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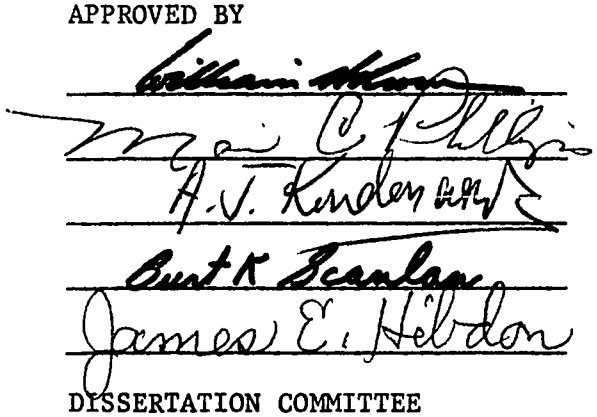

DISSERTATION COMMITTEE

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CHAPTER I

BACKGROUND OF THE PRESENT STUDY

Introduction

No one can deny the impact of modern, complex business organizations on the social and economic fibers of a nation. With the increasing awareness of the pervasive, ubiquitous nature of these organizations, interest has been generated both among the practitioners and the academicians alike to learn in a systematic fashion the nature of structure and behavior of these economic entities.

Since the end of the nineteenth century, one could see steady progress in the conceptualization of organization functions. Such conceptualizations formed the base for better explanations of why some organizations succeeded and others failed. As the attention of scholars was focused on the functioning of organizations, a start was made in formulating theories of general applicability.

Initially the effort was limited to study and explanations of organizational segments, such as production, marketing, and finance. As the research tools became more sophisticated, and as practitioners felt the inadequacy of partial analysis of organizational functions, the emphasis of research expanded to comprehend the total functioning of organizations. Contributions made by scholars such as Barnard and

Simon to depict the total organization from the manager's perspective are well acknowledged today.[1] These contributions made possible a beginning for the system approach to the study of the organization and its behavior.

Until the early 1950s academicians were analyzing the functions of the organization primarily in relation to internal variables such as size, technology, location, managerial strategies, and leadership style. The emphasis was on discovering a general behavior pattern of complex organizations that would optimize the efforts toward stated goal attainment. In these analyses active consideration was given only to some internal constraints.

In the last decade the notions of organization theory have undergone some fundamental changes. The shift from descriptive to analytical research has resulted in better explanations for consequences induced by different structural arrangements. Negandhi comments on recent trends in organizational research: "Clearly, current emphasis in the study of complex organizations is to empirically establish why different degrees of variation exist in the hierarchical structure of individual organizations and to examine how such differing structural relationships give rise to different consequences."[2] The emphasis has shifted from observing the organization as a "closed system" to conceiving the organization as an "open system" and trying to understand

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[1]Chester I. Barnard, The Functions of the Executive (Cambridge, Mass.: Harvard University Press, 1938); Herbert A. Simon, Administrative Behavior (New York: Macmillan and Company, 1947).

[2]Anant R. Negandhi, ed., Modern Organizational Theory (Kent, Ohio: The Kent State University Press, 1973), p. 1.

the impact of external environmental variables on organizational functioning, behavior, and effectiveness.

With the application of the systems concept to organizational theorizing, a great leap forward was made towards perceiving the organization in its totality and in its setting. A conceptual link was formed between the organization and its environment--internal and external. Concepts such as contingency behavior of organizations and management took on greater clarity, and these concepts have lent substantial impetus for more comprehensive researches in the recent times.

The complexity of present day organizations has forced academicians to take a closer look at the various aspects of organizational behavior. Depending on the bias of the individual researcher such efforts have produced a host of organization theories that claim to have explained particular organization behavior. According to Stogdill:

> Students of the organization are at present confronted with a situation in which numerous fragments of theory are presented as complete theories. It is often difficult to find any overlap between two different systems of variables. The systems developed by business organization theorists, behavior scientists, and operations researchers are likely to consist of widely different variables.[3]

Stogdill identifies 18 different sets of organization theories.[4] Professing total dissatisfaction with the diversity and apparent insularity of these various theories, Stogdill attempts to combine the various concepts into a viable general theory of organization that shows the

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[3]Ralph M. Stogdill, "Dimensions of Organization Theory," in James D. Thompson, ed., Approaches to Organizational Design; also reprinted in James D. Thompson and Victor H. Vroom, eds., Organizational Design and Research (Pittsburgh, Pa.: University of Pittsburgh Press, 1971), p. 3.

[4]Ibid., Table 1, p. 4.

linkage and dependencies of different variables that had been compartmentalized within separate theories of organization.[5] Stogdill depicts the linkage between various organizational theories which he has classified in six basic categories: classical theories, interbehavioral segments theories, input systems theories, output systems theories, personal-organizational relations theories, and organizational-environmental theories. This model is presented in Figure I-1.[6]

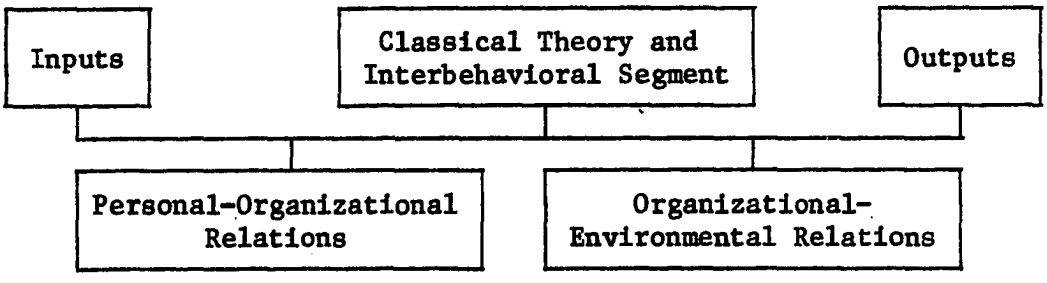

Figure I-1. Conceptual Model of Organizational Theories and Their Relationships. Source: Ralph M. Stogdill, "Dimensions of Organization Theory," in James D. Thompson, ed., Approaches to Organizational Design (Pittsburgh, Pa.: University of Pittsburgh Press, 1966), p. 6.

This conceptual model provides a bird's eye view of the totality of organization as a system and helps identify (in a rough and ready fashion) the area of interests for a particular theoretical approach to explaining organization behavior.

Lately many research efforts have been concentrated in the area of "organizational-environmental relations." Stogdill explains the concept of "organizational-environmental relations" in the following fashion:

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[5] Ibid.

[6] In the model Stogdill combines the classical and interbehavioral segment theories into a single category.

> An organization is in part a product of its physical and cultural environment. The physical environment and the nature of the resources available may place constraints upon the kind of activities in which the organization can engage. The societal environment may prescribe the aims and structure of organization, as well as the right to organize.
>
> An organization engages in an exchange with its environment. The physical media of exchange will be determined in part by the resources and materials provided by the environment and in part by the social value placed on the available materials by the members of the larger society.... The viability of an organization is firmly rooted in the relationship that it maintains with its environment.[7]

Stogdill conceptualizes a three-dimensional model of the "organizational-environmental relations" which is shown in Figure I-2. With such a multidimensional conceptual framework, one can understand why many scholars have attempted to analyze organizational behavior with an "organizational-environmental relations" approach.

As a direct consequence of the shift from the "closed system" to the "open system" perspective "contingency theory" concepts of organizations emerged. Negandhi describes the contingency theory concepts in the following terms:

> Very briefly, this theory, popularized via studies by Burns and Stalker, Woodward, and Lawrence and Lorsch, point to the fact that the organizational functioning, behavior, and effectiveness is contingent upon its surroundings, both internal and external, and that there is no one best way of organizing. These variables have been identified and operationalized in terms of organizational size, market and technological environments, differential personality profile of member participants and so forth.[8]

A comparison of this description of contingency theory and Stogdill's schematic model of "organizational-environmental relations" (Figure I-2) shows a great deal of similarity between the two. Only the terminology of the variables differs.

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[7] Ibid., pp. 40-41.

[8] Op. Cit., Negandhi, p. 2.

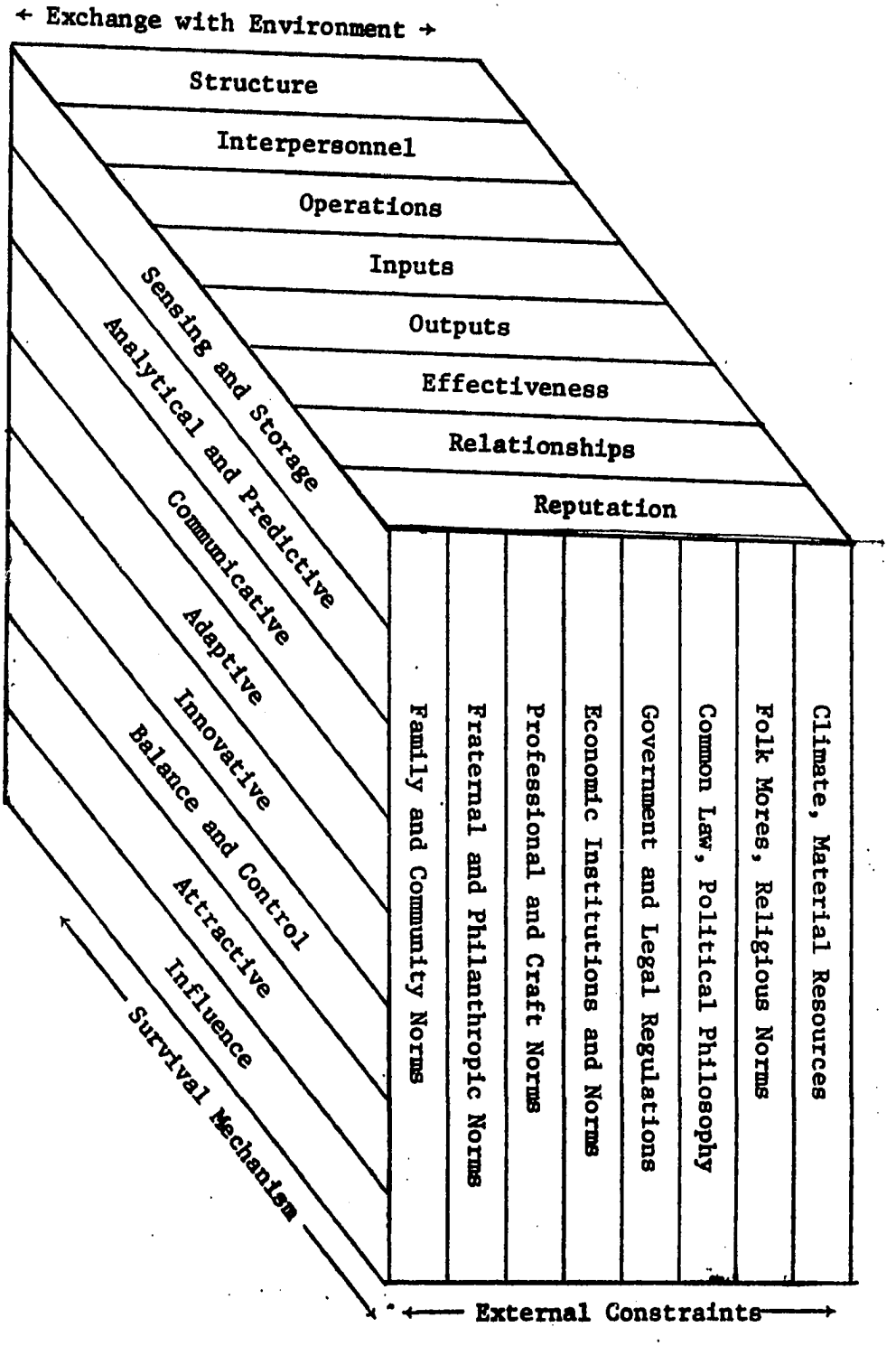

Figure I-2. Model of Organizational-Environmental Relations. Source: Ralph M. Stogdill, "Dimensions of Organization Theory," in James D. Thompson, ed., Approaches to Organizational Design (Pittsburgh, Pa.: University of Pittsburgh Press, 1966), p. 42.

With this almost cursory commentary on the evolution of some aspects of organization theory, we can turn to general statements of the purpose of this study, the research design and the expected findings.

Purpose of the Study--A General Statement

The present study is an empirical and comparative analysis based on prior researches using contingency theories; its purpose is to determine whether there are any noticeable differences in the emerging pattern of relationships among variables affecting the external and the internal environments of organizations. This exploration study has been designed to analyze the contingency nature of interdependencies between organization's contextual and environmental variables. The intent to cast this present study within a contingency theory framework arose from the author's interest in this relatively recent approach to organizational behavior. The relatively recent origin of contingency theories of organizational behavior suggests that there is ample scope for empirically testing the validity of various concepts proposed in the contingency theory domain.[9] This was precisely the reason for undertaking this particular project.

Furthermore, this study is comparative in nature. In describing the purpose of comparative studies in social sciences Burns stated:

> Comparative study is the fundamental sociological method.... This is true even for research which has a single community, tribe, or organization as its subject.... In all this, comparison is

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[9] Emphasizing the need for better organizational theories Stogdill stated that "a complete theory tends to stimulate systematic and exhaustive research. It would therefore seem desirable to strive for completeness in theory development." Op. Cit., Stogdill, Approaches to Organizational Design, p. 5.

> fundamental, if implicit.... The difference is all important. It reflects the obligation to explain.
>
> Comparative studies fall clearly on the diagnostic side of the dichotomy proposed...for social research--the other side consisting of model-construction. In other words, comparative studies are concerned with the answer to the question "what is it?" rather than to "how does it work?"...
>
> The praxis of comparative studies is therefore to criticize or question assumptions about the meaning of behavior, and claims about the value of achievements.[10]

Given such a notion of comparative framework, the present study can be conceived as being comparative at two levels. First, the theoretical base of this study is founded upon the researches conducted by Lawrence and Lorsch, Negandhi and Prasad, Negandhi and Reimann, and Reimann.[11] Therefore, it is essentially a comparison between the findings of these particular researchers and the findings expected of this particular project. Second, the research design of this present study is based on an extrapolation of separate designs used by the above scholars, and therefore it is different from the researches cited. The present comparison is being conducted between one group of companies that is wholly domestic and another group that has operations overseas. Thus, the scope of comparison is being extended into the realm of international business. This is the second level of comparison.

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[10]Tom Burns, "The Comparative Study of Organizations," in Victor H. Vroom, ed., Methods of Organizational Research (Pittsburgh, Pa.: University of Pittsburgh Press, 1967); also reprinted in James D. Thompson and Victor H. Vroom, eds., Organizational Design and Research (Pittsburgh, Pa.: University of Pittsburgh Press, 1971), Part II, pp. 113-114.

[11]Paul R. Lawrence and Jay W. Lorsch, Organization and Environment (Homewood, Ill.: Richard D. Irwin, Inc., 1969).

A. R. Negandhi and S. B. Prasad, Comparative Management (New York: Appleton-Century-Crofts, 1971).

A. R. Negandhi and B. C. Reimann, "A Contingency Theory of Organization Re-Examined in the Context of a Developing Country," Academy of Management Journal, Vol. 15, No. 2 (June, 1972).

B. C. Reimann, "Management Concern, Context, and Organization Structure" (Ph.D. dissertation, Kent State University, 1972).

The major thrust of the contingency theories of organizational behavior pertains to the interdependencies between various contextual, environmental and socio-cultural variables and the consequences of those interactions on the organizational functioning, behavior, and effectiveness.[12] Nowhere are these interdependencies among these variables as explicitly evident as in the functioning of business enterprises within the international environment. It is the opinion of this author that the understanding of the contingency behavior of organizations will be sharply heightened if the applicability of contingency theories is analyzed within the international milieu. The international environment provides an ideal laboratory setting for observing the amplified interactions of numerous variables which would otherwise be impossible to achieve in a purely domestic surrounding. Thus, in essence, this research is intended to explore (implicitly) the existing knowledge of international business operations in order to provide a better understanding of the nature of contingency behavior of organizations. To the extent this goal is achieved, the understanding of organizational behavior in an international environment will also be increased.

Before we can delve into the nature of contingency behavior and the description of particular studies on which this research is based, we need to understand the nature of international business operations: its history and the relevant economic and management theories. Chapter II has been specifically prepared to provide this overview of international business.

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[12] Op. Cit., Negandhi, Modern Organization Theory, p. 2.

Purpose of the Study--A Specific Statement

This study extrapolates the research models and methodologies of four previous studies on contingency behavior of organizations. The intent of this study is to operationalize a unique research model for verifying the predicted contingency behavior of four selected organizational variables. Verification of predicted interaction pattern of these organizational variables would strengthen the foundations of contingency theories of organization behavior.

Based on a review of the literature on contingency theory of organization behavior, four variables have been selected to represent the interdependencies between the organization and its environment. These four variables are: (1) organizational environment, perceived along the dimensions of certainty-uncertainty continuum; (2) management concern for task environmental agents; (3) organization structure, as measured along the operationalized dimensions of formalization and decentralization; and (4) organizational effectiveness.[13]

A schematic representation of the four variables and the relationships to be explored in this study is depicted in numbered sequence in Figure I-3.

In Figure I-3 relationships numbered 1, 2, 3, and 4 have been depicted by solid lines and indicate the interdependencies that will be explored in the present research. Relationships numbered 5 and 6 have been shown by broken lines to indicate that these relationships will not be explored in the present research. Lawrence and Lorsch have

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[13] A detailed description of these four variables and the theoretical concepts which support them are presented in section 3 of Chapter III.

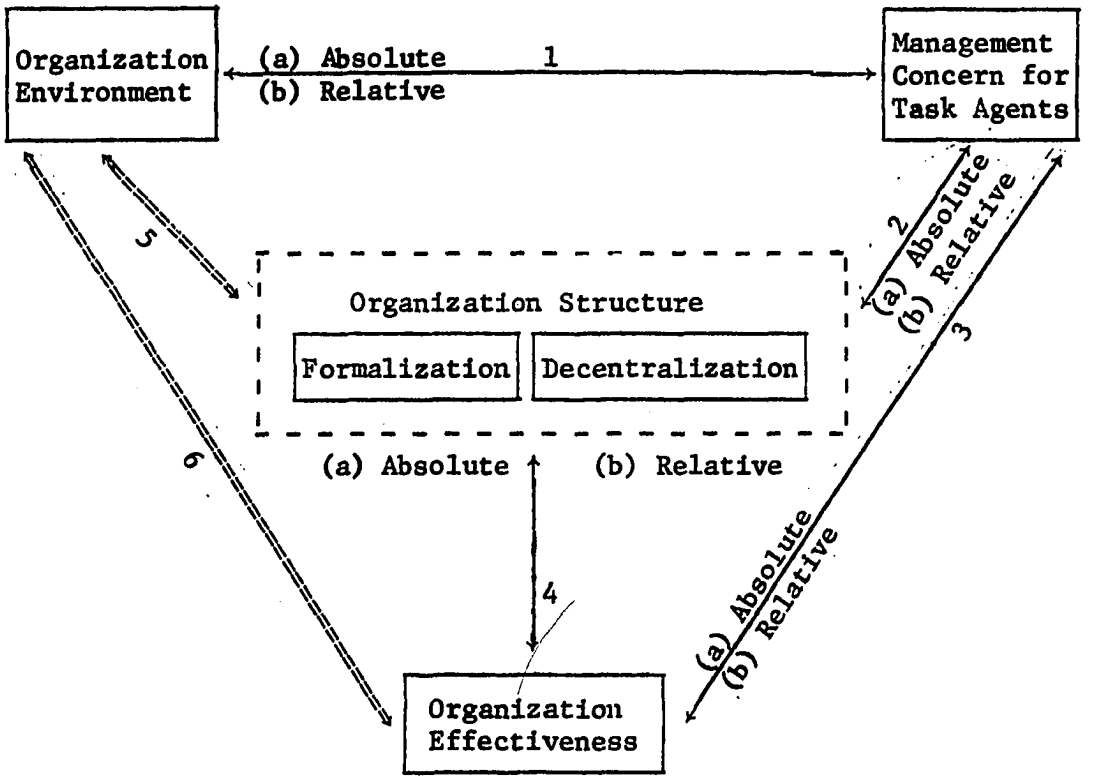

Figure I-3: Research Model

extensively explored the nature of these interdependencies; further effort in this direction would be redundant and would not add materially to the other findings of the present study.

Each of the relationships is to be considered on two levels--absolute and relative.[14] In absolute terms, all organizations in the sample will be treated as a single group in an effort to determine whether any relationships exist between the pairs of variables. If the expected relationships are found, the notions of contingency behavior of organizations will be supported and a statement describing a general

[14] A detailed description of the research model and the methodological considerations associated with it are presented in Chapter IV.

relationship between these organizational variables and consequent behavior for the sample firms can be posited. In relative terms, this is a comparative study to determine whether the organizational behavior of companies with overseas operations differs significantly (in terms of the interactions of these four variables) from the organizational behavior of companies with wholly domestic operations. Any differences which may be found will provide an insight into the nature of international business operations. With the recent growth of multinational firms this insight should be appropriate and timely for a better understanding of the organizational processes.

Research Questions

The relationships depicted in Figure I-3 constitute the basis of this empirical study which is designed to explore the following research questions.

1. (a) At an absolute level, what relationship, if any, exists between the ranked variables of organization environment and management concern for task agents for all organizations in the sample?

1. (b) At a relative level of interdependency what relationship, if any, exists between the ranked variables of organization environment and management concern for task agents for companies in each separate sample group? Is there any noticeable difference in the degree of such relationships between the two sample groups?

2. (a) At an absolute level what relationship, if any, exists between the ranked variable of management concern on one hand and the ranked variables of formalization and decentralization on the other, for all organizations in the sample?

2. (b) At a relative level of interdependency, what relationship, if any, exists between the ranked variable of management concern and the ranked variables of formalization and decentralization, for companies in each separate sample group? Is there any noticeable difference in the degree of such relationship between the two sample groups?

3. (a) At an absolute level what relationship, if any, exists between the ranked variables of management concern for task agents and organization effectiveness for all organizations in the sample?

3. (b) At a relative level of interdependency, what relationship, if any, exists between the ranked variables of management concern for task agents and organization effectiveness for companies in each separate sample group? Is there any noticeable difference in the degree of such relationships between the two sample groups?

4. (a) At an absolute level what relationship, if any, exists between the ranked variables of formalization and decentralization on one hand and the ranked variable of organizational effectiveness on the other, for all organizations in the sample?

4. (b) At a relative level of interdependency, what relationship, if any, exists between the ranked variables of formalization, decentralization on one hand and the ranked variable of organizational effectiveness on the other, for companies in each separate sample group? Is there any noticeable difference in the degree of such relationship between the two sample groups?

Expectation of Findings

The research questions posed above have been formulated with some implicit expectation of probable findings. After all, a research

study is conceptually based on previously accumulated theories, hypotheses, or research studies, and is expected to answer questions (or prove or disprove hypotheses) that are relevant to theoreticians, students, or practitioners of the particular field of knowledge. Essentially, this implies an expectation of results in the mind of the researcher that forms the basis for a priori evaluation of the contribution to knowledge.

Within such a framework of thought, this study is expected to discern the following relationships for each of the research questions posed above.

1. (a) Organizations operating in an environment of greater uncertainty will show a greater correlation with higher degree of management concern for task agents. In the Negandhi and Reimann study (conducted with 31 companies in India) a significant relationship was found to exist between organization environment (measured along competitive-noncompetitive continuum) and management concern for task agents.[15] This researcher feels that a similar relationship will exist between organization environment measured along certainty-uncertainty continuum and the management concern variable.

1. (b) International companies will exhibit a higher degree of correlation between the variables of organization environment and management concern for task agents than companies operating in the domestic market. Aharoni showed that, due to uncertain environmental conditions existing overseas, the companies with international operations

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[15] Anant R. Negandhi and Bernard C. Reimann, "Task Environment, Decentralization, Organizational Effectiveness," Human Relations, Vol. 26, No. 2 (Jan/Feb, 1973), pp. 203-214.

paid more attention to such task agents as government, customers, unions, and employees before making any new or additional investments.[16] The present researcher feels that greater uncertainty, or perception of uncertainty, on the part of the management of international companies will make them more conscious of task environmental agents, as opposed to domestic companies operating in the national markets.

2. (a) Organizations exhibiting a higher degree of management concern will be correlated with a lower degree of formality and greater degree of decentralization. The studies of Negandhi and Prasad (conducted in India) between local companies and companies with parent organizations in other countries showed a considerable degree of correlation between these variables in the direction mentioned above.[17] In the studies both by Negandhi and Reimann and by Reimann above, similar significant relationships were noted.[18]

2. (b) Companies operating in international markets will have a higher degree of correlation between the management concern variable on one hand and the formalization and decentralization variables on the other. The direction of the relationship will be in the same direction as shown in 2(a). The rationality of such expectation is based on research of Negandhi and Prasad and on the theories of comparative management.[19] Scholars of international management have shown that

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[16]Yair Aharoni, The Foreign Investment Decision Process (Boston, Massachusetts: Division of Research, Graduate School of Business Administration, Harvard University, 1966).

[17]A. R. Negandhi and S. B. Prasad, Comparative Management (New York: Appleton-Century-Crofts, 1971).

[18]Op. Cit., Negandhi and Reimann, "Task Environment."

[19]Op. Cit., Negandhi and Prasad, Comparative Management.

after the initial entry into the foreign market, complexity of environmental variables will force the organizations to pay greater attention to the task environmental agents, and will consequently lead to the establishment of decision-making units abroad to be able to cope with the needs of urgency.[20] The progressive decentralization of expanding domestic organizations also holds true.[21] This researcher feels that due to the perception of greater need of concern for task agents by the management of international companies, decisions will be made to have more decentralized and less formal organizations. Thus, relationship of these variables posited in 2(a) will hold true, but by a greater degree in companies with international operations.

3. (a) Organizations showing greater concern for task environmental agents will be correlated with higher organizational effectiveness. Such a relationship is shown to be existing in the 30 companies studied by Negandhi and Reimann. A similar relationship was also reported by Negandhi and Prasad.

3. (b) International corporations will show a higher degree of correlation between the management concern for task agents and organizational effectiveness than companies operating solely in the domestic market. The direction of the relation will be the same as shown in 3(a). The rationale for such anticipation is based on previous

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[20]Lawrence E. Fouraker, and John M. Stopford, "Organizational Structure and the Multinational Strategy," in A. Kapoor, and Phillip D. Grub, eds., The Multinational Enterprise in Transition (Princeton, N.J.: The Darwin Press, 1972), pp. 105-117.

[21]Alfred D. Chandler, Jr., Strategy and Structure (Cambridge, Mass.: The M.I.T. Press, 1962).

research and theories of international management.[22] It has been suggested and shown in studies of international companies that for any kind of successful operation overseas, there is urgent need for careful evaluation of local environment, particularly that of host government, labor union, and consumers.[23] Based on this knowledge the present researcher feels that companies with overseas operations will tend to show greater degree of correlation between the variables of management concern and organization effectiveness.

4. (a) Organizations with higher degree of decentralization and lower degree of formality will have a significant correlation with high organizational effectiveness. This expectation is based on the findings of Lawrence and Lorsch, Negandhi and Prasad, Negandhi and Reimann, and Reimann. In the Lawrence and Lorsch study a significant relationship was established between lower degree of formalization of structure and higher degree of organizational effectiveness. In the other three studies mentioned above, a significant relation was also noted between higher decentralization and higher effectiveness. In this research design, measures of both formalization and decentralization are to be obtained. A similar directional relationship is therefore posited for these three variables.

4. (b) The international organizations will exhibit a higher degree of correlation between the lower formalization and greater

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[22]For an excellent discussion of relation between organization environment and organization effectiveness see R. N. Farmer and B. M. Richman, Comparative Management and Economic Progress (Homewood, Ill.: Richard D. Irwin, Inc., 1965).

[23]Roy Blough, International Business: Environment and Adaptation (New York: McGraw-Hill Book Company, 1966).

decentralization variables on the one hand, and greater organizational effectiveness on the other, than organizations with domestic operations. The direction of the relationship will be the same as shown in 4(a). Studies of international organizational structure have shown progressive decentralization is a good strategy in order to effective.[24]

Contribution of the Proposed Research

The present research has been designed primarily to provide additional evidence to support the findings of prior researches (conducted in the area of contingency behavior) so that certain degree of generality can be ascribed to such results. Moreover, in this research an effort has been made to extend the concepts of contingency behavior to the field of international management in an explicit manner. It is hoped that findings from this study will be a small contribution toward a general theory of contingency behavior of organizations. In discussing the process of development of theory, Halbert stated:

> There are two parallel lines of development that usually coalesce to force the development of theory in any particular area. One of these lines is the intensely practical desire to improve the performance of any operation. The ideas and notions developed under this pressure are usually not associated with the name "theory" or "concept" or "natural law," but rather with phrases like "understanding the operation," "knowing how it works," or "developing the skills involved in operating the system." ... The other line of development that leads to theory is the one more associated with the term, and this stems from the intellectual curiosity of the theorizer. There seems to be (in humans at any

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[24] More than a decade ago an article advocated a relationship of decentralization and effectiveness in relation to overseas operation. See Gilbert H. Clee and Alfred diScipio, "Creating a World Enterprise," Harvard Business Review, (November-December, 1959), pp. 77-98. More recently another article in the HBR projected the same view. See James K. Sweeney, "A Small Company Enters the European Market," Harvard Business Review, (September-October, 1970), pp. 126-133.

> rate) a more or less pronounced desire to organize the world, and understood--understood with the fewest concepts and rules that can be made sufficient.... Thus, the conventional theorist is impelled by his dislike of chaos rather than by any pragmatic desire for improved performance. However, it has been proved repeatedly, to the embarrassment of both groups, that the practical operator is often theoretical and conceptual, and that the abstract theorizer is often intensely practical.[25]

In the same article Halbert cites three advantages which result from formulated theories: quicker decisions, more correct decisions, and less costly decisions.[26] More than two decades ago Alderson and Cox in their pioneering article "Towards a Theory of Marketing" described the growing trend for theorizing as a result of few available significant generalizations in marketing thought. Improvements of theory, they believed, required statement of more meaningful problems, assembly of relevant facts, careful description and classification, formation of significant hypotheses, and verification of hypotheses.[27] Such statements are as true today as they were in 1948, not only for marketing, but for all areas of knowledge where new information is being constantly added to the existing body. In such a context it is the expectation of the author that the findings of the present empirical study will add meaningful information to the body of knowledge known and classified as contingency theories. As Halbert expressed earlier, good theories are practical theories. That is, they are easily translatable into routines for practical applications. It is also the hope

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[25]Michael H. Halbert, "Marketing Theory and Marketing Science," in Jerome B. Kernan and Montrose S. Sommers, eds., Perspective in Marketing Theory (New York: Appleton-Century-Crofts, 1968), pp. 58-59.

[26]Ibid., p. 68.

[27]Wroe Alderson and Reavis Cox, "Toward a Theory of Marketing," Journal of Marketing (October, 1948), pp. 137-152.

of the researcher that the findings of the present research would provide the practicing managers with specific guidelines for decisions and actions in terms of the four variables selected.

More specifically, if the expected findings are corroborated by the actual results, the following practical guidelines for management would seem appropriate:

1. The more uncertain the organizational environment the greater would be the necessity for management to pay more attention to the needs of task agents in the organization environment. The rationality of this argument is easy to comprehend. The more uncertain the market for a particular organization the greater is the need to secure cooperation of all agents in the environment for success of operations.
2. The greater the concern shown for environmental task agents (partially stemming from uncertain market environment), the greater would be the pressure to reduce formalization and to increase decentralization of the organization structure. Given the dynamic and uncertain nature of the environment and a diverse group of task agents, rapid changes occurring within this milieu need to be absorbed and acted upon without undue delay. It would be greatly dysfunctional to postpone or delay action in order to adhere to formal organizational requirement of processing all information input from the field to some centralized decision making unit in each and every instance. Opportunities missed for taking rapid action may prove detrimental to overall organization effectiveness.
3. Greater concern shown by the management for the environmental task agents would result in greater support and more cooperation extended

by these agents to the organization. Ultimately this would lead to more effective goal achievement. Also, the decisions made by the management within the context of concern for task agents would insure optimality of the decisions. This would enhance overall effectiveness.

If the results obtained from the present research help provide the necessary decision making guidelines for business managers, then the effort spent on this research would be deemed worthwhile.

CHAPTER II

THEORIES OF INTERNATIONAL BUSINESS OPERATIONS

Introduction

The growth of international business has been one of the most important economic developments of the post war period. Statistically speaking, trade and investments across international boundaries have acted as a major catalyst for increased growth in the world production since World War II. In a broader sense, the role of international business during the decades of the '50s and '60s has been instrumental in shaping the economic world of the '70s. Some of the visible results are the resurgence of Japan as a major economic power, closer economic links between the United States and the rest of the world, and a working economic integration of western Europe.

Buried underneath the economic statistics and financial statements lies the fact that business enterprises all over the world have become increasingly active outside their own national boundaries. Companies that formerly concentrated their activities entirely within the domestic boundaries have gradually expanded their operations overseas through the successive stages of filling unsolicited orders from the production in the home country to setting up distribution networks overseas, and finally to building plants and operations in other

countries. Coordination of plans and policies to achieve worldwide integration of operations are being widely pursued. Strategies have been refined and reorganization plans have been activated to compete more effectively on a worldwide basis. Coordination of business activities on a global scale has required the restructuring of corporate organizations. Patterns of control have been modified and new systems introduced, to gain the mixture of centralized and decentralized authority considered most beneficial to the corporation as a whole, and to the constituent units.

The increase in business activities transcending national boundaries has caused students of business administration to recognize the need to evaluate critically the existing theories of management. All existing management theories are being scrutinized to verify their applicability in the complex environmental situations that are found in international operations. Such examinations cannot be conducted with any degree of rigor unless the researcher is aware of the nature of international business and the various theories of international operations. This chapter contains a brief review of the theories of international operations which will furnish a general understanding of these activities and will also show the complexity of situational variables that requires a contingency approach to solving the organizational problems.

The three sections of this chapter present: a brief history of international business; a description of the various economic theories of international trade and investment; and a summary of management theories especially concerned with conducting business overseas.

History of International Business

International companies are not a recent phenomenon. Some scholars claim to have traced the origins of international trading companies to the activities of the Mesopotamians nearly 6,000 years ago. The large trading companies of Europe conducted flourishing international trades under the protection and patronage of influential merchant guilds in the twelfth and thirteenth centuries. The period of mercantilism (operating approximately from 1500 A.D. to the beginning of industrial revolution in late eighteenth century) was largely responsible for establishing the national and economic policies of Western Europe. The famous East India Company that at one time ruled India was established in 1600. In the nineteenth century companies from England, the United States, and several other European countries were conducting vast international trading organizations. Some of these companies were also involved in running public utilities and transportations in foreign countries, while others (primarily from Britain and the United States) were mainly involved in extracting raw materials and natural resources from Latin America, Asia, Africa and Australia on a massive scale.

