings, the best way to reach the organization's objective is in some way to maximize the cooperation of the human components.

Organization theory research in recent years has obviously moved away from the classical point of view. Instead of emphasis on the objectives of the organization, much attention has been given to the morale and motivation of the individual members.

McGregor seems to have been the first writer to use the term "Management Style."[1] He states that it is possible to group together most of the managerial styles in the United States today into three categories: hard, firm but fair, and soft. While these can be used as a guide, they do not relate exactly to the research proposed here. The type of organization structure, the decision making processes, and other factors could not be identified in such gross groupings. Therefore, the model constructed for use in this project will synthesize the continuum of organization theory into four categories:

Authoritarian
Moderately Authoritarian
Moderately Participative
Participative[2]

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[1] Douglas McGregor, The Professional Manager (New York: McGraw-Hill, 1967), p. 58.

[2] Certain characteristics of management styles taken from class notes in Prof. Scanlon's Management 5243 "Organization Behavior" class, Spring '71, Oklahoma University.

The characteristics of each category of the model are listed below:

Authoritarian

This style of management is typified by the manager who completely dominates the decision-making function of the organization. Orders are issued through a rigid formal structure and little dialog concerning objectives is allowed. There is minimum delegation of authority. Key characteristics are:

Strict adherence to structural relationships.

Staff used only for specialist advice.

Wide span of control at top.

Communication mostly downward.

Organization objectives are paramount concern.

Objectives established by issuing orders.

Decisions made at top.

Specialized knowledge for decisions comes from top.

Subordinates not involved in decisions.

Little confidence in subordinates.

Subordinates not free to talk to superiors about job.

Control effected by fear, threats or punishment.

Responsibility felt only at top of organization.

Control and review concentrated at top.

Informal organization (if present) resists formal.

Control data used only for policing and punishment.

Moderately Authoritarian

Managers using this style are not as rigid or dogmatic as the Authoritarian, but still delegate little real authority. They would usually have a staff and their staff would advise the manager, but he still makes most of the decisions. When orders are sent down they would sometimes be accompanied by modest explanations of objectives. Key characteristics are:

Occasional relaxing of structure for communication.
Staff advice sometimes sought by middle management.
Span of control moderately wide at top.
Communications sometimes upward as well as downward.
Organization objectives explained as rational.
Some comments invited when objectives are set.
Decisions occasionally made at middle levels.
Specialized knowledge available at middle levels.
Decisions are explained to subordinates.
Condescending attitude toward subordinate's ability.
Subordinates can use suggestion box.
Control by threats and punishment with some rewards.
Responsibility felt by top and middle levels.
Control and review at top and middle levels.
Informal organization usually resists formal.
Control data used to both reward and punish.

Moderately Participative

This manager would not be bound by the traditional structure, but he would not completely discard it. He would have a small span of control and would generally attempt to force decisions down to lower levels. Communication would be encouraged between organizational levels, but often in formal modes. Specialists would be used as staff personnel and participate in line decisions. Key characteristics are:

Structure not paramount in organization.
Staff involved in line decisions.
Committees often used for non-routine decisions.
Span of control moderately low.
Communication free both ways (up and down).
Organization objectives issued after much discussion.
Some decisions lower levels, but often bucked upward.
Some specialized knowledge available throughout.
Subordinates consulted before decisions are made.
Considerable confidence in ability of lower levels.
Formal and informal communication about jobs.
Control usually by reward, sometimes by punishment.
Responsibility felt at all but lower levels.
Control and review down to 1st level supervisors.
Informal organization recognized as somewhat helpful.
Control data used to reward and to guide.

Participative

The participative manager sees his role as one of assistance and coaching, not of decision-making. Committees are used to make most decisions at all levels of the organization. Formal and informal communications are allowed and encouraged through all levels. Often there are special abilities or skills at all levels and these specialists are controlled by rewards and involvement in decision making. Key characteristics are:

Structure often changed and not enforced.

Staff and line functions blended.

Committees used for most decisions.

Span of control at top about 3.

Objectives set by committee action.

Decisions made throughout organization.

Special abilities and knowledge available throughout.

Subordinates involved in decisions affecting them.

Free communications for all subjects all ways.

Control attempted through rewards and involvement.

Responsibility felt by all levels.

Self-review by all levels.

Informal organizations have same goals as formal.

Control data used for guidance and problem solving.

The Organization Life-Cycle

The construction of an organization life-cycle model would naturally follow the human life cycle. There are many points of similarity; an organization is born, it grows quickly, it attains a dynamic maturity, then often grows old and dies. As with humans, some never reach maturity. The casualty rate among new business enterprises is large.[1]

But there are also important differences between the organization's cycle and the human. Whereas a human cycle is of more or less standard length, the organization can not be judged by calendar time. The life expectancy can vary widely, depending on the type of objectives that have been set. The length of each cycle can vary from months to many years. The identified phases of the life-cycle are listed below, along with their key characteristics.

Inception

This phase describes the organization in its first stages of life. In the American system this usually means an enterprise started by an entrepreneur who is risking his own capital. Often it involves a new or novel product or process. The economic resources are small as is the number of employees. Key characteristics are:

Total sales volume low.

Total profit low or loss.

Gross profit per unit high.

Management emphasis on R & D and Engineering.

Sales often direct to user.

Constant revision of product.

Direct labor content high.

Indirect labor content low.

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[1]Arch Patton, Top Management's Stake in the Product Life-Cycle, The Management Review, XLVIII (June, 1959), 14-19.

"Overhead" per unit high.

Young calendar age (varies).

Investment per employee low.

Growth

In this phase, the organization has broken out of its incubation period and is enjoying an increasing volume of production and sales activity. The number of employees has grown, and, for the first time, the manager must manage through other people. The organization is not stable. New positions and relationships are constantly being created. Key characteristics are:

Total sales volume increasing rapidly.

Total profit high and rising.

Gross profit stable per unit.

Management emphasis on production.

Marketing system developed.

Product design stabilized.

Competition not considered a threat.

Direct labor content falls.

Indirect labor content stable.

"Overhead" per unit stable or falling.

"Ad Hoc" decisions in all areas.

Evidence of crowded office, plant, etc.

Risks accepted by management.

Working capital shortages (or increased needs).

Calendar age 1 to 5 years (varies).

Maturity

This organization finds its volume still rising, but at a decreasing rate. Its field of endeavor has become highly competitive, and less efficient organizations are failing. Marketing and production activities have become tightly structured and efficient so far as cost per unit is concerned. The organization takes on a traditional form. Key characteristics are:

Total sales volume rises at a steady rate.

Total profit stable.

Gross profit per unit falls.

Management emphasis on marketing.

Design changes are slight.

Complete marketing structure achieved.

Competition major factor is most decisions.

Direct labor content stabilizes.

Indirect labor content rises.

"Overhead" per unit stable or rising.

Traditional organization structure.

Permanent physical plant, ample space etc.

Changes made only after examination of all effects.

Working capital adequate.

Calendar age 3 to 20 years or more.

Decline

Organizations which have not innovated or reacted to their market find themselves in this unhappy stage. The sales volume declines and profits are replaced by losses. The organization becomes locked into a traditional mode, often top-heavy with non-productive staff operations. Management is preoccupied with maintaining controls; actions usually are related to cost cutting. Key characteristics are:

Total sales volume declines.

Total profit declines or turns to loss.

Gross profit per unit marginal.

Management emphasis on finance.

Few changes in product design.

Cost of marketing reduced per unit.

Competition reduced but still controls pricing.

Direct labor per unit stable.

Number of direct labor employees reduced.

Indirect labor per unit rises.

"Overhead" per unit rises.

Traditional organization structure.

Management positions usually of long tenure.

Most changes involve cost-cutting.

Working capital deficient, high inventories, etc.

Calendar age 10 or more years.

The foregoing descriptions of the organization life-phase and management style concept set forth the characteristics to be expected of each. They are exhibited as individual theories, no consideration having been given their relationship to each other. The following chapters will explore such relationships.

CHAPTER IV

CONSTRUCTION OF THE MODEL

There was much academic material available which related to the two variables, Managerial Style and Organization Life-Cycle. It will be the purpose of this chapter to review the principles found in the various disciplines, and to form an hypothesis concerning the indicated relationships. To systematize the methodology of this research, disciplines were reviewed separately, then the results were combined into a conclusion. In order these were Management Theory, Psychology, Anthropology and Sociology.

Management Theory did not offer exact references to the hypothesis subject, but usually recounted actual results in business situations. This was especially true of the periodical references.

Psychology offered an insight into the person of the executive; what within him made him operate in expected or predictable ways.

Anthropology and Sociology covered the actions and interchanges of men and animals in social groupings. Such studies logically shed light on the operation of an industrial organization which was itself a social grouping.

Although Economic Theory bore heavily on the definitions and conditions of the firms' life cycle, it was treated as the independent variable and was accepted "as is" from the population sample.

In order to form a hypotheses using information from non-exact sciences as listed above, certain assumptions were made by the author. These mainly occurred when the environment of the manager was related to his style. For instance, the first and fourth stages of organization's cycle could reasonably be assumed to have more of a "crisis" environment than stage 2 and 3. This assumption was partially substantiated by Stienmetz[1] in his article "Critical Stages of Business Growth," but other such assumptions were made without academic support.

Management Theory

How can or should managers be expected to act in certain specific environmental situations? While most writers in this area tend to ignore the environment or organizational climate in which the manager operates, there is some data offered that can serve as a basis for reasonable conclusions to support the hypothesis of relationship. Most data quoted comes from observation of existing companies, without the requisite control of a scientific experiment. However

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[1] Lawrence L. Stienmetz, Business Horizons (February, 1969), p. 22.

unreliable this may be, it was the best available, and was used and quoted by the recognized writers in this field.

Essentially, the theory must predict two things: what method would the manager use to reach decisions, and what method would he use to implement the decisions. McGregor[1] stated that his actions would be a function of his knowledge, skills, motivation, attitudes and certain aspects of the environmental situation. If these aspects were defined as life-phase criteria, some predictions might then be made.

Organization structure may have an effect on managerial styles in various stages. As the organization is formed it probably has only two levels, and naturally has a superior-subordinate relationship. But as it passes to Stages II and III, more levels are bound to be imposed. This in itself would still allow for an authoritarian system, if not for the horizontal effect of technology. Whereas the vertical organization requires orders to go down and reports to go up, the requirements of technology cut across the superior-subordinate relationship, and affects all types of people in different departments and work groups. Thus authority is to some extent taken from the manager and given to the technician.

Such a situation is often found in the modern assembly plant. Because of the intricate technical relationships, managers must get decisions from all levels and across

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[1]Douglas McGregor, The Human Side of Enterprise (New York: McGraw-Hill, 1960), pp. 33-43.

lines of authority. Quality control departments are typical examples. Formal, established routes of communication could be too time consuming to be practical. These horizontal and diagonal communications are usually not charted, but are necessary to the proper functioning of a technical process.

Modern managers who find themselves in stages II, III or IV of an organization, must have developed a technique to operate outside of the formal communication network. They consult with and accept decisions from subordinates, superiors, equals and even others with whom they have no direct authority relationship. Joseph Litterer[1] says: "Managers have recognized the discrepancy between organization and technology, and have taken steps to integrate the two. They have achieved such integration in a variety of ways, which essentially may be classified as:

1. Changing the technology to conform with the existing organizational structure.

2. Changing the organization so as to define and formalize the relationships required by the technology.

3. Maintaining both the existing organization and the existing technology but introducing mechanisms to reduce or minimize the discrepancies between the two."

From this it was concluded that as the organization

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[1] Joseph Litterer, Organization-Structure and Behavior (New York: John Wiley & Sons, Inc., 1965), p. 355.

passed into stages II, III, and IV the technology will cause pressures for organization structure and style change. And because of the consultative nature of many of the communications, a participative style may be expected to emerge as a matter of course and involvement. But again, if stage IV results in a crisis, the matching style cannot easily be predicted. Current periodicals indicated that authoritarian attitudes were common among new executives brought in to "save" faltering companies. Note the actions of A. L. Feldman when he took over Frontier Airlines:

Then Vollbrecht brought in his own president: A. L. Feldman, a strapping, 6-foot, 4-inch star of the Aerojet team. And in a two-hour meeting with the airline's 33 top executives, Feldman laid down the rules of the new order. "I'm sure there are 34 different ways to manage in this room, but we very democratically have elected to follow mine," he began.

> The concepts I intend to follow are easy to understand. Tenure will be based on performance, not politics. We're in the airline business to make a profit, not for the spiritual aspects of it, not for the fun of it. I solicit to those of you who find this thought repugnant that there are all kinds of places you should be working other than here--and I solicit that you start looking around.[1]

His results have been impressive. He changed the profit picture of Frontier from substantial losses to a small profit in just one year.

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[1] Newsweek (May 15, 1972), 82.

Leadership patterns have been described by Tannenbaum[1] and Schmidt as progressing from boss-centered leadership to subordinate centered in a step-by-step continuum, much as the management style described in Chapter I. They note that the style or pattern that may be best used is dependent on:

1. Type of organization.
2. Group effectiveness.
3. The specific problem (are specialists required).
4. The pressure of time.

From their analysis it could be deduced that in the beginning of an organization, before the group had been able to develop its own effectiveness, the leader would have to make most of the decisions; and perhaps in a crisis (as Phase IV in decline) the pressure of time might not allow for committees, reports, etc., and an authoritarian mode would be appropriate. But in stages II and III, the more participative approach might be thought best.

Recently, Jurgensen[2] (1966) asked several groups of personnel men and executives to sort 120 words which describe the type of person most likely to succeed as a key executive in top management. The twelve words rated as most

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[1]Robert Tannebaum, Warren Schmidt, <u>Harvard Business Review</u> (March, April, 1958), 95-101.

[2]C. E. Jurgenson, "Report to Participants on an Adjective Word Sort." Minneapolis, Minneapolis Gas Company (Unpublished Report, 1966).

descriptive and the twelve regarded as least descriptive of such a person are shown below:

Most descriptive of successful key executive	Least descriptive of successful key executive
Decisive	Amiable
Aggressive	Conforming
Self-starting	Neat
Productive	Reserved
Well informed	Agreeable
Determined	Conservative
Energetic	Kindly
Creative	Mannerly
Intelligent	Cheerful
Responsible	Formal
Enterprising	Courteous
Clear-thinking	Modest

It is evident that managerial success requires intelligence and originality, along with stability, good judgment, enthusiasm, determination, forcefulness, and persistence. These trait descriptions are loosely defined, and they do not exactly describe the elements making up a management style. However, the general trend indicates an authoritarian manager would be successful while a participative one might not.

England[1] (1966, 1967) surveyed 1,072 managers throughout the country, asking them to indicate which of eight organizational goals are most important and which connote greatest success. The percentages of managers who said that a goal was both important and highly successful are shown in the table below:

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[1] G. W. England, Personal Value Systems of American Managers, Academy of Management Journal (1967), 10, 53-68.

Goal	Percent
Organizational efficiency	60
High Productivity	60
Profit maximization	48
Organizational growth	43
Industrial leadership	38
Organizational stability	17
Employee welfare	4
Social welfare	2

Evidently most managers are striving toward high productivity, maximum profits, and organizational efficiency. These are the items which presumably indicate effective managing and are typical objectives of authoritarians. In the longer term, valued goals are organizational growth commensurate with internal organizational stability with a view of probably attaining industry leadership.[1] From the eight goals listed, it seems reasonable to assume that the first four or five would be upper-most in the minds of managers in Stage I and IV.

Sayles writes,[2] "The administrative patterns of a manager are constantly changing, and these changes take place whether or not there are formal changes in his job duties."

The manager accomplishes this by subtle transformations of the functions of his department and by shifts in the actual boundaries of his own jurisdictions, in his position in the sequence of various work flows, and in the internal

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[1] John P. Campbell, Marvin D. Dunnette, Edward E. Lawler, III, Karl E. Weick, Jr., Managerial Behavior, Performance, and Effectiveness (New York: McGraw-Hill, 1970), p. 9.

[2] L. R. Sayles, Managerial Behavior: Administration in Complex Organizations (New York: McGraw Hill, 1964), p. 126.

differentiations (in the division of labor) within his own group or area.

The way that each manager goes about accommodating to the pressures of the organization can cause conflict with his subordinates. The result is a dynamic and often ambiguous organization structure. Often levels of the organization are bypassed in the haste or urgency of "getting things done." This point was often made in responses to the research interviews. Any realistic manager must take into account this movement and conflict and use appropriate techniques for comprehending and dealing with the organization as a process or system of human relations. He must have the skills of quick judgment, honesty, and flexibility, but all within the context of a realistic analysis of his position in the organization.

Much of the academic literature on the topic of managerial effectiveness was based on little more than personal experiences or opinions about traits possessed by "good" managers, what they must do to be effective, or what the products of their effective behavior may be. Much of the literature was one-sided, emphasizing only the persons, only the processes, or only the products related to effective managing. Few, if any, considered the environment of the actions.[1]

Finally, a requirement for good management is the correct perception of the organization objective. In stage I

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[1] Wilfred Brown, interview during seminar, Chicago, Ill., March 22, 1972.

of the organization's growth, the objective is probably evident to all, and there would be no need for participative arrangements in goal setting. It could just be "staying alive," as Stienmetz suggests.[1]

Stages II and III might lend themselves to more participative means of objective selection. The organization would be larger and the members would tend to feel remote from management. Goal alignment could be facilitated by participation in goal selection. But the situation in Stage IV is less clear. If the same manager is still responsible (from stages II and III) it seems reasonable to assume that he might still be using participative management. But if a new executive has recently been appointed, current literature quoted in earlier chapters indicates an authoritarian mode of operation. Thus it may be necessary to divide the Stage IV data into two classes, old management and new management. The questionnaire design will allow this.

This hypothesis presents a model of managerial style which may be used as a checklist to aid in interpreting current industrial and government practices for identifying, nurturing, and motivating managers and for interpreting research on managerial behavior and managerial effectiveness. The model specifies that managerial style should be a function of the organization's life phase characteristics.

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[1]Lawrence L. Stienmetz, Business Horizons (February, 1969).

Managerial style can be a function of complex interactions between ability, motivation, and opportunity variables.

The model implies the importance of rejecting static concepts of persons, work environments and their interaction. To be predictive, practices bearing on managerial style and the research concerning it must recognize the changes occurring in people, through experience, education, growth, and in organizations by their progress through various life-phases.

Psychology

The accumulated knowledge of psychology is difficult to apply directly in the placement of a chief executive into an organizational life-cycle and managerial grid category. The question first arises as to whether an executive would change his management style in response to the changing needs of his organization, or whether his style would be so ingrained into his personality that he could not change, and would therefore push the company into replacing him. Conflicting theoretical information offers no practical utility.

It is known that individuals possess a general resistance to change. The more dogmatic, the greater the resistance (Robeach, 1960);[1] but a pervasive study of executives on this point has not been done to the knowledge of the author. By analysis, however, it would appear that the

[1] Milton Robeach, The Open and Closed Mind (New York: Basic Books, 1960).

successful executive would have only an average amount of dogmatism. If he were very low in dogmatism, it is conceivable that his personality forcefulness would be too low to have played any real part in getting him into the chief executive position. On the other hand, if it were too high it is unlikely he would be flexible enough to survive in his position long. Perhaps this is the phenomenon being studied: the man who is unable to change, and consequently pushes the company into decline and himself out of a job.

The second question would be, how would a chief executive recognize a need to change his style? The answer would be that when stresses of the job rise above the tolerance threshold of the executive due to inappropriate managerial style, at that point the executive must either make his change to lessen the stress or leave the field. In any case he responds by his actions, either positive action or escapism. If he chooses escape, the problem of change then becomes one of recognition of the need by the board of directors, and the satisfaction of that need through selection of a new executive.

If the executive chooses positive action as opposed to escapism, what direction does he turn, toward more authoritarianism or more participation? At this point his own personal perception of the situation plays a vital part. What he does to a large part depends on how he has handled similar situations in the past. If he has handled another similar situation with positive results in one way, then he is quite likely to revert to this previously learned behavior pattern. If he has previously failed, then his choice field is much broader, and the stress higher due to the lack of expectancy of success.