Reasons for Overseas Investments

The beginnings of modern day international direct investments can be traced as far back as the 1860s, when entrepreneurs began actively to establish manufacturing plants in foreign countries. Frederick Bayer, who established a chemical plant near Cologne in 1863, obtained shares in a plant near Albany in New York state in 1865.[1] Alfred Nobel,

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[1]Christopher Tugendhat, The Multinationals (New York: Random House, 1972), p. 12.

the Swedish inventor of dynamite, set up a plant in Hamburg, Germany around 1866. And in 1867 the Singer Sewing Machine Company of United States established its first factory overseas when they built a plant in Glasgow, Scotland.[2]

The reasons for venturing overseas were as varied as the personalities of the entrepreneurs who established the business. But certain patterns are distinguishable through this jumble of personal reasons, some political, others mostly economic. The manufacturing industries were becoming larger and mass markets were developing rapidly. Improved means of transportation and communication resulted in better control of subsidiaries or branch plants. These earlier entrepreneurs were soon aware of potential cost reductions which could be realized by producing goods near the overseas mass markets instead of transporting both raw materials from distant sources and bulky products to distant markets. It was precisely for this reason that Singer Company decided to establish a manufacturing plant in England, and Bayer obtained shares in a plant in the United States.[3]

Political considerations also resulted in decisions to establish operations overseas. Business entrepreneurs realized early that the supply of local needs from plants operated by local managers was a more prudent arrangement than to engage in straight export. The Westinghouse Air Brake Company decided to establish a plant in France when it discovered the enforcement of stipulations in railway contracts that

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[2]Mira Wilkins, The Emergence of Multinational Enterprise (Cambridge, Mass.: Harvard University Press, 1970), p. 36.

[3]Ibid.

parts and materiel were to be supplied from local plants.[4] Edison constructed a plant in Germany when he realized that local suppliers were being preferred over imports. Host government policies on matters of patent protection also induced many corporations to set up operations in those countries.

The movement of companies to foreign countries was greatly accelerated due to the spirit of protectionism that started to manifest itself in the national policies of various countries in the last quarter of the nineteenth century. To protect their local industries the host governments began imposing high import tariffs. In other instances these tariffs were levied exclusively to encourage foreign companies to set up plants in the country. Such was the case in Canada where that government wanted U.S. companies to establish plants in Canada manned by Canadian nationals rather than to ship in goods which had been fabricated in the U.S.

The effect of tariff in decisions to set up operations in foreign countries is clearly evident in the following statement made by William Lever in 1902, founder of the Lever Brothers Corporation:

> The question of erecting works in another country is dependent upon the tariff or duty. The amount of duties we pay in soap imported into Holland and Belgium is considerable, and it only requires that these shall rise to such a point that we could afford to pay a separate staff of managers with a separate plant to make soap to enable us to see our way to erect works in those countries. When the duty exceeds the cost of separate managers and separate plants, then it will be an economy to erect works in the country so that our customers can be more cheaply supplied from them.[5]

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[4] Op. Cit., Tugendhat, p. 13.

[5] Charles Wilson, The History of Unilever: A Study in Economic Growth and Social Change, Vol. 1 (New York: Frederick A. Praeger, 1968), p. 99.

Thus, for a variety of reasons, the need to establish operations overseas became more and more apparent. This internationalization of business operations necessitated constructing of theories with explanatory powers. Before summarizing into the various economic and organizational theories of international business, it is required that the differences between two types of investments and the historical process of transition between the two be clearly understood.

Types of Investments

The nature of investments overseas were of two distinct types--the portfolio investment, and direct foreign investment. Just before the outbreak of World War I, Great Britain had approximately £4 billion in overseas investments, while for Germany and the United States the figures were approximately £1.2 billion and £0.6 billion, respectively. But a major portion of these sizable investments were in the form of portfolio holdings. Of the £4 billion British overseas investments, for example, some forty percent were in the shares of foreign or imperial railway companies, thirty percent in government and municipal bonds, ten percent in raw materials, and eight percent in banking and finance.[6] In discussing the nature of portfolio investments in general and the British overseas investments in particular, Tugendhat states:

> These were portfolio investments undertaken for the purpose of financial gain. They did not involve control of the operation in question, as the history of the U.S. railroad companies, much of whose stock was owned by Britons, so amply demonstrates. Nor did they involve ownership of physical assets, except in cases of default.[7]

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[6] Op. Cit., Tugendhat, The Multinationals, pp. 10-11.

[7] Ibid., pp. 10-11.

In contrast to portfolio investments, direct investments usually involve control, in one way or another, of the foreign enterprises by the investor.[8] Among the unique special features of direct investment is the fact that direct investment is usually accompanied by technology, management, and control.[9] Different theories of direct foreign investment, based on the conceptual differences between portfolio and direct investments, will be presented in the next section of this chapter.

The history of international business enables us to perceive a distinct pattern in the trends of these two types of investments. In 1914 the total amount of United States portfolio investments was small in comparison to direct investments. In the twenties, the two types of investments moved parallel to each other. In the thirties, there was a slight decline of direct foreign investment while portfolio investment dropped sharply. In the post-war period there has been a rapid expansion of United States direct foreign investment as well as the increased inflow of portfolio investments in the United States from other countries.[10]

The second distinction that needs to be made about international investments is based on the orientations of such investments. Investments, portfolio or direct, were made to increase profitability either

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[8]Stephen Hymer, "The International Operations of National Firms: A Study in Direct Investment" (unpublished Ph.D. dissertation, M.I.T., 1960), p. 11.

[9]Charles P. Kindleberger, American Business Abroad--Six Essays on Direct Investment (New Haven, Connecticut: Yale University Press, 1969), p. 2.

[10]Op. Cit., Hymer, pp. 12-13.

through the acquisition of raw materials and natural resources or through enlarged market for products. These historical orientations of international investments are basically interrelated. Operations may have been started abroad for the purpose of increasing sales using local labor and raw materials. On the other hand, business established for the purpose of resource exploitation in a foreign country may have led to a creation of market for company products. This differentiation between resource oriented and market oriented international venture may help identify the primary purpose of the enterprise and the subsequent results of activities undertaken on this basis. This distinction may also help to identify the initial overseas geographic location of United States corporations that were involved in direct foreign investments. Wilkins states that the underdeveloped state of transportation and communication caused businessmen seeking investments in natural resources to invest in nearby areas, such as Canada, Mexico and the Caribbean.[11] However, the market orientation played a more dominant role in the early days of international business primarily because it required relatively little investment compared to the exploration and exploitation of natural resources.[12] As we shall see later, the market orientation of international investment was primarily responsible for the eventual emergence of international, and later the truly multinational, companies.

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[11] Op. Cit., Wilkins, p. 36.

[12] Ibid.

Emergence of Direct Foreign Investment

In the first half of the nineteenth century "portfolio" investments seem to have been the primary investments for overseas activities. Nurkse and others have described how this type of investment held a dominant position in overseas investment activities of Britain and other countries.[13]

However, the direct foreign investment, with accompanying elements of control and coordination was visibly on the ascendency in the last quarter of the nineteenth century.[14] As direct investment in overseas market increased, the focus of such investment also shifted from extractive industries to industries employing mass production technology. Samuel Colt set up a branch plant in London in 1852 which may have been the "first foreign 'branch plant' of any American company."[15]

We have seen earlier that the spread of foreign direct investment was not confined to the United States alone. Companies like Bayer (German), Lever Brothers (British), and Royal Dutch/Shell (British and Dutch) were in the forefront of such movement. However, the entrepreneurs from the United States were vigorously looking for investment opportunities. In the last quarter of the nineteenth century the United

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[13] Ragnar Nurkse, Problems of Capital Formation in Underdeveloped Countries and Patterns of Trade and Development (New York: Oxford University Press, 1967); also Raymond Vernon, Manager in the International Economy (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1968); and Mira Wilkins, The Emergence of Multinational Enterprise.

[14] Ibid., Nurkse, pp. 167-68.

[15] Op. Cit., Wilkins, p. 30.

States was fourth largest supplier of world capital.[16] By 1914 the United States long term investment was $3.5 billion, out of which $2.6 billion was in the form of direct investments, and $0.9 billion as portfolio investments.[17] However, the funds invested in the United States during the same period showed almost a reverse trend. The following statement paints a vivid picture of the situation.

> Of the total amount of foreign funds invested in the U.S. before World War I, less than 20 percent was in direct investments, the rest in portfolio securities. On the contrary, of the United States investments, 75 percent represented direct investments and only 25 percent, the portfolio type.[18]

The outbreak of World War I disrupted the expansion of foreign investments. Although the international investments in terms of the dollar increased by approximately 20 percent between 1914 and 1929, the real value of those investments declined due to an approximately 25 percent decline in the value of the U.S. dollar.[19] With the coming of the great depression all foreign investments came to a grinding halt and the value of investments fell below the pre-World War I level.[20]

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[16] W. S. Woytinsky and E. S. Woytinsky, World Commerce and Governments: Trade and Outlook (New York: The Twentieth Century Fund, 1955), pp. 190-91.

[17] Op. Cit., Wilkins, p. 110.

[18] Op. Cit., Woytinsky, p. 194.

[19] Ibid., p. 205.

[20] Only after the cessation of hostilities of World War II did the impetus to foreign investments gather steam once again. In this period between depression and WWII, when business investment overseas was at its nadir, the United States consolidated its knowledge of production technology and management and added further refinements to the concepts of organization theories that provided the essential knowledge resources for all-out effort in direct foreign investments immediately after WWII. Such an effort was successful in establishing the United States as a leader in the international investment field.

Investments in the Post War Period

At the end of World War II, the government-sponsored reconstruction plans of Europe and Japan boosted the opportunities for direct investments. United States, with a wealth of capital and technological know-how was in an ideal position to assist the war-drained economies of Western Europe and Japan. From a low figure of $7.2 billion in 1946 the U.S. investment overseas soared to a level of $44.4 billion in 1964.[21] The total value of U.S. production abroad in 1966 was approximately $110 billion, while during the same year the total value of all products and services exported from the United States amounted to $43 billion.[22] This gives us an idea of the importance of the U.S. investment overseas.

According to Moyer, the faster sales growth rate of U.S. operations abroad than in the United States is attributable to four specific causes: the economic growth rates of these other countries were greater than the United States in recent years; the ability of the U.S. corporations to secure a large market share at the expense of the foreign competitors; the higher rate of inflation abroad may have reflected an apparent increase in sales of the foreign operations; and the U.S. firms operating overseas may have shifted their production bases of these operations either to exporting the products back to the United States or to supplying third countries.[23]

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[21]Raymond Vernon, Manager in the International Economy (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1968), Table IX-1, p. 169.

[22]Robert Heilbroner, "The Multinational Corporation and the Nation State," The New York Review of Books, Vol. XVI, No. 2 (February 11, 1971), p. 21.

[23]Reed Moyer, "Foreign Investment Grows, Changes, Prospers," Columbia Journal of World Business, Vol. III, No. 2 (Mar-Apr, 1968), pp. 60-61.

The significant increase in overseas direct investments of U.S. companies may also have been facilitated by the following factors according to Wert.[24] First, the U.S. dollar earned a "hard" currency status immediately after World War II. This increased the acceptability of the U.S. dollar in the international market. Countries needing reserves of U.S. dollars encouraged the flow of U.S. investments. Second, the U.S. trade surplus may have been instrumental in expanding the scope of investments. As exports and sales of U.S. products increased in foreign countries, companies manufacturing such products were encouraged to set up networks of distribution and service facilities near the markets, and these sales and distribution networks may have induced the companies later to establish manufacturing activities. This has been particularly true of technology-intensive products in which the United States had a competitive edge. Third, after WWII the U.S. Government policy of containment of Communism may have helped in inducing business enterprises to expand overseas. The aids given by the United States to various war-devastated countries resulted in the movement of U.S. based corporations to those countries.[25]

According to Vernon "as a whole, the foreign subsidiaries of U.S. corporations report sales amounting to only a little over one-tenth of the sales of their parents. But the foreign subsidiaries of the larger U.S. corporations have generally accounted for higher proportions."[26] Thus, large oligopolistic corporations had proportionately

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[24] F. S. Wert, "U.S.-Based Multinationalism: A Conceptual Analysis" (unpublished Ph.D. dissertation, Colorado State University, 1972), p. 17.

[25] Ibid., pp. 17-18. [26] Op. Cit., Vernon, p. 169.

greater involvement in overseas direct investments than smaller corporations.

In more recent years there is growing evidence that many small corporations producing technology-intensive products have successfully made the transition from wholly domestic operations to direct investments overseas.[27] Similarly other countries, particularly those in Western Europe and Japan, have dramatically increased their direct foreign investments.[28]

Summarizing this section we find that although beginnings of modern day international investments can be traced indirectly to trade practices of mercantile periods, the direct antecedents are less than two hundred years old: the massive portfolio investments of countries like Great Britain and the United States in early nineteenth century, and the direct foreign investments by the United States and others in mass production industries at the turn of this century. Those investments were helped and nurtured by increased efficiency of technology and production, better management methods, and conducive political and business climates.

Having taken a brief look at the historical development of international business we will summarize three types of theories which seek to explain the nature and behavior of direct foreign investments: classical theories of trade, modern theories of international investment, and product-cycle theories of international trade.

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[27]For the description of such experience of a small company see James K. Sweeney, "A Small Company Enters the European Market," Harvard Business Review, (September-October, 1970), pp. 126-133.

[28]Sidney Rolfe, "Updating Adam Smith," Interplay of European/American Affairs, Vol. 2, No. 4. (Nov., 1968), p. 17.

Theories of International Investments

Classical Theories of Trade

In his ground-breaking The Wealth of Nations, Adam Smith claimed specialization as a major determinant of trade between nations.[29] Each country had certain quantities of economic wealth endowed in it. These are natural resources, capital and labor. Because of the differences in the absolute level of factor endowment, two nations will be motivated to trade with each other to better the standard of living in both countries. Smith's theory of trade based on the absolute advantage in certain commodities was in direct opposition to the prevailing mercantilistic activities of the times. Smith espoused the concept of free trade.

A weakness of Smith's theory was its inability to explain the phenomenon of trade between those countries which did not have an absolute advantage in any of the resources. To rectify this weakness Ricardo developed the notion of comparative advantage.[30] This doctrine stated that trade between two nations would be profitable if each nation specialized in production of those commodities in which it had a relative advantage.

Neither Adam Smith nor Ricardo paid any specific attention to the aspect of international monetary investments. John Stuart Mill, Ricardo's disciple, first translated the doctrine of comparative

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[29]Adam Smith, An Inquiry into the Nature and Causes of the Wealth of Nations (New York: The Modern Library, 1937).

[30]David Ricardo, The Principles of Political Economy and Taxation (London: J. M. Dent and Sons, 1933).

advantage in terms of money. In his major work, Principles of Political Economy, he related investment in foreign nations to decreasing rate of return of capital.[31] He explained that as the rate of return from capital in the (home) country tended to fall, export of capital to other countries would be instituted in search for higher profits. A decrease of capital in the (home) country would prevent profits there from declining further.[32] It is not very difficult to perceive the application of Mill's doctrine in the economic policies of countries like Great Britain at that time.

In classical economic theories no attempt was made to differentiate among the portfolio investments and direct investments. The practice had been to treat the question of investment as a phenomenon not directly associated with capital movement. Classical theories attempted to explain the movement of capital among nations through the mechanism of interest rate differentials. Capital would flow to countries with high interest rates. This would bring down the interest rates in the second country, while shortage of capital would force the rates of interest up in the first country. Under the assumption of perfect competition, the flow of capital would continue until the rates of interests were equalized in both countries.

The classical theory of capital movement has received support in the modern times from some economists. For example, the Hecksher-

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[31]John Stuart Mill, The Principles of Political Economy (London: Longmans, Green and Company, 1929), Book III, Chapter XVIII.

[32]J. S. Mill, Principles of Political Economy, Vol. IV, Ch. 4 in J. M. Robson, ed., Collected Works of John S. Mill (Toronto: University of Toronto Press, 1965), pp. 745-6.

Ohlin Theory of Trade between nations is based on differences in cost.[33] Their theory emphasizes primarily the difference in rates of interest as the cause of capital movement. However, unlike the classical theories of Mills, Hobson and others, their analysis incorporates the cost of all factors of production (natural resources, labor, and capital) into the total cost. Transportation cost has also been explicitly recognized by these economists as an important determinant of international trade.[34] They conclude that trading will take place between nations only when there is a difference in the total price of products. Each country will then specialize in manufacturing those commodities in which it has a relative total cost advantage.

The international trade, made possible through (such) relative total cost advantages, increases the total supply of such goods than would otherwise have been possible if the countries were forced to produce under high costs.

The Hecksher-Ohlin analysis of international trade has given rise to other two-country, two-commodity, two-factor models where the

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[33]Bertil Ohlin, Interregional and International Trade (Cambridge, Mass.: Harvard University Press, 1933).

[34]The Hecksher-Ohlin model of international trade came under intensive attack after Leontief published his famous input-output matrix of U.S. Industries in 1953. This showed that, contrary to popular belief, the United States export industries were more labor-intensive than industries which would replace imports in the United States. This was a direct contradiction to Hecksher-Ohlin model which rationalized that a country would tend to export those products that required use of the more abundant indigenous natural resources and would import only those products whose production would require use of scarce indigenous natural resources. See Wassily Leontief, "Domestic Production and Foreign Trade: The American Capital Position Re-Examined," Proceedings of the American Philosophical Society, Vol. 97 (September, 1953), pp. 332-349.

capital has been treated as a factor input.[35] These models clearly show that in the event of an impediment to trade, there will be movement of factors of production between nations. Such movements of factors of production can only be possible if there are differences in the marginal products of these factors. Capital being the most mobile factor of production, movement initiated by the differences in the marginal products of factors would result in flow of capital from areas of low marginal products to areas of high marginal products.[36]

Thus, the classical theories which attempt to explain capital movement through differences in interest rates, and the neo-classical theories which explain capital flow through differences in marginal products of factors of production are basically the same. Both suffer from weaknesses of rigid assumptions. The models treat price as the sole adjusting mechanism of the market economy. The adequacy of classical and neo-classical theories of protfolio investments as conceptual tools to explain the growing phenomenon of direct investments was seriously questioned by many scholars. Searches for better explanations were undertaken and new theories were proposed.

It has been shown earlier that the evolution of international business ventures of the post WWII era was directly attributable to

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[35]See R. A. Mundell, "International Trade and Factor Mobility," The American Economic Review, Vol. XLVII, No. 3 (June, 1957), pp. 321-335; also R. W. Jones, "International Capital Movements and The Theory of Tariff and Trade," Quarterly Journal of Economics, Vol. 81 (1967), pp. 1-38; M. C. Kemp, "The Gain from International Trade and Investment: A Neo-Hecksher-Ohlin Approach," The American Economic Review, Vol. XVI, No. 4 (Sept. 1966), pp. 788-809.

[36]For an analysis of the effects of capital movements on Marginal Product see D. A. Macdougall, "The Benefits and Costs of Private Investments from Abroad: A Theoretical Approach," reprinted in A.E.A.: Readings in International Economics (Homewood, Ill.: Richard D. Irwin, Inc., 1968).

the increase in the rate of direct foreign investments. The classical theories of international trade and investment were inadequate explanations of this phenomenon of international business precisely because they failed to distinguish between portfolio and direct investments. Direct investments involve control of overseas operations, as well as transfer of management, and technology.[37] Furthermore, direct investments need not necessarily be in funds, but may also involve the transfer of capital goods and property.

Modern Theories of International Investments

Modern theories of international investment implicitly distinguish between the nature and the behavior of portfolio and direct investment. The work of Hymer has been primarily responsible for producing most of these modern theories.[38] He analyzed the behavioral differences of portfolio and direct investments and found that direct investment tends to concentrate in certain industries in all countries while portfolio investment shows a concentration in all industries of some countries.[39] According to Hymer, the interest rate approach to explanations of portfolio investments is totally inadequate in explaining direct investments.[40] He cites the incidence of cross investments as an example of this inadequacy of classical interest rate theories.

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[37] Op. Cit., Kindleberger, P. 2.

[38] Stephen Hymer, "The International Operations of National Firms: A Study in Direct Investment" (unpublished Ph.D. dissertation, M.I.T., 1960).

[39] Ibid., pp. 18-22.

[40] Ibid., pp. 17-22.

According to these theories investments should flow only in one direction, that is from low interest rates to high interest rates. In reality we find that direct investment flows in both directions, and more specifically such investments tend to flow into similar industries. According to Hymer, there are other glaring weaknesses of classical interest rate theories to explaining the phenomenon of direct investments. First, portfolio and direct investment often move in opposite directions in contradiction to theories of interest rates. Second, the major portion of world's direct investments has come from the United States. Contrary to real situation, this would indicate a low interest rate for the United States in relation to the rest of the world. Third, direct investments have been confined primarily to certain industries. Interest rate theories do not offer any rationale for such occurrences. Fourth, it has been observed that firms which invest abroad also borrow abroad. That behavior is inconsistent with the interest theory notion that firms invest overseas in order to earn higher profit or interest rates.[41]

Hymer concludes that theories of international organization offer better explanations of direct investment phenomenon than do theories of international trade. According to him "the theory of international operations is part of the theory of the firm."[42]

We have seen earlier that one of the characteristics of direct investment is that the process of control accompanies the capital flow. One of the primary reasons for a firm to seek control over its direct

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[41] Ibid.

[42] Ibid., p. 25.

investments is to insure the safety of such actions. Another reason is that through effective control the firm can better exploit the returns accruing from the use of certain skills and abilities, and therefore reduce the competition posed by other companies.[43] This has been termed "specific-asset" approach to direct investment and provides the students with an alternate explanation of direct investments. Monopoly profits are obtained through the use of these specific skills. Kindleberger states

> The firm must be able not only to make higher profits abroad than it could at home, but it must be able to earn higher profits abroad than local firms can earn in their own markets.[44]

Thus, current theories of international trade must necessarily be revised to explain the phenomenon of direct investments. Kindleberger partially explains the phenomenon of direct investment by the formula $C = I/i$ where C is the investment in capital goods, I is the net flow of income from such investment and i is the rate of interest.[45] Given a constant rate of interest, it is obvious that the higher the income stream from a particular capital investment, the higher is the ability to make direct investments. Hymer has shown that the large international corporations have done precisely this; that is, they have consistently offered a higher C for an asset than local corporations.[46]

To be able to anticipate a higher income stream, I, it seems that some market imperfections must exist. Otherwise, all firms in

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[43] Ibid., p. 24.

[44] Charles P. Kindleberger, The International Economics (Homewood, Illinois: Richard D. Irwin, Inc., 1968), p. 391.

[45] Ibid., p. 393.

[46] Op. Cit., Hymer, Chapter 2.

the industry, regardless of nationality, would expect a constant I. Kindleberger, citing the findings of Hymer, focuses on the nature of market imperfection when he states

> ...direct investment belongs to the theory of monopolistic competition rather than that of international capital movements. A local company has an advantage over a foreign company, other things being equal. It is expensive to operate at a distance, expensive in travel, communication, and especially in misunderstanding. To overcome the inherent native advantage of being on the ground, the firm entering from abroad must have some other advantage not shared with its local competitor. The advantage typically lies in technology or patents. It may inhere in special access to very large amounts of capital, amounts far larger than the ordinary national firms can command. Or the company, as in petroleum refining, or metal processing, may coordinate operations and invested capital requirements at various stages in a vertical production process, and because of its knowledge of requirements at each stage, and the heavy cost of inventories, be able to economize through synchronizing operations. It may merely have differentiated products built on advertising. Or it may have truly superior management. But some special advantage is necessary if the firm is going to be able to overcome the disadvantage of operating at a distance.[47]

The modern theories of international investment as developed by Hymer and others have been attacked for not being general enough. One argument criticizes Hymer's interpretation of direct investment on the ground that it fails to explain the reason for choice of a country and industry to invest in.[48] Other researchers have concentrated on the nature of the market to explain the patterns of direct investment

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[47] Op. Cit., Kindleberger, International Economics, pp. 390-391.

[48] See Robert Z. Aliber, "A Theory of Direct Foreign Investment," in C. P. Kindleberger, ed., The International Corporation, A Symposium (Cambridge, Mass.: M.I.T. Press, 1970), p. 20. In this article Aliber introduces the concepts of Customs Area and Currency Area. He explains that the world is divided into various currency areas where different exchange rates prevail. Such exchange rate differentials determine the geographic distribution of direct foreign investment. If the currency areas were not present, then, according to Aliber, existence of various artificial customs or tariff zones in the customs areas would determine the ultimate transportation cost and therefore the final location for direct investments.

associated with certain market structures in both the home and the host countries.[49] It is evident that search for better theories to explain the phenomenon of direct investment has not ended. We, therefore, turn to another theoretical concept which attempts to explain the process of investment and operation overseas--the product cycle theory of international operations.

Product Cycle Theory of International Trade

We have so far observed the evolution of classical, neo-classical and other theories to explain the phenomenon of international trade and investment, in particular the occurrence of direct foreign investments. But none of the preceding theories has been able to offer one explanation of all aspects of direct foreign investment. Leontief's work added to the total number of questions rather than to the number of solutions which, in turn, led to search for other theories.[50] One result of such effort was the introduction of product life cycle theory. Vernon was the chief architect of this particular model,[51] which helped explain the reasons for certain aspects of trade in manufactured products.

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[49] R. E. Caves, "International Corporation: The Industrial Economics of Foreign Investment," Economica, Vol. XXXVIII, No. 149 (February, 1971), pp. 1-27.

[50] Wassily Leontief, "Domestic Production and Foreign Trade: The American Capital Position Re-Examined," Proceedings of the American Philosophical Society, Vol. 97 (September, 1953), pp. 332-349. He tried to explain his paradoxical finding by stating that U.S. labor was more productive than foreign labor.

[51] Raymond Vernon, "International Investment and International Trade in the Product Cycle," Quarterly Journal of Economics, Vol. 80 (May, 1966), pp. 190-207.

Other economists have adopted this model and have attempted to develop a more rigorous interpretation.[52]

A basic assumption of product cycle theory is that information does not flow freely across borders.[53] This is in direct contrast to traditional theories of trade that assume perfectly free flow of information in the market place.[54]

According to Wells, three specific conclusions can be drawn from the fact that information flow is restricted between countries.[55] First, innovation of new products is more likely to occur in a market with higher demand for them than in a market with a lower demand. Second, entrepreneurs will be more willing to supply risk capital for products which have a demand in the home market than when the demand is solely in the foreign market. Third, market knowledge can be transferred with less cost to bring about product design changes for a product in the home market.

The chain of events in the product life cycle model starts with some innovations or scientific inventions that have commercial

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[52]One of the significant contributions in this area has been made by H. Johnson, Comparative Cost and Commercial Policy Theory for a Developing World Economy (Stockholm: Almquist and Wiksell, 1968); also Herbert G. Grubel, "The Theory of Intra-Industry Trade," in I. A. Mcdougall, et al., eds., Studies in International Economics (Amsterdam: North Holland, 1970).

[53]Much of the material in this section on product life cycle theory draws heavily from the works of Louis T. Wells, Jr., ed., The Product Life Cycle and International Trade (Boston: Division of Research, Graduate School of Business Administration, Harvard University, 1972), Chapter I.

[54]Other assumptions inherent in the product cycle theory are the impact of different economies of scale through time on the production process, and differences in tastes among different countries.

[55]Ibid., p. 6.

applicability.[56] Usually, there is a time lag between the scientific discovery or invention and the application of this idea or principle in consumer products. The history of science is replete with examples of this. It is precisely at the development stage of the product that the role of the entrepreneur is needed. Wells states:

> Although the pure scientists may work in a corner of the world fairly isolated from the grubby business of demand and profits, there is considerable evidence that product innovators and developers do not. At some point in the chain leading from scientific principles to a commercial product, costs begin to mount. These costs are for developments which are not longer of interest to the pure scientist or to his benefactors who are trying to push back the frontiers of scientific knowledge. At this point, the entrepreneur steps in. Someone whose motivation is profit must provide the funds for product development.[57]

The entrepreneur makes a shrewd estimate as to the nature and intensity of demand for a particular type of product before he is willing to invest great sums of money in the development of that product. Evidence of criticality of demand for product development is widespread in the business literature.[58]

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[56] However, many economists have been deeply concerned with the very nature of innovation itself, and models have been developed to show the influence of factor proportions on such innovative activities. (When innovative skill is itself considered to be a scarce commodity, then the thrust and emphasis of innovation is influenced by factor endowment.) Ibid., p. 6.

[57] Ibid., pp. 7-8.

[58] For selected references to sources of literature on innovation and demand see Jacob Schmookler, Invention and Economic Growth (Cambridge, Mass.: Harvard University Press, 1966), Chs. VI, VII, and XII; also James R. Bright, Research Development and Technological Innovation (Homewood, Ill.: Richard D. Irwin, Inc., 1964); Staffan B. Linder, An Essay on Trade and Transformation (Stockholm: Almquist and Wiksell, 1961), pp. 88-89; Levi Griliches and Jacob Schmookler, "Inventing and Maximizing," American Economic Review, Vol. 53 (Sept., 1963), pp. 725-729; Jacob Schmookler, "Economic Sources of Inventive Activity," Journal of Economic History, Vol. 22 (March, 1962), pp. 1-20; Charles F. Carter and Bruce R. Williams, Industry and Technical Progress: Factors Governing the Speed of Application of Science (London: Oxford University Press, 1957).

Initially, as the product is introduced for the first time the elasticity of demand for that product is low. The consumers are faced with making a choice between a large number of different versions of the product and attendant prices. At this stage the buyers are unable to compare prices of the product. As the businessmen become aware of the definitive nature and shape of the product demand, standardization is initiated. Consumers are better able to make a choice, and the demand becomes more elastic.

At the initial phase the cost of production is higher due to frequent design changes, production techniques requiring greater amount of labor, particularly skilled labor.[59] The prices are consequently higher. People who are able to purchase such costly products initially are known as "innovators" and usually belong to the upper income level.

Following the introductory phase, the volume of sales increases as the products are standardized and mass produced, causing cost and prices to fall. This is the growth phase of product life cycle. The demand of the product is more elastic for the individual producer as more enterprises join the market. At this stage of product life the administrative skills (management) become critical to success.[60]

Finally, the sales of the product tend to level off. This is known as the stage of maturity. This phase is characterized by a more capital intensive production process which makes economies of scale very crucial to survival. Also, the products are fully standardized,

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[59] Op. Cit., Wells, p. 9.

[60] Seev Hirsch, Location of Industry and International Competitiveness (London: The Clarendon Press, 1967), p. 20.

the number of enterprises competing in the industry is stable and the demand is price-elastic.[61] The important elements of product life cycle are presented in Figure II-1 and Table II-1.

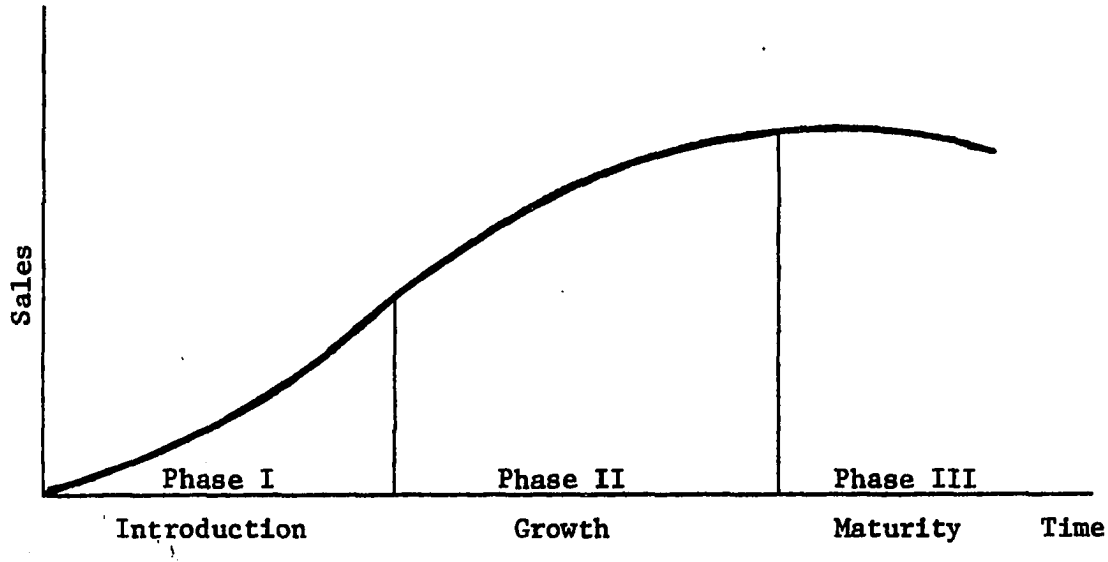

Figure II-1. The Product Cycle Curve. Adopted with modifications from: S. Hirsch, Location of Industry and International Competitiveness (London: The Clarendon Press, 1967), p. 17.

The product life cycle model presented forms the base for a model of international trade and investment theory.

According to Wells, production of certain types of products is likely to be undertaken in the United States because of the higher income level of the consumers, as well as large size of the initial market.[62] Besides, the innovator feels more secure in introducing a product for the first time in a market with which he is familiar rather than in some distant market even though that may be the place where the original invention was developed.

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[61] Ibid., p. 21.

[62] Op. Cit., Wells, p. 11.

TABLE II-1

PRODUCT CYCLE PHASE

	Early	Growth	Mature
Demand Structure	Low price elasticity for aggregate demand and for individual firm. Nature of demand not well understood by firm.	Growing price elasticity for firm. Price competition begins.	Basis of competition is price or product differentiation through marketing techniques.
Production	Short runs, rapidly changing techniques dependent on skilled labor. Low capital intensity.	Mass production method.	Long runs with stable techniques. Labor skills unimportant. Capital intensive.
Industry	Small number of firms.	Large number of firms, but many casualties and mergers.	Number of firms declining.

Source: Louis T. Wells, Jr., ed., The Product Life Cycle and International Trade (Boston: Harvard University Press, 1972), p. 10.

After the initial introduction of the product in a country (such as the U.S.) the producers will have a complete monopoly in the product. Some amount of the new product may also be marketed in other countries by those producers in the expectation of greater profits. The entrepreneurs of these other countries will be prevented from manufacturing this new product due to barriers of technology (knowledge and patents) and large fixed costs. Research by Gruber, Mehta, and Vernon have shown the clear superiority in exports of those U.S. corporations that are associated with high research effort.[63] Such industries also

[63] William H. Gruber, Dileep Mehta, and Raymond Vernon, "The R & D Factor in International Trade and International Investment of U.S. Industries," Journal of Political Economy, Vol. 75, No. 1 (Feb., 1967), pp. 20-37; reprinted in Louis T. Wells, Jr., ed., The Product Life

lead in new product development.[64]

Coinciding with the growth phase of the product life cycle, larger amounts of the product are exported overseas. Due to mass production techniques and economies of scale, the prices of the product can now be brought within the reach of the major portion of potential consumers both at home and abroad. Also, the income level of the consumers overseas may also have grown within this period. At some point in time, in this phase, plans are formulated to set up production facilities in one or more of these foreign countries. This span of time between initial export and eventual establishment of production facilities "is dependent on economies of scale, tariffs, transportation cost, the income elasticity of demand for the product, and the income level and size of the foreign market. The time is shorter where economies of scale are reached at low volumes, tariffs and transportation costs are high, income elasticity of demand is low, and the income level and size of the foreign market are large."[65]

In the second phase of international trade cycle, the exports of the product from the home country to other countries do not grow as rapidly as before.

Cycle and International Trade, pp. 111-139; also see William H. Gruber and Raymond Vernon, "The Technology Factor in a World Matrix," in Raymond Vernon, ed., The Technology Factor in International Trade (New York: Columbia University Press, 1970).

[64]Hirsch's study indicated that the strength of U.S. electronics industry exports was primarily confined within the growth sectors of that industry. See Hirsch, "The United States Electronics Industry in International Trade," in Louis T. Wells, Jr., ed., The Product Life Cycle in International Trade, pp. 39-52.

[65]Op. Cit., Wells, p. 13.

In the third phase of the model, the products from the overseas plants tend to flow into other countries thus displacing the export to them from the home country. Due to increased demand in the foreign countries, the product life cycle would now have entered into the growth phase in those countries with consequent reductions in costs. Given the lower cost of labor overseas, and the same tariff and transportation expenses, the products manufactured in the foreign countries are now much more competitive in the third world markets than products from the original (home) country. A time may come when the cost of production in the foreign countries will be low enough to overcome the barriers of tariffs and transportation thus enabling the products to be exported back to the original country. There is ample evidence in the business world of such a phenomenon. Phases of international trade based on product life cycle is presented in Figure II-2.

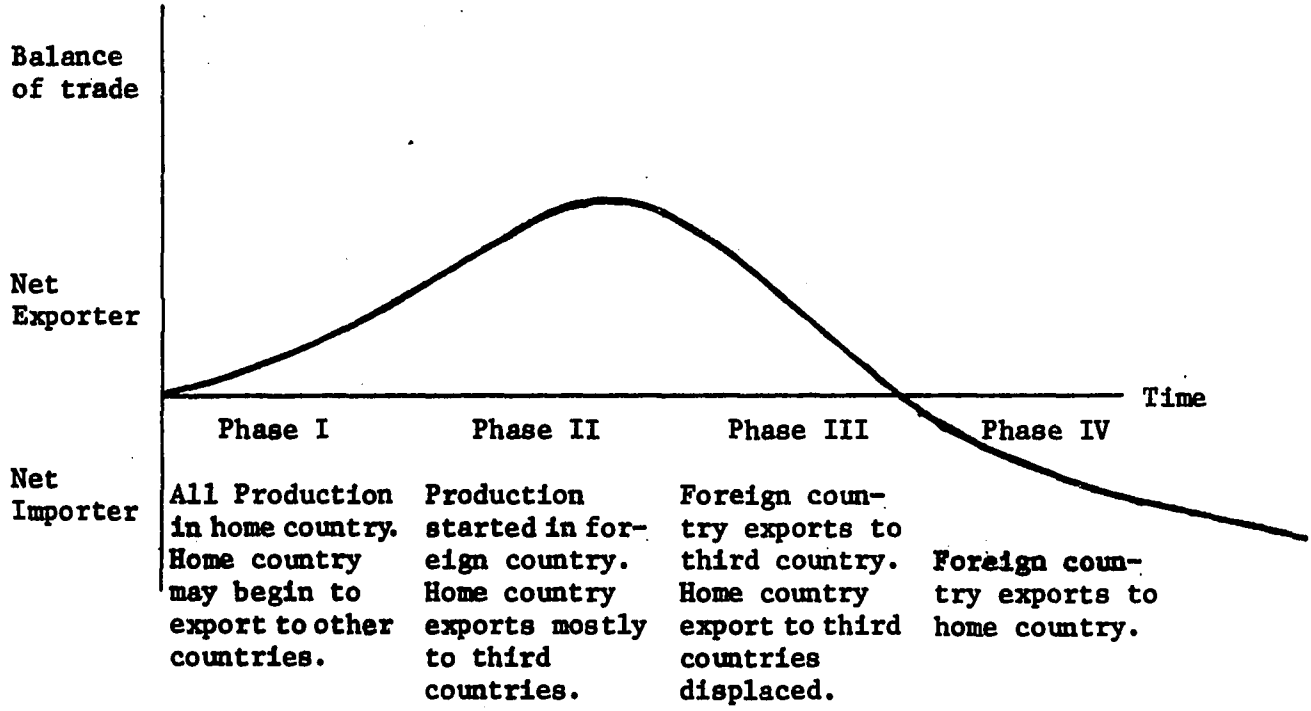

Figure II-2. Trade Position of the Home Country in the Product Life Cycle. Source: Adopted with modification from Louis T. Wells, Jr., ed., The Product Life Cycle and International Trade (Boston: Harvard University Press, 1972), p. 15.

Economic Theories--A Summary

So far we have seen the different explanations of various economic theories about international trade and investments. Although the concepts and nature of international investments have been analyzed thoroughly, no one theory has succeeded in explaining the total phenomenon. The classical and the neo-classical theories attempted to explain the phenomenon of international trade and investments with the tools of differential interest rates. However, in the absence of explicit recognition of the distinction between portfolio and direct investments such theories were less than adequate to explain the apparent contradictory behavior pattern of direct investments. The modern theories concentrated expressly on the behavior pattern of direct investments. But these theories, too, are only partial explanations. To reiterate, Hymer, the founder of modern theories, stated that theory of direct foreign investment does not belong to the theory of capital movements but to the theories of industrial organization.[66] Beginning with Hymer the disenchantment of business practitioners and other scholars with the elegant but rigid models of international investment process was made public. The simplistic assumptions of these models failed to meet the complexity of modern day foreign investments. At the same time, it must be acknowledged that these economic theories did provide us with the initial exposure of the complex nature of present day international organizations and therefore are worthy of our attention.

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[66] Op. Cit., Hymer.

Towards Organizational Theories of International Investment

Investments and Economic Development

A major impetus to understand the total functioning of direct investments--the reasons for initiating investments, the actual process of investments, and the successful management of these investments--came from scholars interested in economic growth and development of less developed countries. With the growing disparity of standards of living between the have and the have not nations, factors of explosive growth, and the new political forces emerging in the have not nations, the need for finding rapid and better solutions to widening economic gaps have become imperative.[67] The research in economic development has been initiated not just because of the fear of catastrophy induced by the masses of have-nots in other less developed nations, but also because of the impact of unequal development among segments of the same nation.[68]

The immensity of the problems of economic development are depicted vividly by the projected per capita income of various countries in a recent U.N. publication.

> The average person in the United States of America will receive ...an income of $10,000 annually by the year 2000. An Argentinian or Uruguayan will have to wait another nine years, until 2009, to double his income to one-tenth of that sum ($1000). The average

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[67] Murray D. Bryce, Industrial Development: A Guide for Accelerating Economic Growth (New York: McGraw-Hill, 1960), p. 3.

[68] The former Deputy Director General of the Unesco recently emphasized the need of planned growth of the underdeveloped economy to avoid devastating tensions within the social fiber. See Malcolm S. Adiseshiah, Deputy Director-General of the Unesco, It Is Time to Begin (Paris: Unesco Publication, 1972), p. 14.

> African, Indian or Pakistani will not have $200 annually until the year 2119. The gap is widening so rapidly that it represents not so much an obstacle to be overcome, as an explosion to be contained.[69]

Economists have produced numerous studies which attempt to provide a theoretical base for formulating practical solutions to the problem of economic development. But the realization, among some of the scholars, of the shortcomings of present economic theories has necessitated the search for more comprehensive, interdisciplinary studies.

According to Bruton the particular characteristics or "parameters" responsible for reducing or completely halting economic growth are to be found either in the institutional arrangements or in the social environment. It is therefore imperative that persons responsible for planning and guiding economic growth policies understand the linking process of various institutional and social arrangements to the total economic system, not just with theories of economics, but within an interdisciplinary theoretical framework.[70]

The economists concerned with the problems of economic development have concentrated their attention on the resource bases of the have and the have not countries; they have proposed theoretical constructs of transfer of these resources between countries as a short-range solution to the problem of initiating and sustaining development. Fayerweather discussing the importance of transfer of resources states:

> The positive side of the transmission of resources proceeds from the essential condition for virtually all such exchanges that there must be mutual benefit with each party gaining by the process

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[69] Ibid., p. 13.

[70] Henry J. Bruton, Principles of Development Economics (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1965), p. 5.

> of giving up some resources in return for others. The issues in this context lie in determining which resources may be effectively and profitably transmitted and what means of transmission should be employed.[71]

Three resources most frequently considered as critical for development are capital, technological, and managerial. Understanding the nature of these resources and the mechanics of transfer between nations have acquired added relevance. Earlier pages included highlights of some economic theories that have attempted to explain the nature and behavior of the capital transfer phenomenon. It is widely accepted that in spite of various institutional barriers to its flow, capital is the most easily transferable resource.

However, total development of nations does not rest on capital itself. Burgess in this statement makes the point.

> Managerial and technical manpower is the most productive resource for an economically underdeveloped country striving to raise its productivity and living standards in this fast moving world.... Economic history is replete with examples that testify to the sterile nature of capital in the absence of adequate and qualitative human resources which alone can give it economic variability.[72]

Though technology is not as fluid or mobile as capital, it still can be transmitted across political, social and educational barriers without undue problems. Spencer and Woroniak have described the technical knowledge transference process that supports such contentions.[73]

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[71]John Fayerweather, International Business Management: A Conceptual Framework (New York: McGraw-Hill Book Company, 1969), p. 7.

[72]Eugene W. Burgess, in the preface to Theodore Geiger, TWA's Services to Ethiopia, National Planning Association Series on United States Business Performance Abroad, No. 8 (Washington, D.C.: National Planning Association, 1959), p. viii.

[73]Daniel L. Spencer, and Alexander Woroniak, The Transfer of Technology to Developing Countries (New York: Frederick A. Praeger, Publishers, 1967), p. 1.

Increasing emphasis on the study of technological change and transfer has produced a mass of informative and scholarly discourses, attesting to the growing interest in the subject.[74]

In addition to capital and technology, managerial resource or skill has been acknowledged as being critical to the process of economic development. This feeling is reflected in the following statement of Watson.

> While capital is scarce in the less developed countries, the more subtle and different shortcoming is human and institutional. The most basic problem in the whole development effort is that of transferring skills and technology, and to some degree attitudes, to individuals and institutions in the less developed countries.[75]

Of late, a major effort has been launched to study the transfer of management skill and resources across national borders. This effort was brought about with the growing realization that without effective management of other resources--natural, capital and technical--the process of development cannot be sustained over any extended period of time. There are plenty of case studies available in the area of economic development that emphasize the problem of developing nations to muster

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[74]For selected references to literature on technology change and transfer see D. N. Chorafos, The Knowledge Revolution (London: Allen and Unwin, 1968); Edwin Mansfield, Technological Change (New York: W. W. Norton & Co., Inc., 1971); J. Diebold, "Is the Gap Technological," Foreign Affairs, Vol. 46, No. 2 (January, 1968), pp. 276-291; M. Peck, "Science and Technology," in R. Caves, ed., Britain's Economic Prospects (Washington, D.C.: The Brookings Institution, 1968); B. Williams, Technology, Investment and Growth (London: Chapman and Hill, 1967); D. Keesing, "The Impact of Research and Development on United States Trade," Journal of Political Economy, Vol. LXXV (Feb., 1967), pp. 38-48; Seev Hirsch, Location of Industry and International Competitiveness (Oxford: Clarendon Press, 1967).

[75]Arthur K. Watson (Chairman, 1964 Advisory Committee on Private Enterprise in Foreign Aid, Agency for International Development), quoted in W. H. Hunnum, "Profit Maker by Design, Educator by Circumstances," Columbia Journal of World Business, Vol. II, No. 5 (Sept./Oct., 1967), p. 77.

adequate managerial skills needed to initiate and sustain economic growth, despite the availability of other resources. In 1938 Barnard concluded that management know-how was a strategic factor of economic development.[76] Similar thinking is clearly evident in the following recent statement of an executive in Chile.

> Perhaps it is time to alter our concept of underdevelopment and think in terms of management. This would focus our attention on helping mismanaged areas to improve their organizations and knowledge. No amount of capital investment will succeed in furthering human progress if such wealth producing resources are mishandled or undermined through lack of fundamental concepts. This lack of knowledge exists and the modern tools of finance, marketing, etc., are not common knowledge in underdeveloped areas and their absence prevents the rapid and successful expansion of areas. Capital alone will not replace this information, but likewise the lack of such capital will make it impossible to bring about the looked for development.[77]

With this, we now turn our attention to the underlying central theme of this study--the need for understanding concepts and theories of management for effective conduct of coordinated human endeavors to achieve specific goals.

Management--The Coordinating Mechanism

Harbison and Myers have shown that management skills can be considered to be an extremely crucial element for economic development process and suggested that a framework of stages of growth (as proposed by Rostow) be applied to development of managerial resources in a

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[76] Chester I. Barnard, The Functions of the Executive (Cambridge, Mass.: Harvard University Press, 1938), pp. 202-205.

[77] J. Ross, "The Profit Motive and Its Potential for New Economics," Proceedings, International Management Congress, XIII (New York: Council for International Progress in Management (U.S.A.), 1963).

country.[78] Without much doubt, an understanding of the nature and the process of transferability of management know-how is the crucial problem in insuring world-wide economic development and growth. For management skill is the central linking factor that connects all other resources and acts as the catalyst to the chain reaction between those interdependent variables that can activate the movement to greater growth and development. This idea is presented in Figure II-3.

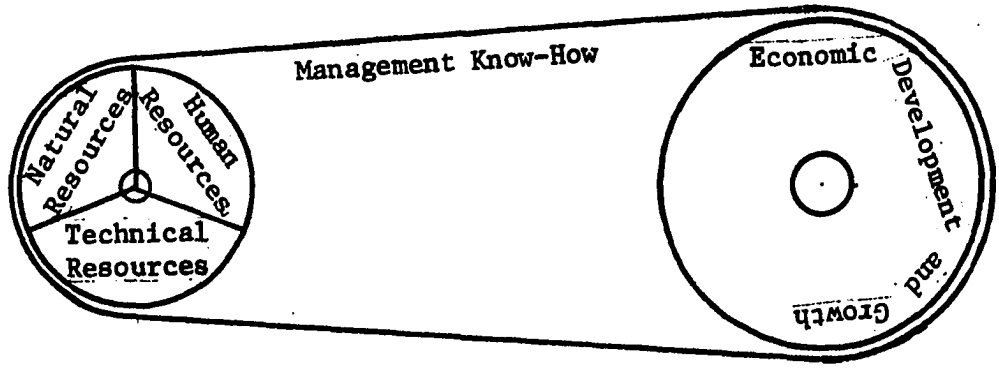

Figure II-3. Management Know-How as the Linking Factor.

This explorative study is based on the assumption that a deeper and thorough understanding of the process of management, operating within different environmental constraints, will help in extracting any basic principles that could guide the modification of such processes from situation to situation. Another basic premise of this study is

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[78] Frederick Harbison and Charles A. Myers, Management in the Industrial World: An International Analysis (New York: McGraw-Hill, 1959), p. 89. Rostow in his path-breaking "Stages of economic growth" concept suggested that a critical minimum investment is necessary for take-off into self-sustained growth. See Walt W. Rostow, "Take-Off Into Self-Sustained Growth," Economic Journal, Vol. 66, No. 261 (March, 1956), pp. 25-48.

that a knowledge of any general principle would be of considerable practical help to managers involved with day-to-day operations of business enterprises whose success will insure the linking function depicted above. In this context, the decision was made to concentrate on the contingency theories of management and organizational behavior, because these theories explicitly take into account the situational differences of external and internal variables, and the impact of these differences on the functions of management. In the opinion of this author, contingency theories of organization behavior and the consequent prescriptions for management functions offer the best prospect for applying advanced managerial skills to the underdeveloped nations of the world, which have heretofore been handicapped by the lack of this vital resource.

Before proceeding with the discussion of contingency theories an attempt will be made to review some of the controversies among management theorists as to the process of transferability of management know-how to other nations. Up to this point we have observed that in spite of the variety of economic theories of international trade and investment a comprehensive conceptualization of the total process is still lacking. The economists interested in development acknowledged the need for including theories of organization into the main body of economic concepts dealing with the process of development. Management functions performed with acquired managerial skill has become of prime importance in all analyses of the transfer of resources. Sayles made this clear when he stated that "in the world race for economic growth and for the allegiance of lesser developed sections of the globe, the United States management 'know-how' is a crucial factor."[79]

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[79]Leonard R. Sayles, Managerial Behavior: Administration in Complex Organizations (New York: McGraw-Hill, 1964), p. 17.

Granted the need for transference of management skills exists, the next question is about the mechanism of such transfer. Are there truly universal principles of management that can be found in the management processes of nations which possess different socio-cultural, political-legal, economic, and educational environments? Or can that transfer of management know-how become possible only after the basic principles have been suitably modified? To this basic controversy we now apply ourselves.

Management Principles in International Context

The increased economic activities and growing complexity of organizations following World War II focussed attention on the impact of environment on business organizations. Introduction of the systems concept of management forced consideration of the various environmental variables that interact constantly with the organization. Writings on the subject proliferated through the decades of the '50's and '60's.[80] As the volume of direct foreign investment increased with consequent need for control and coordination of these investments, the focus shifted to evaluation of environmental constraints on management practices and to the process of transmitting and adapting management practices in other countries. This was the beginning of the comparative studies in management. Analogy has been drawn between the transmission

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[80] See Neil Chamberlain, Enterprise and Environment (New York: McGraw-Hill, 1968); Francis Aguilar, Scanning the Business Environment (New York: Macmillan, 1967); Keith Davis and R. L. Blomstrom, Business and Its Environment (New York: McGraw-Hill, 1966); Joseph McGuire, Business and Society (New York: McGraw-Hill, 1963); Garlie A. Forehand and B. Von Haller Gilmer, "Environmental Variation in Studies of Organizational Behavior," Psychology Bulletin, Vol. 62, No. 6 (December, 1964), pp. 361-382.

process of managerial skills to different environments and the biological process of organ transplants:

> The problem is quite similar to that of transplanting organs in medical experiments; a healthy organ may function nicely in its home environment (the original body) but be rejected, or unable to function nicely, in the body of the recipient. So too, the techniques of management may work well in the setting in which they evolved and yet be rejected, or fail, in the social and cultural climate into which they are transplanted.[81]

Research was conducted to identify and evaluate the differences in management practices between two or more countries; in these studies the effectiveness of management and organization was used as the criterion to differentiate between better and poor management practices. Later, research studied the effect different management philosophies--imported and local--had on the management systems in foreign environments. The results of such studies have been reported widely.[82] Negandhi and Prasad described the comparative management studies as the process of collating information about the similarities and differences of management processes, managerial thinking, and managerial techniques across national borders.[83] In discussing the need for such comparative studies Negandhi and Prasad state:

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[81]Joseph L. Massie and Jan Luytjes, Management in an International Context (New York: Harper and Row, 1972), pp. 7-8.

[82]For selected references to a few such studies see Hans Schollhammer, "The Comparative Management Theory Jungle," Academy of Management Journal, Vol. XII, No. 1 (March, 1969), pp. 81-97; J. Boddewyn, Comparative Management and Marketing (Glenview, Ill.: Scott, Foresman, 1969); Anant R. Negandhi and Benjamin S. Prasad, Comparative Management (New York: Appleton-Century-Crofts, 1971).

[83]Anant R. Negandhi and Benjamin S. Prasad, Comparative Management (New York: Appleton-Century-Crofts, 1971), pp. 4-5.

> ...adaptive approaches can be developed which will fill the vacuum created by the lack of systematic studies of the relevance and applicability of modern management concepts, tools, techniques, and ideologies--which have evolved in the Western countries and contributed immensely to other economic progress--to the less developed countries. Without the adaptive application of modern management methods, productive endeavors in developing countries are likely to fall short of expectations.[84]

These comparative management studies and the subsequent findings brought about a difference in opinion among management scholars as to the best course of action to facilitate management know-how to other countries. One group of thought has generally become known as the "universalists," the other as the "environmentalists." This conflict partly stems from the differences in semantics. There is lack of conformity in interpretation of value-loaded words like "philosophy." If "philosophy" is defined as a basic process of rationality, then it is evident that such concept is applicable everywhere, because the process of rationality underlies logical thinking process everywhere. If, on the other hand, philosophy is defined as short-range operational process, then applicability of philosophies would be solely determined by the situation and environmental constraints. Koontz described the logic of applying universal management principles anywhere to promote more effective management systems.[85] Harbison and Myers studied international management practices and cited evidence of fundamental principles applicable to both developed and underdeveloped nations.[86]

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[84] Ibid., pp. v-vi.

[85] Harold Koontz, "A Model for Analyzing the Universality and Transferability of Management," Academy of Management Journal, Vol. 12, No. 4 (December, 1969), pp. 415-29.

[86] Op. Cit., Harbison and Myers, p. 117.

Haire, Ghiselli, and Porter conducted research among 3600 managers in 14 countries and found evidence of similar managerial behavior patterns.[87] Richman studied management practices in the Soviet Union and found the use of concepts pertaining to various management processes described in the management textbooks.[88] Other studies gave similar support to the conclusions obtained from these above-mentioned studies.[89]

In contrast to the thinking of "universalists," the proponents of environmental approach feel that management practices are entirely situational and are largely dependent on the constraints imposed by various environmental factors. These factors tend to vary from country to country. Consequently, what is effective within the United States environment would not necessarily be effective in another country. Therefore, these U.S. management practices must be modified in view of different socio-cultural, political-legal, economic and educational environments existing in other nations. Gonzalez and McMillan concluded after two years' research in Brazil that management process was definitely culture-bound and stated that "American management experience

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[87] M. Haire, E. E. Ghiselli, and L. W. Porter, Managerial Thinking: An International Study (New York: John Wiley and Sons, 1966).

[88] Barry Richman, "The Soviet Educational And Research Revolution: Implications for Management Development," California Management Review, Vol. IX, No. 4 (Summer, 1967), pp. 3-15; also Soviet Management, with Significant American Comparisons (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1965).

[89] John Fayerweather, The Executive Overseas (Syracuse, N.Y.: The Syracuse University Press, 1959). In this study, conducted by Fayerweather in Mexico, similarities of management practices between American and Mexican organizations were noted. For other studies see James. C. Abegglan, The Japanese Factory: Aspects of Its Social Organization (Glencoe, Ill.: The Free Press, 1958); S. Benjamin Prasad, "New Managerialism in Czechoslovakia and the Soviet Union," Academy of Management Journal, Vol. XI, No. 4 (December, 1966), pp. 328-336.

abroad provides evidence that our uniquely American philosophy of management is not universally applicable, but is a rather special case."[90] Oberg, at the conclusion of his study (also in Brazil), concurred with the findings of Gonzalez and McMillan.[91] He further stated that cultural differences from one country to another are more significant than many writers appear to recognize.

> If management principles are to be truly universal...they must face up to the challenge of other cultures and other business climates.... [The Universalists' claims] are hardly warranted by either evidence or intuition at this stage in the development of management science.[92]

A comparative management study of Japan and India indicated that management principles and practices were necessarily modified by the impact of different socio-cultural environments.[93]

Thus, we find that, in the context of transferability and applicability of management principles, two different schools of thought exist among the followers of comparative management theories. The relative infancy of various comparative management theories emphasizes the need and usefulness of borrowing relevant concepts from the social sciences so that these theories may become more viable.[94] Until these

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[90] R. F. Gonzalez and C. McMillan, Jr., "The Universality of American Management Philosophy," Journal of Academy of Management, Vol. IV, No. 1 (April, 1961), p. 41.

[91] Winston Oberg, "Cross-Cultural Perspectives on Management Principles," Academy of Management Journal, Vol. VI, No. 2 (June, 1963), p. 130.

[92] Ibid., pp. 141-42.

[93] See Shinichi Takezawa, "Sociocultural Aspects of Management in Japan," and Kamala Chowdhry, "Social and Cultural Factors in Management Development in India and the Role of the Expert," International Labor Review, Vol. 94, No. 2 (August, 1966), pp. 147-174, and pp. 132-147, respectively.

[94] For an excellent summary of the role of the comparative

theories attain a certain degree of maturity, conflicts of opinion should be welcome. This is the essential element of theory building. Facts, no matter how contradictory, need to be collected and classified.[95]

Apart from the conflict between the universalists and the environmentalists, differences of opinion are also noticeable within the groups themselves. The scholars within the environmentalist group are not consistent in their opinions as to what constitutes a relevant set of external environment for the organization. For example, Megginson considers educational and spiritual values the two most dominant evvironmental constraints which impinge (in a critical way) on the managerial effectiveness.[96] Blough suggests governmental policies toward business as the crucial environmental factor.[97] Other writers suggest that there is a need to consider the various environmental factors that

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studies see S. H. Udy, "The Comparative Analysis of Organizations," in J. G. March, ed., Handbook of Organizations (Chicago, Ill.: Rand McNally and Co., 1965); Reinhard Bendix, "Concepts and Generalizations in Comparative Sociological Studies," American Sociological Review, Vol. 28 (August 4, 1963), pp. 532-538; and J. Boddewyn, "The Comparative Approach to the Study of Business Administration," Academy of Management Journal Vol. 8, No. 4 (December, 1965), pp. 261-267.

[95]In describing the nature of theory Homans stated that theories act as "a classification, and (it) provides a set of pigeonholes, a filing cabinet, in which fact can accumulate. For nothing is more lost than a loose fact. The empty folders of the file demand filing. In time the accumulation makes necessary a more economic filing system, with more cross-references, and a new theory is born." See G. C. Homans, The Human Group (New York: Harcourt, Brace, and World, 1950), p. 5.

[96]Leon C. Megginson, "The Interrelationship Between the Cultural Environment and Managerial Effectiveness," Management International Review, Vol. VII, No. 6 (1967), pp. 65-70.

[97]Roy Blough, International Business: Environment and Adaptation (New York: McGraw-Hill, 1966), Chs. IV, V, and VI.

impinge on the organization, and study their impacts jointly;[98] only then can the dynamism of interaction between the organization and the environment be properly reflected. Richman and Copen have identified 76 such elements in the environment that are considered relevant.[99]

Theories of comparative management have helped students understand better the functioning of management principles in varying environments. The apparent conflicts between the universalists and the environmentalists have helped students to broaden their range of understanding of the nature of such international business operations. From such points of view these conflicts are constructive.

In Section I of this chapter an attempt has been made to trace briefly the historical growth of international trade and investment that in turn led to further research and development of newer economic and organizational theories. In Section II selected economic theories pertaining to international trade and investment have been presented. The economic theories attempted to explain the phenomena that were considered to be within the discipline of economics. However, the inability of the traditional and modern economic theories to offer fuller explanation of all activities pertaining to international business operations

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[98]For comprehensive statement on the impact of external environmental variables on management processes, and methods for separating such environmental factors from management fundamentals see R. N. Farmer and B. M. Richman, Comparative Management and Economic Progress (Homewood, Ill.: Richard D. Irwin, Inc., 1965); also "A Model for Research in Comparative Management," California Management Review, Vol. VII, No. 2 (Winter, 1964), pp. 58-68; A. R. Negandhi and B. D. Estafen, "A Research Model to Determine the Applicability of American Know-How in Differing Cultures and/or Environments," Academy of Management Journal, Vol. VIII, No. 4 (December, 1965).

[99]Barry M. Richman, and Melvyn Copen, International Management and Economic Development (New York: McGraw Hill Book Co., 1972), pp. 30-32.

has been noted. In Section III the organizational theories developed to explain the phenomena of international operations have been presented. Selected references to the works of various authors have been made to provide a broad overview of a subject matter that has acquired significant importance. The presentation is by no means complete. Within this broad theoretical base, specific concepts of contingency behavior of organizations both within domestic boundaries, or outside have stirred the interests of many academicians. In the next chapter we will turn to these and other specific variables that have been selected for empirical analysis.

CHAPTER III

THEORIES OF ORGANIZATIONS AND ORGANIZATIONAL VARIABLES

Introduction

In the previous chapter several theories of international trade and investments were described. The inadequacy of various economic theories in explaining all aspects of an organization that is making the transition towards international operations were identified. We also explored a few concepts of organizational theories that have been forwarded to bridge the explanatory gaps left unattended or ignored by the economists working with static, rigorous models with limited variables. With the application of various concepts and theories from previous organizational research efforts, and the increasing sophistication of the organizational theories, many empirical studies have been conducted in the area of organization behavior. Proposition after proposition have been put forward to explain precisely why an organization behaves the way it does. The focus of attention has shifted from the analysis of internal functions of the organization to observing and understanding the reciprocal impact of the organizations and their environments. Such a shift in perspective has resulted in the adoption of the contingency notion of organizational behavior. This is in contrast to the previous stereotyped notions of bureaucratic or non-bureaucratic

forms of organization and the consequent behavior patterns anticipated in each.[1]

Organizations come in different sizes, shapes, and methods of functioning, with different organization goals and environments. Organizations lie not only in the continuum of bureaucracy and non-bureaucracy respectively, but also in conceptual fields that are not generic to this particular continuum.[2] Given such a heterogeneity of organization types, an analysis of organizational behavior based on the simplistic bureaucratic and non-bureaucratic stereotypes is doomed to be an exercise in futility. The need for different conceptualizations for organizational analyses has become recognized in recent years. The evolution of international organizations has provided an impetus for perceiving organizations as socio-technical units. The complexity in the design and functions of international organizations have baffled the attempts of organizational researchers who used only simple models; the tools were too crude and simple to establish some cause and effect relationships among the internal variables.

Systems theory has provided a strong base for elaborate research of complex organizations.[3] The systems theory of organizational

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[1]For a description of bureaucratic and non-bureaucratic models of organizations see Charles Perrow, Organizational Analysis: A Sociological View (Belmont, California: Brooks/Cole Publishing Co., 1970), pp. 51-62.

[2]Ibid., p. 68.

[3]One of the fundamental notions of organization behavior, within this systems framework, is that each organization is explicitly or implicitly involved with processing information, generated within and without the organization. Generation of information reduces uncertainty which is reflected in the enhanced stability of the organization and reduced occurrence of entropy at the system interface. See Basil S.

behavior is founded on the notion of organization as a complex, dynamic and adaptive system. Georgopoulos expresses this view as follows:

> ...an important point of departure for organizational research based on open systems theory is that organizations are complex, dynamic, and adaptive systems which are in constant interchange with their environment. They are always subject to external forces, pressures, and stimuli that have significant consequences for behavior within the system and vice-versa, for organizations are more or less open systems. Their boundaries are relatively elastic and permeable, or sufficiently open, to allow all those input-output transactions of matter, energy, and information necessary to the existence and functioning of the system. This is a basic fact of organization life.[4]

It is not hard to perceive, given the above notion of systems interaction, why analysis of organization behavior, particularly those of complex organizations, must necessarily be conducted within a systems framework. Before the introduction of systems point of view, organizational research did not include any explicit recognition of the organization and its environment as distinct but integrated parts of the whole. The mutual interdependence between the two parts elicited action and reaction from both. As the complexity of organizations has increased so has the need for identifying, separating, and understanding the nature of interactions between numerous variables within and without the organizations. The economic theories of organizations and the static management theories are incapable of providing the framework for conducting analytical research to unravel the causes of different organizational behavior. The systems model framework overcomes those limitations and has been a positive force in that direction.

Georgopoulos, "An Open Systems Theory Model for Organizational Research," in A. R. Negandhi, ed., Modern Organizational Theory (Kent, Ohio: Kent State University Press, 1973), p. 102.

[4] Ibid., p. 102.

In Section I of this chapter the various theories of organization behavior will be briefly reviewed to provide the reader with a basic understanding of the nature and problems that are related to such an empirical work.

In Section II a review will be given of four studies that were conducted to explain the contingent nature of relationships between and organization and some contextual and environmental variables.

In Section III the variables selected for the present study will be exposed at some length.

Theories of Organization Behavior

Bureaucratic Model

In the late 19th and the early 20th centuries the countries in Europe and the United States witnessed an unprecedented revolution of social, economic, technological, and industrial forces, the seeds of which had been germinating since the dawn of the industrial revolution. Civilization, in these countries, had reached that certain degree of maturity where the climate was conducive for bureaucracies (as envisaged by Weber and others) to emerge and exert significant influence on the pattern of social life styles. Social institutions became differentiated according to the roles they played within the society.

Since the inception of formal organizations, with humans participating as active members to conduct functions to attain specific goals, need has been felt to institute appropriate direction and control of members to maximize effectiveness and efficiency, and at the same time reduce the negative aspects of control. Functionally differentiated

formal organizations soon assumed dominant roles within certain sectors of the society and spread quickly into other areas. These formal organizations exhibited behavioral tendencies that were quite different from the simple, family oriented social organizations. The social scientists, in the early 20th century, became interested students of such proliferating forms of organizations which have been called bureaucracies.[5]

The organized religious institutions that prevailed through centuries of social change were probably the earliest forms of bureaucracy.[6] As the nations became more powerful and centralized, the various governmental institutions were created and made responsible for providing a large number of services to their constituents. Once again, these formal organizations were different than any organization systems that had been prevalent within political systems of prior times. Also, with spread of technological competence through industrial revolution, the economic institutions were changing rapidly in nature and structure. As their impact on national welfare was felt, the centralized governmental agencies looked to these economic institutions for support in the effort to create more welfare for the citizens. Bureaucratic organizations flourished.

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[5]The coining and use of the term "bureaucracy" has been attributed to the German social scientist Max Weber. He sensed the fundamental changes taking place within the various social institutions in Europe at the turn of the 20th century and felt that organizational forms suitable for rural Europe were dysfunctional to industrialized Europe. See William G. Scott and Terence R. Mitchell, Organization Theory: A Structural and Behavioral Analysis (Homewood, Illinois: Richard D. Irwin, Inc., and the Dorsey Press, 1972), pp. 10-11.

[6]Peter M. Blau, Bureaucracy in Modern Society (New York: Random House, 1956), p. 20.

Max Weber was the foremost pioneer whose analysis of bureaucratic organizations contributed to the development of an important segment of organizational theory.[7] He was most influential in delineating the distribution of power among the organizational positions in the bureaucratic structure. In attempting to describe the concept of legitimation of power within such organization structure, he provided a new perspective on the study of satisfaction derived by members from participating in organizational endeavors. Weber's pathbreaking attempt to provide a rational explanation of the interplay between the power to control and the ability to justify its use has resulted in much research.[8] The bureaucratic model of organization is the nucleus for a great number of theories and researches about complex organizations, and has been especially useful in explaining the structural aspects of organizations.[9]

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[7]Max Weber, The Theory of Social and Economic Organizations, translated by A. M. Henderson and Talcott Parsons (New York: The Oxford University Press, 1947).