Under moderate stress situations an individual becomes less spontaneous, and more rigid, develops a narrowing and distortion of perception, and exhibits more of a reliance on "safe" habitual responses if they are available in his response repertoire. If relief is not gained, and anxiety becomes more severe, he will begin to develop a disorganization of behavior, manifested in stereotyped, unadaptive, and random patterns of responses, and exhibit irritability and distractability. This type of behavior would obviously be reflected in his efficiency, and signal a need for change in management.[1]

It is difficult for the discipline of psychology to offer validated predictive information on the question of management v/s. organization life-cycle due to the multiplicity of variables involved. However, the probable actions of a person under stress might be significant. In stage IV, when the most stress appeared to take place in the executive position, drastic moves were common. This was not at variance with the habitual responses to stress reported above. Such information as could be gained from the suggested research would be a valuable addition to the fields of organizational and industrial psychology.

[1] Professor Paul D. Jacob's lectures in Psychology 4610 class, spring 1971.

Anthropology and Sociology

The American social structure has assumed for generations the possibility of upward mobility. Education is one of the factors considered, along with business success, wealth, etc. Since most of the population can at least hope for this upward progression, it seems logical that less emphasis would be put on status in this country. In such situations, a more participative management style could be expected. Sociologists[1] believe that as the American society matures and becomes less mobile from class to class (such as in Europe) the reward of status will become more important.

They also have pointed out that many general executives have a "demand for control," and that this causes them to make rules for uniformity and set up standards for measuring results.[2] Given the necessity for technological coordination, the executive is much more secure if he can predict what people will do in the organization and if he has uniform standards and policies so that not all parts and people need be viewed individually. Throughout the writings of Barnard[3] this need was expressed in orderly procedures, policies, and standards.

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[1] T. Caplow, The Sociology of Work (Minneapolis, Minnesota: University of Minnesota Press, 1967.

[2] Hampton, Summer, Webber, Organizational Behavior and the Practice of Management (Scott, Foresman and Company, Glenview, Ill.), p. 576.

[3] Chester Barnard, The Functions of the Executive (Cambridge, Massachusetts: Harvard University Press, 1938).

One of the important objectives in any organization is the coordination of the various activities which occur within it. This coordination function is normally performed by the chief executive of the organization. The managerial style of this person is an important dependent variable in much of the organization theory. In particular, the coordination of activities is alleged to become relatively more difficult (requiring a more than proportionately greater expenditure of time or energy or both) with an increased number of personnel and with a greater variety of role activities or tasks.

For example, Durkeim reported that growing density of population in a society results in increasingly complex forms of organization.[1] Similarly, both Spencer and Simmel proposed that an increase of size necessitates more complex forms of communication.[2] It is commonly claimed that, in addition to its effect on organizational complexity, growth also brings about a disproportionate increase in the size of the administrative component.[3] Finally, more and more complex tasks may require that the coordination of an organization's differentiated components be accomplished by an

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[1]Emile Durkeim, On the Social Division of Labor in Society, translated by George Simpson, Part 2 (New York: Macmillan, 1933).

[2]Herbert Spencer, Principles of Sociology, Vol. I (New York: Appleton, 1898), pp. 525-528; George Simmel, "The Number of Members as Determining the Sociological Form of the Group," translated by A. W. Small, American Journal of Sociology, 8 (1902-1903), 1-46.

[3]Theodore Caplow, "Organizational Size," Administrative Science Quarterly, I (March, 1957), 484-505.

increasingly larger administration.[1] All these factors could force a more participative style on the manager.

Terrien and Mills made the Parkinsonian proposal that "the relationship between the size of the administrative component and the total size of its containing organization is such that the larger the size of the containing organization, the greater will be the proportion given over to its administrative component."[2]

Despite the apparently widespread interest in the organization and its complexities, no systematic effort has been undertaken to match the executive style to the organization environment. There are few comparative studies of members of different organizations, presumably because of the expense of gathering data. The tendency in research has been, instead, to focus attention upon one or at most a very few organizations. These studies presented illustrative material and, at times, suggestive conclusions, but they did not represent tests of this hypothesis or its conclusions.

Several basic tenets of anthropology gave insight into the probable managerial styles that could be expected under certain environmental conditions. Among them were man's attitude towards authority, his attitude towards work,

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[1] Max Weber, The Theory of Social and Economic Organization, translated by A. M. Henderson and T. Parsons (New York: Oxford University Press, 1947), pp. 324-337.

[2] F. C. Terrien and D. C. Mills, "The Effect of Changing Size Upon the Internal Structure of an Organization," American Sociological Review, 20 (February, 1955), 11.

and his behavior under stress or changing conditions.

Man naturally accepts authority and probably does not dislike or resent it as might be expected. From infancy on, an individual is trained to accept authority, and as he matures he develops a pattern of dependency and acceptance of the authority of parenthood, experience, knowledge, power, and status.[1]

Authority includes legal, moral, psychological status and technical factors. Their relative weights vary with the particular situation, mainly depending on how prevalent and compelling the authoritative stimuli are. This leads to the supposition that the more obvious and powerful (structured) the stimuli in a given interpersonal situation are, the more predictable and constant the response. This suggests the authoritarian method could elicit a uniformly predictable action by subordinates.

The manager who has the bearing and inner drive of a leader enhances compliance with his wishes. Haythorn found that "when one member of a group was aggressive, self-confident, interested in an individual solution to a task, and showed initiative, the other members of the group showed less of such behavior than they normally did."[2] Thus a new

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[1] A. Inkeles and D. J. Levinson, "National Character: The Study of Model Personality and Sociocultural Systems," in Gardner Lindzey, ed., Handbook of Social Psychology (Cambridge, Mass.: 1954), pp. 990-993:

[2] Cited in L. F. Carter, "Leadership and Small-Group Behavior," in M. Sherif and M. O. Wilson, eds., Group Relations at the Crossroads (Norman, Oklahoma: 1953), p. 273.

manager could use authoritative management without fear of revolt.

Students of anthropology and sociology have observed the efforts of many occupations to become "professional."[1] In the organization, a professional is an expert whose decisions are not challenged, who has limited initiations made to him, and who is assured of a desirable response when he initiates. The research questionnaire would identify such men as "staff." The safety engineer wants to be recognized as a professional, because this means that others cannot go to him and tell him what to do; when he sees a hazard that needs correction, the line manager to whom he sends a notification will respond. These situations indicate a growing bureaucracy.

The means of attaining this increased status are many, and the modern "organization man" is adept at their manipulation. Dropping activities that do not enhance prestige is one such technique, and claiming tasks that the organization already accepts as indicative of status is another. He can attempt to restrict the job to those with recognized "professional" training and facilitate the claim to such prestige (i.e. job descriptions). In addition, moving one's position in the work flow from a position where decisions are accepted up to a position where one must be

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[1] Conrad Arensbery and Douglas McGregor, "Determination of Morale in an Industrial Company," Applied Anthropology, I (1942), 12-34.

consulted is a useful tactic.

Finally, Max Weber has given perhaps the best insight into the sociological predictors when he contrasted the bureaurocratic institution with the "authoritarian" or traditional.

> A bureaucracy tends to be characterized by:
> a. Defined rights and duties, which are prescribed in written regulations;
> b. Authority relations between positions which are ordered systematically;
> c. Appointment and promotion which are regulated and are based on contractual agreement;
> d. Technical training or equivalent experience as a formal condition of employment;
> e. Fixed monetary salaries;
> f. A strict separation of office and incumbent in the sense that the employee does not own the "means of administration" and cannot appropriate the position;
> g. Administrative work as a full-time occupation.
>
> These characteristics stand for conditions of employment which have been more or less successfully instituted in modern economic enterprises and governmental agencies in the course of recent developments of Western civilization. To understand the concept "bureaucracy" fully, it is necessary, therefore, to contrast these characteristics with the corresponding aspects of an administrative staff under traditional authority.
> a. In place of a well-defined impersonal sphere of competence, there is a shifting series of tasks and powers commissioned and granted by a chief through his arbitrary decision of the moment.
> b. The question who shall decide a matter--which of his officials or the chief himself . . . is treated . . . (either) traditionally, on the basis of the authority of particular received legal norms or precedents (or) entirely on the basis of the arbitrary decision of the chief.
> c. As opposed to the bureaucratic system of free appointment, household officials and favourites are very often recruited on a purely patrimonial basis from among the slaves or serfs of the chief. If the recruitment has been extra-patrimonial, they have tended to be holders of

benefices which he has granted as an act of grace without being bound by any formal rules.

d. Rational technical training as a basic qualification for office is scarcely to be found at all among household officials or the favourites of the chief.

e. In place of regular salaries, household officials and favourites are usually supported and equipped in the household of the chief and from his personal stores. Generally, their exclusion from the lord's own table means the creation of benefices. . . . It is easy for these to become traditionally stereotyped in amount and kind.[1]

The arbitrary decision and establishment of "household officials" is not archaic as it sounds. The manufacturing executive who brings his own staff with him to a new position, or the university executive who takes his favorite secretary along to a new office are practicing the game of "household officials and favourites" just as surely as the kings and sultans of old. And even though they might be in a bureaucratic environment, there would be authoritarian overtones to their methods.

Sociology and anthropology did not give clear definitions of managerial style expectations. But several hints were offered. As the organization grows, and a staff is necessary for technical communication, the executive may be forced into a more participative mode by the "professional" requirements of his staff. Because of their social desires and expectations, they could require a part in decision making, and more important, demand treatment as equals.

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[1] Max Weber, The Theory of Social and Economic Organization, (New York: Oxford University Press, 1947), pp. 343, 344, 345.

Authoritarian actions might not be accepted.

Conversely there could be expected a certain tolerance of the authoritarian mode, due to the conditioning all people receive from infancy on. Particularly likely would be a high acceptancy and even desire for authority in times of crisis and stress.

From these suggestions, it appeared that a participative management may be forced on organizations during stage II and III. Stage IV might likely have an authoritarian style, if it was observed after a crisis was recognized by the members of the organization.

Summary and the Model

The previous searches through the disciplines of Management Theory, Psychology, Sociology and Anthropology, offered certain principles which can aid in predicting management styles under certain conditions.

Stage I of organizational growth offers a relatively simple study. With only few people to work with, the owner-manager is obviously the leader and the person who sets the objectives. No bureaucracy has been set up, and the needs for a technical staff are not yet felt. The manager himself must be a rather strong personality in order to assume the risks of a new venture. So it is likely that more authoritarian styles will be found in this phase.

Stage II finds the organization outgrowing the first level arrangement and the beginning of "managing managers."

The chief executive cannot know first hand all information needed to make decisions. He begins to rely on others, and, in doing so, must let them "participate" in the management process. And instead of managing first level laborers, he is now managing a group of people with certain management skills themselves. The interaction style must change because the personalities of the people being managed are different. They are used to making decisions, and would, by their nature, wish to be consulted about objectives concerning their "territory."