[8]Weber primarily concerned himself with the functional aspects of bureaucracy. Other researchers, following in his footsteps, pointed to few dysfunctional consequences associated with bureaucratic structures. For an excellent summary of the works of some of Weber's followers see James G. March and Herbert A. Simon, Organizations (New York: John Wiley and Sons, Inc., 1958), pp. 37-47; also see Alvin Gouldner, Patterns of Industrial Bureaucracy (Glencoe, Illinois: The Free Press, 1954); Robert K. Merton, Ailsa P. Gray, Barbara MacKey, and Hanan C. Selvin, eds., Reader in Bureaucracy (Glencoe, Illinois: The Free Press, 1952); Peter M. Blau, Bureaucracy in Modern Society (New York: Random House, 1956); Peter M. Blau, The Dynamics of Bureaucracy (Chicago, Illinois: The Chicago University Press, 1955); Philip Selznick, "An Approach to a Theory of Organization," American Sociological Review, Vol. 8 (1943), pp. 47-54; also "Foundations of the Theory of Organizations," American Sociological Review, Vol. 13 (1948), pp. 25-35; TVA and the Grass Roots (Los Angeles, California: University of California Press, 1950); Reinhard Bendix, "Bureaucracy: The Problem and Its Setting," American Sociological Review, Vol. 12 (1947), pp. 493-507; S. M. Lipset, ed., Class, Status, and Power: A Reader in Social Stratification (Glencoe, Illinois: The Free Press, 1953).

[9]James G. March, and Herbert A. Simon, Organizations (New York: John Wiley and Sons, Inc., 1958), pp. 37-47.

Basically Weber's model of bureaucratic organization contains the following characteristics:[10]

1. The tasks necessary to attain the organizational objective must be divided on the basis of functional specialization. This is the concept of division of labor according to functional specialization. The emphasis is on breakdown of all aspects of tasks into minute particles of specialization.
2. The organizational functions are bounded by rules and regulations. Thus, rational bureaucratic organizations are, in contrast to ad hoc, temporary organizations, based on the notion of permanence. The existence of well-articulated rules and policies, enforced impartially and uniformly by officials, help save effort by dispensing with the need to derive new solutions for each and every problem.
3. Bureaucratic organizations have a well-defined hierarchy of authority. Each office is under the control and supervision of a higher one. Therefore, no office is left uncontrolled. There is an effective system of checks and balances for each incumbent.
4. Each positional incumbent is covered by detailed rules concerning his rights and duties in the organization. Thus, not only must each incumbent have the knowledge of his duties and the means to conduct it (that includes his ability to command others), but he also must be aware of the limits of his duties and rights so as to

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[10]Max Weber, The Theory of Social and Economic Organizations, translated by A. M. Henderson and Talcott Parsons (New York: The Oxford University Press, 1947), pp. 329-330; also reprinted in Robert K. Merton, et al., eds., Reader in Bureaucracy (Glencoe, Illinois: The Free Press, 1952), pp. 18-20; Richard H. Hall, "The Concept of Bureaucracy: An Empirical Assessment," The American Journal of Sociology, Vol. LXIX, No. 1 (July, 1963), pp. 32-40.

avoid intruding into the jurisdiction of other incumbents and thus weaken the whole structure.

5. The selection and promotion of participants in the organizational endeavor is based strictly on technical competence. The criteria for selection and promotion are to be based on how well the employer is suited by way of education, training, knowledge, and skill to perform the particular function of the organization.
6. The nature of relations between positional incumbents in a bureaucratic organization can be termed impersonal. Rational standards of operations cannot be maintained if decisions are affected by personal considerations. The incumbents must separate personal considerations from official business to enhance the effectiveness of such operations.
7. To maintain organizational continuity and uniformity of operations the bureaucratic organizations must maintain in writing detailed records of acts, decisions, and rules.

Among other characteristics Weber endorsed the concept of compensation of officials through salaries and not through payments from clients so as to insure the primary orientation of these officials to the organization and its norms. A perusal of Weber's thesis of bureaucracy makes it readily apparent that he viewed the bureaucratic structure to be fragile and under constant pressure from external forces that tend to disorient such structure from its intended goals.[11] To that extent we can say that the bureaucratic model of the organization

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[11]Amitai Etzioni, Modern Organizations (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1964), p. 54.

as perceived by Weber contains some notion of the organizational environment and the impact of this environment on the organization. However, it is also apparent from reading Weber that these external influences were negatively viewed by the author, who stressed the insulation of the organization through the process of strict adherence to internal rules and regulations. This was an unrealistic assumption.

From one point of view, bureaucracy may be considered as a method--an eminently rational method--for implementation of efficient goal-attainment processes. However, theories of bureaucracy contain another aspect of organizational behavior. In this point of view bureaucracy appears to be an instrument of power, a method by which the leaders exercise control over people and enhance such power continuously in the interest of the bureaucracy.[12] To that extent study of bureaucratic process is a study in authority and leadership process. Weber's statements on authority in relationship to bureaucratic institutions have become classical analysis of this relationship. According to Weber, one of the fundamental principles of bureaucratic organizations is the unconditional acceptance of legitimate authority by members within the organizations. The key word in the sentence above is "legitimate." Unless the organizational members are convinced of the legitimacy of the authority imposed on them, compliance of rules and orders will necessitate the use of coercion or some form of negative sanctions such as financial or otherwise. On the other hand, acceptance of authority as

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[12]See S. N. Eisenstadt, "Bureaucracy, Bureaucratization, and Debureaucratization," Administrative Science Quarterly, Vol. 4, No. 3 (December, 1959), p. 303.

legitimate will produce positive incentives to perform the necessary tasks.[13] Weber states that authority can be legitimatized on three grounds: tradition, charisma, and legal (or rational).[14] Traditional authority is perceived to be in operation when we discover a certain person or certain class to be in position of authority by some preordained right. The followers usually subscribe to the cultural values that tend to maintain such preordained structure. Charismatic authority is established when the leader embodies in himself certain values that are cherished by his followers. The followers may ascribe superhuman powers to the leader to bring about the necessary changes desired. Rational or legal authority is also based on the notion of change. However, the change is brought about by the emerging needs of the organization and not by the magnetism of one individual. The leaders of the organization, because of their technical competence, are in a unique position to determine the actions necessary to attain predetermined goals, and such authority is accepted by the members as rational or legal.

The concepts of bureaucracy help explain (in a rudimentary way) the structure and behavior of organizations as they seek to attain some goals. After Weber published his theory, many empirical studies were conducted to verify the applicability of Weberian concept of bureaucratic behavior. These produced some evidence of the dysfunctional consequences

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[13] According to Blau, the use of incentives or sanctions is proof that authority is not accepted either totally or partly. See Peter M. Blau, "Critical Remarks on Weber's Theory of Authority," The American Political Science Review (June, 1963), p. 312.

[14] Op. Cit., Max Weber, Theory of Social and Economic Organizations.

of bureaucratic structure of organizations.[15] According to Blau some of the dysfunctional aspects of bureaucratic systems are: (a) concealment of deficiencies in performance by subordinates from superiors in fear of retributions in accordance to strict rules; (b) rigidity introduced in official conduct due to insistence on conformity that inhibits radical exercise of judgments for achieving efficiency; (c) promotions based on seniority will inhibit superior performance; and (d) reduction in esprit-de-corps due to rigidity and reservedness of attitudes among members of the organization.[16]

However, it has been argued that Weber dealt with an ideal type of bureaucratic form. Such a pure type, even though non-existent in any real life situation, serves the purpose of abstracting the most characteristic aspects of bureaucratic organizations, as Blau has recognized:

> But this criticism obscures the fact that the ideal type construct is intended as a guide in empirical research, not as a substitute for it. By indicating the characteristics of bureaucracy in its pure form, it directs the researcher to those aspects of organizations that he must examine in order to determine the extent of their bureaucratization. This is the function of all conceptual schemes: to specify the factors that must be taken into consideration in investigations and to define them clearly.[17]

This author concurs with this view and feels that an understanding of the concepts of bureaucracy as developed by Weber, although ideal, is absolutely necessary for better understanding of present theories of organizational behavior and structures.

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[15] For summary of organizational models presented by authors such as Merton, Selznick, and Gouldner, depicting these dysfunctional consequences, see March and Simon, Organizations.

[16] Op. Cit., Peter M. Blau, Bureaucracy in Modern Society, p. 33.

[17] Ibid., p. 34.

The Classical Model of Organizations

The phenomenon of formal organizations has attracted a substantial amount of interest among the practitioners and scholars alike. We have seen, in the pages above, the attempt by social scientists to explain the nature of bureaucratic organization and reasons for organizational structure. However, since the logic was more attuned to the ideal state of affairs than real life situations, explanations for deviation from the ideal were lacking, indicating a need for better theories of organizations.

The theories of organizations termed classical, in contrast to Weber's bureaucratic model, evolved at the other end of the ideal-practical continuum. The initial efforts to provide a better explanation of the functions of the real life organization came from practitioners of business enterprises. Thus, the emphases of their writings have been placed more on the prescriptive than descriptive. This is, incidentally, one of the commonest criticisms leveled against the body of writings on organizational structure and behavior known as the classical school of thought.[18]

The classical theories, if at all they can be considered theories,[19] have been subdivided into two distinct groups of theories by

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[18]The critical evaluation of the "classical theories" of management presented in these paragraphs draws heavily from the works of March and Simon. See James G. March and Herbert A. Simon, Organizations (New York: John Wiley and Sons, Inc., 1958).

[19]One of the prime properties of a theory is that the relations postulated between variables be empirically testable. According to March and Simon the weaknesses of the classical administrative theories lie in the fact that such theories have not enough supporting evidence. According to these authors "the theories tend to dissolve when 'put into testable form.'" See James G. March and Herbert A. Simon, Organizations, p. 32.

some critics: the scientific management principles concerned with the basic physical activities required in production, and the organizational problem of division and coordination of work.[20] The scientific movement gathered momentum at the turn of the 20th century, under the leadership of Frederick W. Taylor. Taylor's basic preoccupation was not so much with formulation of general theories of organizations as it was with studies primarily concerned with the efficient use of men and machines in industrial jobs. Two basic problems were identified by the pioneers of scientific management: how to increase industrial productivity for the society as a whole, and how to increase the motivation of workers within the formal organization.[21] These two problems were considered interrelated in the sense that an optimal solution to both problems could be determined if a match could be made of the workers' demands for better wages with the management's demand for higher profits. The objective of the scientific management method was to utilize the human element in conjunction with other machines to produce maximum output.[22] This objective was considered to be attainable through the process of specifying detailed program of the human behavior that would change the operator from being a generalist to that of being a specialist.[23]

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[20] Ibid., p. 12.

[21] William G. Scott and Terence R. Mitchell, Organization Theory, p. 25.

[22] The pioneers of scientific management school of thought are usually considered to be Frederick W. Taylor, Frank and Lilian Gilbreth, Morris L. Cooke, Henry L. Gantt, and Harrington Emerson. See Ernest Dale, Management: Theory and Practice (New York: McGraw-Hill Book Co., 1965), Chapters 9, 10, and 11.

[23] Op. Cit., March and Simon, Organizations, p. 13.

Thus, the focus of the scientific management movement was on the behavior pattern of human beings based on physiological variables, and the movement has sometimes been known as "physiological organization theory."[24] With this objective in mind the pioneers of scientific management movement succeeded in developing precise measuring tools of human productive activities and thus raised, and subsequently answered a few basic questions of human engineering. These pioneering studies, in turn, led to large numbers of follow-up studies of physiological constraints in simple physical operations.[25] Basically Taylor proposed three fundamental principles for organizing human operators and machines into an efficient productive unit.[26] First, time and methods study techniques are necessary to find "one best way" of performing a job. Second, workers should be provided with an incentive to perform the job in the best possible way. Third, specialized experts (functional foremen) should be used to establish various work routines.[27] With the publication of his scientific management principles, Taylor came under severe attack from various segments of the society.[28] But a closer look at this pioneering attempt to conceptualize totally new elements of organizational structure and behavior is necessary for better comprehension

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[24] Ibid.

[25] For an account of such studies see D. Wechsler, The Range of Human Capacities (Baltimore, Maryland: William and Wilkins, 1952), Second edition.

[26] Op. Cit., March and Simon, p. 19.

[27] For other aspects of Taylor's principles see Frederick W. Taylor, Scientific Management (New York: Harper and Row, 1947).

[28] See Ernest Dale, Management: Theory and Practice, p. 154.

of the system's functional patterns of behavior. Perrow advances this notion in the statement below.

> Scientific management has been severely criticized as being simplistic, propounding, contradictory "principles," and being "normative" rather than "empirical"--saying what ought to be rather than looking at what is. But the force of this legitimate criticism peters out when one realizes that, with the exception of Max Weber in Germany, these were like first efforts to analyze management practices and to try to generalize them; these men were dealing with a new animal which had just lumbered onto the industrial landscape and which promised to be an exceedingly large and complex beast indeed.[29]

Also it is evident from Taylor's writings that he implicitly perceived the need for understanding human psychology in order to devise better organizational systems.[30] Taylor, and the subsequent works of the Gilbreths, Gantt, and Emerson established scientific management principles.[31]

The second group of classical theories have sometimes been called "administrative management theories,"[32] and came about due to the expositions by scholars like Fayol, Mooney and Reiley, and Gulick and Urwick.[33] These formal "administrative management theories" are

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[29]Charles Perrow, Organizational Analysis: A Sociological View (Belmont, California: Brooks/Cole Publsihing Company, 1970), pp. 14-15.

[30]Ibid.

[31]Frederick W. Taylor, Scientific Management (New York: Harper and Row, 1947); F. B. Gilbreth, Bricklaying Systems, reprint series (Easton, Pennsylvania: Hive Publication Co., 1973); Motion Study (New York: D. Van Norstand Company, 1911); Primer of Scientific Management (Easton, Pennsylvania: Hive Management History Series, Hive Publishing Company, 1973); L. M. Gilbreth, The Psychology of Management (New York: Macmillan and Co., 1919); H. L. Gantt, Work, Wages, and Profits (New York: The Engineering Magazine Co., 1916), second edition; H. Emerson, The Twelve Principles of Efficiency (New York: The Engineering Magazine Co., 1917).

[32]Op. Cit., March and Simon, Organizations, p. 22.

[33]Henri Fayol, General and Industrial Management, translated by Constance Storrs (London: Sir Isaac Pitman and Sons, Ltd., 1949);

concerned with the problem of identifying necessary tasks required to attain some specific goals. These tasks include production activities, service activities, coordinative activities, and supervisory activities.[34] One of the fundamental administrative problems of an organization is to group these tasks into identifiable jobs, and to sequentially organize the jobs into a whole that achieves the previously determined goals or objectives. Thus, according to Mooney and Reiley coordination constitutes the essence of organization, where coordination is defined as "the orderly arrangement of group effort to provide unity of action in the pursuit of common purpose."[35] Mooney and Reiley futher stated that coordination, and therefore the process of organization itself is dependent on four primary conditions. These are: authority, mutual service provided by the organization to the society-at-large and vice versa, doctrine or specific objectives, and discipline.[36] Urwick in his papers "Organization as a Technical Problem," and "The Function of Administration" perceived the application of established principles of organization as the major administrative problem.[37] This is revealed

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James D. Mooney, and Alan C. Reiley, Onward Industry (New York: Harper and Bros., 1931); Later revised by Mooney and published under the title The Principles of Organization (New York: Harper and Bros., 1947); Luther Gulick and Lyndall Urwick, Papers in the Science of Administration (New York: Institute of Public Administration, 1937).

[34] Op. Cit., March and Simon, p. 22.

[35] James D. Mooney, The Principles of Organization (New York: Harper and Bros., 1947), p. 5.

[36] Ibid.,

[37] Luther Gulick and Lyndall Urwick, Papers in the Science of Administration (New York: Institute of Public Administration, 1937), pp. 47-88 and 115-130, respectively.

in the following statement:

> It is the general thesis of this paper that there are principles which can be arrived at inductively from the study of human experience of organization, which should govern arrangements for human association 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. They are concerned with the method of subdividing and allocating to individuals all the various activities, duties and responsibilities essential to the purpose contemplated, the correlation of these activities and the continuous control of the work of individuals so as to secure the most economical and the most effective realization of purpose.[38]

Gulick concerned himself with the problem of combining basic tasks into jobs, and jobs into distinct departments which were further combined to build the total organization. Gulick proposed that the grouping of jobs can be performed in five different ways. They can be combined by: (1) the purpose of the functions; (2) the processes of the functions; (3) the nature of clientele; (4) the time; and (5) the place.[39] Gulick further stated that the basic functions of the executive (in conducting the organization tasks) are planning, organizing, directing, staffing, coordinating, reporting and budgeting (PODSCORB).[40]

Fayol, like Gulick, also observed and explained the functions of management to be planning, organizing, commanding, coordinating, and controlling.[41] Fayol did not have a general organization theory as such. He was primarily concerned with the most effective way to organize an enterprise, and to that extent his statements of organizations are

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[38] Ibid., p. 49.

[39] Ibid.

[40] Ibid., p. 13.

[41] Op. Cit., Henri Fayol, General and Industrial Management, p. 3.

fragmentary. But through the identification of some universal principles of organization functions, Fayol briefly touched upon the elusive concept of organization theory. In many instances we find quite a bit of similarity of thinking between Fayol and Weber: both stressed concepts of specialization and coordinations, and Fayol's arguments for scientific selection of employees for various positions parallel Weber's concept of a rational program of personnel administration.

In conclusion, we can say that under the classical school of thought the foundations of organization theory were based on concepts like division of labor, the scalar and functional processes of organization, structure, and span of control.[42] These concepts have been operationalized as basic principles of organization.

The classical organizational theories, as described above, have come under severe criticisms. According to March and Simon some of the weaknesses of classical theories are as follows:

> First, in general there is a tendency to view the employee as an inert instrument performing the tasks assigned to him. Second, there is a tendency to view personnel as a given rather than as a variable in the system.[43]

The classical theories, by focusing on the mechanical aspects of organizational functions, tended to overlook the impact of human nature on the formal structure. These theories lacked a systematic analysis of all the variables that come together in an interactive situation in the organization.

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[42]For a description of these principles see Scott and Mitchell, Organization Theory: A Structural and Behavioral Analysis, pp. 37-41.

[43]Op. Cit., March and Simon, Organizations., p. 29.

But, at the same time, their contributions towards understanding of the structural aspects of formal organizations cannot be denied. Using concepts developed by Taylor, Fayol and others of the classical school of thought, attempts have been made by modern day researchers to explain the organization model by developing notions of structural indices such as span of control, chain of command and hierarchy, time span of discretion, and centralization of decision making.[44] These structural indices (provided initially by the classical theorists) are now being related to specific contextual and environmental variables.

The Neo-Classical Models

The neo-classical theories of organizational behavior originated directly from efforts to overcome the shortcomings of the classical organization theories. In the discipline of management the neo-classical school of though has usually been associated with the so-called human relations movement. Elton Mayo is generally considered to be the originator of this human relations movement, although others contributed much to the development of this viewpoint.[45]

Through prolonged empirical observations of the now famous Hawthorne Works of Western Electric Company from 1927 to 1932, Mayo and

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[44]For a brief summary of various structural indices used by scholars of organizations see William M. Evan, "Indices of the Hierarchical Structure and Organizations," Management Science, Vol. IX (1963), pp. 468-477.

[45]According to Etzioni scholars like John Dewey contributed to the "human relations movement" indirectly, while efforts of researchers like Kurt Lewin had a more direct impact. See Amitai Etzioni, Modern Organizations (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1964), p. 32.

his associates noted the following startling behavior of employees:[46] (1) the amount of work performed by a worker (which determines the organizational efficiency and effectiveness) is determined not by his physical capacity (as was thought to be the case by scientific management theorists), but by his social capacity; (2) the happiness and well being of the workers are determined largely by non-economic rewards; (3) the highest degree of specialization is not always related to the most efficient form of division of labor; and (4) in many instances the employees react to the norms established by management, not as individuals but as groups. Other interesting results of human behavior were discovered in the areas of communication, participation and leadership. Such observations led to the modification of basic concepts of organization behavior advanced by the classical school of thought.[47]

It is interesting to note that the existence of neo-classical school of thought is not so much due to advancement of any new theories, per se, but largely to the criticism directed at the inadequacies inherent in the classical theories. The criticisms and the modifications introduced to classical theories were based upon research findings in the behavioral sciences. However, the neo-classical modifications of classical theories have themselves been subjected to critical evaluations.[48]

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[46] Ibid.

[47] Pfiffner and Sherwood's concept of organizational overlays builds upon the classical concepts of formal organization structure by adding modified concepts of small (informal) groups, decision and power systems that are different than formal concepts of authority, and informal channels of communication. See John M. Pfiffner and Frank P. Sherwood, Administrative Organization (Englewood Cliffs, New Jersey: Prentice-Hall, Inc., 1960), p. 32.

[48] The following paragraphs draw heavily from the section on neo-classical theories by Scott and Mitchell, Organization Theory, pp. 43-51.

The concept of division of labor as a basis for organizational efficiency has been criticized on the grounds that requiring employees to perform only a very small segment of the specialized task generates in the employees a deep sense of anomie.[49] This sense of "aloneness among many"[50] creates barriers to identification with these narrowly defined activities which the employee is required to perform. This leads to negative results. Also, because the high degree of task specialization results in extensive interdependencies of tasks strains and stresses are created that may lead to further inefficiencies.[51] Furthermore, too much division of labor creates the problem of coordination.

The classical concepts of scalar and functional processes of organizations create the problem of delegation of authority and responsibility. The classical theories assume that authority delegated tends to equal the capability of the people performing a particular task. Such notions of delegation are based on the assumption that sufficient information exists about the content of jobs and the incumbents' capabilities. The neo-classical theorists reject these notions. They contend that there are no effective methods of appraising the individual capabilities, and that one cannot anticipate very accurately the future changes in a job's content. Thus, the sought after parity between capacity and authority is not feasible in real-life situations.

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[49]The concept of anomie was first developed by social scientist Durkheim. See Emile Durkheim, The Division of Labor in Society (New York: The Free Press of Glencoe, 1947).

[50]Op. Cit., Scott and Mitchell, p. 44.

[51]The pioneering work of Whyte in the restaurant industry brought to focus the existence of such stresses within the system of interdependencies. See William F. Whyte, Human Relations in the Restaurant Business (New York: McGraw-Hill Book Company, 1948).

Another criticism is that the formal structures of organizations as delineated by classical theorists are greatly contaminated with the presence of informal organizations. Therefore, in real life, the notions of chain of command, hierarchy of positions, and unity of command must be constantly modified if an understanding of the organizational behavior is to take place.

The concept of span of control as described by the classical school is also criticized by the neo-classical scholars on the ground that there is no universally determinate number within a span, but that these spans are dependent upon a number of situational factors.[52] The neo-classicists also object to the implied notion of close supervision of employees.

The importance of the neo-classical thinking of organizational behavior lies in the fact that it links the evolution of organizational theories from classical to systems concepts. Such a change in thinking was needed if a more complete understanding of the complex organizations were to take place. Coming at a time when they did, these approaches pushed for deeper and wider comprehension of numerous variables within the organizational milieu that, until then, had been unidentified. The groundwork was laid for more modern theories.

Modern Organization Model--An Overview

The classification labeled "modern organization theories" is a catch-all category that covers theories that look at either the part or the whole system in an effort to generalize the individual empirical findings to a higher level of abstraction. Thus, one could say that

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[52] Op. Cit., Scott and Mitchell, Organization Theory, p. 50.

modern theories of organizations are new approaches to complex organizations that contain some concepts from classical and neo-classical schools of thought, as well as substantial amount of newly discovered concepts.[53] Under the modern organizational approach the enterprise is viewed as an open, organic, probabilistic system in contrast to the closed, mechanistic, deterministic system which formed the basis of all classical and some neo-classical theories of organization.[54]

Modern organization theories are based entirely on a systems point of view. Scott and Mitchell delineate some of the basic questions raised by the modern, systems view of organizations that were largely dormant under the classical and neo-classical scheme of thought.[55] The questions are:

1. What are the strategic parts of the system?
2. What is the nature of their mutual interdependencies?
3. What are the main processes in the system which link the parts and facilitate their adjustments to each other?
4. What are the goals sought by the system?

We therefore find that an understanding of the systems theory is germane to understanding of modern organization theory development. The results

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[53]According to Scott and Mitchell the classical theories make up the old paradigms. In the face of increasing complexity of organizational forms the explanatory powers of these old paradigms were largely ineffective. Thus, search was instituted for new models that resulted in the modern organizational theories. However, the modern organizational theories are not merely extensions of classical theories but are a fundamental reconstruction. See William G. Scott and Terence R. Mitchell, Organization Theory: A Structural and Behavioral Analysis (Homewood, Illinois: Richard D. Irwin, Inc., and The Dorsey Press, 1972), p. 67.

[54]Ibid.

[55]Op. Cit., Scott and Mitchell, Organization Theory, p. 55.

of the Hawthorne experiments exhibited very clearly the need for having a systems perspective to analyze behavior of complex organizations.[56] Thus, modern organizational research received an important boost with the increased application of systems concept. Emphases have been placed to delineate the relationship of the bureaucratic organizations with that of the external environment.

Von Bertalanffy was the first to reveal fully the importance of a system being open or closed to the environment as the criterion for distinguishing living from the inanimate systems.[57] Social scientists, as well as practitioners of business, have become increasingly aware of the relationship between an organization and its environment and consequent impact of this relationship on behavioral and structural elements of the organization.

These theories envisage systems at several levels of complexity that result in separate behavior patterns. Boulding presents the following interesting classification of hierarchy of systems.[58]

1. The static structure--level of framework, the anatomy of a system.

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[56]One of the researchers associated with the Hawthorne experiments, Lawrence J. Henderson, made the point very clearly when he stated "The interdependence of the variables in a system is one of the widest induction from experience that we possess; or we may alternatively regard it as the definition of a system." See Lawrence J. Henderson, Pareto's General Sociology (Cambridge, Massachusetts: Harvard University Press, 1935), p. 86.

[57]Ludwig Von Bertalanffy, "General Systems Theory," General Systems No. 1 (1956), pp. 1-10; also Problems of Life (London: Watts and Co., 1952).

[58]Kenneth E. Boulding, "General Systems Theory--The Skeleton of a Science," Management Science (April, 1956), pp. 202-205; for another classification scheme of systems see Stafford Beer, Cybernetics and Management (New York: John Wiley and Sons, 1959), p. 18.

2. The simple dynamic system--level of clockworks that involve necessary predetermined motions.
3. The cybernetic system--level of thermostat, simple feedback and the control circuit designed to enable a system to maintain a given equilibrium.
4. The open system--level of self-maintaining systems that exhibit the ability of rejuvenation, growth, and reproduction. This level moves toward and includes living organisms.
5. The genetic-social systems--level of cell society, characterized by a division of labor among cells.
6. Animal systems--level of mobility, evidence of goal-directed behavior.
7. Human systems--level of symbolic interpretation and idea communication.
8. Social systems--level of human organizations.
9. Transcendental systems--level of ultimates and absolutes that exhibit systematic structures but are unknowable in essence.

Modern organization theories have drawn extensive analogies between a particular organization and some parallel systems in either a social, biological, or physical setting, with the hope of using identical operational principles to explain the behavior of that organization. The potential pitfalls of drawing superficial analogies notwithstanding, it is evident that a thorough comprehension of the different characteristics of systems, existing at different levels of evolution, will aid in developing workable methods of observing and measuring complex organizational phenomena. When the results of such efforts are generalized to a higher level of abstraction, a composite theory of organization

behavior may be produced to explain why certain results occur within a particular organization system, interacting with a few or large quantity of variables.[59]

A comprehensive systems framework, developed by Scott and Mitchell to depict the wide-ranging thrust of modern organization theories is presented in Figure III-1.[60] The interactive parts within the total system are bound by bonds of communication, balance and decision. The complexity of these basic linking processes is determined by the degree of complexity of the system. It is evident that the simplistic rules of formal communication, decision making, and balance through control envisaged by the prescriptive classical theories of organization are quite inadequate to represent the interactive processes of modern day organizations. Existence of informal channels of communication, informal and illegitimate sources of power and authority that infringe on legitimate decision making processes are well recognized by students of organizations today.

As is evidenced in Figure III-1 below the subsystems A, B, C, D, and E function and interact with each other at two levels--the intrapart interaction level and the interpart interaction level. The intrapart interaction is brought about by the division of labor and specialization, causing dependency within the subsystems. The interpart interactions, on the other hand, are brought about by the need to

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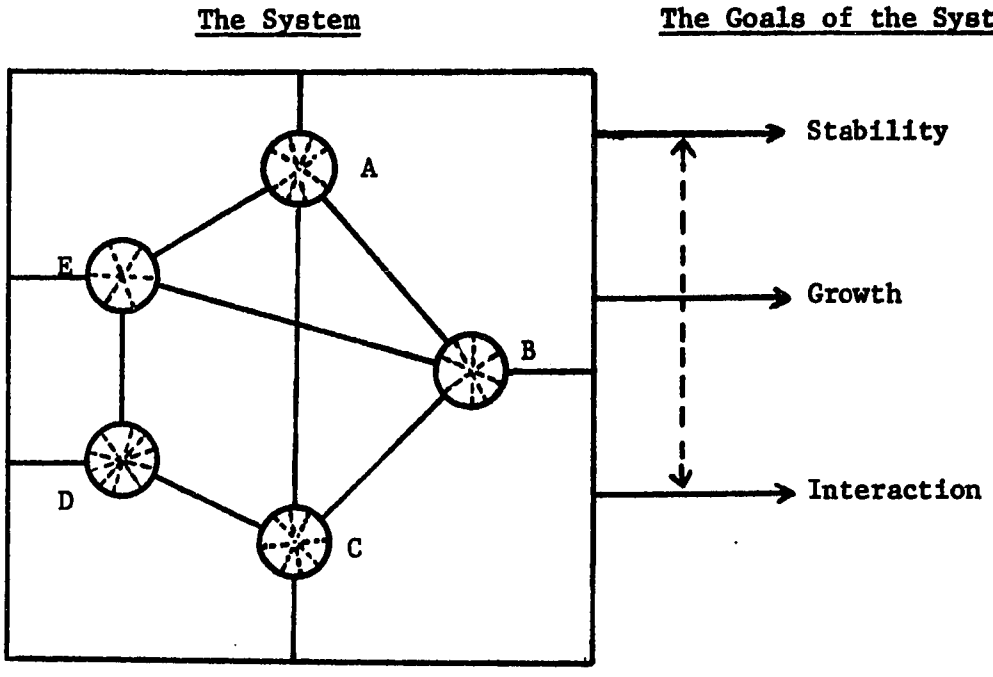
[59]For an interesting discussion of the need for better organization theories see Wolfe V. Heydebrand, ed., Comparative Organizations: The Results of Empirical Research (Englewood Cliffs, N.J.: Prentice Hall, Inc., 1973), Chapter on 'General Introduction,' pp. 1-30.

[60]Op. Cit., Scott and Mitchell, p. 56.



Key

1. Circles represent part of the system
2. Dotted lines represent intra-point interactions, i.e., individuals with other individuals
3. Solid lines represent inter-point interactions
4. Both the solid and the dotted lines are the processes which tie the parts of the system together

A. Individuals
B. The formal organization
C. The informal organization
D. The structure of status-role expectancy systems
E. The physical environment of the work situation

Figure III-1. The Framework of Systems Analysis.
Source: William G. Scott and Terence R. Mitchell, Organization Theory: A Structural and Behavioral Analysis (Homewood, Ill.: Irwin and Dorsey Press, 1972), p. 56.

coordinate the actions of various subsystems to achieve the prescribed goals. Once again, the discrepancies between the simplistic classical model of such interactions and those of the real life processes are common knowledge.[61] One source of these discrepancies lies in the fact that the interactive processes of communication, decision, and balance introduce stresses and strains within the system that in turn tend to produce unintended results. Classical theories usually did not perceive these unintended consequences. The classical and, to a certain degree, the neo-classical theories viewed the organization as a complex "deterministic system" while the modern organization theories look upon the organization as complex "probabilistic system."[62]

Thus, of late, we find a great many comparative studies conducted between various types of complex organizations which have resulted in the present body of knowledge commonly classified as modern organization theories. Heydebrand states:

> The comparative method itself is, of course, well-established; what is new is the application of the method to rather complex phenomena, and the possibility of comparing widely divergent organizational patterns and thousands of concrete organizations in such a way as to make meaningful statements about their similarities and differences. The major thrust of this methodology is toward generating empirical and ultimately theoretical generalizations

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[61]For example Argyris described the conflict brought about by the demands made by the job and the needs of maturing personality. See Chris Argyris, Personality and Organization (New York: Harper and Bros., 1957), Chapters 2, 3, and 7. Another incongruency ignored by classical theories is the nature of expectancy modification brought about by the interactive processes between the subsystems individuals (A) and informational organization (C); see Alvin Zander, "Group Membership and Individual Security," Human Relations, Vol. 11 (1958), pp. 99-111; also George C. Homans, The Human Group (New York: Harcourt, Brace and Co., 1950), Chapter 5.

[62]For a description of "deterministic" and "probabilistic" systems see Stafford Beer, Cybernetics and Management (New York: John Wiley and Sons, Inc., 1959), p. 18.

about organizational structures and their environments, rather than describing cases or developing typologies.[63]

Two rather different approaches have been made. The first involves a sizable number of studies of organizational behavior which have dealt with contextual variables like size,[64] work flow,[65] work demands,[66] and spatial-physical-temporal factors.[67] For example, Woodward found relationships between relative continuity of the production process and structural indices like the chief executive's span of control, the number of levels in the hierarchy, and the ratio of managers to

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[63] Op. Cit., Wolf V. Heydebrand, Comparative Organizations, p. 2.

[64] The literature on the impact of organizational size on organization behavior is extensive. For selected references see Theodore Caplow, "Organizational Size," Administrative Science Quarterly, Vol. 2 (1957), pp. 484-505; Bernard P. Indik, "Some Effects of Organizational Size on Member Attitudes and Behavior," Human Relations, Vol. 16 (1963), pp. 369-384; Lyman W. Porter and Edward E. Lawler, III, "Properties of Organization Structure in Relation to Job Attitude and Job Behavior," Psychological Bulletin, Vol. 63 (1965), pp. 34-43.

[65] For selected references to impact of work flow on organization behavior see Elliot Chapple, and Leonard Sayles, "Work Flow as the Basis for Organization Design," in The Measure of Management (New York: Macmillan and Co., 1961), pp. 18-45; Louise Davies, "The Design of Jobs," Industrial Relations, Vol. 6 (1966), pp. 21-45; Leonard R. Sayles, "Trading, Work-Flow, and Service Relations," in Managerial Behavior (New York: McGraw-Hill Book Co., 1964), pp. 58-82.