Stage III would be expected to have similar demands in style to Stage II. However, the professional status of the staff may be intensified, and thus could force an even greater amount of participatory style on the executive. And it could be this loss of authority that ultimately could lead the organization into Stage IV and a decline. The seeming inevitability of such a cycle is evidenced in the actions of certain government agencies and similar organizations.

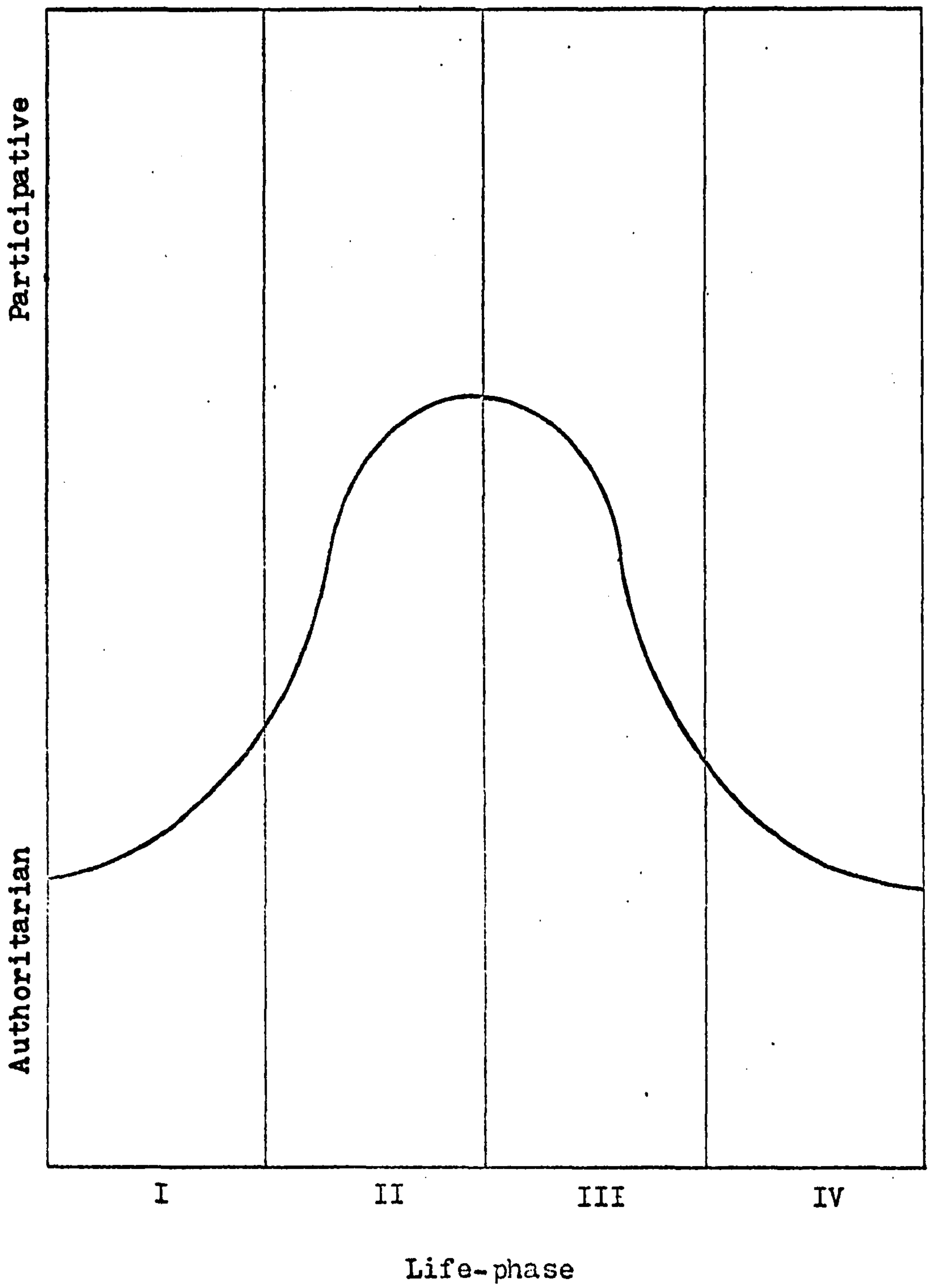
Stage IV could be examined in two parts, and might then show two different styles. If the organization is examined <u>before</u> it recognizes a crisis, participative management might still be used, as a carry-over from Stage III. But after a crisis, a different situation exists. Whether it is a new chief executive, or the old one with new mandates upon him, we can expect authoritative styles. The demand will be for quick, effective, drastic and demonstrated actions. These are not likely to be attained by committee decisions of the old "styles" used in Stage II and III. Authoritative Management would be demanded of the executive, both by the situation, and by his subordinates.

The model indicated by the above research suggested authoritative management in Stage I and highly likely in Stage IV. Stages II and III would be expected to have participative management patterns. This is shown by the curve, Chart III following.

Chart III

THEORETICAL RELATIONSHIP CURVE

MANAGEMENT STYLE
v/s
ORGANIZATION LIFE-CYCLE



CHAPTER V

THE EXPERIMENT

In order to verify the model constructed in Chapter IV, it was felt necessary to obtain as much data as possible from current operating managers. Their methods of organizing staffing, and controlling would show the actual conditions now prevailing in industry. At the same time, facts concerning the economic situation of the firm would have to be recorded, so that the life-cycle phase could be identified.

The only feasible method of data gathering available to the author appeared to be interviews. To systematize the input, a comprehensive questionnaire was designed covering the salient points of management style and organization life-phase. It is described below.

Questionnaire

The described questionnaire[1] elicited information in a reasonably short time from busy industrial executives. The language used had to be familiar to them and used in everyday business context. Time and expense considerations made data

[1] The questionnaire design was accomplished with the assistance of Mr. Preston Horstman, Oklahoma University, Norman, Oklahoma

gathering by hired (and unskilled) third parties essential.[1] These people had little knowledge of the research subject, and thus established an "experimenter blind" on the questionnaire administration. This had the effect of eliminating experimenter bias.

A forced choice situation was used for all but the first few questions, allowing only responses that fit into the experimental design criteria classes. This eliminated experimenter subjectivity when evaluating the answers and classifying the various respondents.

The first questions were open response, used for objective data concerning the organization: age, number of employees, and the like. It was felt these questions, due to their ease of answer, would reassure both the interviewer and the respondent.

Questions revealing management style were similar to those suggested by Dr. Burt Scanlon in his lectures of April, 1971.[2] They followed closely the characteristics listed in Chapter IV. The organizational life-cycle information was as listed by Patton.[3] Most were straightforward; a small percentage were mildly disguised to protect against respondent

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[1] R. L. Kahn and C. F. Cannell, The Dynamics of Interviewing (New York: John Wiley and Sons, Inc., 1957).

[2] Characteristics of management styles, taken from class notes in Prof. Burt Scanlon's Management 5243, "Organization Behavior," April, 1971, Oklahoma University.

[3] Arch Patton, Top Management's Stake in the Product Life-Cycle, The Management Review, Vol. 48 (June 1959), 9-14.

bias. A complete questionnaire is reproduced in the appendix.

Design Criteria for Data Collection

The choice for each question was coded so that the right-hand answer had the greatest numerical value, left-hand the least. By adding the total value of all answers, an index number resulted that could categorize the respondent. Analysis placed the manager in a specific "style" phase.

A special questionnaire design was preferred for this project, since no "standard" test seemed appropriate for top-management responses. Because the questionnaire used was new, it was pre-tested on five chief executives to discover:

1. Ease of interviewer application.
2. Ease of respondent's reply.
3. Reliability of response interpretation with reference to response elicited.

Statistical Procedures

Experimental Statistical Design

The experimental design was used to test the hypothesis: do organizations show a tendency toward matching the most effective management style with the particular phase of organizational life-style exhibited by the organization?

The sample of organizations used in the experiment was determined by randomly selecting companies from the Oklahoma Directory of Manufacturers, 1972 which satisfied the other experimental parameters. This generally consisted of discarding all firms not obviously engaged in traditional industrial activties. Firms engaged in food service, advertising, and the like were not contacted. A stratified random sample was attempted to insure that an equal number of companies were selected in each phase of life-cycle, so that the results could be generalizable to companies in all phases of the cycle. The population did not offer randomly sufficient numbers of organizations; therefore some pre-selection devices were necessary to get representative data.

In all cases, firms with less than five employees were deleted. Firms with out-of-state management were found to be unresponsive so none were used. These exceptions, along with the inclusion of only traditional industries effectively limited the sample to the list remaining in the directory.

The score determined on each questionnaire placed the chief executive and his organization in a particular cell. The null hypothesis of the design stated there was no relationship between management style and organizational life-cycle. Thus under this null situation the probability of an organization and its chief executive falling into a particular cell is the same as any other cell. The chi-square design required expected cell numbers be determined by the null hypothesis; thus all expected cell numbers were equal under the null.

4 X 4 CHI-SQUARE CONTINGENCY TABLE

Organizational Life-cycle	Authoritarian	Moderately Auth.	Moderately Part.	Participative
Inception	3	3	3	3
Growth	3	3	3	3
Maturity	3	3	3	3
Decline	3	3	3	3

Management Style

Sample Size

Determination of sample size for a chi-square design is probably the most difficult problem associated with its use. It is generally accepted that the larger the sample size for chi-square the better the approximation of the chi-square distribution used in the analysis for significance. Due to the fact that power determinations on chi-square designs are confounded by the problem of having a sufficient expected number in each cell to use the chi-square tables, an exact calculation of sample size necessary to achieve a predetermined power level was for all practical purposes impossible. By reference (Mendenhall, 1967 and Hays, 1963)[1,2] it was determined that a minimum sample size of three per cell, or a total n of 48 observations would yield acceptable power

[1] W. L. Hays, Statistics (New York: Holt, Rinehart, and Winston, Inc., 1963), pp. 584 and 597.

[2] W. Mendenhall, Introduction to Probability and Statistics (Belmont, Cal.: Belmont Publishing Co., Inc., 1967), p. 251.

under the design. The design as stated would yield nine degrees of freedom.

Data Analysis

The data analysis in the chi-square design is accomplished by a statistical comparison of the squared deviations from the individual cell expected values. The final result of a chi-square analysis yields a value which must be compared to a chi-square statistic table to determine the probability of type I error (alpha) for the value obtained. A chi-square value of sufficient alpha level (0.05 or above) indicates a high probability that there is a relationship between the experimental variables, rejecting the null hypothesis.

Additionally, if significance is found via the chi-square statistic, the contingency coefficient should be computed to give an indication of the degree of relationship. The contingency coefficient is similar in inferential meaning to the correlation coefficient.

Starting in late May, 1972, interview appointments were made with executives in the Oklahoma City and Tulsa area. In order to give complete credulity to the request for an interview, a letter from the School of Industrial Engineering, signed by the Director, was used.[1]

As the interviews progressed, it became evident that time and expense limitations would prohibit gathering all

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[1]Appendix.

data personally. Therefore, beginning July 1, questionnaires, with an explanatory letter,[1] were mailed to qualified executives statewide. The returns averaged about 30% per mailing, which was considered good. Examination of the questionnaires from personal interviews and mailed-in samples showed no discernible differences in answer patterns.

The personal interviews did offer one ancillary advantage. In the course of the conversations, the executives involved would give their opinions on a wide range of subjects not always covered by the bare questions. This additional information added a great deal of depth and background to the data. Extensive notes were taken during these conversations, and the more salient points are covered later in this chapter.

In all, 48 questionnaires were completed. This resulted in a comprehensive documentation of current management thought, over 1900 individual question responses in all. Few references to such extensive direct research have been noted in recent academic literature.

In order to divide the responses evenly into organizational life phase categories, the responses were scored and rank ordered along the life phase continuum. The first twelve respondents were placed in phase one, or inception; the next twelve in phase two, growth; the third group into phase three, or maturity; and the last twelve into the fourth

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[1]Letter copy Appendix.

phase, decline. The management style scores were similarly arrayed.

The responses were then placed into cells of a chi-square contingency table for analysis. (Chart IV, following.) Computation of the chi-square statistic yielded a value of 5.29060. The value was compared to a chi-square critical value table where it was determined that a value of 16.9 was needed to yield significance at the 0.05 alpha level. From this information, and extrapolation from the table, it was determined that the computed level of significance was 0.25, indicating a non-chance support of the alternate hypothesis 25 percent of the time in replications. Computed alpha level was 0.75.

The contingency coefficient was computed from the data, and a value of 0.32021 was obtained. This value indicated a positive correlation in the neighborhood of 0.32 between level of authoritarian management and organizational life phase. The percentage of variability accounted for by these two variables was found to be 9.901 percent.

Individual cell values were analyzed empirically, and several significant departures from the expected cell value range were found. In the inception phase of the organizational cycle it was found that all styles of management were indicated by the respondents, a random situation. In the decline phase an unusual deviation was found. Seventy-five percent of the respondents in this phase indicated

Chart IV

CHI SQUARE CONTINGENCY TABLE*

Organizational Life-phase

Management Style: Authoritarian (I) — Participative (IV)

	Inception I	Growth II	Maturity III	Decline IV
I	1 6 23 3 3	19 21 2 3	27 40 2 3	5 10 20 31 48 5 3
II	16 32 38 3 3	2 3 12 13 39 43 6 3	24 44 2 3	47 1 3
III	22 25 36 3 3	9 15 46 3 3	4 8 18 45 4 3	29 41 2 3
IV	11 26 42 3 3	33 1 3	14 30 34 35 4 3	7 17 28 37 4 3

37, 7, 28, & 17 are the code numbers of the respondents whose replies placed them in this particular cell

Key
37 7 28 17 4 3

4 = the observed frequency for this cell

3 = the expected frequency

Using cell 4, 4.
(Row 4, Column 4)

Chi Square Value: 5.29
Critical Value: = .05 16.9
Computed Alpha Level: 0.75

Contingency Coefficient: .320

Percentage of Varability Accounted for by the two variables: 9.9%.

*See note Appendix E

either extreme authoritarian style, or extreme participative. Additional graphical representations of the data are shown on Charts V, VI, VII, and VIII.

The mean score for management style was 2.4055 with a standard deviation of 0.3032. The mean organizational life-phase score was 2.3316, while its standard deviation computed as 0.3162. A correlation between the respondents' judged style and his organization's phase by means of the Pearson Product Moment method was computed. The analysis yielded a negative 0.0818 correlation. For significance at the 0.05 alpha level a correlation of 0.2875 was needed.[1]

In viewing life cycle as a function of management style it was noted that over one-half of the total chi-square value was contributed by the level three management style component, moderate authoritarian.

As noted earlier in the chapter, the personal interviews offered lucid management comments on many organizational subjects. Some of the more interesting are quoted here.

The need for accurate management data was felt by most managers; however, they took widely diverse ways to accomplish communication. One manager (an engineer by profession), had a daily report sumbitted to him showing all production plans for up to four months in advance. This, he said, kept him from having any unpleasant surprises.

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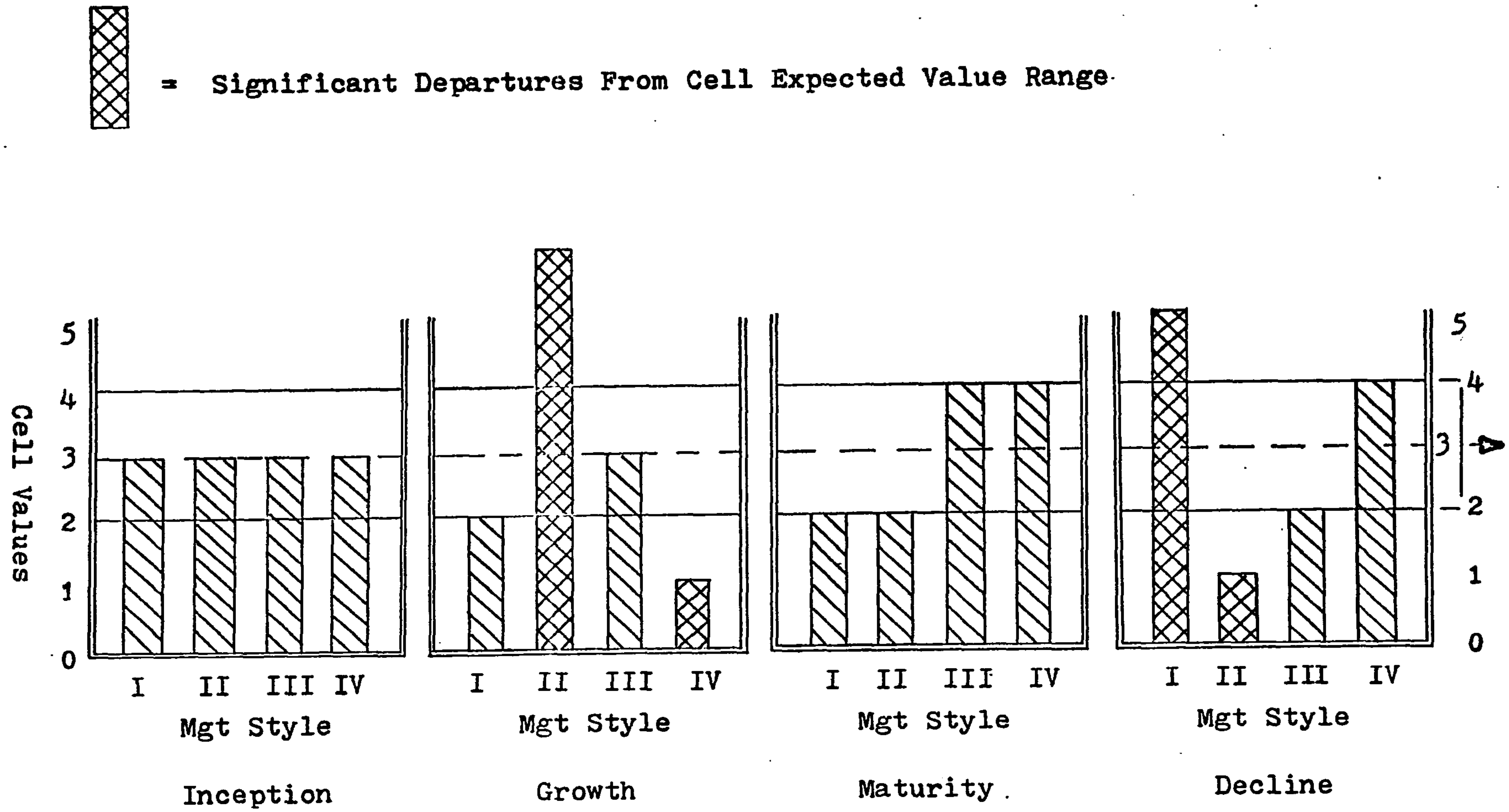
[1] W. G. Cochran, "The Chi-square Test of Goodness of Fit," Annals of Mathematics, 23 (1952), p. 257.