[66] For selected references to concepts of work demand see William R. Dill, "Environment as an Influence on Managerial Autonomy," Administrative Science Quarterly, No. 2 (1958), pp. 409-443; Rensis Likert, New Patterns of Management (New York: McGraw-Hill Book Co., 1961), pp. 89-96.

[67] Of late there has been a growing volume of literature on the concepts of spatial-physical-temporal factors and their impact on organizations. See Robert Dervar and Robert Sommer, "The Physical Environment of the Ward," in Eliot Friedman, ed., The Hospital in Modern Society (Glencoe, Illinois: The Free Press, 1963), pp. 319-342; Stanley Milgram, "Some Conditions of Obedience and Disobedience to Authority," Human Relations, Vol. 18 (1965), pp. 57-75.

total personnel.[68] Harvey found that as relative volatility (or change) of an industrial organization's production technology increased such structural variables as number of levels, number of specialized sub-units, and the ratio of managers and supervisors to total personnel also tended to increase.[69]

In a second approach to the study of modern complex organizations some social scientists have attempted to treat bureaucracy as a variable: the seven conditions of bureaucracy (mentioned earlier) are conceptualized as continua of the different degrees of bureaucratization. For example, researchers like Hall, Hage, and Aiken tried to discover interdependencies between degrees of bureaucratization and certain contextual variables. Hall, for example, studied a variety of work organizations and found the degree of bureaucratization to be directly related to such variables as organization size and the degree of routineness of the tasks performed by organization members.[70] A similar relationship between several aspects of bureaucratization and the degree of routineness of health and welfare organizations were reported by Hage and Aiken.[71]

Though the methodological approaches adopted by those who consider bureaucracy as a variable, and those who consider organizational

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[68]Joan Woodward, Industrial Organization: Theory and Practice (London: Oxford University Press, 1965).

[69]Edward Harvey, "Technology and the Structure of Organizations," American Sociological Review, Vol. XXXIII (1968), pp. 247-259.

[70]Richard H. Hall, "Concept of Bureaucracy," and "Intra-Organizational Structural Variation: Application of the Bureaucratic Model," Administrative Science Quarterly, Vol. VII (1962), pp. 295-308.

[71]Jerald Hage and Michael Aiken, "Routine Technology, Social Structure, and Organizational Goals," Administrative Science Quarterly, Vol. XIV (1969), pp. 366-375.

contexts as variable are different, their conclusions tend to be very much the same as they pertain to structural indices and the impact of variables such as the task and size of the organization. In a recent study of 46 British firms, Pugh and others took a further step by combining aspects of both these research models. They tried to relate the structural characteristics in multi-dimensional continua with variables in the organization's setting or context such as size, technology, and dependence of organizations to other entities in the environment.[72]

Each of the studies mentioned above has attempted, in different ways, to relate the structural indices to variables in the organization's context, to variables in the internal environment, or to both. This indicated an initial interest among researchers to establish relationships between these variables and to posit some hypotheses about resultant organizational behavior.

With the advent of the systems concept into modern organizational theories, other research studies were conducted to find the impact of environment on the organization structure and behavior. Emery and Trist attempted to conceptualize the environment within a more realistic frame of reference and have put forward the concept of "the causal texture of the environment."[73] In observing the characteristics of formal organizations, they offer this general proposition:

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[72]D. S. Pugh, et al., "The Context of Organization Structures," Administrative Science Quarterly, Vol. XIV (1969), pp. 91-114; "Dimensions of Organization Structure," Administrative Science Quarterly, Vol. XIII (1968), pp. 65-105; J. H. K. Inkson, D. S. Pugh, and D. J. Hickson, "Organization Context and Structure: An Abbreviated Replication," Administrative Science Quarterly, Vol. XV (1970), pp. 318-329.

[73]F. E. Emery and E. L. Trist, "The Causal Texture of Organizational Environment," Human Relations, No. 18 (1965), pp. 21-31.

> ...a comprehensive understanding of organization behavior requires some knowledge of each member of the following set, where L indicates some potentially lawful connection, and the suffix 1 refers to the organization and the suffix 2 to the environment.
>
> L_{11} L_{12}
> L_{21} L_{22}
>
> L_{11} here refers to processes within the organization...the area of internal interdependence, L_{12} L_{21} to exchange between the organization and its environment...the area of transactional interdependencies, from either direction; and L_{22} to processes through which parts of the environment become related to each other...i.e., its causal texture...the area of interdependencies that belong within the environment itself.[74]

With the evolution of such conceptualizations about the environment, and the resulting interdependencies between the environment and the organization, the practice of treating the external environment as "given" or "constant" became less than satisfactory. Modern organization theories have placed special emphasis on the interactive processes that take place at the organization and environment interface. Terreberry's attempt to provide a framework for thinking about the evolution of organization environment based on concepts of Emery and Trist has received wide attention from students of organization behavior.[75]

The interests of researchers have been aroused as a consequence of the expansion of the scope of business in domestic arenas. Recent researches exhibit two distinct approaches to the question of environmental impact on organization, being dependent on what variables are considered as being part of environment. One group of studies attempted to identify the impact of environmental variables, such as market and technological conditions and other socio-cultural factors, on the

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[74] Ibid., p. 22.

[75] Shirley Terreberry, "The Evolution of Organizational Environment," Administrative Science Quarterly, Vol. 12, No. 4 (March, 1968), pp. 590-613.

organizational variables like structure, behavior, and effectiveness. These studies have resulted in a body of knowledge commonly known as "contingency theories" of organizational behavior; these researchers tried to establish a contingent model of behavior of the organization and its structure in relation to its particular environment. The works of Dill, Burns and Stalker, Thompson, Thorelli, Lawrence and Lorsch, and others are most noteworthy.[76] The other group of researchers attempted to identify the impact of outside organizations, existing in the external environment, on the parent organization. This latter approach has primarily evolved from the studies by sociologists and has been characterized in the business literature as the "interorganizational field."[77] The works of Warren et al., Lefton and Rosengren, and White et al. are noteworthy within this group. The research of Warren et al. examines the relationship between "community decision organizations" such as public school administration offices, health and welfare planning councils, community action agencies, and mental health planning units.[78] Lefton and Rosengren's study explores the impact of

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[76]William R. Dill, "Environment as an Influence on Managerial Autonomy," Administrative Science Quarterly, Vol. II (1958), pp. 409-443; Tom Burns and G. M. Stalker, The Management of Innovation (London: Tavistack Institute, 1961); James D. Thompson, Organization in Action (New York: McGraw-Hill Book Co., 1967); Hans B. Thorelli, "Organization Theory: An Ecological View," Proceedings of the Academy of Management (1967), pp. 66-84; Paul R. Lawrence and Jay L. Lorsch, Organization and Environment (Homewood, Ill.: Richard D. Irwin, Inc., 1969).

[77]Anant R. Negandhi, ed., Modern Organizational Theory (Kent, Ohio: The Kent State University Press, 1969), p. 2.

[78]Roland L. Warren, Ann F. Burgunden, J. Wayne Newton, and Stephen M. Rose, "The Interaction of Community Decisions Organizations: Some Conceptual Considerations and Empirical Findings," in A. R. Negandhi, ed., Modern Organizational Theory (Kent, Ohio: The Kent State University Press, 1969), pp. 145-159.

clients' characteristics on organizational structure and functioning.[79] The researches of White, Levine and Vlasak elaborates the application of "exchange theory" for understanding interaction among social organizations.[80]

Finally, efforts have lately been made to measure the organization structure on a multidimensional scale as contrasted to previous unidimensional studies. The works of Pugh, et al., are examples of such efforts.[81]

Another major thrust to relate organizational characteristics to their environments has come from scholars in the area of international management. We have noted in Chapter II the various organizational theories pertaining to international management, and the important role ascribed to the variables operating in the external environment.

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[79]Lefton and Rosengren conceptualize two distinct constructs of client-organization relationship--"laterality" and "longitudinality." Using such conceptual tools they examine the impact of differing interests which organizations have in their clients. See Mark Lefton and William R. Rosengren, "Organizations and Clients: Lateral and Longitudinal Dimensions," American Sociological Review, Vol. 31 (1966), pp. 802-810; also William R. Rosengren and Mark Lefton, Hospitals and Patients (New York: Atherton Press, 1968); William R. Rosengren and Mark Lefton, eds., Organizations and Clients: Essays in the Sociology of Service (Columbus, Ohio: Charles Merrill Publishing Co., 1970); Mark Lefton, "Client Characteristics and Organizational Functioning: An Interorganizational Focus," in A. R. Negandhi, ed., Modern Organizational Theory (Kent, Ohio: The Kent State University Press, 1969), pp. 160-173.

[80]Paul E. White, Sol Levine, and George J. Vlasak, "Exchange as a Conceptual Framework for Understanding Interorganizational Relationships: Applications to Non-Profit Organizations," in A. R. Negandhi, ed., Modern Organizational Theory (Kent, Ohio: The Kent State University Press, 1969), pp. 174-188; also Sol Levine and Paul E. White, "Exchange as a Conceptual Framework for the Study of Interorganizational Relationships," Administrative Science Quarterly, Vol. 4 (1961), pp. 583-601.

[81]Op. Cit., Pugh, et al., "The Context of Organization Structures."

In summary, we find a gradual evolution of organizational theories from classical through neo-classical modifications to reconstruction of perception of organization and its behavior in the modern organizational theories. According to Scott and Mitchell the perception and conceptualization of organization and its variables has transcended from macro organizational view (under classical theory) to micro analysis of primary groups (neo-classical theories of human relations) to macro systems (systems based modern organization theories) again.[82]

Four Studies of Contingency Behavior

The evolution of concepts of environmental variables have created a widespread interest in research along contingency models of organizational behavior. Attempts have been made to establish relationships between organizational functioning, behavior, and effectiveness with external and internal environments.[83] Interest in earlier works of Dill, Thompson, Burns and Stalker has been revived. Initially, Dill proposed the concept of organizational task environment as related to studies of organizational behavior. He defined task environment as "that part of the total environment of management which was potentially relevant to goal-setting and goal-attainment."[84] Others recognized the inherent difficulty in measuring all of the task environment; they chose those subsets of the environment which can be effectively studied for

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[82] Op. Cit., Scott and Mitchell, Organization Theory, pp. 69-70.

[83] Op. Cit., A. R. Negandhi, ed., Modern Organizational Theory, p. 2.

[84] Op. Cit., Dill, p. 410.

their impact. In such a context the four studies described briefly below acquire added relevancy.

Lawrence and Lorsch Study

Primarily, Lawrence and Lorsch sought to establish a fit between the organization and its environment, and to determine the ultimate effectiveness of such organizations that contained the requisite mechanisms of integration and differentiation.[85] The research was conducted among ten organizations in three different industries. Each of the ten organizations was perceived as being composed of sales, research (fundamental and applied), and production subsystems. These subsystems in each organization were differentiated from one another in terms of four dimensions: the formal structures, the members' goal orientation, the members' time orientations, and the members' interpersonal orientations. The three industries operated within environments that could be differentiated along certainty-uncertainty continuum. That is, environments facing the firms in one industry could be considered more dynamic and consequently more uncertain than environments facing the firms of another industry. The research attempted to relate this differentiation to the requirements of the particular environment with which each subsystem was interacting. For example, if that part of the environment with which the marketing department dealt was more uncertain (as measured along the certainty-uncertainty continuum) than that part of the environment with which the production department dealt, that

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[85]Paul R. Lawrence and Jay W. Lorsch, Organization and Environment (Homewood, Illinois: Richard D. Irwin, Inc., 1967); also Paul R. Lawrence, and Jay W. Lorsch, "Differentiation and Integration in Complex Organizations," Administrative Science Quarterly, Vol. 12, No. 1 (June, 1967), pp. 1-47.

difference was reflected in a marked difference between marketing and production along the four internal dimensions (described above).

The two constructs introduced into their research design were termed differentiation and integration. They described the concepts as follows:

> The basic concepts used in this examination of the internal functioning of large organizations are "differentiation" and "integration," the key research question being: what pattern of differentiation and integration of the parts of a large organizational system is associated with the organization's coping effectively with a given external environment? ...Differentiation is defined as the state of segmentation of the organizational system into subsystems, each of which tends to develop particular attributes in relation to the requirements posed by its relevant external environment. Differentiation, as used here, includes the behavioral attributes of members of organizational subsystems; this represents a break with the classical definition of the term as simply the formal division of labor. Integration is defined as the process of achieving unity of effort among the various subsystems in the accomplishment of the organization's task.[86]

The research was able to identify relationships between the extent to which the modes of differentiation and integration in each organization met the requirements of the environment, and the relative effectiveness (in terms of economic performance) of these organizations. For each organization, the degree of differentiation between the various sybsystems was found to be inversely related to the degree of integration obtained between these subsystems. It was further discovered that organizations that were economically more successful had environments that necessitated a high level of both differentiation and integration.

The results of the research verified the hypotheses postulated concerning the behavior of organizational units (sales, production, fundamental and applied research) in relation to their part of the total

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[86] Ibid., "Differentiation and Integration in Complex Organizations," pp. 2-4.

environment. The contingency nature of effective subsystem behavior, dependent upon environment, and functioning through the process of differentiation and integration, was clearly exhibited by this pioneering work.

Negandhi and Prasad Study

In a separate study, Negandhi and Prasad attempted (in part) to relate the environment to organization characteristics. In defining the notion of environment Negandhi and Prasad state:

> A related issue of significant impact is that of assessing the environmental impact.... Propositions which tend to posit causal relationships can be and have been formulated; but how one views the concept of environment, as a constraint or as an interacting mechanism, makes some difference in the nature of propositions.... We, however, tend to subscribe to the view that environment is not always a constraint; rather, we feel, environment is most often an interacting mechanism.[87]

Since the variable chosen from the organizational environment was the relationship with different task environmental agents, this study, in part, can be classified as an empirical analysis of the "interorganization field" interactive process as defined by Negandhi.[88]

The study was designed to measure the impact of varying management philosophies on the organizational practices and the effectiveness of both the management and the organization. Two groups of companies, operating in five different countries, were selected. In each country one group of companies was local to the environment, while the second group consisted of organizations which had parent companies located in

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[87]Anant R. Negandhi and S. Benjamin Prasad, Comparative Management (New York: Appleton-Century-Crofts, 1971), pp. 15-16.

[88]Op. Cit., Negandhi, ed., Modern Organizational Theory, pp. 2-3.

foreign countries (primarily in the United States). The research attempted to measure the impact of two different types of management philosophies and management processes on management effectiveness. Negandhi and Prasad define the concepts of philosophy, process, and effectiveness in the following statement:

> ...Three concepts--management philosophy, management process, and management effectiveness--were employed as variables. Management philosophy was defined as the expressed and implied attitude of the managers of an organization towards its external and internal agents such as consumers, employees, suppliers and distributors, the government, the community, and the workers' organizations. Management process was identified in the generally accepted sense of managerial planning, organizing, staffing, leading, and controlling. Managerial effectiveness, however, was defined in terms of profits, market share, employee turnover, consumer ranking, price of stock and so forth.[89]

Two implicit assumptions made in the research scheme were: (1) that the subsidiaries of foreign companies will pursue a management philosophy in the host country which is similar to the management philosophy of the parent company; and (2) that there will be differences between the management philosophies of the foreign subsidiary companies in the host country and their local competitors in the host nations. The research design was created to measure the impact of the different types of management philosophies and processes on management effectiveness and organizational effectiveness. Results indicated that companies, both local and subsidiaries, whose management philosophies depicted greater concern for task environmental agents, and classified as "most sophisticated," were more effective from management and organizational points of view. According to these researchers "those companies having favorable attitudes toward consumers, employees, distributors, suppliers,

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[89] Op. Cit., Negandhi and Prasad, Comparative Management, p. 22.

stock owners, government, and community tend to have more progressive management practices and higher effectiveness in handling their manpower resources."[90] The results of the research thus exhibited the dependency of the management process, and consequently effectiveness, on the environment as perceived by the management.

Negandhi and Reimann Study

This particular research was conducted to test the notion of contingency theories that organization structure is primarily dependent on the external environment of the enterprise. The Lawrence and Lorsch study had shown that stable environmental conditions made centralized structures more effective, while a dynamic environment required a more decentralized structure in order to achieve effectiveness. The Negandhi-Reimann study was conducted within Indian environment to test the precise nature of relationships between organization structure and organization effectiveness while the system was interacting with its environment.[91] Negandhi and Reimann studied a sample of 30 different organizations in India ranging from pharmaceuticals and chemicals to cosmetics, sewing machines, shoes and soft drinks. The market environments of sample companies were measured along a competitive-noncompetitive continuum, the spectrum being labeled as either highly competitive, moderately competitive, or non-competitive markets depending on the measured scores. Within this heterogeneous market environment an effort was made to

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[90] Ibid., pp. 161-162.

[91] Anant R. Negandhi and Bernard C. Reimann, "A Contingency Theory of Organization Re-Examined in the Context of a Developing Country," Academy of Management Journal, Vol. 15, No. 2 (June, 1972), pp. 137-146; also "Task Environment, Decentralization, and Organizational Effectiveness," Human Relations, Vol. 26, No. 2 (January/February, 1973), pp. 203-214.

relate the variables of management concern for task environmental agents such as consumers, customers, government, community, etc., the degree of decentralization, and organizational effectiveness.[92]

The study indicated that effective companies operating in a relatively competitive market showed a greater degree of management concern for task environmental agents, as well as a greater degree of decentralization of organizations and their effectiveness. Contrariwise, companies that were less effective in a highly competitive market showed a lesser management concern for task agents and a lesser degree of decentralization. Moreover, a surprising result of this research was the finding of a similar relationship of structure and effectiveness variables among companies that were situated in the noncompetitive extreme of the competitive-noncompetitive spectrum, albeit to a lesser degree.[93] The researchers concluded that their study supported the contingency theory of organizations and that "dynamic, competitive market conditions make decentralization more important to organizational effectiveness than do stable non-competitive conditions."[94]

Reimann Study

This research was undertaken to explore the impact of the organization's contextual and task environment variable on its structure and functioning.[95] Reimann selected only those contextual and task

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[92] Ibid.

[93] Ibid., Negandhi and Reimann, "A Contingency Theory of Organization Re-Examined," p. 143.

[94] Ibid., p. 144.

[95] Bernard C. Reimann, "Management Concern, Context, and Organization Structure" (unpublished Ph.D. dissertation, Kent State University, 1972).

environmental variables that had been shown to have some impact on organizations. The study was conducted with a sample group of United States manufacturing concerns that used a wide variety of process technologies, product markets, and structural arrangements. A large number of contextual variables were initially selected which later were consolidated, through the process of factor analysis, to seven variables like geographic dispersion, process technology, work flow integration, and information technology dependence, market uncertainty, and market dispersion. Similarly, a large number of structural variables were consolidated into six variables like functional specialization, formalization of role-definition, centralization and decentralization index, functional dispersion, hierarchical control, and activities. The results of the research indicated that structure measured along specific indices is dependent on different variables, one of which is management concern for task agents.

Table III-1 attempts to summarize the nature of variables measured in the four separate studies mentioned above, and partial conclusions that can be inferred from the exhibited relationships. The four studies, summarized in Table III-1, are in no way meant to imply that they constitute the total population of research in contingency theories of organization behavior, or that other studies draw contrary conclusions. References have been made to other studies conducted in this area. The present researcher made a subjective decision in selecting these four, out of possible many, to provide a substantial theoretical support for undertaking this explorative study.

TABLE III-1

SUMMARY OF FOUR STUDIES

Research Study by	Variables Measured	Conclusions Inferred from Established Relationships among Variables
1. Lawrence and Lorsch	Environment; Formality of Organization Structure; Time, Goal, and Interpersonal Orientations; Organization Effectiveness.	Effectiveness is dependent upon the proper fit between the degree of formalization of structure and the environment measured along certainty-uncertainty continuum, as well as the various time, goal, and interpersonal orientations. Effectiveness is achieved provided the proper differentiation and integration mechanism existed.
2. Negandhi and Prasad	Management philosophies; Management practices; Management Effectiveness; and Organization Effectiveness.	Management Effectiveness and Organization Effectiveness are dependent on progressive management philosophies, described as exhibiting greater degree of concern for task environmental agents.
3. Negandhi and Reimann	Market Structure; Concern for Task Environmental Agents; Decentralization Index; and Organization Effectiveness.	Within a competitive market structure, organizations which exhibit a greater degree of concern for task agents, and have a more decentralized structure attain a higher level of effectiveness.
4. Reimann	Contextual and Environmental variables; Management Concern for Task Agents; Organization Structure; Organizational Effectiveness.	Greater degree of concern exhibited toward task agents is positively correlated with greater decentralization; also greater concern for task agents is positively correlated with greater organization effectiveness as measured by executive retention rate.

Model for Empirical Research--A Review of Variables

The diagram of the proposed research model and an explanation of the relationships to be inquired into, as well as the expectation of findings have been presented in some detail in Chapter I. The various theoretical concepts pertaining to organizational behavior both in international and domestic operations have also been presented in Chapters II and III. Having presented the relevant theoretical constructs necessary for an understanding of the contingency nature of organizational behavior, it is now required that an explanation be provided for the selection of the specific variables chosen for the proposed research.

In introducing the basic dimensions of comparative organizational analysis, Heydebrand made the following statement about the taxonomy of organizational variables:

> While developing a common language and a conceptual framework for the comparative analysis of organizations I have found it useful to distinguish among several clusters of variables. These clusters also serve, in a rough way, to organize the studies...around common themes.
>
> The first cluster deals with the nature and complexity of the organizational environment and with the problem of organizational autonomy. A second set of variables is related to the organizational goal and task structure, a complex sometimes referred to as "charter". .... A third set of variables deals with the internal structural differentiation of organizations, that is, internal divisions of labor, technological complexity, and skill structure. Finally there is a cluster of variables which refers to the dimensions of organizational coordination and control.[96]

According to Heydebrand these four major clusters of variables--environment and autonomy, goal and task structure, division of labor, and coordination--constitute a framework within which the external variables interact with internal variables to provide a particular behavior.[97]

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[96]Wolf V. Heydebrand, ed., Comparative Organizations (Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1973), p. 11.

[97]Ibid.

Thus, most of the researches reported in this paper have attempted to measure the interactive process of one or a few of the variables pertaining to the taxonomic clusters mentioned above. The present research has been designed to blend, in part, the four research studies cited above. This desire, combined with the subjective opinion of the author resulted in the selection of four basic variables in the present study. To reiterate, the four variables selected are the organization environment as measured along a certainty-uncertainty continuum, the management concern for the task environmental agents like customers, employees, government, community, etc., the organizational structure,[98] and organizational effectiveness.

Organization Environment

Partial findings of Lawrence and Lorsch's research, as well as those of Negandhi and Prasad, and Negandhi and Reimann depicted vividly the dependency of organizational structure and behavior on their environments to achieve organizational effectiveness. In this study the environment for the sample companies is treated as an independent variable. In studies conducted by Lawrence and Lorsch the environments were treated as independent variables. In the Negandhi-Prasad study the environment was also treated as an independent variable.

The systems theories of organizational behavior have demonstrated the need for attention to organizational environment. The most basic problems which the organizations face and solve, with varying

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[98] In this research two aspects of structure--formalization and decentralization--are investigated. Usage of the term "organization structure" is based on convenience, as both these factors are related, conceptually, to the variable of organization structure.

degrees of success, is that of acquiring and processing information about the environment. Georgopoulos considers the question of environmental impact to be important, because as an open system the organizations are complex, dynamic, and adaptive entities which are in constant interchange with their environment.[99] The external forces, pressures, and stimuli attract interchange of relations between the organizational unit and its environment that has significant consequences for behavior.[100] Thus, in adopting an open systems model of the organization, any empirical research conducted to determine the contingency behavior pattern of organization must, of necessity, take into account the impact of environment.

Other adherents of the systems concept of organizations, like Bertalanffy and Chamberlain, have also described the pivotal role played by environment.[101] Furthermore, if we consider the environment to be variable then to conduct research as to the impact of environment one must conceptualize the environment along some continuum. The works of Emery and Trist, and to a certain extent that of Terreberry, do just that.[102] Such attempts to view environment along some continuum is also evident in the earlier research of Burns and Stalker, who conceptualized

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[99] Basil S. Georgopoulos, "An Open System Theory Model for Organizational Research," in A. R. Negandhi, ed., Modern Organizational Theory (Kent, Ohio: Kent State University, 1969), p. 102.

[100] Ibid.

[101] Op. Cit., Bertalanffy, "General Systems Theory." Neil L. Chamberlain, Enterprise and Environment: The Firm in Time and Place (New York: McGraw-Hill Book Co., 1968).

[102] Op. Cit., Emery and Trist, "The Causal Texture." Op. Cit., Terreberry, "The Evolution of Organization Environment."

two divergent systems of management practices appropriate to particular types of environment. The mechanistic type of management was related to stable environmental conditions while the organic system was related to the dynamic environment.[103] Chamberlain also implicitly conceived of the environment along stable-dynamic continuum when he stated

> The present is a moving front. The surrounding environmental conditions may remain the same for some period, so that there is no need for disturbing the coherent system of relationships which it has been management's purpose to attain. But the environment does change and sometimes swiftly.... In order to guard its position and attain expanding objectives, the firm must be alert to "breaks" in the environmental circumstances under which it operates.[104]

In the study of Lawrence and Lorsch the environment was viewed along a certain-uncertain continuum. The hypotheses were that in order for the organizations to be effective the organizational behavior (of individual departments) would vary depending on the type of environment (facing such departments).

Implications of adopting a systems framework clearly favors inclusion of organization environment into any empirical research. The present researcher decided to adopt Lawrence and Lorsch's construct of environmental certainty-uncertainty as an independent variable. Both Lawrence and Lorsch's research and the study of Negandhi-Reimann discovered patterns of organizational behavior contingent on uncertain and dynamic environmental variables, respectively. This study hopes to discover similar relationships between the environment measured along Lawrence-Lorsch certainty-uncertainty continuum and the organizational variables.

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[103] Tom Burns and G. M. Stalker, The Management of Innovation (London: Tavistock Institute, 1961).

[104] Op. Cit., Chamberlain, p. 8.

Management Concern for Task Environmental Agents

Pickle and Friedlander have described why any effort to measure management and organizational success must take into account the perceptions of various external organizations existing in the environment.[105] According to them the several parties in the organization environment (owner, customer, supplier, employees, creditors, community, and government) "represent members of the society with which the organization transacts, members who may present contrasting demands upon the organization, and members whose needs must, in part, be satisfied if the organization is to fulfill its function successfully, and if it is to survive."[106] Therefore, it is imperative for management to show concern for interest groups existing in the environment if the organization is to chart an effective course of action.

The task environmental variable chosen for this study is labeled "management concern" for task environment agents. The conceptualization of this variable is based on the works of Dill, Thorelli, Thompson, Perrow and Negandhi and Prasad. Dill, for example, defined task environment as "that part of the total environment of management which was potentially relevant to goal-setting and goal-attainment." In researching two Norwegian firms he identified the following relevant task agents: customers, suppliers, employees, competitors, and regulatory groups.[107] Thorelli defined task environment as that part of the total

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[105]Hal Pickle and Frank Friedlander, "Seven Societal Criteria of Organizational Success," Personnel Psychology, Vol. 20, No. 2 (Summer, 1967).

[106]Ibid., p. 165.

[107]William R. Dill, "Environment as an Influence on Managerial Autonomy," Administrative Science Quarterly, Vol. II (1958), pp. 409-443.

setting with which the organization is transacting and in which it is competing. He identified the following groups as transacting members: community, consumers, employees, stockholders, creditors, suppliers, distributors, competitors, government, and the public at large.[108]

Thompson compared the concept of task environment with the concept of organizational domain. The organizational task environment identified the areas of potential dependency for the organization and then posed both contingencies and constraints accruing from such dependencies. He suggested that "to attain any significant measure of self control the organization must manage its dependency."[109] Perrow indicated that organizations' attempt to stabilize and control the influence of their task environment, which includes at the minimum suppliers, competitors, customers or clients, potential or actual unions, governmental regulatory agencies, new technologies, and the communities in which the organization exist.[110]

While the above authors dealt with the actual task environment, Negandhi and Prasad focused their attention at the impact of the task environment in terms of managerial perceptions. Following Dill's suggestion that further studies should put explicit emphasis on the cognitive activities of organizational participants as a link between environmental "stimuli" and the participant's overt responses, Negandhi

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[108]Hans B. Thorelli, "Organization Theory: An Ecological View," Proceedings of the Academy of Management (1967), pp. 66-84.

[109]James D. Thompson, Organization in Action (New York: McGraw-Hill Book Co., 1967), pp. 30-38.

[110]Charles Perrow, Organizational Analysis: A Sociological View (Belmont, California: Wadsworth Publishing Co., Inc., 1970), pp. 54-55.

and Prasad conceptualized their "management philosophy" or "scope of concern" independent variable as the implied and expressed attitudes of managers toward their task environment agents.[111] These task agents included consumers, employees, stockholders, suppliers, distributors, government, and community.

Management concern is treated primarily as an independent variable in this research model, since management's perception of the firm's relationship with its task agents is expected to be an important factor influencing the choice of the organization's structural arrangements. The model, therefore, depicts the possible relations between the management concern variable to organization structure and organization effectiveness by means of arrows (see Figure I-3, Chapter I).

Organization Structure

The third variable to be measured in this study is the organization structure as measured along the dimensions of formalization and decentralization. The expansion of literature concerning (Heydebrand's classification of) goal and task structure variable clusters and the mutual interrelations among them is impressive.[112] In a socio-technical system rationale, impersonal processes of technology interact with human factors of work behavior and attitudes, small group organizations, and formal organization structure.[113] According to Scott and Mitchell,

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[111] Op. Cit., Negandhi and Prasad, Comparative Management, pp. 26-30.

[112] For a comprehensive review of research literature on the subject of interrelations among technology, structure, and behavior see Raymond G. Hunt, "Technology and Organization," Academy of Management Journal (September, 1970), pp. 235-242.

[113] William G. Scott and Terrence R. Mitchell, Organization Theory: A Structural and Behavioral Analysis (Homewood, Ill.: Richard D. Irwin, Inc., and The Dorsey Press, 1969), p. 243.

one of the qualities that distinguishes research in sociotechnical systems is the reinstatement of technological as well as behavioral and structural variables in the study of organizations.[114] Thus, we find a strong emphasis on the effort to relate structural aspects of organizational design to other variables in the organization environment. Technological environment is but one dimension of the multidimensional totality that is an organization environment. As a matter of fact, Lawrence and Lorsch's conceptualization of environment was along the dimensions of technology and market. The focus, of course, was on the relationship of such environment with the organization structure within a framework of differentiation and integration.[115] Guest has attempted to show how the various behavioral variables as well as informal structure in an organization are affected by the technology surrounding the work situation.[116] According to both Hunt and Guest, research in sociotechnical system focuses on the concern for problems of organizational design that includes structure. The Yale Technology Project, the Tavistock Experiments, the Burns and Stalker studies, and the Essex Human Relations Research of Woodward have all put some emphasis on the structural aspects of organization design either implicitly or explicitly.[117]

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[114] Op. Cit., Scott and Mitchell, p. 244.

[115] Op. Cit., Lawrence and Lorsch, Organization and Environment.

[116] Robert H. Guest, Organizational Change: The Effect of Successful Leadership (Homewood, Ill.: Richard D. Irwin, Inc., and The Dorsey Press, 1962), p. 4.

[117] For a summary of findings about Yale Technological Project see Charles R. Walker, Modern Technology and Civilization (New York: McGraw-Hill Book Co., 1962), pp. 96-134.

A full account of the study of technological change in coal mines under the sponsorship of Tavistock Institute of London can be found in E. L. Trist and K. L. Bamforth, "Some Social and Psychological

In a recent article Drucker argued most effectively for better designs of organizational structure to meet the various dimensional needs of multiproduct, multitechnology, multinational companies.[118] In introducing the subject Drucker states:

> Organization structures are becoming increasingly short-lived and unstable.... To some extent this instability is a result of gross overorganizing.... Few managers seem to recognize that the right organization structure is not performance itself, but rather a prerequisite of performance. The wrong structure is indeed a guarantee of non-performance.... Even if unnecessary organization surgery were not as rampant in our institutions...there would still be an organization crisis.... The crisis is simultaneously a crisis of organization theory and of organization practice. The main causes of instability are changes in objective task, in the kind of business and institution to be organized.... These changes in the objective task have generated new design principles that do not fit traditional organization concepts.[119]

He suggests five classifications of design principles. These are: (a) Fayol's functional structure; (b) Sloan's federal decentralization; (c) team organization; (d) simulated decentralization; and (e) system structure.[120] Drucker goes on to suggest utilization of the design principles to tackle four different dimensions of management, such as work and task, results and performance, relationship, and decisions. Ideally the organization needs to be structured around each of those

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Consequences of the Longwall Method of Coal-Getting," Human Relations, Vol. 4, No. 1 (1951), pp. 3-38.

For a review of the Ahmedabad Experiments in the textile industry, under the sponsorship of Tavistock Institute, see A. K. Rice, The Enterprise and Its Environment (London: Tavistock Publications, 1963).

Tom Burns, and G. M. Stalker, The Management of Innovation (London: Tavistock Publications, 1961).

Joan Woodward, Industrial Organizations: Theory and Practice (London: Oxford University Press, 1965).

[118]Peter F. Drucker, "New Templates for Today's Organizations," Harvard Business Review, Vol. 52, No. 1 (January-February, 1974), pp. 45-53.

[119]Ibid., pp. 45-46

[120]Ibid.

four dimensions of management. Unfortunately, there is no one design that fits all the requirements of all the dimensions. According to Drucker "in designing organizations, we have to choose among different structures, each stressing a different dimension and each, therefore, with distinct costs, specific and fairly stringent requirements, and real limitations."[121]

Within such a logical framework the present research has been designed to focus on the organization structure variable as the most important segment that links the variables of environment and management concern on one hand, and the organizational effectiveness on the other. Thus, the variable of structure is considered to be an intermediate variable, which is in congruence with the research model presented by Melcher.[122] Discussing the nature of variables in the research model he states "the variables under formal authority, control system and information system are classified as 'mediating structural variables.' The primary and structural variables, along with leadership and personality, are identified as key factors shaping behavior in organizations."[123]

The dimensions along which the organization structure can be measured are numerous.[124] Any one dimension may be appropriate for a

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[121] Ibid., pp. 50-51.

[122] Arlyn J. Melcher, "A Systems Model," in A. R. Negandhi, ed., Modern Organizational Theory (Kent, Ohio: The Kent State University Press, 1969), pp. 9-34.

[123] Ibid., p. 10.

[124] Op. Cit., A. R. Negandhi and S. B. Prasad, Comparative Management, pp. 29-30. Recently the studies of Pugh, et al., have shown that in order to analyze the organizational design one must look at several dimensions of organization structure. For it is possible for

particular situation. In the studies of Lawrence and Lorsch, Negandhi and Prasad, Negandhi and Reimann, and Reimann one or several dimensions of the structure were analyzed as these interacted with environmental and contextual variables. The ideal study would, of course, be one that is designed to explore the changes brought about by different variables on all of the possible dimensions of structure. However, the rationale of practicality rules out such possibility. Consequently, a decision was made to examine the relationships between environment and "management concern" variables on one hand, and the structural variable on the other as measured along the dimensions of formalization and decentralization.