DISTRIBUTION BAR CHART

Chart V

Chart VI

SCATTER PLOT

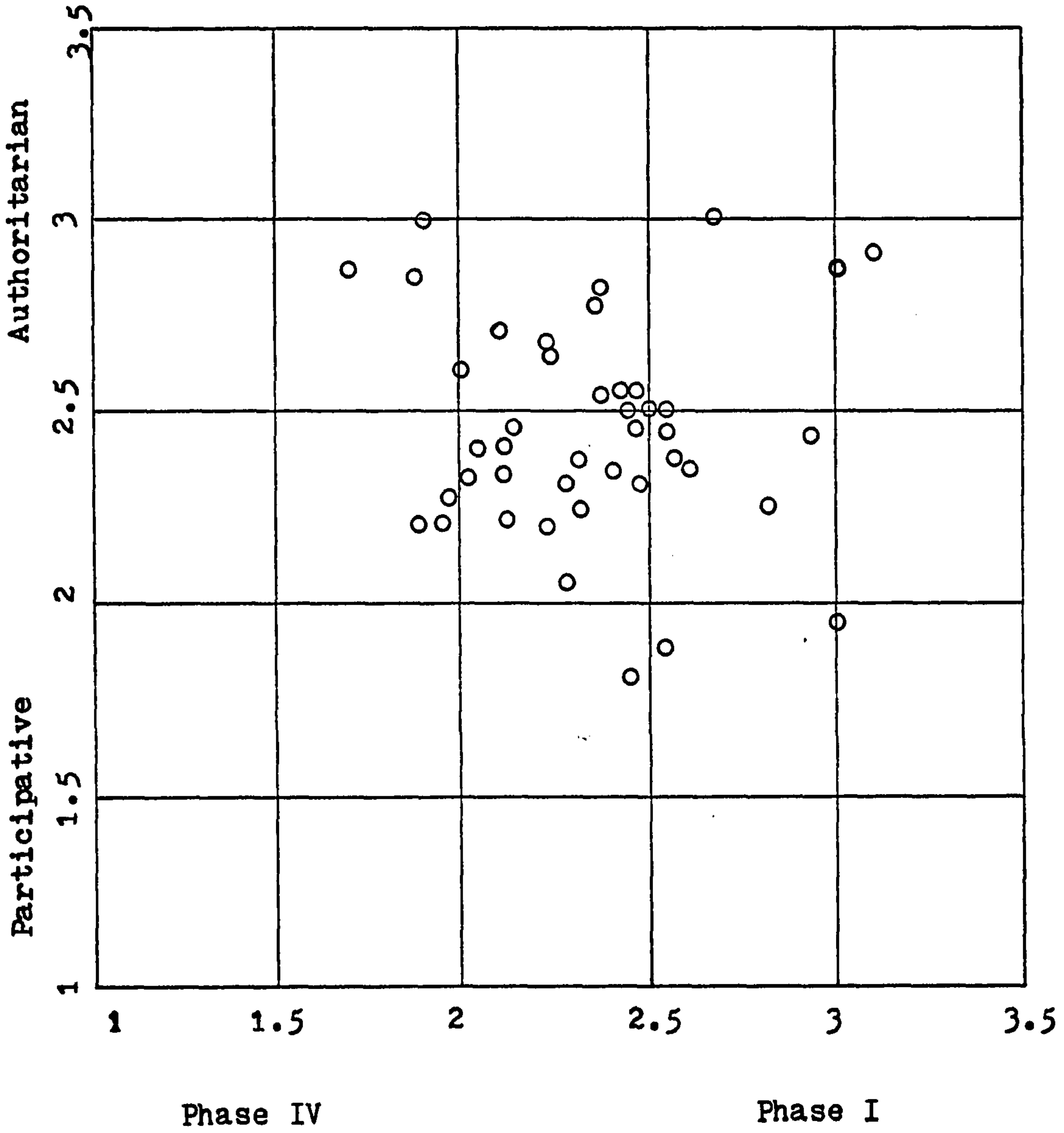


Chart II

LIFE-PHASE DISTRIBUTION

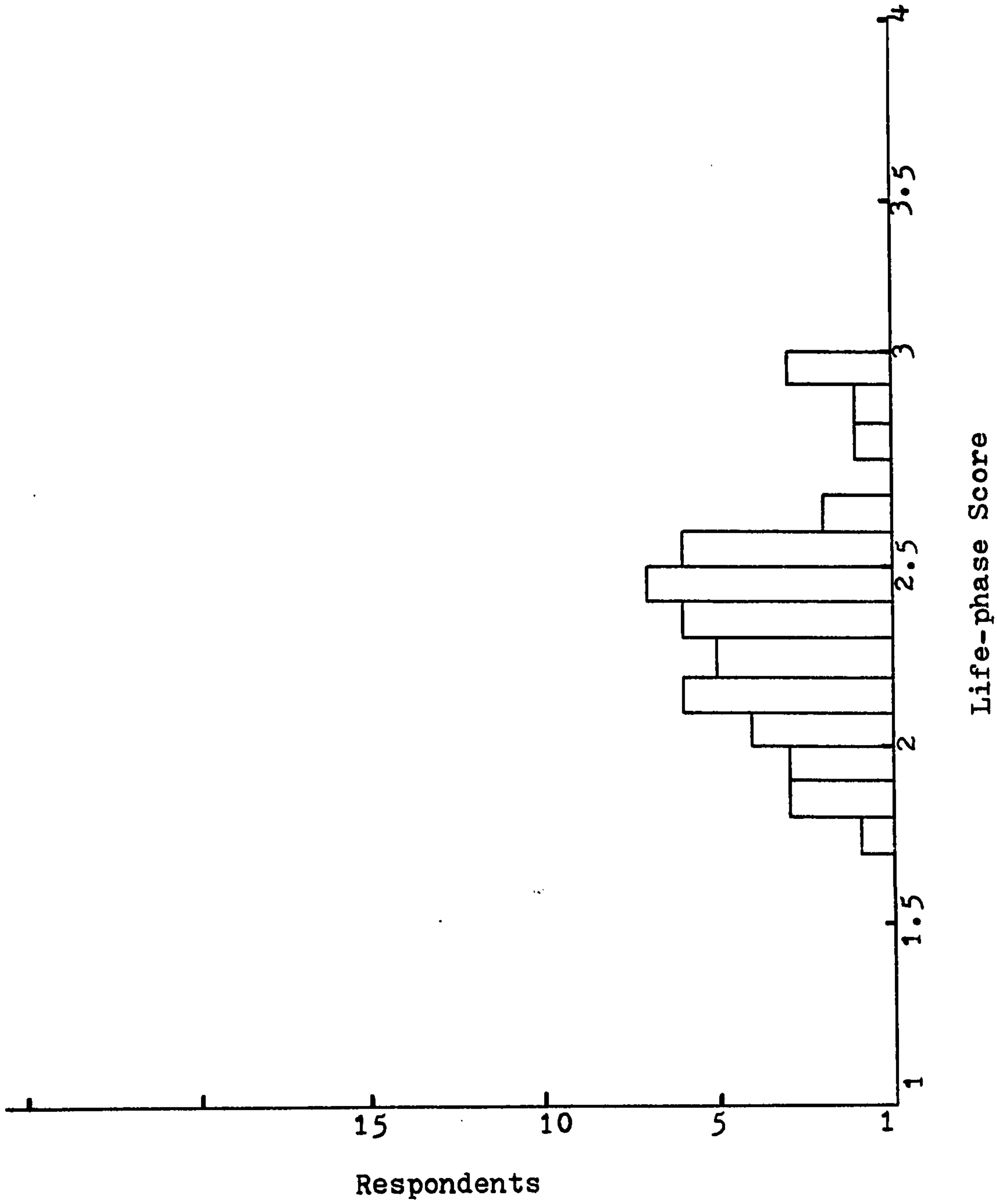
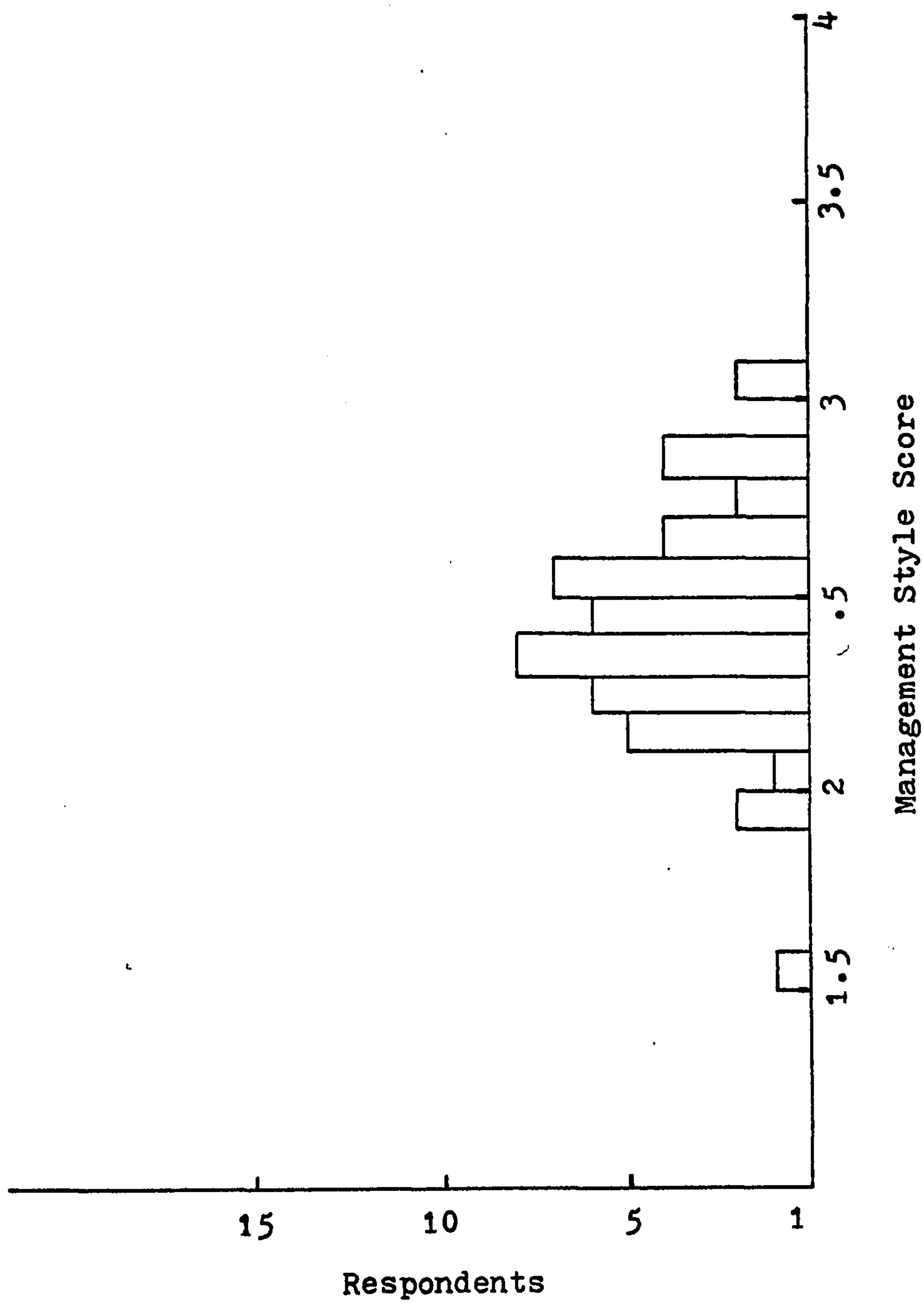


Chart VIII

MANAGEMENT STYLE DISTRIBUTION



The Vice-President of a very large company had just instituted a series of coffee cup meetings. Groups of 6-8 men, foremen and 2nd level managers, would meet with him under a no-holds-barred set of rules. All gripes could be aired and no reprisals would result. When queried about the attitude of the by-passed upper level managers he said, "Ah, their noses get bent out of shape a little, but it's worth it for me to get the first hand information."