The formalization variable was conceptualized in the Lawrence and Lorsch study and they devised the instrument (used in this research) to measure formalization. In explaining how the instrument was developed, Lawrence and Lorsch state:

> To measure the structure of the departments, dimensions suggested by Hall, Woodward, Evan, and Burns and Stalker that could be operationally measured were used: (1) the span of supervisory control; (2) number of levels to a supervisor shared with other departments; (3) the specificity of review of department performance; (4) the frequency of review of department performance; (5) the specificity of review of individual performance; and (6) the emphasis on formal rules and procedures.[125]

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an organization to exist in a multidimensional space, dependent upon contextual and other variables which if perceived from a unidimensional field would appear as ambiguous. See D. S. Pugh, et al., "The Context of Organization Structures," Administrative Science Quarterly, Vol. XIV (1969), pp. 91-114. This research acknowledges the need for exploring newer concepts of measuring the organization structures, but also feels the necessity of applying to such structures well-tested unidimensional measures that have proven to be workable.

[125] Op. Cit., Lawrence and Lorsch, Organization and Environment, p. 255.

The decentralization variable is the second dimension of structure used in this research. The concept of centralization or decentralization is a vital one in the design of an organization. The concept of centralization is discussed by Scott and Mitchell in these terms:

> The "idea" of organization is simple enough. Very early in his theoretical analysis, Weber identified two primary forces acting in all formal organizations--the division of labor and the centralization of authority. But not only are these forces primary; they are also opposing. The division of labor...splits organizations into smaller and smaller particles of specialization. Centralization of authority coalesces. It synchronizes the fragmented parts so that they move as a whole toward the achievement of organizational objectives.[126]

At the other extreme from centralization is decentralization. As the business organizations evolved from sole proprieterships to multilocation, multitechnology, and multiproduct corporations, more decentralized forms of operations and subsequent dispersion of authority superseded the classical view of centralization of decision making. Scanlan identifies five factors which have encouraged decentralization: growth by merger; geographic dispersion; diverse activities; training grounds for younger executives; and effects on employee motivation.[127] Decentralization can be effected in varying degrees among the several functions of a business enterprise: physical facilities, production, finance, marketing, and others. Determining what decision-making to decentralize produces other problems, as Scanlan suggests:

> ...decentralization is much more. Decentralization implies both selective spreading and concentration of authority at the same time. As companies become more decentralized, certain other decisions must by necessity remain at the top. Because of the

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[126] Op. Cit., Scott and Mitchell, p. 6.

[127] Burt K. Scanlan, Principles of Management and Organizational Behavior (New York: John Wiley and Sons, 1973), p. 218.

> difficulty in deciding which decisions to delegate, decentralization is far from being an exact science.[128]

In this research Scanlan's notion of decentralization as the degree to which decision making and authority is dispersed in the organization is applied. In a recent article the president of an international company presented argument and evidence for decentralization of structure of international corporations because of the uncertain environments existing in different countries.[129] It is evident that the geographic dispersion and diverse activities mentioned by Scanlan, are of special significance as far as internationalization of business operations are concerned.

The studies of Negandhi and Reimann have clearly indicated a relationship between the degree of decentralization and both the environment and the management concern variables. They found that the higher the degree of dynamism of the environment and the higher the degree of management concern for task agents, the greater the degree of decentralization needed to achieve greater effectiveness. Therefore, decentralization has been selected in this research model as one measure of organization structure that is in interaction with the contextual and environmental variables.

Organizational Effectiveness

The final variable selected in this research model is organizational effectiveness. Mahoney and Weitzel assert that "concepts of

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[128]Burt K. Scanlan, Principles of Management and Organizational Behavior (New York: John Wiley and Sons, 1973), p. 214.

[129]J. William Widing, Jr., "Reorganizing Your Worldwide Business," Harvard Business Review, Vol. 51, No. 3 (May-June, 1973), pp. 153-160.

organizational effectiveness are the basis of theories of management and organization behavior and provide the rationale for normative theories of organization behavior and management practice. There is relatively little consensus, however, about the relevant dimensions or components of these concepts."[130] According to Yuchtman and Seashore there is a definite need for improved conceptual framework for the description and assessment of organizational effectiveness.[131] These researchers argue for conceiving organizational effectiveness as a process that enhances the bargaining position of the organization (as a distinct social entity) to command more resources. The conceptual framework emphasizes both the distinctiveness of the organization as an identifiable social structure, and the interdependence takes the form of transactions in which scarce and valued resources are exchanged under competitive conditions. The organization's success, over a period of time, in this competition for resources is regarded as an expression of its overall effectiveness. Thus, we find, that the concepts of effectiveness as employed in various research studies are based on different conceptual criteria and consequently not amenable to comparisons.

The various business, governmental or social organizations existing within the society contribute to its welfare and progress. According to Gibson, Ivancevich and Donnelly society views effectiveness as the ability of various organizations to achieve their objectives

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[130]Thomas A. Mahoney and William Weitzel, "Managerial Models of Organizational Effectiveness," Administrative Science Quarterly, Vol. 14, No. 3 (Sept., 1969), p. 357.

[131]Ephraim Yuchtman and Stanley E. Seashore, "A System Resource Approach to Organizational Effectiveness," American Sociological Review, Vol. 32, No. 6 (December, 1967), pp. 891-903.

within the constraints of limited resources.[132] The two important factors in this statement are achieving objectives, and limited resources. These same authors introduce the concept of efficiency:

> Accordingly, the concept of efficiency must be introduced; and it is understood to refer to the process by which the organization maximizes its objectives with minimum use of resources. These two concepts, effectiveness and efficiency, are related but there are some important differences.... Society is becoming aware that it can effectively yet inefficiently produce some economic goods.[133]

Thus, in the opinion of Gibson, et al., there is need to judge both efficiency and effectiveness. Etzioni asserts that any consideration of effectiveness must necessarily take place within the overall systems perspective.[134] Etzioni notes that the system perspective requires the criteria of effectiveness to reflect the system's ability to adapt to the demands of the environment as well as meeting of these demands by the input-process-output cycle.[135] In trying to meet these two requirements of systems orientation some resources of the organization must be allocated to functions that are only indirectly related to the organization's immediate objectives. As Etzioni has observed, the system's framework assumes that "some means have to be diverted to such non-goal

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[132] James L. Gibson, John M. Ivancevich, and James H. Donnelly, Jr., Organizations: Structure, Process, Behavior (Dallas, Texas: Business Publications, Inc., 1973).

[133] Ibid., p. 20.

[134] Amitai Etzioni, "Two Approaches to Organizational Analysis: A Critique and a Suggestion," Administrative Science Quarterly, Vol. 5 (September, 1960), pp. 257-278; also reprinted in Jaisingh Ghorpade, ed., Assessment of Organizational Effectiveness (Pacific Palisades, California: Goodyear Publishing Co., 1971).

[135] Ibid., in Ghorpade, ed., Assessment of Organizational Effectiveness, p. 36.

functions as service and custodial activities and other means employed for the maintenance of the unit (organization) itself."[136] Consideration of organizational effectiveness necessitates inclusion of the performance of such related functions.

The most extensive survey of literature dealing with the organizational performance and effectiveness was undertaken by Price some time ago and reported in a 1968 publication.[137] His purpose was to "present the core of what the behavioral sciences now know about the effectiveness of the organizations: what we really know, what we nearly know, what we think we know, and what we claim we know."[138] He adopted Etzioni's definition of effectiveness as the degree of goal achievement,[139] and he treated effectiveness as a dependent variable. His rationale for this was:

> Effectiveness has been selected as the dependent variable for two reasons. First, it is a classical problem in the study of organizations. Its classical standing arises from the certainty of "goals" in all definitions of organizations. Second, effectiveness, partly because it is a classical problem, has been highly researched. In addition to the studies which explicitly examine the determinants of effectiveness (a small, but growing body of research), there is an immense literature concerned with productivity, morale, conformity, adaptiveness, and institutionalization. Effectiveness is commonly an implied problem in this immense literature.[140]

Since effectiveness is defined as the degree of goal achievement, the determination of an organization's goal(s) is crucial in

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[136] Ibid., p. 36.

[137] James L. Price, Organizational Effectiveness: An Inventory of Propositions (Homewood, Illinois: Richard D. Irwin, Inc., 1968).

[138] Ibid., p. 1.

[139] Amitai Etzioni, Modern Organizations (Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1964), p. 8.

[140] Op. Cit., Price, p. 3.

evaluating effectiveness.[141] The first step in the determination of goal(s) is to distinguish between types of goals. Perrow classifies organizational goals into two types--official and operative.[142] According to Perrow "official goals are the general purposes of the organization as put forth in the charter, annual reports, public statements by key executives, and other authoritative pronouncements.... Operative goals designate the ends sought through the actual operating policies of the organization; they tell us what the organization is actually trying to do, regardless of what the official goals say are the aims."[143]

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[141]Describing the nature of organizational goals Etzioni states: "Organizations are social units oriented toward the pursuit of specific goals. In this sense they can be conceived as tools which gain meaning and direction from their function. But one of the most important observations of student of organizations is that often the 'tools' determine in part the goals to which they are applied. This process takes several forms: initial goals may prove to be 'utopian,' and organizational personnel may adjust these goals by making them more realistic, or the organization's original goals may be neglected without being changed officially and the organization may develop alternative or competing goals which are more in line with the interests of its staff. Or the organization may see its predominant task as maintaining and expanding itself." See Amitai Etzioni, A Sociological Reader on Complex Organizations (New York: Holt, Rinehart and Winston, Inc., 1969), p. 155.

[142]Charles Perrow, "Goals in Complex Organizations," American Sociological Review, Vol. 26 (December, 1961), p. 855. In another article on organizational goals Perrow also classifies these into six basic categories, recognizing that the number covered could be small or large. Perrow states "three (of these categories) have external referents--society, the public in contact with the organization, the investors--and will be referred to, respectively, as societal goals, output goals, and investor goals. The other three have internal referents, that is, to the organization and its members. They are system goals (survival, growth, etc.), production goals (the defining characteristics of the product such as quality, availability, styling), and the somewhat residual category of derived goals (those which make use of the power the organization generates in the pursuit of other goals)." See Charles Perrow, "Organizations: Organization Goals," in David L. Sills, ed., The International Encyclopedia of the Social Sciences (New York: The Macmillan Company and The Free Press, 1968), pp. 305-310.

[143]Ibid., Perrow, "Goals in Complex Organizations," p. 855.

Perrow further states that the literature on goals has not succeeded in generating very rigorous conceptual tools. He attributes this lack of tools to the segmentation of any sequence of behavior into large or small pieces, each of which can be conceived to be goal directed.[144]

Simon's exposition of the concept of organizational goal is both extensive and intensive.[145] He makes a distinction between organizations and individual goals and points out how the organizational goals are oftentimes at an abstract or general level. Simon is explicit in defining goal as a value premise that serves as inputs to decisions in contrast to common notion of goals being some vague future state of affairs that organizations are attempting to achieve. Since there is only a relative distinction between means and ends and since (according to Simon), any end or goal can be seen as means to another goal, one is free to enter the "hierarchy of means and ends" at any point.[146] Separate studies by Merton and Sills identified the phenomenon of "succession of goals."[147] Succession of goals and goal displacement is often a case of pursuing derived goals.

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[144] Op. Cit., Perrow, "Organization Goals," The International Encyclopedia of Social Sciences.

[145] Herbert A. Simon, "On the Concept of Organizational Goal," Administrative Science Quarterly, Vol. 9, No. 1 (June, 1964), pp. 1-22.

[146] Herbert A. Simon, Administrative Behavior (New York: Macmillan and Co., 1947).

[147] Robert K. Merton, "Bureaucratic Structure and Personality," in Robert K. Merton, ed., Social Theory and Social Structure (Glencoe, Illinois: The Free Press, 1957), pp. 195-206; also David L. Sills, The Volunteers: Means and Ends in a National Organization (Glencoe, Illinois: The Free Press, 1957).

Thus, the sources of goals and the consequences of goals have wide implications for both the organization and the society. Broad social changes, according to Perrow, set the stage for technological developments, which in turn determine within broad limits, the range of possible goals in different types of organizations.[148]

Up to now it has been observed that the organizational goals (in various classificatory schemes) set the stage for conceptualizing and measuring the degree of achievement of such goals. This is the fundamental concept of organizational effectiveness. Price, while discussing the nature of effectiveness, states:

> Ideally, a standardized measure of effectiveness should be developed and applied to all types of organizations. Only in this way is it possible to classify organizations on a continuum from high to low effectiveness. However, relatively few studies of organizations have dealt explicitly with effectiveness, and even where the problem is explicitly treated, it is necessary to depart from this ideal in order to construct an inventory of propositions about the determinants of the effectiveness of organizations.[149]

An important point to be noted in the above quotation is the concept of "determinant," or criterion of effectiveness. Price decided to accept diverse measures of effectiveness, even though productivity is the most dominant determinant of effectiveness.[150]

Theoretically it is possible to differentiate effectiveness in terms of relationships to stages of goals. Some organizations goals can be conceptualized as being final or ultimate, while others can be thought of as intermediate or immediate. A measure of effectiveness

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[148] Charles Perrow, "Hospitals: Technology, Structure, and Goals," in James March, ed., Handbook of Organizations (Chicago, Illinois: Rand McNally, 1965), pp. 910-971.

[149] Op. Cit., Price, p. 5.

[150] Ibid.

can be constructed to reflect such stages of goals. It has been noted before that the concept of ultimate goal is vague or "utopian" in nature, and as such any measure of this ultimate goal achievement will consequently be of little help to students of organization behavior. The need is for more relevant and practical concepts of organizational effectiveness. These concepts, of necessity, will reflect intermediate and immediate goal-achievement.[151]

It should now be evident to the reader that all organizations are goal directed whether these goals are stated or implied. The organization would be considered effective to the degree it is able to achieve these organizational goals. The scholars in the social and behavioral sciences have also recently become aware of the need for conceptualizing measures of effectiveness. Ideally it would be profitable to devise a standardized measure of effectiveness and apply such measures to all organizations. However, as Price suggested, practical considerations transcend the ideal, and make it necessary to apply diverse measures. Partial findings of Lawrence and Lorsch's research depicted vividly the dependency of organizational effectiveness. The notion of relating concepts of organizational effectiveness to patterns

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[151]This idea is aptly put forward by Mahoney and Weitzel who state "Application of an ultimate criterion must be an evaluation by those best qualified to ascertain the final goal of the organization and its achievement.... In practice, various midrange criteria (intermediate and immediate) that are relevant to the ultimate criterion and practical to apply tend to be used in short run assessment of effectiveness. The determination of relevance typically is a rational process because measures of the ultimate criterion are lacking. This rational process generates theoretical or conceptual models of organization behavior, which demonstrate the instrumental relationships among and between variables and some concept of organizational effectiveness." See Op. Cit., Mahoney and Weitzel, "Managerial Models of Organizational Effectiveness," p. 357.

of organizational behavior produced by contextual and other variables is crucial for any empirical study. It is believed that the validity of the contingency theory of organizational behavior cannot be established unless such behavior is related to some measures of organization effectiveness.

The foregoing discussion about effectiveness should make it apparent why this variable was chosen in the present research model. In this model the effectiveness has been treated as a dependent or residual variable. The Lawrence and Lorsch, Negandhi and Prasad, Negandhi and Reimann, and Reimann studies all treat the effectiveness as the dependent variable. The double-ended arrows leading to and from the effectiveness variable has been depicted in the model to convey the impression that the variables of environment, management concern for task agents and structure are not the only variables that affect the organizational effectiveness. There are myriad of other variables within the environment, all interacting and resulting in some effectiveness. The totality of all these variables if taken together will lead to some resultant effectiveness. But individually the resulting effectiveness will, to a certain extent, determine the scope of other variables.

Summary

In this chapter an effort was made to describe the sequence of various management theories that are pertinent to conceptualization of the present research model. In the first section the transition of management theories from classical to modern was traced. The second section consisted of a summary of four studies which directly formed

the theoretical base for present empirical research model. The evolution of management thoughts set out in the first section, of course directly contributed to the feasibility of these four studies. In section three the theoretical rationale for the selection of the four variables in this research was discussed. In the next chapter the methodology employed for conducting this research is discussed.

CHAPTER IV

METHODOLOGY

Introduction

As stated earlier the purpose of this exploratory study was to verify the findings of other prior researches in the areas of contingency behavior of organizations, as well as to conduct a comparative analysis of these contingency behaviors (based on the interactions of four contextual and organizational variables) between groups of companies that were either entirely domestic in operations or had operations overseas. It was hoped that the comparative analysis will facilitate the understanding of the nature and process of international business operations. The foundation of the present study was indirectly formed by the management theories that evolved through this century as well as by the general theories of international trade and investments. More directly, however, the theoretical framework for this study was based primarily on the works of Lawrence and Lorsch, Negandhi and Prasad, Negandhi and Reimann, and Reimann.[1] As indicated in Chapter III the four sets of variables explored in this study were: (1) organization environment; (2) management concern for task environmental agents;

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[1] Op. Cit., Lawrence and Lorsch, Organization and Environment; Negandhi and Prasad, Comparative Management; Negandhi and Reimann, "A Contingency Theory of Organization;" Reimann, "Management Concern."

(3) organization structure; and (4) organization effectiveness.

The instruments selected to measure these four variables had previously been used by the researchers mentioned above. This decision was arrived at after careful consideration of the element of optimality between the divergent demands of newer and (possibly) better but unproven instruments, and the factors of reliability and validity. The belief of the present researcher is that where the stated purpose of the study is exploration of particular concepts or follow-up for precise testing of key hypotheses (postulated in prior studies), replication and application of previous studies in research design is more useful than an attempt to improve measuring techniques.[2] In the absence of proper pretests, it was entirely possible that new instruments, devised to correct the weaknesses of older ones, would measure something quite different.

The Population and the Sample

In an effort to preserve as much of the research design as possible of the studies quoted above, this researcher decided to collect data primarily from a population of manufacturing organizations. In the Lawrence and Lorsch study ten manufacturing concerns in three different industries were chosen as samples. The Negandhi and Prasad study was designed to explore the behavior of (primarily) manufacturing organizations in five different countries. The Negandhi and Reimann studies were conducted with a sample of thirty one manufacturing companies

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[2]For a useful depiction of the typology of research sequence see William G. Scott and Terence R. Mitchell, Organization Theory: A Structural and Behavioral Analysis (Homewood, Illinois: Richard D. Irwin, Inc., and The Dorsey Press, 1972), pp. 328-329.

in India, while the Reimann study was set up to measure and analyze the impact of contextual variables on the organization structures of nineteen manufacturing firms in Ohio. Given the preponderance of samples from manufacturing industries in these studies, it was felt that expanding the scope of present research to include other types of organizations, without a pilot study, would introduce more unknown biases than this researcher would be able to discern and rectify. This author did not harbor any intentions of applying and extending the conclusions drawn from the study of manufacturing industries to other types of industries. Since this study was also conducted within a framework of comparative analysis between domestic and international companies, and since the majority of organizations operating overseas were in manufacturing, it was felt that conclusions drawn about manufacturing organizations would prove to be beneficial to the management practitioners of such corporations.

The samples of manufacturing organizations needed for this study were obtained primarily from Oklahoma. The author felt that limiting the selection of sample organizations from Oklahoma would not introduce any critical biases in the research design. By ownership status the classificatory scheme of sample organizations ranged from independently owned companies to subsidiaries and branch plants of larger, national corporations. In research designs for comparative management studies the management philosophies and practices of all United States based corporations had been accepted as being uniform. Also, given the uniformity of business education across the nation, the rapidity of the communication process, the mobility of the population, and the ubiquity of the corporate form of organizations, it was

hard to visualize a drastic differentiation of management practices and philosophies based solely on regionality.

Data Gathering Procedures

In this research project a combination of interview and questionnaire methods of data collection was used. A survey of the literature on research methods in the social sciences convinced the author as to the wisdom of such methodology.[3] Specifically, given a small population size, the limitation of getting an adequate response through a mail survey becomes a vital consideration.[4] To surmount this particular difficulty it was decided to conduct interviews with executives after approval had been obtained from the chief executive or his representative. The usual advantages that accrue from face-to-face interviews were combined with the benefits of obtaining information through well developed questionnaires.[5]

The sample of manufacturing firms in the state of Oklahoma was selected from the firms listed in the Oklahoma Industrial Directory

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[3]For a comprehensive review of research tools of survey, interview, etc., see Robert Ferber and P. J. Verdoorn, Research Methods in Economics and Business (New York: Macmillan and Co., 1962); Leon Festinger and Daniel Katz, Research Methods in Behavioral Sciences (New York: Dryden Press, 1953); Frederick N. Kerlinger, Foundations of Behavioral Research (New York: Holt, Rinehart, and Winston, 1973); Robert L. Kahn and Charles F. Cannell, The Dynamics of Interviewing: Theory, Technique, and Cases (New York: John Wiley & Sons, 1957); Mildred B. Parten, Survey, Polls, and Samples: Practical Procedures (New York: Cooper Square Publishers, 1966).

[4]Claus A. Moser, Survey Methods in Social Investigation (London: H. Heinemann, 1958), p. 178.

[5]Ibid., Moser, Survey Methods, p. 185; for a good review of advantages of interview and questionnaires see Claire Sellitz and Marie Jahoda, Research Methods in Social Relations (New York: Henry Holt and Company, Inc., 1950), pp. 15-16.

of Manufacturers. The organizations were selected on the basis of employment size, location, and type of products manufactured. More specifically, organizations employing between 100 to 500 employees and those located within the Oklahoma City and Tulsa SMSAs were selected. As to the type of products manufactured, the organizations selected were primarily involved in the production of electronic machineries, oil field equipment, construction materials, pharmaceutical products, plastics and metal fabrications. The rationale for selection of organizations involved in the manufacturing activities of these specific products was based on achieving more compatibility of companies selected in the sample groups. Almost all of the Oklahoma manufacturing organizations employing between 100-500 employees were in one of these manufacturing activities, particularly those organizations that have operations overseas. Using the criterion of type of products manufactured, in addition to size and location, was expected to increase the homogeneity of the sample.

An initial letter was personally addressed to the chief executive, vice-president, or plant manager, depending upon the availability of names. A copy of this letter is reproduced in Appendix G. When the initial inquiry elicited a favorable response, an interview was scheduled with the manager who had responded to the letter.

The interview questions were designed to elicit information pertaining to external and internal environments. The researcher felt that such information was needed to provide further substantiation of the scores obtained by employing measuring instruments described in the following section. Lawrence and Lorsch, Negandhi and Prasad, and

Negandhi and Reimann made effective use of this technique in their research studies.[6]

To facilitate such information gathering this researcher used a combination of interview techniques: the fixed question and free answer method and structured interview concept utilizing direct questions with fixed responses. The former technique of information collection was developed by the United States Department of Agriculture, and later adopted by the University of Michigan Survey Research Center. The questions are formulated in advance and are open ended, so that the respondent may give answers in his own words. In each interview the sequence of such questions or their wordings remain the same. When necessary such questions are supplemented by non-directive probes. According to Katona such an "approach, together with carefully prepared introductory statement about the purpose and importance of the survey, is conducive to creating rapport between interviewer and respondent."[7] Some of the questions used in the interviews were designed to be open ended.

The structured interview concept as used in this research was for the purpose of providing a start, a content, and a conclusion to the interview.[8] Some of the questions were deliberately made direct

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[6] Op. Cit., Lawrence and Lorsch, Organization and Environment; Negandhi and Prasad, Comparative Management; Negandhi and Reimann, "A Contingency Theory of Organization."

[7] George Katona, Psychological Analysis of Economic Behavior (New York: McGraw-Hill Book Company, 1951), p. 313. For further descriptions of the method used by this author see Price Control and Business (Bloomington, Indiana: The Principia Press, Inc., 1945); also Katona's article on the "Contribution of Psychological Data to Economic Analysis," Journal of the American Statistical Association, Vol. XLII (September, 1947), pp. 449-459.

[8] Interviews, in order to be successful, have four basic elements

in order to elicit a clear response. According to Fenlason "many interviewing situations demand direct information. After rapport has been established, and after the purpose of the questions has been explained, these can be asked directly."[9]

The interview was designed not to exceed one hour. This researcher felt that interviews exceeding an hour would inhibit the participation of sample companies in this research project.

In addition to the interview, the five specific organizational variables studied in this research project were measured by five separate instruments designed in the form of printed questionnaires.[10] In each sample organization the executive contacted for interview purposes was asked to complete the set of five questionnaires at the earliest opportunity and mail them back to the researcher. A stamped envelope was provided for this purpose. Initially, the researcher intended to administer the questionnaires to the company executives in person. However, during the first few interviews the total time required to complete both the interview and the administration of the questionnaires proved to be substantial and resulted in open reluctance on the part of the executives to participate in the project. A decision was

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built into them. These are: (1) the start, (2) crises in the trend of discussion, (3) psychological moments, and (4) the conclusion. See Porter Lee, "Interviewing," in Social Case Work, edited by Mary Antoinette Cannon and Philip Klein (New York: Columbia University Press, 1933), p. 561.

[9]Anne F. Fenlason, Essentials in Interviewing (New York: Harper and Brothers, 1952), p. 133.

[10]See Appendices A, B, C, D, and E for a description of the questionnaires that measure the environment, management concern for tas agents, degree of formalization, degree of decentralization, and organizational effectiveness respectively.

then made to allow the executives to complete the questionnaires at their convenience.

The executives in the sample organizations were given a chance to look over the questionnaires, and a brief explanation for each questionnaire was provided by the researcher. The executives contacted during the interviews were required to complete the five questionnaires. In addition, an extra copy of the "management concern" questionnaire (questionnaire B) was left with that executive and a request was made to have another member of the top-level management team complete and return this to the researcher.

No identifications of the respondents, except the company codes, were requested. Great care was taken to assure all participants that no one but the researcher would see the responses to the questionnaires, and that his answers would be held in the strictest confidence.

Measuring Instruments

The instruments used in this research to measure the variables were obtained from the four research studies quoted above. Descriptions of these instruments are provided in the following paragraphs.

Organization Environment

In the present study the variable of organization environment has been treated as being independent. The instrument selected to measure the variable was developed by Lawrence and Lorsch.[11]

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[11] Op. Cit., Lawrence and Lorsch, Organization and Environment, pp. 15-16.

The instrument consists of three sets of questionnaires that are expected to measure three different subscales of environmental certainty or uncertainty (see Appendix A). These subscales have been labeled as clarity of information, uncertainty of causal relationship, and time span of definitive feedback. In Lawrence and Lorsch's study the questionnaires consisted of subscales to evaluate the degree of certainty or uncertainty of three different organizational subsystems (i.e., production, marketing, and research). Subscale scores for each of the subsystems were combined to derive a total uncertainty score. The justification for combining these scores is based, according to Lawrence and Lorsch, on both their intercorrelations and their conceptual relationships. They cite Vroom's statement on the issue of how homogeneous items should be before they can be combined. According to Vroom high intercorrelation reflects only high reliability and considerable overlap between questions. Low homogeneity may be due to either unreliability among items or to the fact that the items measure different things. Vroom concluded that to the extent these items are conceptually related and represent variables which have similar effects, combination of items into a single score will broaden the range or breadth of the resultant measure.[12]

In a recent article Tosi et al. criticized the Lawrence and Lorsch instrument for measuring environmental uncertainty on the grounds that this instrument lacked internal reliability.[13] To prove their

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[12]Victor H. Vroom, Some Personality Determinants of the Effects of Participation (Englewood Cliffs, New Jersey: Prentice Hall, Inc., 1960), p. 25, as quoted in Paul R. Lawrence and Jay W. Lorsch, Organization and Environment (Boston: Division of Research, Harvard University, 1967), p. 28.

[13]Henry Tosi, Raymond Aldag, and Ronald Storey, "On the Measurement

case Tosi et al. administered the Lawrence and Lorsch uncertainty questionnaire to a group of executives and analyzed the resultant subscore scales with an alternative measure of uncertainty. The relationships between the two measures of uncertainty were found to be inverse, which led Tosi et al. to question the efficacy of the instrument. However, in the opinion of this author, one could raise similar criticisms against the alternate measure of environmental uncertainty. Tosi et al. conclude that there is need for further evaluation of the Lawrence and Lorsch instrument as well as the need to continue the search for other better measuring instruments.[14] In essence they admit that presently there are no better instruments.

It is the opinion of this researcher that in the absence of instruments which have been clearly proven superior, the Lawrence and Lorsch device can be considered as effective in measuring the degree of uncertainty of the total organization environment, though the same instrument may not be sufficiently sensitive to detect the finer differences in the degree of certainty among unit subenvironments. Therefore, in this study the uncertainty scores of the three subsystems will be averaged to arrive at a composite organizational uncertainty score. Such a procedure can be defended by applying the arguments of Vroom and Lawrence and Lorsch, and on the ground that a total organizational environment is a composite of the various subenvironments, just as effectiveness of the whole organization is a composite of the effectiveness

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of the Environment: An Assessment of the Lawrence and Lorsch Environmental Uncertainty Subscale," Administrative Science Quarterly, Vol. 18, No. 1 (March, 1973), pp. 27-36.

[14] Ibid., p. 30.

of the individual subsystems or units. It is also interesting to note here that Lawrence and Lorsch conceded the point that the difference among the uncertainty scores for different parts of the environment (in this study) were not highly significant.[15]

Management Concern for Task Agents

In this study the semantic differential instrument has been adopted to measure the management's perception of task agents. This instrument has been used by Reimann and others to measure the variable of management concern for task environmental agents that are correlated to other organizational variables.[16] Research studies conducted with the semantic differential as a measuring instrument have proven the validity and reliability of the instrument when used for measuring perceptions or "cognitive orientation" in general and attitudes in particular.[17] The semantic differential instrument was originally designed to measure "dimensions" of perceptions, attitude being just one such dimension. In studies conducted by Reimann and others the variable of management concern for task agents has been conceptualized to be more

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[15] Op. Cit., Lawrence and Lorsch, Organization and Environment, pp. 28-29.

[16] This section on semantic differential is heavily dependent upon the works of Reimann. See Bernard C. Reimann, "Management Concern, Context, and Organization Structure," (unpublished Ph.D. dissertation, Kent State University, 1972). Also Reimann's article on "The Public Philosophy of Organizations," Academy of Management Journal, Vol. 17, No. 3 (September, 1974), pp. 418-427.

[17] C. Osgood, G. Suci, and P. Tannenbaum, The Measure of Meaning (Urbana, Ill.: University of Illinois Press, 1957), pp. 140-193; David R. Heise, "Some Methodological Issues in Semantic Differential Research," Psychological Bulletin, Vol. LXXII (1969), pp. 406-422.

than just management's attitude toward such agents.[18] The same concepts have been adopted in the present study.

In a typical semantic differential questionnaire the management respondents are provided with some stimulus terms or concepts and are asked to evaluate these concepts along several bi-polar adjective scales. For example, the respondent may be asked to evaluate the term "executive" along the following bi-polar adjective scales:

Executive

Friendly	X 1	: 2	: 3	: 4	: 5	: 6	: 7	Hostile
Bad	7	: 6	: 5	: 4	: 3	: X 2	: 1	Good
Strong	1	: 2	: 3	: X 4	: 5	: 6	: 7	Weak
Slow	7	: 6	: X 5	: 4	: 3	: 2	: 1	Fast

The respondents are asked to mark each scale based on their feelings of the extremes of these bi-polar adjective scales describing the particular term being evaluated. If we take the example show above, it is readily apparent that the particular respondent has evaluated the term "executive" as extremely friendly, quite good, neither weak nor strong, and slightly slow. This reflects the feeling of the respondent toward the term "executive." The point value assigned for each of the bi-polar scales range from one (most negative) to seven (most positive); the

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[18] Op. Cit., Reimann, "Management Concern;" also Jack L. Simonetti, "Management Policy Toward Task Environment Agents: A Cross-Cultural Study," Proceedings of the Academy of Management (August, 1973), pp. 126-131.

neutral position midpoint between the two extremes is assigned a point value of four.[19]

The semantic differential instrument, used by Reimann in his study of Ohio industrial concerns, was pretested in two phases and among two different groups. The results of both phases of these tests have been reported elsewhere by Reimann et al.[20] Briefly, the results of the first phase of the tests identified the most salient adjective pairs for the types of the terms that were to be employed in the management concern questionnaire instrument. These adjective pairs were found to be significantly related to the evaluative, activity, and potency dimensions of perceptions, as well as relevance to the terms being evaluated.[21]

The second phase of the tests was conducted to administer this newly developed semantic differential questionnaire to some fifty graduate business students and middle level managers who were thought to have perceptions similar to the top-level managers of business firms. Factor analyses of the results of these pretests yielded two factors which were denoted Evaluative and Dynamism.[22] The "management concern" questionnaire consists of five pairs of bi-polar adjective scales for

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[19] Ibid., Reimann, "Management Concern."

[20] Bernard C. Reimann, F. Glenn Bosemann, and Jack L. Simonetti, "Toward a Measure of Management Concern: An Exploratory Study," Quarterly Journal of Management Development, Vol. 1, No. 2 (1971), pp. 25-38.

[21] Op. Cit., Reimann, "Management Concern," p. 24; also see Heise, "Methodological Issues."

[22] According to Reimann "the results of the pretests gave substantial support to the high face validity claimed for the semantic differential instrument by its developers (Osgood, Suci, and Tannenbaum). See Reimann, "Management Concern," p. 26.

each of the two factors: Evaluative: good-bad, friendly-hostile, co-operative-uncooperative, loyal-disloyal, concerned-unconcerned; and Dynamism: effective-ineffective, fast-slow, stable-unstable, active-passive, strong-weak.[23]

Managers were asked to use these ten pairs of bi-polar adjective scales for evaluating the nine task agents of their organization. A typical industrial concern would interact most frequently with the following nine task agents: (1) consumers; (2) employees; (3) suppliers; (4) labor unions; (5) stockholders or owners; (6) creditors; (7) community; (8) government; and (9) competitors. A description of how other researchers in the contingency behavior of organizations have found these agents to be relevant and important as a variable of the organization task environment is found in Chapter III.

On the basis of the managers' evaluations of each of these nine task agents on the ten bi-polar adjective scales a management concern score was calculated for the organization. The evaluative score for each task agent is the sum of the scores on each of the five evaluative scales; and the dynamism score for each task agent is the sum of the scores on each of the other five scales.[24]

The evaluative scores for the nine task agents are therefore expected to represent the degree of positive attitude of the management "team" for these agents,[25] while the dynamism scores are expected to

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[23] In the actual questionnaire the order of appearance of these pairs of adjectives, as well as their positive-negative directions have been changed at random to minimize response pattern biases. See Appendix B.

[24] Op. Cit., Reimann, "Management Concern," p. 28.

[25] The evaluative scales as measured by the semantic differential instrument have been found to provide a good measure of attitudes. See

measure the executive's degree of perception of these agents as being dynamic. The assumption here is that the more dynamic a particular agent is perceived to be the more necessary it is for the executives to express concern about these agents. For a customer, that is perceived to be relatively dynamic, would have no hesitation to switch to another manufacturer's products if they considered the present products as being unsatisfactory.

On the basis of such assumptions Reimann et al. weighted the evaluative (attitude) score of each task agent by his relative dynamism score to arrive at the overall score of management concern.[26] Such weighting automatically assigned more importance to the management "team's" attitude to those task agents who are considered more dynamic (and therefore, more important). For example, if the consumer is considered by the management to be twice as dynamic as the employee, then the management's attitude toward the consumer is given twice the weight of the attitude toward the employee.

The individual exectuive's "management concern" score is computed by means of the following formula:[27]

$$C_j = \frac{\Sigma_{i=1}^{n} e_i d_i}{\Sigma_{i=1}^{n} d_i} \qquad (1)$$

where: C_j = management concern score for the j'th executive

C. Osgood, E. Ware, and C. Morris, "Analysis of Connotative Meanings of a Variety of Human Values as Expressed by American College Students," Journal of Abnormal and Social Psychology, Vol. LXII (1961), pp. 62-73.

[26] Op. Cit., Reimann, p. 29.

[27] Ibid., pp. 29-30. According to Reimann this weighting scheme

e_i = evaluative score of the i'th task agent (i.e., sum of the scores on the five evaluative scales)

d_i = dynamism score of i'th task agents

n = number of task agents ($n = 9$)

The overall management concern score for the whole organization is computed by the following formula:

$$C = \frac{\Sigma_{j=1}^{k} C_j}{k} \qquad (2)$$

where: C = firm's management concern score

C_j = j'th executive's management concern score computed from equation (1)

k = number of firm's executives filling out questionnaires

This score is representative of the overall concern exhibited by the management of a particular organization.

Organization Structure

It has been mentioned in Chapter III that the dimensions along which structure can be measured are quite large. Structure usually refers to a relatively fixed relationship that exists among the jobs in the organization.[28] However, given the socio-technical aspect of organizations, the structural and the behavioral variables are in constant interaction that set the pattern for the attainment of the

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is thought to be more accurately descriptive of "management concern" than Negandhi and Prasad's somewhat arbitrary choice of weights. See Reimann, pp. 29-30.

[28] James C. Gibson, John M. Ivancevich, and James H. Donnelly, Jr., Organizations: Structure, Processes, Behavior (Dallas, Texas: Business Publications, Inc., 1973), p. 58.

organizational goals. This has been the emphasis of the contingency theorists of organization behavior. Concepts of division of labor, span of control, decentralization and departmentalizations have been studied within this frame of reference.[29] In this study a subjective decision was made to adopt the formalization and decentralization dimensions of organizational structure. Partly the decision was based on the availability of operationalized instruments that measure these two dimensions.

The instrument utilized in this study to measure the degree of formalization was devised by Lawrence and Lorsch for their research study (see Appendix C). The concept has been described earlier in Chapter III. A four point scale was developed for each of the six structural characteristics: (1) the span of supervisory control; (2) the number of levels to a supervisor shared with other departments; (3) the specificity of review of department performance; (4) the frequency of review of department performance; (5) the specificity of review of individual performance; and (6) the emphasis on formal rules and procedures. A structural score was computed for the organization by adding scores on all six characteristics.

The decentralization index is based on Negandhi and Prasad's work in a number of developing countries.[30] Nine factors are examined to evaluate the degree of decentralization in decision making in the companies. The factors examined are:

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[29]For an extensive discussion of these concepts of structure see Rocco Carzo, Jr., and John N. Yanouzas, Formal Organization (Homewood, Ill.: Richard D. Irwin, Inc., 1967), Chs. 2, 3, 4; and Theo Haimann and William G. Scott, Management in the Modern Organization (Boston, Mass.: Houghton Mifflin Co., 1970), Chs. 10, 11, 15, and 16.

[30]Op. Cit., Negandhi and Prasad, Comparative Management, p. 205.

1. Layers of hierarchy--from top executive to blue collar worker.
2. Locus of decision-making with respect to major policies (e.g., mergers, major expansions or suspensions, major diversification decisions).
3. Locus of decision-making with respect to sales policies.
4. Locus of decision-making with respect to product mix.
5. Locus of decision-making with respect to standard setting in production.
6. Locus of decision-making with respect to manpower policies.
7. Locus of decision-making with respect to selection of executives.
8. The degree of participation in long-range planning.
9. The degree of information sharing.

To arrive at a composite index for decentralization, the organization is evaluated on a three point scale for each of the factors (see Appendix D). The final decentralization index for each company is computed by adding these points for each factor and dividing this total by nine. This will give an index varying from a minimum of 1.00 (highly decentralized) to a maximum of 3.00 (highly centralized).

Organization Effectiveness

The instrument used to measure the effectiveness variable has been adopted from the studies designed by Negandhi and Prasad and subsequently used by Negandhi and Reimann, and Reimann.

The measurement of relative effectiveness of industrial organizations usually present some difficulties. Data on the various financial indices commonly used to measure this aspect of performance are not obtainable for many organizations. The Negandhi-Reimann

instrument evaluates organizational effectiveness both in terms of behaviorally oriented measures and economic criteria (see Appendix E). The behaviorally oriented factors are: (1) ability to hire and retain high level manpower; (2) employee morale and satisfaction in work; (3) turnover and absenteeism; (4) interpersonal relationship; (5) inter-departmental relationships; (6) utilization of high level manpower. The financial criteria are: (1) growth in sales during last five years; and (2) growth in profit during last five years.

Three descriptive categories are created to evaluate the organizational effectiveness for each company and a three point scale is devised. Two effectiveness indices are created, one for the behaviorally oriented measures and the other for the growth in sales and profits. These indices are obtained by dividing the total score by the number of factors. This produces an index ranging from a minimum of 1.00 (most effective) to a maximum of 3.0 (least effective).

Statistical Analysis of Data

Once the scores on variables of environment, management concern, organization structure, and organization effectiveness were computed for sample organizations (using methods described above), a series of statistical analyses were performed among the variables. For reasons mentioned in the following paragraphs, the decision was made to use nonparametric statistical tests for analyses of raw data.

Every statistical test is based on some concept of a statistical model with the accompanying measurement requirement. As soon as a test is selected for research, the validity of that test under certain conditions is implied. Though it is possible at times to test whether

the conditions of a particular statistical model are met, more often it is assumed to have been met.[31] One of the cardinal principles in the use of statistical techniques is that the selection of a test and consequently of a particular model are as good as the assumptions of the model. Great harm can be caused when selection of the test is based upon wrong assumptions of statistical conditions and subsequent drawing of inferences from such results.[32] The most powerful tests usually require and have the strongest or most extensive assumptions.[33] The parametric tests (for example, t or F tests) have a variety of strong assumptions underlying their use.[34] If the assumptions underlying the statistical model for a test are not met, or when the measurement requirement of the test is not of the desired strength, then it is virtually impossible to determine the power of a statistical test.[35] It

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[31]Sidney Siegel, Nonparametric Statistics for the Behavioral Sciences (New York: McGraw-Hill Book Co., 1956), p. 18.

[32]Ibid., p. 19.

[33]The power of a test is defined as the probability of rejecting H_0 (null hypothesis) when it is in fact false. That is:

Power = 1 - Probability of Type II error = $1 - \beta$.

See Sidney Siegel, Nonparametric Statistics, p. 10.

[34]According to Siegel the conditions of parametric tests assumed are as follows:

a. the observations are independent
b. the observations are drawn from normally distributed populations
c. these populations have the same variances
d. the variances involved have been measured in at least an interval scale.

See Siegel, Nonparametric Statistics, p. 19.

[35]The measurement concept alluded to above in relation to choice of a statistical test is a crucial variable. In the social sciences in order to perform manipulations of numbers assigned to observations, the structure of the method of assigning scores to observations must be isomorphic to some numerical structure that includes such operations.

is also impossible to estimate the extent of meaningfulness of the probability statement concerning a hypothesis when such probability statement was arrived at by the unacceptable application of a test.

In addition, the researcher decided to employ the statistical test for measurement of Kendall's coefficient of concordance among the five organizational variables.[36] This was conducted in order to test for any significant correlation that might have existed among these variables, all considered at the same time. A higher degree of correlation would indicate that these variables were related to each other in some significant manner.

It is this author's contention that the research design formulated in this particular project requires the employment of nonparametric statistical analysis. First, the researcher does not possess any concrete evidence of normality of the population distribution. To reiterate, the samples in this research are to be obtained from the population of manufacturing industries. Given geographic limitation of the sources of such samples, it is conceivable that a lack of many large scale manufacturing organizations may introduce a bias in the model. Thus, an assertion as to the normality of population distribution would be at best tenuous and indicate chance occurrence. Second,

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There are four distinct levels of measurement which specify the type of statistical operations that are permissible. These are nominal, ordinal, interval, and ratio scales. For a brief review of these four types of measurements and the operations allowable on a given set of scores see Siegel, Nonparametric Statistics, pp. 22-29.

[36]For a description of Kendall's coefficient of concordance see Charles H. Kraft and Constance Van Eeden, A Nonparametric Introduction to Statistics (New York: The Macmillan Company, 1968), p. 178. Also Sidney Siegel, Nonparametric Statistics for the Behavioral Sciences (New York: McGraw-Hill Book Co., 1956), pp. 229-239.

though conceptually all manufacturing organizations can be considered to be a homogeneous population, it is possible that an argument can be raised for better homogeneity by classifying these companies as to types of products, methods of production, or size. If, in fact, such separate populations exist with respective unknown distributions, then it becomes mandatory to use a nonparametric test. Third, the sample size was less than 10-15 companies in each group (companies with either domestic or international operations). The numbers were arrived at after consideration of availability of organizations for study, the time element, and the precedence established by earlier studies. Given the limitation of numbers, and the absence of exact knowledge of population distribution, it is binding that a nonparametric statistical analysis be employed. Fourth, though the quality of measuring instruments employed in this research is considered to be better than others available, yet it is the opinion of this researcher that in the absence of further validation to the contrary, the imputation of interval or ratio scale level of measurement to scores obtained by observation and questionnaires will probably be unjustified. Hence, use of parametric statistical analysis with the ordinal scale would present a misleading result or at the least a less powerful analysis. This is highly undesirable.

Having decided on the use of nonparametric statistical analysis in this research, the question of selecting a specific statistical test was solved by the decision to adopt tests employed by others in prior researches. Negandhi and Prasad, Negandhi and Reimann, and Reimann had all used Spearman's rank order correlation test with significant results.

The test was also employed in the present study to attain as much comparability as possible.

Research Design

The research design employed in the present study was based on the research model presented in Chapter I. The model is being reproduced below to provide easy reference.

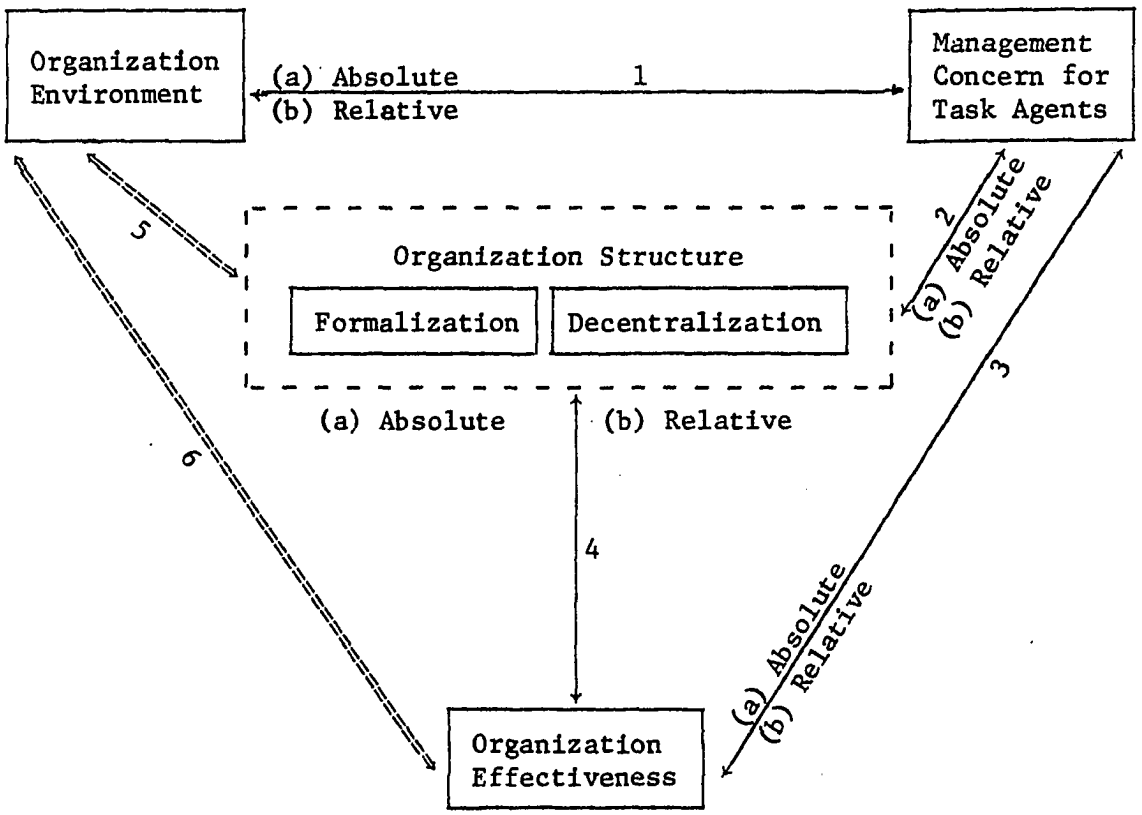

Figure IV-1: Research Model.

In this research the relationships between the four variables to be explored were conducted on two levels--the absolute and the relative.[37] Using the instruments described in the earlier sections of this

[37]For a detailed description of the relationships explored in this study see Chapter I.

chapter (and in the appendices) scores were obtained for each of the four variables for all organizations in the sample.[38]

The relationships between variables explored in this study are indicated by the numbered sequence in Figure IV-1 above. For each sequence the statistical tests mentioned earlier were employed at the absolute and the relative levels. At the absolute level the statistical tests for relationships were employed for all firms in the sample, while at the relative level the statistical tests for relationships were calculated for the two groups (those with international operations and those with domestic operations) in the sample separately. This design was created to permit comparative analysis of the differences in the degree of relationships (among selected organizational variables) between the two groups in the sample. It was hoped that this comparative analysis would provide a better comprehension of the nature of international business in light of the contingency behavior of organizations.

In this chapter the methodological considerations pertinent to the present research have been discussed, including the research design employed in this particular study, the measuring instruments, and the statistical techniques adopted. The next two chapters will describe the actual findings from the research and the conclusions that were inferred from the results.

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[38] In this research two aspects of the structural variable--formalization and decentralization--are investigated. Consequently, two measuring instruments are utilized to measure and collect scores for formalization and decentralization. These may create the illusion at times that five variables are being investigated.

CHAPTER V

ANALYSIS OF RESEARCH FINDINGS

Introduction

In this chapter the analysis of research findings pertaining to four selected organizational variables are described: environmental uncertainty-certainty, management concern for task environmental agents, formalization and decentralization factors of organization structure, and organization effectiveness. This researcher postulated certain relationships among these organizational variables based upon theories of organizations and empirical research conducted by Lawrence and Lorsch, Negandhi and Prasad, Negandhi and Reimann, and Reimann.[1] Briefly, this researcher expected to find the following relationships which would have statistically significant correlations between: (a) greater environmental uncertainty and greater management concern for task environmental agents; (b) greater management concern score and greater decentralization, as well as greater management concern score and lower formalization; (c) greater management concern score and greater organizational effectiveness; and (d) greater decentralization, lower formalization and greater organizational effectiveness.

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[1]For an extensive discussion of these relationships and the theoretical basis for such conceptualizations, the reader is referred to Chapters I and III. The instruments chosen to measure the four selected organizational variables, as well as the statistical tools selected to analyze data, have been described in Chapter IV.

Apart from those absolute relationships, some relative correlations were posited for the two sample groups. Based on review of literature on organizational behavior and comparative management, this researcher postulated certain relationships for companies with international operations, and for companies with domestic operations.[2]

Statistical analyses were employed to determine whether the relationships observed in the variables of sample firms could have occurred due to chance variations, or whether they could confirm the findings of previous research and also serve as bases for formulating "working hypotheses" for future research. In other words, the results of statistical analyses are not intended for use to make generalizations about the population from which the research samples were drawn (i.e., all manufacturing organizations in Oklahoma), but simply to discover relationships that would deserve further study. The small size and the non-randomness of the samples used in this study preclude making any kind of generalizations from these findings.

Since the primary objectives of these statistical analyses were to confirm the findings of previous research, as well as to discover possible relationships for further study, relatively high levels of significance were chosen (i.e., $\alpha = .10$ and $.20$). By doing this the beta risk of falsely rejecting a significant relationship deserving further study was reduced although at the expense of increasing the alpha risk of accepting a relationship as significant when this was the

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[2]For a comprehensive statement on expected trends of relative relationships between the four selected variables for the two sample groups the reader is referred to pp. 14-18, Chapter I.

product of chance occurrence. Given the small sample size, the method of reducing the beta risk was to increase the alpha risk above the usual levels of .01 or less.

The analyses of research findings are presented below in the same sequence as that of the relationships between the organizational variables incorporated in the schematic research model exhibited in Chapters I and IV.

Organizational Uncertainty and Management Concern

Significant relationship between organization environment (measured along a competitive-noncompetitive continuum) and management concern for agents in the organizations task environment has been reported in one of the studies cited earlier.[3] In another earlier study the findings implied the influence of external environment on the organization's internal environment. In that study the research particularly emphasized the need to account for the influence of cognitive activities of organizational participants as a link between environmental stimuli and the participants' overt responses.[4] Of late, writings in the area of organizational behavior have indicated that an individual's reaction within a situation is a function of his perception of the situation

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[3]For a comprehensive statement about this particular research, see the Negandhi and Reimann study described on pp. 106-107, Chapter III.

[4]William R. Dill, "Environment as an Influence on Managerial Autonomy," Administrative Science Quarterly, Vol. 2, No. 4 (March, 1958), p. 443. For reference to other related works in this particular area see footnotes on pp. 95-98, Chapter III.

and not a result of the interaction between the individual and real stimuli and constraints.[5]

In the present study a similar approach was adopted. This researcher feels that the impact of the true task environment on organizational functioning and structure may not be direct; rather, it may be mediated through the perception of the decision-maker.

Based on similar reasoning this researcher postulated that a significant correlation would be found between a higher degree of environmental uncertainty score (as measured by the Lawrence and Lorsch instrument) and a greater degree of management concern score for task environmental agents (as measured by the semantic differential instrument developed by Reimann, et al.).[6] It is to be noted here that measurement of both these organizational variable scores was obtained by instruments that utilized the perception of the top-level management of the sample firms. Thus, what was measured in this study was the degree of environmental uncertainty as perceived by the management of the organization, not the true environment itself. This is also true for the management concern variable.

The scores obtained for the 16 organizations in the sample are presented in Table V-1(a). Spearman's rank order correlation coefficient for the sample firms was calculated to determine the degree of relationship between environmental uncertainty and management concern

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[5]James G. March and Herbert A. Simon, Organizations (New York: John Wiley and Sons, Inc., 1963); Rensis Likert, The Human Organization: Its Management and Value (New York: McGraw-Hill Book Company, 1967).

[6]For a description of the Semantic Differential instrument, see pp. 142-147 of Chapter IV.

TABLE V-1(a)

Absolute Rankings of Sample Firms for Environmental Uncertainty/Certainty and Management Concern for Task Environmental Agent Variables

Firm Code	Environmental Uncertainty-Certainty Scores	Ranks	Management Concern for Task Agent Scores	Ranks
A	5.22	1	27.96	7
L	4.78	2	32.07	1
M	4.72	3	29.24	3
I	4.55	4	28.13	5
E	4.33	5	24.94	12
P	4.22	6	27.15	8
H	3.81	7	25.10	11
C	3.75	8	25.13	10
O	3.66	9	28.98	4
B	3.56	10	25.77	9
N	3.47	11	19.73	16
D	3.44	12	28.10	6
F	3.33	13	31.10	2
K	3.28	14	23.28	14
G	2.66	15	24.51	13
J	2.33	16	21.35	15

Spearman's rank correlation results between Environmental Uncertainty and Management Concern for Task Agents $r_s = .52$ (significant at $P < .025$).

for task environmental agents and was found to be .52, which is significant at $P < .05$ level of confidence.

Apart from the absolute relationship for all firms in the sample, relative degrees of relationships between these two organizational variables were calculated for companies with international operations and for companies with domestic operations. The Spearman's coefficients of correlations were determined to be .72 and .23, respectively. The first coefficient was found to be significant at $P < .01$ level while the second coefficient was not found significant at $P < .10$ level. The ranked scores of the two sample groups and the correlation coefficients are presented in Table V-1(b).

The statistical analyses of these data supported the earlier expectations. In essence, the results confirmed that companies with international operations have a significantly greater correlation between the higher degree of environmental uncertainty and greater management concern for task agents than similar relationships for companies operating domestically.

An explanation for such an occurrence is perhaps self-evident. One of the critical elements to be considered before expanding operations overseas is the factor of risk or uncertainty.[7] This increased uncertainty of the environment of overseas markets requires the management of companies in such an environment to show greater concern for the various task agents than would the management of domestic companies operating in a more familiar and certain environment.

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[7]In a recent article the impact of environmental uncertainty on international business operations was adequately described. See Stefan H. Robock and Kenneth Simmonds, "What's New in International Business?" Business Horizons, Vol. 9, No. 4 (Winter, 1966), pp. 41-48.

TABLE V-1(b)

Relative Rankings of Sample Firms for Environmental Uncertainty/Certainty and Management Concern for Task Agent Variables

	Firm Code	Environmental Uncertainty-Certainty Scores	Ranks	Management Concern for Task Agent Scores	Ranks
Companies with International Operations	A	5.22	1	27.96	2
	L	4.78	2	32.07	1
	C	3.75	3	25.13	3
	N	3.47	4	19.73	6
	K	3.28	5	23.28	5
	G	2.66	6	24.51	4
Companies with Domestic Operations	M	4.72	1	29.24	2
	I	4.55	2	28.13	4
	E	4.33	3	24.94	9
	P	4.22	4	27.15	6
	H	3.81	5	25.10	8
	O	3.66	6	28.98	3
	B	3.56	7	25.77	7
	D	3.44	8	28.10	8
	F	3.33	9	31.10	1
	J	2.33	10	21.35	10

Spearman's rank correlation results between Environmental Uncertainty and Management Concern for Task Agents among:

(a) Companies with internation operations = .71 ($P < .10$)

(b) Companies with domestic operations = .23 (not significant at $P < .10$)

The correlation coefficients derived from the companies in the present study confirm those expectations ($\rho = .71$; $\rho = .23$). The absolute rank order correlation coefficient was determined to be .52. Though slightly lower, it was still found to be significant at $P < .025$ level of confidence. The slightly lower value is evidenced because of inclusion of domestic companies for which the Spearman's rho was found to be .23 (not significant at $P < .10$ level). The absolute rank coefficient for all companies in the sample also confirmed the expectation that organizations with greater environmental uncertainty tended to exhibit greater management concern for task agents.

Management Concern and Organizational Structure

The studies of Negandhi and Prasad and Negandhi and Reimann established a direct link between management's concern for their task environmental agents and the organization structure.[8] Negandhi and Prasad found significant correlation between what they termed as management's "philosophy" toward the task environment agent and the decentralization of decision-making (Spearman's rho = 0.81), while the Reimann study indicated a strong curvilinear relationship between these two organizational variables.[9] In a separate study of health-care

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[8] Anant R. Negandhi and S. Benjamin Prasad, Comparative Management (New York: Appleton-Century-Crofts, 1971), p. 203; Anant R. Negandhi and Bernard C. Reimann, "A Contingency Theory of Organization Re-Examined in the Context of a Developing Country," Academy of Management Journal, Vol. 15, No. 2 (June, 1972); also "Task Environment, Decentralization, and Organization Effectiveness," Human Relations, Vol. 26, No. 2 (January/February, 1973), pp. 203-214.

[9] Op. Cit., Negandhi and Prasad, Comparative Management, p. 203; Bernard C. Reimann, "Management Concern, Context, and Organization Structure," (Unpublished Ph.D. dissertation, Kent State University, 1972), pp. 73-82.

organizations Lefton and Rosengren found that organizations with high longitudinal and lateral concern for their clients tended to have decentralized structures, while those with low concern tended to be more centralized.[10]

In the present study two aspects of organizational structure were measured: degree of formalization, and degree of decentralization.[11] This researcher postulated that companies with a higher degree of management concern for task agents would be significantly related to a higher degree of decentralization and a lower degree of formalization. The scores obtained by the 16 sample firms for these variables are presented in Table V-2(a). Spearman's rank correlation coefficient was determined to be -0.13 between management concern for task agents and degree of formalization (not significant at $P < .10$ level), and .65 between management concern for task agents and degree of decentralization (significant at $P < .005$ level of confidence). These correlation coefficients confirmed the relationships between the variables posited earlier. To reiterate, companies that exhibited a higher degree of concern for task agents had a low degree of formalization and a higher degree of decentralization. Present statistical analyses were wholly compatible with the earlier research findings cited above. Unlike prior researches, the present study included both decentralization and formalization as factors of organization structure. The very low

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[10] Mark Lefton and William R. Rosengren, "Organizations and Clients: Lateral and Longitudinal Dimensions," American Sociological Review, Vol. 31 (1966), pp. 802-810.

[11] For a description of these two factors and instruments used to measure them see Chapter III and Chapter IV.

TABLE V-2(a)

Absolute Rankings of Sample Firms for Management Concern for Task Agents, Degree of Formalization, and Degree of Decentralization Scores

Firm Code	Management Concern for Task Agent Scores	Ranks	Degree of Formalization Scores	Ranks*	Degree of Decentralization Scores	Ranks*
L	32.07		2.2	12	1.125	1.5
F	31.10	2	2.0	14.5	1.25	3
M	29.24	3	2.75	2	1.125	1.5
O	28.98	4	2.33	6.5	1.375	4
I	28.13	5	2.89	1	1.625	8
D	28.10	6	1.0	16	2.0	13
A	27.96	7	2.45	4.5	1.5	5.5
P	27.15	8	2.22	10.5	1.75	11.5
B	25.77	9	2.22	10.5	2.125	14
C	25.13	10	2.05	13	1.625	8
H	25.10	11	2.28	8	1.625	8
E	24.94	12	2.25	9	1.666	10
G	24.51	13	2.0	14.5	2.25	15
K	23.28	14	2.67	3	1.75	11.5
J	21.35	15	2.45	4.5	2.375	16
N	19.73	16	2.33	6.5	1.5	5.5

*Ranks have been corrected for ties.

Spearman's rank correlation results:

(a) between degree of management concern and degree of formalization = $-0.13^{\dagger}$ (not significant at $P < .10$ level)

(b) between degree of management concern and degree of decentralization = $.65^{\dagger}$ ($P < .005$)

† correlation coefficients were corrected for tied scores.

negative correlation ($\rho = -0.13$) between management concern and formalization is noteworthy and indicates that for the sample firms the variables of high management concern and higher formalization have no special affinity.

The relative rankings of the two sample groups for each of these pairs of variables were also analyzed and are presented in Table V-2(b). The analyses of relative correlation coefficients for domestic and international companies supported relationships posited in Chapter I. For both sample groups, significant positive correlations were found between higher management concern for task agents and higher degree of decentralization (for international companies $\rho = .60$, significant at $P < .10$ level; for domestic companies $\rho = .79$, significant at $P < .01$), while very tenuous correlations were found between management concern for task agents and degree of formalization (for international companies $\rho = -0.20$, for domestic companies $\rho = -0.03$, both not significant at $P < .10$ level). However, the relative degree of correlations among the sample groups were slightly different than posited. While it was postulated that companies with international operations would exhibit greater degree of correlation between high management concern score and high decentralization score than domestic corporations, the actual correlation coefficients produced evidence to the contrary. The differences in the degree of correlations were not great and could have been induced by the influence of other environmental factors. One possible explanation could be that the sample firms involved in overseas operations were primarily engaged in marketing functions with little or no manufacturing or production activities. The marketing environment for international companies could very well be more certain than environments

TABLE V-2(b)

Relative Rankings of Sample Firms for Management Concern for Task Agents, Degree of Formalization, and Degree of Decentralization Scores

	Firm Code	Management Concern for Task Agent Scores	Ranks	Degree of Formalization Scores	Ranks*	Degree of Decentralization Scores	Ranks*
Companies with International Operations	L	32.07	1	2.2	4	1.125	1
	A	27.96	2	2.45	2	1.5	2
	C	25.13	3	2.05	5	1.625	4
	G	24.51	4	2.0	6	2.25	6
	K	23.28	5	2.67	1	1.75	5
	N	19.73	6	2.33	3	1.5	3
Comapnies with Domestic Operations	F	31.10	1	2.0	9	1.25	2
	M	29.24	2	2.75	2	1.125	1
	O	28.98	3	2.33	4	1.375	3
	I	28.13	4	2.89	1	1.625	4
	D	28.10	5	1.0	10	2.0	8
	P	27.15	6	2.22	8	1.75	7
	B	25.77	7	2.22	7	2.125	9
	H	25.10	8	2.28	5	1.625	5
	E	24.94	9	2.25	6	1.666	6
	J	21.35	10	2.45	3	2.375	10

Spearman's rank correlation results:

1. between management concern for task agents and degree of formalization for
   (a) international companies = -0.2 (not significant at $P < .10$)
   (b) domestic companies = -0.03 (not significant at $P < .10$)
2. between management concern for task agents and degree of decentralization for
   (a) international companies = .60 ($P < .10$)
   (b) domestic companies = .79 ($P < .01$)

of domestic companies engaged in both production and marketing activities. The differences in correlation coefficients calculated for each sample group were too close to permit any conclusion proving or disproving the relationships which had been posited.

Management Concern and Organization Effectiveness

The Negandhi-Prasad study indicated a strong relationship between "management philosophy" or "concern" toward task agents and organizational effectiveness measured in behavioral factors ($\rho = .83$).[12] Another study conducted in Great Britain indicated significant positive correlation between high concern or positive and "progressive" attitudes toward task agents and high organization effectiveness.[13] Based on their research findings Lawrence and Lorsch theorized that the organization's structure and task environmental factors interact in their influence on organization effectiveness.[14]

In the present research the semantic differential instrument, developed by Reimann, et al., was used to measure the management concern for task agents of sample firms and the Negandhi-Prasad instrument

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[12] Op. Cit., Negandhi and Prasad, Comparative Management, p. 162.

[13] In a study of forty-five British industrial firms, Gater et al. classified the samples into two groups: the "thrusters" and the "sleepers." The first group of firms possessed relatively progressive management attitudes and practices, while the second group were relatively non-progressive in attitudes and behavior. The attitudes were measured in terms of dealing with the organization's task agents. The study found that the so called "thrusters" were relatively more effective than the "sleepers" in financial measures of effectiveness. See A. Gater, D. Insull, M. Lind, and P. Seglow, Attitudes in British Management (Middlesex, England: Penguin Books Ltd., 1966).

[14] For a description of the Lawrence and Lorsch study see pp. 102-104, Chapter III.

was used to measure the organizational effectiveness.[15]

It was posited in Chapter I that companies exhibiting a greater degree of management concern for task agents would be significantly correlated with a greater degree of organizational effectiveness. The scores obtained for both these variables for the 16 organizations in the sample are presented in Table V-3(a). The correlation coefficient was calculated to be .73 which is significant at $P < .005$ level of confidence.

As before, besides absolute coefficient, the relative correlation coefficients were also calculated for the two sample groups between these selected variables. The ranked order of scores are presented in Table V-3(b). The ranked coefficients of correlations among these variables for companies with international operations and companies with domestic operations were found to be .94 and .69, respectively. These coefficients were significant at $P < .01$ level of confidence. The correlation coefficients of these two sample groups reinforced in a significant fashion the relations posited at the beginning of this study, and also the findings of previous researches.

From a practical point of view these results make good sense. The task environmental agents for whom the management concern was measured are vital elements in the overall system that influences

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[15] In their study Negandhi and Prasad used both a behavioral and an economic measure of the effectiveness criteria and calculated the rank order correlations separately for each effectiveness variable. In this research, although the Negandhi-Prasad effectiveness instrument was used, the two elements were not separated on the grounds that organizations must be effective in both areas in order to survive. Thus effectiveness index used here is a composite of behavioral and economic effectivenesses.

TABLE V-3(a)

Absolute Rankings of Sample Firms for Management Concern for Task Agents and Organizational Effectiveness Scores

Firm Code	Management Concern for Task Agent Scores	Ranks	Organizational Effectiveness Scores	Ranks*
L	32.07	1	1.25	2
F	31.10	2	1.429	5
M	29.24	3	1.0	1
O	28.98	4	1.375	3.5
I	28.13	5	1.938	12
D	28.10	6	1.438	6
A	27.96	7	1.375	3.5
P	27.15	8	2.0	13
B	25.77	9	1.875	10.5
C	25.13	10	1.875	10.5
H	25.10	11	1.79	9
E	24.94	12	1.5	7
G	24.51	13	1.75	8
K	23.28	14	2.063	14
J	21.35	15	2.625	15
N	19.73	16	2.75	16

*Ranks have been corrected for ties.

Spearman's rank correlation results between management concern for task agents and organizational effectiveness = .73† ($P < .005$)

† Correlation coefficient was corrected for tied scores.

TABLE V-3(b)

Relative Rankings of Sample Firms for Management Concern for Task Agents and Organizational Effectiveness

	Firm Code	Management Concern for Task Agent Scores	Ranks	Organizational Effectiveness Scores	Ranks
Companies with International Operations	L	32.07	1	1.25	1
	A	27.96	2	1.375	2
	C	25.13	3	1.875	4
	G	24.51	4	1.75	3
	K	23.28	5	2.063	5
	N	19.73	6	2.75	6
Companies with Domestic Operations	F	31.10	1	1.429	3
	M	29.24	2	1.0	1
	O	28.98	3	1.375	2
	I	28.13	4	1.938	8
	D	28.10	5	1.438	4
	P	27.15	6	2.0	9
	B	25.77	7	1.875	7
	H	25.10	8	1.79	6
	E	24.94	9	1.5	5
	J	21.35	10	2.625	10

Spearman's rank correlation results between management concern for task agents and organizational effectiveness for:

(a) international companies = .94 ($P < .01$)

(b) domestic companies = .69 ($P < .005$)

organizational effectiveness. Even under "normal" circumstances, for the smooth functioning of organizations (and, therefore, the effectiveness of organizations), it is essential for management to understand the roles played by these agents. This understanding and concern becomes still more critical when the firm functions in an unknown or uncertain environment like international markets. The statistical significance of results obtained between management concern and organization effectiveness for the sample groups appear supportive of this statement.