The term "participative management" was not unknown to these industry leaders. Prominently displayed in one lobby was a statement of management philosophy which said in part:

> We of the blank department stand for participative management style thus providing room for creativity, opportunity, effectiveness and satisfaction for all employees.

But they also remonstrated:

> We urge management discipline through commitment to our published standard operating procedures.

Another interesting comparison of theory to current practice was that of organization structure and span of control. Question number 8 asks "How large is your span of control?" Forty-eight percent of all respondents indicated a personal span of control of 6 or more. This is the above range suggested by most of the academic literature. For instance, Ernest Dale[1] quotes Fayol as stating flatly "no superior should have more than six immediate subordinates." It

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[1]Ernest Dale, Management Theory and Practice (2nd ed.; New York: McGraw-Hill, 1969), p. 190.

is quite common to see a typical organization chart of a manufacturing company which shows four divisions (Sales, Production, Engineering, and Finance) reporting to the general manager. However, during certain of the personal interviews it became evident that the "effective" span of control might be even larger than the formal. The executives indicated that some functions required more of their personal attention and thus extended their personal span.

There was a tendency among organizations to enlarge the executive span of control and thus reduce the levels of organization. Recent forced economies was the usual reason given, but this move also appeared to improve communications.

One large company was minutely studying their formal organization structure with the goal of eliminating at least one complete level, as well as effecting a 10 to 15 percent reduction in administrative costs. They expected to increase lower level supervisory spans from 10 to 13 or 14 and to increase higher level spans by proportional amounts.

Such a move was noted recently in Business Week, when the organizational changes made by Kaiser Aluminum's new president, Cornell Maier, were described.

> He started belt tightening early. Kaiser's overhead costs are down 10% this year from last, and employment has been trimmed 11% in three years. The new president has also cut away several management layers to create what he calls a "flat" organizational structure. "That means I have a lot of people reporting to me," he says.[1]

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[1]Business Week (August 5, 1972), 24.

Several of the managers interviewed had an obvious flat 2-level organization at times. They were observed handling problems directly with line personnel, completely going around middle management. It appeared these managers allowed middle management to run only the "routine"; they themselves made all special or non-routine decisions.

Question 28: "Where do you place management emphasis?" was asked as a part of the firm's life-cycle profile. But the responses in the interviews elicited interesting management style information.

One president of an obviously well managed company said "I don't really like to manage at all. I just arrange things so my people can do their work."

Another manager of a large company indicated that he placed his personal emphasis in areas where he felt his staff was not completely competent. In other words, if a man had the confidence of the manager, he was given much freedom of action. If the manager had some doubts about an area, he looked very closely over that manager's shoulder.

It would be expected that the managers would watch most closely the area in which they were trained (i.e. Engineers watch engineering, etc.); but this was not shown by the responses. The only pattern noted was that the managers all tended to put their efforts toward the areas with immediate and current problems. The college bred managers (a larger group of the respondents) usually worked with their immediate subordinates. The up-from-the-ranks managers tended to go further down into the organization and handle more detail.

Chapter VI

CONCLUSIONS AND RECOMMENDATIONS

New Knowledge

The research reported above has indicated certain areas of new knowledge in developing an extension of organization theory.

1. There is a strong possibility that a relationship exists between the chief executive's "style" and the life-phase of his organization. Research of academic literature would indicate the executive might be expected to use authoritarian methods during the inception and decline phases of organization life. A more participative mode might be used during the growth and maturity phases.

These changes in the managerial methods appear to be intrinsic in the organizational situation, and are inevitably forced on the executive by social and economic forces beyond his control. If it is an accepted fact that organizations must grow, then there are predictable changes in these social and economic forces.

At inception, the organization is simple, usually one level, and authoritarian methods would be both natural and effective. But as the number of people involved gets larger, many interrelating pressures begin to demand changes in the method of communication, control, motivation, organization structure, and the setting of objectives.

Therefore the growth and maturity phases of organization life require, by the nature of these pressures, an increasingly participative style of managing. The people managed are also managers in their own right, and have a built in psychological and social resistance to authoritarian methods. Committees rule the day.

But it appears that many organizations ultimately find themselves in the decline phase of life. Here the social and economic pressures sometimes act in random directions. The organization resists change, and yet change is vital to its economic existance. The psychological make-up of the executive may force him to completely participative or heavily authoritarian methods as a means of relieving his personal stress. Some indication of extremes in method were noted in the experimental data on this phase.

Examples obtained from current business sources bear out the conclusion that the ultimate solution to the Stage IV trauma is an authoritarian method of control to insure rapid change. Once this change is accepted by the (remaining) members of the organization, efficient and profitable operations are possible.

Thus at any stage of organization life an executive whose personal style is not compatible with the organization's life-cycle might find less success than one with an appropriate style.

2. The span of control of the typical industrial executive was found to be larger than anticipated. Approximately fifty percent of the respondents claimed a span of six or more, and other indicators suggested an actual span even higher.

This could be construed as indicating a much higher incidence of authoritarian behavior than reported in the field research. The span of control of a participative manager is suggested as being three, yet most managers interviewed reported a span of five or more. The trend at all levels was toward higher, not lower, spans. While the reasons given were economic, this could also predict a return to more authoritarian methods. Again, this organizational change appeared to be forced on the executives involved. Not only would the widening of control spans affect needed economies, it would also reduce to some extent the communication problems of a many-layered structure. Many executives cited this as one of their major problems.

3. The incidence of the inception and decline phases of organization life is evidently small compared to the total population. The accurate identification of life-phase calls for detailed and confidential economic information not usually available to the academic researcher.

This life-phase identification could be facilitated by research having a time dimension of several years or more. The trend line of profits, sales volume and labor statistics are much more important than the one-time recording of current operating conditions. The state of the national economy has an effect on these statistics, and could give a false reading of the life-phase in certain situations. In this instance the field research was conducted at the evident end of an economic down-turn. Some firms were expanding to meet the demands of increased sales, while others were still trying to institute economies to avoid losses. All these factors indicated a complicated relationship needing detailed information for accurate analysis.

4. A need exists for an extension of organization theory into the application field, particularly in the case of an organization in difficulty, such as Stage IV. The industrial executives interviewed were nearly unanimous in their interest in this subject; most showed evidence of recent exposure to academic writings covering organization theory. This interest was further evidenced by the fact that they wished to review results of this research as soon as it was available. Their actions and remarks noted in Chapter IV corroborate this need for more exact knowledge in this area.

Experimental Results

The data obtained from the field experiment gave only minimal support to the hypothesis.

An examination of the statistical evidence shows a possibility that there is a relationship between Management Style and Organizational Life-Phase. But the complete pattern of the relationship is not clear. For instance, the matrix, Chart IV shows that 75 percent of the managers of Phase II organizations are likely to use moderately authoritative or moderately participative methods, and only 12 per cent would tend to be participative. But the data on Phase I and III shows a pattern of response supporting a null hypothesis.

The nonsignificant chi-square statistic derived from the data should be viewed in terms of the significance reached, rather than of that not reached. A departure from the null hypothesis was noted at a 0.25 level of significance. The contingency coefficient indicated an interrelationship between the two variables of management style and organizational life-phase amounting to an equivalent 0.32 correlation.

The finding that a large portion of the chi-square value was contributed by the moderately authoritarian style component indicates a strong interaction existing between organizational life-phase and moderate authoritarian management style. A near absence of this style was noted in the decline portion of the life-cycle phase.

The rank order determination of which respondents' organizations fell into which life-phase category quite likely influenced the statistical results. As shown in tables VI, VII, and VIII, respondents fell into a heavily center loaded plot. By rank order division the homogeneity was only expanded, down grading the power of the statistics employed. In actuality, without benefit of rank order division, the number of respondents in each phase was far from equal.

The greatest problem in the data gathering (which could affect the results) was the determination of organization life-phase. The questions were largely non-economic (for proprietary reasons), and yet the life-phase is almost a wholly economic condition. Particularly during some of the personal interviews, the writer felt serious doubts concerning the whole concept of life-phase. Perhaps it is only a theoretical pattern to which no real business entity can properly be fit. Or, just as possibly, Phase I and IV are rare in actual life, with the bulk of businesses always falling in Stage II and III.

The lack of support for the hypothesis should not come as a complete surprise if the research covered in Chapter V is reviewed. While management theory writings in some disciplines give certain support, little could be found in the field of psychology. Thus, it might be argued that management style is a personal thing; a part of an individual, and not related to an organization life-phase in any way. It does seem feasible that an individual might as least think of his management as being a certain type, thus giving unreliable data as to the real situation.

Another discrepancy in data could be caused by the accuracy (or honesty) of the individual response. During several of the personal interviews, indications of authoritarian behavior were observed, while the answers to questions were indicating participative beliefs. Some managers may preach participation but practice authoritarianism.

For example, as the interviewer left for lunch with a company president, the sales secretary asked the president if she could change her vacation schedule. The president said "yes, of course." The sales manager was in his office and the general manager was present, but the president made this rather insignificant decision himself without consulting anyone. This cutting across lines of authority indicated a completely authoritarian behavior which was evidently habitual. The thought arose at the time, "what if the girl had already been refused by the other two levels of authority?" This and certain other incidents led the interviewer to suspect that many managers used a more authoritarian mode than they admitted.

Recommendations for Additional Research

Any finite research project must necessarily limit its objectives to the specific knowledge sought, but the data obtained by the above reported project suggested a number of interesting and useful possibilities of inquiry that would advance the art of organization.

Research in the area of organization structure could prove fruitful. A trend might be discovered by questioning the same group of respondents in succeeding years on the subject of span of control. From the data examined so far, it can be concluded that most businesses have traditional organizational structure, but there was a tendency to enlarge spans of control for the sake of economy and efficiency.

Management style could be related to profitability. While this was not specifically sought in this research, it would make an interesting, and probably controversial report. The definition of profitability would cause some difficulty, but it could be solved. If the respondents in this experiment were questioned in succeeding years, some trend might become evident.

Does the specific educational discipline of the executive indicate the likelihood of his using a certain management style? There did appear a trend toward detail among the managers with less formal training. But no evidence of more or less success could be noted.

The same questionnaire could be administered to the same respondents over a period of years. This would give time-frame trends of the management patterns used.

The same questions could be asked 2nd level managers in the responding organizations. How would their view of their chief executive's style compare to his? This could give an interesting and useful indicator of the accuracy of the executive's self-appraisal.

Other parameters of the organization could be matched with the manager's style by similar research. Among the parameters could be organization size, age, type of technology, and public or private ownership. Such data would be of great value to those who wish to apply organization theory concepts to actual business situations.

Of interest to local business researchers might be the answers to question number 35, "Would you say your physical plant is O.K., too small for present operations, ample?" A surprising forty-one precent indicated that their facilities were too small and a number wrote notes such as "expanding now," etc. Such data might be considered as a leading economic indicator, since it would show probable future expenditures for plant and equipment. A periodic survey of these same respondents might bring out useful economic data.

Perhaps the greatest value of the research reported above, as well as that suggested, would be the opening to academic scrutiny the various relationships between the organization's characteristics and those of its chief executive's. None of the precepts of organization theory can be properly used in a vacuum; they must be tested in operation. The information so far developed could serve as a convenient starting place for more detailed examinations.

Finally, the research showed that the principles of participative management were evidently known and practiced to some extent by most modern executives. But underlying many of their comments appeared a desire to return to the simplicity of the authoritarian mode, as decscribed thousands of years ago by Matthew.--

> I am a man under authority . . . and I say to this man, go and he goeth; and to another, come, and he cometh, and to my servant do this and he doeth it.[1]

[1]Matthew 8:9.

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APPENDIX A

NOTES FROM INTERVIEW WITH LORD WILFRED BROWN

CHICAGO, ILL., MARCH 22, 1972

The writer had the opportunity to attend a seminar chaired by Lord Brown. During the seminar, and at the luncheon it was possible to exchange views with Lord Brown on subjects bearing on this dissertation research. The information presented below is taken from personal notes of these conversations.

When asked the direct question, "Can management theory be meaningfully studied unless the specific organization is also studied at the same time?" Lord Brown replied:

"Absolutely not, and I'm distressed that not one management writer in your country has recognized this fact. I'll give you an example: If you were to investigate the properties of steel without regard to the environment (temperature, pressure, etc.) the results would be meaningless. So it is when you study a management theory or style. You <u>must</u> relate it to the <u>institution</u> in which it is used, the environment. (Lord Brown uses the word institution in the same context as organization is used in this writing--CLP).

I know of no book which considers the social institutions and the use to which the management theory is to be put."

This direct statement seems to confirm the writer's literature search results. Most writers in management theory do not match theory to specific organizational situations. This research will attempt such a match.

Throughout the seminar, Lord Brown and certain other participants stressed the importance of the chief executive role. This also supports this research scheme of selecting only chief executives for study.

APPENDIX B

CHIEF EXECUTIVE QUESTIONNAIRE

1. How long has your organization been established? _______.

2. How long have you been chief executive? _______________.

3. How many employees does your organization employ? ______.

4. How many formal organizational structure changes in the last 5 years? ______________________________________.

5. Would you estimate the dollar volume of your company?

   ____.

6. The percentage return on investment? _________________.

7. The productivity in units etc.? ____________________.

8. How large is your span of control?

6 or more	1	2	3	4	5

9. How important do you consider the formal structure of your organization?

Very	Important	Not Very	Of No Consequence

10. Where are organizational objectives set?

Pres	Exec. Comm	Pres-Supr	All Set

11. Where are routine line decisions made?

Pres	Top Mgt	Mid	Committee	1st Sup	Line

12. Where are non-routine line decisions made?

Pres	Top Mgt	Mid	Committee	1st Sup	Line

13. How frequently do you receive communication from your 1st line supervisors?

Never	Some	Often	Very Often

14. Where are persons with specialized knowledges found?

Staff	Line	All Through

15. How frequently are subordinates consulted about decisions effecting them?

Never	Some	Often	Very Often

16. How much confidence do you place in the ability of your organization's lower levels?

None	Some	Average	Much	A Great Deal

17. In regard to discussing their jobs, how are employees handled?

Not Allowed	Discouraged From	Allowed To	Encouraged

18. What method do you use for employee control?

Punishment	Punishment Some Reward	Reward Some Punishment	Reward

19. Where is responsibility felt in your organization?

Top	Top-Staff	Top-Supv.	All Through

20. How deep into the organization do you extend your personal control and review of performance?

V.P. Only	Through-Staff	Through Supv.	All Through

21. Where are the review and control functions concentrated?

Highly at Top	Relatively Highly at Top	Quite Widely Shared	Moderate Delegation To Lower Levels

22. Do you recognize any informal organization in your company?

No	?	Yes

23. How much do you think the objectives of the informal and formal organizations agree?

Opposite	Dissimilar	Some Similarity	Similar	Same

24. How is production (Control) data used?

Punish and Police	Reward and Punish	Self-guidance and Problem Solving	Reward and Guide

25. Would you characterize your sales volume as:

Low	Increasing Rapidly	Rising at a Steady Rate	Stable	Declining

26. What does your total profit picture look like?

Low or Loss	High and Rising	Stable	Declining

27. How about your gross profit per unit?

High	Stable	Falling	Marginal

28. Where would you say management emphasis is being placed?

R & D and Engineering	Production	Marketing	Finance

29. In reference to your sales, are they predominately....

Direct to User	To Wholesaler	______

30. Is your product stable, or being revised?

Constantly	Design Stabilized	Changes slight from market Pressure	Few Changes

31. Direct Production Labor Content

High	Falling	Stabilized	Direct employees being reduced

32. Indirect Labor

Low	Stable	Rising

33. Would you say in reference to your "overhead" per unit it is...

High	Falling	Stable	Rising

34. Could you describe your level of investment per employee?

Low	Moderate	High

35. Would you say your current physical plant is...

OK	Too Small for Present Operations	Ample (permanent)

36. How would you characterize the effect of your competition?

Not a Threat	Major factor in Most Decisions	Controls Pricing

37. Regarding risks in making changes are...

Risks accepted by Management	Made only after Thorough Examination
Mostly Cost Cutting	

38. Would you describe your organizational structure as traditional?

Yes	?	No

39. In what condition is your working capital?

Short (increased needs)	Adequate (taking discounts etc.)	Deficient (high inventory)

40. Are your management positions mostly of long tenure?

Yes	?	No

APPENDIX C

The University of Oklahoma 202 West Boyd, Suite 124 Norman, Oklahoma 73069

College of Engineering
School of
Industrial Engineering

July 5, 1972

Mr. John E. Mahaffey, President
The Happy Company
5500 East Independence
P. O. Box 770
Tulsa, Oklahoma 74101

Dear Mr. Mahaffey:

An important purpose of the University of Oklahoma is to assist the business and industrial community of the state wherever possible. Our School of Industrial Engineering does this through instituting research projects designed to produce new and valuable information for various industries.

One of these research projects is currently under way. Mr. Chester Peek, a Doctoral candidate, is studying the organizational patterns of several hundred Oklahoma businesses. In particular he is attempting to develop information concerning the managerial pattern chief executives use during various stages of organization life. From the data collected, he hopes to identify the most profitable organizational system for certain business or industrial situations.

May we ask for your help? To confirm some of his findings, Mr. Peek needs to interview a small selected group of chief executives. The interviews will be held in your office and will take about 30 minutes of your time.

Of course all information will be confidential and no individual will be identified. A copy of this research effort will be available if you would like to have it.

I hope we can count on your help. Mr. Peek will be conducting his research in the Tulsa area on July 19, 20, 21. Could you see him on one of these dates?

Sincerely,

R. A. Shapiro

R. A. Shapiro, Ph.D.
Director

RAS:mw

APPENDIX D

Norman, Oklahoma
June 28, 1972

Mr. Don Adams, President
Adams Hard Facing Company
503 N. Elm Avenue
P.O. Box 1031
Guymon, Oklahoma 73942

Dear Mr. Adams:

An important purpose of the University of Oklahoma is to assist the business and industrial community of the state wherever possible. Our School of Industrial Engineering does this through instituting research projects designed to produce new and valuable information for various industries.

One of these research projects is currently under way. As a Doctoral candidate, I am studying the organizational patterns of Oklahoma businesses. In particular I am attempting to develop information concerning the managerial pattern chief executives use during various stages of organization life. From the data collected, I hope to identify the most profitable organizational system for certain business or industrial situations.

On the pages following you will find questions which are considered important from a research point of view in determining "How an executive really functions as opposed to theory." We would greatly appreciate your assistance in this task by answering them to the best of your ability. The time necessary to complete it would be less than 20 minutes.

Please be assured of the complete confidentiality of your responses. They are only to be used as research statistical data, and will not be released to anyone, nor left in an unsecure place. If you desire, a copy of the statistical results will be mailed to you when the project is completed.

Sincerely,

Chester L. Peek

CLP:mp

APPENDIX E

A NOTE CONCERNING CHART IV

It was recognized by the author that by ranking the respondents in a continuum and then arbitrarily dividing them in groups of twelve; a rectangular distribution was forced which decreased the validity of the Chi-Square tests. However, the data was arranged in this manner in an attempt to discover any possible relationships.

This arbitrary assignment into life-phase categories without question influenced the statistical results. As can be seen from the scatter diagram, Chart V, the respondents fell into a heavily center-loaded plot. The assumed homogenity of this data was given a rank order division into quartiles, but this reduced the ability of the experimental design to discriminate in a statistically significant sense.

This measure was employed because of two constraints. First, as stated in Chapter V, page 83, the available respondents were practically exhausted by the time forty-eight had been interviewed. This precluded any possibility of a preselection arrangement which insured twelve respondents in each life-phase. Second, it became apparent, as the data was being analyzed, that few respondents could be expected from States I and IV. Stage I respondents would normally not yet be listed in any directory, since the compilation of such a list takes twelve to eighteen months, a period normally considered as the length of the inception life-phase. Stage IV quite possibly takes place in a relatively short span of time, thus reducing the possibility of chance inclusion into the sample.

However, several in-depth analyses of Stage I firms have been observed by the author. In these cases, the chief executive always exhibited a completely authoritarian management style, which supports the hypothesis. Experiences of the author's Advisory Committee members confirmed this observation.

Also, current periodical references associated with Stage IV management actions were considered to be the only available way to analyze the phenomenon of "Decline." The references cited in Chapters IV and V provided substantial support for this portion of the hypothesis.