Organization Structure and Organization Effectiveness

The final relationship explored in the present study was between the variables of organization structure and organization effectiveness. Two aspects of organization structure were measured: the degree of formalization and the degree of decentralization. Earlier, Negandhi and Prasad found a significant relationship between decentralization of decision-making and the industrial organization effectiveness.[16] Similarly, in a separate study, Lawrence and Lorsch found a significant relation between decentralization index and organization effectiveness within an environment of uncertainty.[17]

At the beginning of this study the author had indicated expectations of a significant relationship between the degree of decentralization and organizational effectiveness, while the variables of formalization and organizational effectiveness were expected to be less significantly related. The absolute rank scores of all the sample firms

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[16] Op. Cit., Negandhi and Prasad, Comparative Management.

[17] Paul R. Lawrence and Jay W. Lorsch, Organization and Environment (Homewood, Illinois: Richard D. Irwin, Inc., 1969).

for these variables are presented in Table V-4(a). The correlation coefficients obtained were .60 and -0.18, respectively, and corroborated the relationships posited in Chapter I. The relationship between the degree of decentralization and organization effectiveness (ρ = .60, significant at $P < .01$ level) was considerably stronger than similar relationship between formalization and effectiveness (ρ = -0.18, not significant at $P < .10$ level).

The relative relationships calculated for the two sample groups also confirmed the relationships posited earlier. The ranked scores for the sample groups are presented in Table V-4(b). The statistical analyses indicate that for companies with international operations the degree of formalization was more negatively related to the variable of organization effectiveness (ρ = -.26, not significant at $P < .10$ level) when compared to similar relationship for companies with domestic operations (ρ = -0.09, not significant at $P < .10$ level). These results conform to the earlier expectations. However, in comparing the actual coefficients of correlation between degree of decentralization and organizational effectiveness for the two sample groups a reverse trend than that postulated earlier was found. The correlation coefficient between decentralization and effectiveness for the domestic group of companies was stronger (ρ = .73, significant at $P < .025$ level) than similar coefficient for international group of sample firms (ρ = .49, not significant at $P < .10$ level), though both were, in accordance with general expectations, positively correlated. This reverse trend among the degree of relationships of the two sample groups could be attributed either to lower sample size in the international group compared to that of the domestic group or to the differences in the nature of business

TABLE V-4(a)

Absolute Rankings of Sample Firms for Degree of Formalization, Degree of Decentralization, and Organizational Effectiveness Scores

Firm Code	Degree of Formalization Scores	Ranks*	Degree of Decentral-ization Scores	Ranks*	Organizational Effectiveness	Ranks*
I	2.89	1	1.625	8	1.938	12
M	2.75	2	1.125	1.5	1.00	1
K	2.67	3	1.75	11.5	2.063	14
J	2.45	4.5	2.375	16	2.625	15
A	2.45	4.5	1.5	5.5	1.375	3.5
N	2.33	6.5	1.5	5.5	2.75	16
O	2.33	6.5	1.375	4	1.375	3.5
H	2.28	8	1.625	8	1.79	9
E	2.25	9.5	1.666	10	1.5	7
B	2.22	9.5	2.125	14	1.875	10.5
P	2.22	11	1.75	11.5	2.0	13
L	2.20	12	1.125	1.5	1.25	2
C	2.05	13.5	1.625	8	1.875	10.5
F	2.0	13.5	1.25	3	1.429	5
G	2.0	15	2.25	15	1.75	8
D	1.0	16	2.0	13	1.438	6

*Ranks have been corrected for ties

Spearman's rank correlation results:

(a) between degree of formalization and organizational effectiveness = $-0.18^{\dagger}$ (not significant at $P < .10$)

(b) between degree of decentralization and organizational effectiveness = $.60^{\dagger}$ ($P < .01$ level)

† Correlation coefficients were corrected for tied scores.

TABLE V-4(b)

Relative Rankings of Sample Firms for Degree of Formalization, Degree of Decentralization, and Organizational Effectiveness Scores

	Firm Code	Degree of Formalization Scores	Ranks*	Degree of Decentral-ization Scores	Ranks*	Organizational Effectiveness	Ranks*
Companies with International Operations	K	2.67	1	1.75	5	2.063	5
	A	2.45	2	1.5	2	1.375	2
	N	2.33	3	1.5	3	2.75	6
	L	2.20	4	1.125	1	1.25	1
	C	2.05	5	1.625	4	1.875	4
	G	2.0	6	2.25	6	1.75	3
Companies Domestic Operations	I	2.89	1	1.625	4	1.938	8
	M	2.75	2	1.125	1	1.00	1
	J	2.45	3	2.375	10	2.625	10
	O	2.33	4	1.375	3	1.375	2
	H	2.28	5	1.625	5	1.79	6
	E	2.25	6	1.666	6	1.5	5
	B	2.22	7	2.125	9	1.875	7
	P	2.22	8	1.75	7	2.0	9
	F	2.0	9	1.25	2	1.429	3
	D	1.0	10	2.0	8	1.438	4

Spearman's rank correlation results:

1. between degree of formalization and effectiveness for:
   (a) international companies = -0.26 (not significant at $P < .10$)
   (b) domestic companies = -0.09 (not significant at $P < .10$)

2. between degree of decentralization and effectiveness for:
   (a) international companies = .49 (not significant at $P < .10$)
   (b) domestic companies = .73 ($P < .025$)

participation in the two markets (i.e., international and domestic) as suggested earlier. In other words, the apparent low level of correlation of international companies between decentralization and effectiveness, given the small sample size and other influences, does not conclusively refute the postulated relationships.

Additional Test of Relationships

Up to this point the statistical analysis of relationships has been described between organizational variables taken two at a time. Significant relationships between environmental uncertainty-certainty and management concern for task agents, management concern and organization structure, management concern and organization effectiveness, and organization structure and organization effectiveness were discovered. These correlations between the above pairs of variables could possibly indicate some significant relationships between all four variables for all sample organizations. To test the possibility that all four organizational variables are related to each other, it was decided to conduct the statistical test for Kendall's coefficient of concordance. The ranks of all sample organizations for each variable are presented in Table V-5(a).

The Kendall coefficient of concordance (w) was calculated to be .50 and was found to be significant at $P < .01$ level. This indicated that the variables measured for sample firms are related to each other in a significant manner and was not a product of chance alone.

To determine whether the inclusion of the formalization factor affected the relationship in any way, the Kendall's coefficient of concordance was calculated for all variables excluding the degree of

TABLE V-5(a)

Absolute Rankings of Organizational Variables for All Firms in the Sample

Firm Code	Environmental Uncertainty	Management Concern	Formali-zation*	Decentral-ization*	Effectiveness*
A	1	7	4.5	5.5	3.5
L	2	1	12	1.5	2
M	3	3	2	1.5	1
I	4	5	1	8	12
E	5	12	9	10	7
P	6	8	10.5	11.5	13
H	7	11	8	8	9
C	8	10	13	8	10.5
O	9	4	6.5	4	3.5
B	10	9	10.5	14	10.5
N	11	16	6.5	5.5	16
D	12	6	16	13	6
F	13	2	14.5	3	5
K	14	14	3	11.5	14
G	15	13	14.5	15	8
J	16	15	4.5	16	15

*Ranks have been corrected for ties.

Kendall coefficient of concordance (w) for all sample firms:
(a) including formalization = .50† ($P < .01$ level)
(b) excluding formalization = .70† ($P < .001$ level)

†Coefficients were corrected for tied scores.

formalization. This coefficient was found to be .70 and the result was significant at $P < .001$ level. The coefficient of concordance without the factor of formalization clearly implied that the inclusion of this factor decreased the strength of overall relationship among selected variables. In other words, the relationships between organizational uncertainty, management concern for task agents, degree of decentralization, and effectiveness were being negatively influenced by the presence of the formalization factor. Such a result is congruent with expected relationships among these variables.

Furthermore, to test the relative relationships among all variables for the two sample groups, separate coefficients of concordances were calculated for companies operating in the international environment and for companies operating in the domestic environment. The ranked order of these two sample groups for all variables are presented in Table V-5(b). The results of Kendall's coefficient of concordance analysis indicated that companies with overseas operations had relatively stronger relationships between the organizational variables than companies with domestic operations. Moreover, exclusion of the factor of formalization strengthened the relationships of both sample groups although maintaining the relative differences in coefficients of concordance among these groups. Results of Kendall's coefficient of concordance tests are congruent with the concepts of comparative management that companies with overseas operations, being in a more uncertain environment, will exhibit greater concern for task agents, greater degree of decentralization and lower formalization to attain higher organizational effectiveness than companies with domestic operations.

TABLE V-5(b)

Relative Rankings of Organizational Variables
for Each Sample Group

	Firm Code	Environmental Uncertainty	Management Concern	Formalization*	Decentralization*	Effectiveness*
Companies with International Operations	A	1	2	2	2	2
	L	2	1	4	1	1
	C	3	3	5	4	4
	N	4	6	3	3	6
	K	5	5	1	5	5
	G	6	4	6	6	3
Companies with Domestic Operations	M	1	2	2	1	1
	I	2	4	1	4	8
	E	3	9	6	6	5
	P	4	6	8	7	9
	H	5	8	5	5	6
	O	6	3	4	3	2
	B	7	7	7	9	7
	D	8	5	10	8	4
	F	9	1	9	2	3
	J	10	10	3	10	10

Kendall coefficient of concordance (w)

1. for companies with international operations
   (a) with formalization = .54 ($P < .01$ level)
   (b) without formalization = .77 ($P < .01$ level)

2. for companies with domestic operations
   (a) with formalization = .50 ($P < .01$ level)
   (b) without formalization = .63 ($P < .01$ level)

In this chapter the findings of statistical analyses performed on the data collected from sample manufacturing firms have been presented. The results for the most part confirmed the relationships anticipated among selected organizational variables, both in absolute and relative terms. In the next chapter the summary of findings and conclusions will be presented.

CHAPTER VI

SUMMARY AND CONCLUSIONS

The emphasis on development of contingency theories of organizational behavior has been noticeable in the last decade. These theories attempt to delineate the interaction between variables in the external and internal environment of organizations. The analyses of these variables have been conducted within a systems framework, borrowing from the concepts developed in other behavioral sciences. Although many empirical studies have been conducted, the permutations and combinations of the large quantity of organizational variables mean that the field of contingency behavior of organizations has hardly been traversed.

Within such a wide range of research possibilities the present researcher selected four organizational variables for examination and analysis. The selection was based on prior researches conducted with one or more of these variables.[1] A research model incorporating the concepts found to be significant in these previous researches was proposed for empirical testing.[2] In addition, this study was designed to permit a comparative analysis between international and domestic

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[1]For a detailed description of the four previous researches upon which the present study is based, the reader is referred to pp. 101-108 of Chapter III.

[2]The research model, depicting the relationships among selected variables, has been presented on p. 11, Chapter I, and repeated on p. 154, of Chapter IV.

organizations based on any differences of relationships between the four selected variables. Inherent in the comparative analysis was the recognition of environmental differences between companies with domestic operations and companies with international operations.

Appropriate statistical tools were utilized to determine the strength of relationships between selected organizational variables compared two at a time.[3] The present study was designed to explore the relationships, if any, between the selected organizational variables in the following sequence: (1) strength of relationship, if any, between environmental uncertainty and management concern; (2) strength of relationship, if any, between management concern and organization structure; (3) strength of relationship, if any, between management concern for task agents and organization effectiveness; and (4) strength of relationship, if any, between organization structure and organization effectiveness. Based on previous research findings and review of literature a set of research questions was proposed for each of these relationships. It was hoped that the statistical analyses of the absolute relationships among the selected organizational variables, as stated in these research questions, would confirm the previous research findings. The research questions together with the related findings are restated in the later part of this chapter.

In addition to the absolute relationships, the present study was also intended to measure the differences in degree of relationships between all four variables (taken two at a time) for the two groups of firms in the sample--those with international operations and those with

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[3]For a statement on the statistical tools employed in this study, see pp. 133-139 of Chapter IV.

domestic operations. Based on review of literature on international and comparative management, it was postulated that the direction and the degree of absolute relationships expected for all sample firms would be stronger for firms with international operations than for firms with domestic operations.

The research sample was drawn from Oklahoma-based manufacturing firms located within the state's two largest Standard Metropolitan Statistical Areas (i.e., in Tulsa and Oklahoma City). The firms selected were relatively small, employing between 100-500 people. The total number of firms within Tulsa and Oklahoma City areas that qualified (within this employment number restriction) were approximately 65 and 50, respectively. These included manufacturing of diversified products--from food items to oilfield equipment to sophisticated electronic parts. By choice, manufacturing organizations in food, apparel and service industries were omitted, since companies with international operations within these industries are extremely rare. This restriction by classification of industries reduced the total population to approximately 90 in both metropolitan areas. Of these 90, approximately 85 firms were contacted for participation in the project through an introductory letter.[4] The initial response totaled 49 firms, but only 15 agreed to participate. A follow-up produced 5 more favorable replies and 17 unfavorable. Thus, the total number of firms indicating interest in the study was 20. Unfortunately, during the initial interview contact with the chief executive or his representative, four more firms declined to participate in view of the time requirement.

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[4]See Appendix G for a sample of the introductory letter mailed to the manufacturing companies in the sample.

Consequently, the final sample consisted of 16 firms, of which 6 were involved with international operations and 10 had operations that were entirely domestic. Also, 6 firms in the sample were located in Tulsa, while 10 were situated in Oklahoma City.

Data for this study were collected from top-level managers of each firm by means of patterned interviews and written questionnaires.[5] This study used instruments developed by other researchers to measure each of the four variables of environmental certainty-uncertainty, management concern for task agents, organization structure and organization effectiveness.[6] Two dimensions of the organization structure variable were measured--degree of formalization and degree of decentralization--and each was related to other variables.

This research was based on the implicit premise that reality of an organization's environment is what is perceived to be "real" by the management of the organizations. Therefore, the measurement of the four organizational variables selected was obtained by interviewing and receiving questionnaires from the top-level management of the sample firms. These persons were considered to be those who were responsible for setting the goals and directions of the organizations.

The data were treated statistically by using the Spearman rank correlation and Kendall's coefficient of concordance. In order to reduce the chance of falsely rejecting a significant relationship among variable scores of sample firms (beta error), it was decided to set

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[5]The research methodology is described on pp. 133-139, Chapter IV, and the format of the interviews is reproduced in Appendix F.

[6]The questionnaires used in this study are found in Appendices A, B, C, D, and E.

the probability of rejecting the null hypotheses[7] at a relatively higher level (α = .10 and .20), thereby increasing the chance of falsely accepting a relationship as being significant (alpha error). This was deemed necessary in view of the relatively small sample size (particularly of firms involved in overseas operations), and the less than perfect measuring instruments.

The actual research findings confirmed most of the expected relationships and were found to be significant mostly at $P < .05$ level. These findings, in the context of research questions and expected relationships posited earlier, are restated below:[8]

1. (a) At an absolute level, what relationship, if any, exists between the ranked variables of organization environment and management concern for task agents for all organizations in the sample?

Based on previous research findings, it was expected that organizations operating in an environment of greater uncertainty would show a greater correlation with higher degree of management concern for task agents. The Spearman rank correlation between these two variables was found to .52* thus confirming earlier expectations.

1. (b) At a relative level of interdependency what relationship, if any, exists between the ranked variables of organization environment and management concern for task agents for companies in each separate sample group? Is there any noticeable difference in the degree of such relationships between the two sample groups?

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[7]In the research design of the present study no effort was made to establish a set of formal null hypotheses. In view of the exploratory nature of this research, research questions were formulated about possible relationships among organizational variables and expectations of findings. Thus the word "null hypotheses" was used here to mean absence of any relationship between variables as expected and not in the traditional statistical sense.

[8]For an extensive statement of these research questions and expectation of findings the reader is referred to pp. 12-21 of Chapter I.

*significant at $P < .025$ level.

It was postulated that international companies would exhibit a stronger degree of correlation between the variables of organization environment and management concern (for task agents) than companies with purely domestic operations.

The correlation coefficients between these two variables for international and domestic companies were calculated to be .71** and .23*, respectively. The difference between the coefficients was large enough to be considered significant. The results thus confirmed the relationship posited earlier.

2. (a) At an absolute level what relationship, if any, exists between the ranked variable of management concern on one hand and the ranked factors of formalization and decentralization on the other, for all organizations in the sample?

This researcher expected to find organizations exhibiting a higher degree of management concern to be correlated with lower degree of formalization and greater degree of decentralization.

The actual correlation coefficients were found to be -0.13* between management concern and formalization, and .65† between management concern and decentralization. The correlation between the first pair of variables was negative and weak (not significant at $P < .10$ level), while the correlation between the second pair of variables was positive and significant (at $P < .05$ level). The findings confirmed both relationships expected.

2. (b) At a relative level of interdependency what relationship, if any, exists between the ranked variable of management concern and the ranked factors of formalization and decentralization for

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** significant at $P < .10$ level.

* not significant at $P < .10$ level.

† significant at $P < .005$ level.

companies in each separate sample group? Is there any noticeable difference in the degree of such relationships between the two sample groups?

It was expected that companies operating in international markets would exhibit correlation between higher management concern on one hand and lower formalization and higher decentralization on the other more than companies operating purely in the domestic market.

The coefficients of correlation between management concern and formalization for both domestic and international companies were found to be $-.02^{\dagger}$ and $-.20^{\dagger}$ respectively, while between management concern and decentralization these coefficients were .79** and .60* respectively. The variables of management concern and formalization exhibited weak negative correlation (with international companies being more negatively correlated than domestic companies). This was compatible with expectations posited earlier. However, though the variables of management concern and decentralization exhibited strong positive correlation in each sample group, yet in contrast to earlier expectations the companies with domestic operations showed a stronger relationship than companies with international operations.

3. (a) At an absolute level what relationship, if any, exists between the ranked variables of management concern (for task agents) and organization effectiveness for all organizations in the sample?

It was postulated that organizations exhibiting greater concern for task agents would be correlated significantly with higher organization effectiveness.

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† not significant at $P < .10$ level.

* significant at $P < .10$ level.

** significant at $P < .01$ level.

The correlation coefficient for this relationship was found to be .73* and confirmed earlier expectations.

3. (b) At a relative level of interdependency what relationship, if any, exists between the ranked variables of management concern and organization effectiveness for companies in each separate sample group? Is there any noticeable difference in the degree of such relationships between the two sample groups?

It was postulated earlier that international corporations would show a higher degree of correlation between the management concern for task agents and organizational effectiveness than companies operating solely in the domestic market.

The Spearman rank correlation between these two variables for domestic and international companies were determined to be .69* and .94** respectively. This was in keeping with relationships posited earlier.

4. (a) At an absolute level what relationship, if any, exists between the ranked factors of formalization and decentralization on one hand and the ranked variable of organizational effectiveness on the other, for all organizations in the sample?

It was posited earlier that organizations with higher degree of decentralization and lower degree of formalization were expected to have a significant correlation with higher organizational effectiveness.

The actual coefficients calculated were found to be $-0.18^{\dagger}$ between formalization and effectiveness, and .60** between decentralization and effectiveness. Both results confirmed relationships as expected.

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* significant at $P < .005$ level.

** significant at $P < .01$ level

† not significant at $P < .10$ level.

4. (b) At a relative level of interdependency what relationship, if any, exists between the ranked factors of formalizations and decentralization on one hand and ranked variable of organizational effectiveness on the other, for companies in each separate sample group? Is there any noticeable difference in the degree of such relationship between the two sample groups?

It was posited earlier that the international organizations would exhibit a higher degree of correlation between lower formalization and greater decentralization factors on one hand and greater organizational effectiveness on the other than organizations that are purely domestic in operations. The directions were expected to be the same as in 4(a).

The correlation coefficients calculated between formalization and effectiveness for domestic and international companies were $-.09^{\dagger}$ and $-.26^{\dagger}$ respectively, while between decentralization and effectiveness these were .72** and $.49^{\dagger}$ respectively. The relationships between the first pair of variables were both weak and negative (with international companies being more negative than domestic companies), thus confirming earlier expectations. However, contrary to earlier expectations, the relationship between the second pair of variables for domestic companies was found to be stronger than for international companies, though both were correlated in a strong and positive fashion.

Apart from testing for statistical relationships between above organizational variables taken two at a time, Kendall's coefficient of concordance (w) was calculated first with all variables taken together, and second, with all variables but formalization taken together. It

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† not significant at $P < .10$ level

** significant at $P < .025$ level.

was conjectured that the factor of formalization being negatively related to the other variables would considerably reduce the overall relationships among the other variables. Furthermore, a significant coefficient of concordance among all the variables would imply that, for the sample firms as a whole, the variables are related to each other for reasons other than chance occurrence. The results of Kendall's test for coefficient of concordance confirmed the expectations most significantly. The absolute coefficient for all sample firms was found to be .50*, while the coefficient for all firms without the factor of formalization was found to be .70**. As to the relative relationships, the coefficients of concordance for international firms with and without the formalization factor were calculated to be .54* and .77*, respectively; for firms with domestic operations these coefficients were found to be .50* and .63*, respectively. The results confirmed the existence of a significant relationship among variables.

Conclusions

The primary objective of the present research was to determine whether any relationships could be delineated among four selected organizational variables and, if so, to determine whether these relationships would be congruent with the findings of earlier empirical studies. No attempt is made to apply the findings of the present study into sweeping generalizations about the cause and effect relationships between selected organizational variables, but merely to observe and explain any relationships detected for firms in the sample.

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* Significant at P < .01 level.

** Significant at P < .001 level.

From the findings obtained in the present research the following conclusions may be drawn:

1. Based on previous research on organizational variables, four research questions about possible relationships between the selected organizational variables were posited for all firms in the sample, along with corresponding expected findings about the strength and direction of these relationships. The selected organizational variables were: organization environment (certain-uncertain), management concern for task environmental agents, organization structure (formalization and decentralization), and organizational effectiveness. The actual results obtained from this empirical study supported all the relationships expected. Briefly, the results indicated that sample organizations operating in relatively greater uncertain environments tended to exhibit greater management concern for task agents, greater decentralization and lower formalization of structure, and were found to be more effective than firms exhibiting opposite relationships.

2. Based on previous research relating to comparative analysis, the present research design was formulated to measure and analyze the differences in relationships between the four selected organizational variables for companies with domestic and international operations. Four research questions inquiring into the possible relationships between the selected organizational variables were posed and corresponding expectations of the strength and direction of these relationships for the two sample groups were posited. Of these expected relations, all but two were confirmed by the actual findings. The contrary findings pertained to the relative strength of relationships between two pairs

of variables (management concern and decentralization, decentralization and effectiveness) for the two sample groups.

3. Additionally, to determine significant relationships among all the selected variables, Kendall's coefficient of concordance was calculated first for all firms in the sample, and, second, for companies with domestic operations and companies operating in the international market, separately. The results obtained implied that these variables were related to each other in a significant fashion and that this relationship was not the product of chance alone. Furthermore, when the same coefficient was calculated without the factor of formalization, the strength of the relationship increased indicating that the inclusion of formalization reduced the overall relationship. This confirmed theoretical statements pertaining to comparative management and organizational behavior. Moreover, the coefficients of concordance for international companies with or without the factor of formalization were found to be stronger than those for domestic companies.

4. Apart from the confirmation of general relationships between selected variables at the absolute and relative level, a major contribution of the present research was the application of contingency theories of organizational behavior to small manufacturing firms. Within the knowledge of this researcher no other research study had dealt specifically with small organizations in the context of these organizational variables before. The findings implied that, with minor qualifications, the relationships between organizational variables found in earlier research studies dealing with large and medium corporations were applicable to the smaller firms in the sample.

Recommendation for Further Research

This study was intended to be exploratory in nature. Consequently, the design and the results are not without flaws. The most apparent limitation was the small sample size, which makes any generalizations concluded from the results highly tentative. Hence, no attempt was made to conclude any generalizations of variable relationships. At best, it is expected, the results of this study might point a way towards further research along these lines.

The most obvious next step would be to increase the sample size and replicate this research design with different types of firms in different parts of the United States. Confirmation of results obtained with small manufacturing firms in this study, as well as results found with large and medium manufacturing firms in other studies will strengthen the theoretical foundations of organizational contingency behavior.

A second step would be to increase the homogeneity of firms in the sample by extending from qualifications of employment number to qualifications of specific activities performed by sample organizations both in the domestic and international environment. In the present study no attempt was made to separate the international firms by the nature of their activities in the respective foreign markets, i.e., these firms could be involved with purely marketing activities or marketing and production both. Consequently, some biases were most probably introduced that may have adversely affected some findings. For example, it is quite probable that inclusion of firms without regard to the nature of their foreign activities as international companies may have resulted in the distortion of expected relative strength of

relationships noted earlier. In other words, firms with entirely marketing operations in the foreign countries may not necessarily experience a more uncertain environment than purely domestic firms that conduct both production and marketing activities. Therefore, future studies with international firms selected on the basis of homogeneous activities would be needed to determine the true nature of relative relationships.

In view of the limitations described above, it is the belief of the present author that further replication of the present study is necessary before any positive conclusions about the contingent nature of organizational variables (as reflected in the present empirical analysis) can be drawn. This research is only one small step among many that are necessary if concepts of organizational behavior are ever to advance to the level of theoretical generalizations.

APPENDIX A

Questionnaire A

Company Code_____

Due to rapid change in an industry, or the state of development in the technology used by the industry, or vast differences in customer requirements, etc., company executives often have varying degrees of certainty concerning what their job requirements are and the kind of activities their departments must engage in to achieve these requirements. The following series of questions is an effort to obtain data concerning this aspect of your industry. Please answer each question for each functional area.

(a) Please circle the point on the scale provided which most nearly describes the degree to which present job requirements in each functional department are clearly stated or known in your company for the:

Research Department:

Job requirements are very clear in most instances	1 2 3 4 5 6 7	Job requirements are not at all clear in most instances

Manufacturing Department:

Job requirements are not at all clear in most instances	1 2 3 4 5 6 7	Job requirements are very clear in most instances

Marketing Department:

Job requirements are very clear in most instances	1 2 3 4 5 6 7	Job requirements are not at all clear in most instances

(b) Please circle the point on the scale provided which most nearly describes the degree of difficulty each functional department has in accomplishing its assigned job, given the limitation of the technical and economic resources which are available to it:

Degree of difficulty in:

Developing a product which can be manufactured and sold profitably	1 2 3 4 5 6 7	
	Little difficulty	Extremely difficult

Manufacturing economically a product which can be designed and sold		1	2	3	4	5	6	7
	Extremely difficult							Little difficulty
Selling a product which can be developed and manufactured economically		1	2	3	4	5	6	7
	Little difficulty							Extremely difficult

(c) Please check the alternative which most nearly describes the typical length of time involved before feedback is available to each functional area concerning the success of its job performance. For example: the sales department manager may be able to determine at the end of each day how successful the selling effort was by examining the total sales reported by his salesmen for that day. In contrast, the production manager may not know whether production meets required specifications until the results of several performance tests are available, often a period of several days from the time his department completes its processing:

Research Department:

(1)	one day
(2)	one week
(3)	one month
(4)	six months
(5)	one year
(6)	three years or more

Manufacturing Department:

(1)	one day
(2)	one week
(3)	one month
(4)	six months
(5)	one year
(6)	three years or more

Marketing Department:

(1)	one day
(2)	one week
(3)	one month
(4)	six months
(5)	one year
(6)	three years or more

APPENDIX B

Questionnaire B

Company Code_____

Instructions

The purpose of this study is to measure the meanings of certain things to various people by having them judge them against a series of descriptive scales. In taking this test, please make your judgment on the basis of what these things mean to you. On each page you will find two different concepts to be judged and beneath each of then a set of scales. You are to rate the concept on each of these scales in order. Here is how you are to use these scales:

If you feel that the concept at the top of the page is very closely related to one end of the scale, you should place your check-mark as follows:

Fair X : ___: ___: ___: ___: ___: ___ Unfair

or

Fair ___: ___: ___: ___: ___: ___: X Unfair

If you feel that the concept is quite closely related to one or the other end of the scale (but not extremely), you should place your check-mark as follows:

Strong ___: X : ___: ___: ___: ___: ___ Weak

or

Strong ___: ___: ___: ___: ___: X : ___ Weak

If the concept seems only slightly related to one side as opposed to the other side (but is not really neutral), then you should check as follows:

Active ___: ___: X : ___: ___: ___: ___ Passive

or

Active ___: ___: ___: ___: X : ___: ___ Passive

The direction toward which you check, of course, depends upon which of the two ends of the scale seems most characteristic of the thing you are judging.

If you consider the concept to be neutral on the scale, both sides of the scale equally associated with the concept, or if the scale is completely irrelevant, unrelated to the concept, then you should place your check-mark in the middle place:

Dangerous ___: ___: ___: _X_: ___: ___: ___ Safe

Sometimes you may feel as though you have had the same items before on the test. This will not be the case, so do not look back and forth through the items. Do not try to remember how you checked similar items earlier in the test. Make each item a separate and independent judgment Work at fairly high speeds through this test. Do not worry or puzzle over individual items. It is your first impressions, the immediate "feelings" about the item, that we want. On the other hand, please do not be careless, because we want your true impressions.

The National Government

Hostile	___: ___: ___: ___: ___: ___: ___	Friendly
Ineffective	___: ___: ___: ___: ___: ___: ___	Effective
Cooperative	___: ___: ___: ___: ___: ___: ___	Uncooperative
Slow	___: ___: ___: ___: ___: ___: ___	Fast
Unstable	___: ___: ___: ___: ___: ___: ___	Stable
Disloyal	___: ___: ___: ___: ___: ___: ___	Loyal
Active	___: ___: ___: ___: ___: ___: ___	Passive
Unconcerned	___: ___: ___: ___: ___: ___: ___	Concerned
Strong	___: ___: ___: ___: ___: ___: ___	Weak
Unfair	___: ___: ___: ___: ___: ___: ___	Fair

Your Firm's Suppliers

Loyal	___: ___: ___: ___: ___: ___: ___	Disloyal
Active	___: ___: ___: ___: ___: ___: ___	Passive
Concerned	___: ___: ___: ___: ___: ___: ___	Unconcerned
Unstable	___: ___: ___: ___: ___: ___: ___	Stable
Effective	___: ___: ___: ___: ___: ___: ___	Ineffective
Unfair	___: ___: ___: ___: ___: ___: ___	Fair
Uncooperative	___: ___: ___: ___: ___: ___: ___	Cooperative
Slow	___: ___: ___: ___: ___: ___: ___	Fast
Friendly	___: ___: ___: ___: ___: ___: ___	Hostile
Strong	___: ___: ___: ___: ___: ___: ___	Weak

Your Firm's Consumers

Slow	___: ___: ___: ___: ___: ___: ___	Fast
Unstable	___: ___: ___: ___: ___: ___: ___	Stable
Active	___: ___: ___: ___: ___: ___: ___	Passive
Unconcerned	___: ___: ___: ___: ___: ___: ___	Concerned
Weak	___: ___: ___: ___: ___: ___: ___	Strong
Loyal	___: ___: ___: ___: ___: ___: ___	Disloyal
Cooperative	___: ___: ___: ___: ___: ___: ___	Uncooperative
Hostile	___: ___: ___: ___: ___: ___: ___	Friendly
Ineffective	___: ___: ___: ___: ___: ___: ___	Effective
Fair	___: ___: ___: ___: ___: ___: ___	Unfair

Your Firm's Community

Unfair	___: ___: ___: ___: ___: ___: ___	Fair
Ineffective	___: ___: ___: ___: ___: ___: ___	Effective
Loyal	___: ___: ___: ___: ___: ___: ___	Disloyal
Uncooperative	___: ___: ___: ___: ___: ___: ___	Cooperative
Active	___: ___: ___: ___: ___: ___: ___	Passive
Strong	___: ___: ___: ___: ___: ___: ___	Weak
Concerned	___: ___: ___: ___: ___: ___: ___	Unconcerned
Unstable	___: ___: ___: ___: ___: ___: ___	Stable
Fast	___: ___: ___: ___: ___: ___: ___	Slow
Friendly	___: ___: ___: ___: ___: ___: ___	Hostile

Your Firm's Stockholder

Loyal	___: ___: ___: ___: ___: ___: ___	Disloyal
Passive	___: ___: ___: ___: ___: ___: ___	Active
Unconcerned	___: ___: ___: ___: ___: ___: ___	Concerned
Strong	___: ___: ___: ___: ___: ___: ___	Weak
Effective	___: ___: ___: ___: ___: ___: ___	Ineffective
Fast	___: ___: ___: ___: ___: ___: ___	Slow
Uncooperative	___: ___: ___: ___: ___: ___: ___	Cooperative
Stable	___: ___: ___: ___: ___: ___: ___	Unstable
Friendly	___: ___: ___: ___: ___: ___: ___	Hostile
Fair	___: ___: ___: ___: ___: ___: ___	Unfair

Your Firm's Creditors

Uncooperative	___: ___: ___: ___: ___: ___: ___	Cooperative
Hostile	___: ___: ___: ___: ___: ___: ___	Friendly
Ineffective	___: ___: ___: ___: ___: ___: ___	Effective
Unconcerned	___: ___: ___: ___: ___: ___: ___	Concerned
Unfair	___: ___: ___: ___: ___: ___: ___	Fair
Fast	___: ___: ___: ___: ___: ___: ___	Slow
Disloyal	___: ___: ___: ___: ___: ___: ___	Loyal
Active	___: ___: ___: ___: ___: ___: ___	Passive
Strong	___: ___: ___: ___: ___: ___: ___	Weak
Unstable	___: ___: ___: ___: ___: ___: ___	Stable

Labor Unions

Stable	___: ___: ___: ___: ___: ___: ___	Unstable
Active	___: ___: ___: ___: ___: ___: ___	Passive
Weak	___: ___: ___: ___: ___: ___: ___	Strong
Hostile	___: ___: ___: ___: ___: ___: ___	Friendly
Ineffective	___: ___: ___: ___: ___: ___: ___	Effective
Slow	___: ___: ___: ___: ___: ___: ___	Fast
Unconcerned	___: ___: ___: ___: ___: ___: ___	Concerned
Fair	___: ___: ___: ___: ___: ___: ___	Unfair
Disloyal	___: ___: ___: ___: ___: ___: ___	Loyal
Uncooperative	___: ___: ___: ___: ___: ___: ___	Cooperative

Your Firm's Competitors

Unfair	___: ___: ___: ___: ___: ___: ___	Fair
Effective	___: ___: ___: ___: ___: ___: ___	Ineffective
Friendly	___: ___: ___: ___: ___: ___: ___	Hostile
Weak	___: ___: ___: ___: ___: ___: ___	Strong
Unstable	___: ___: ___: ___: ___: ___: ___	Stable
Slow	___: ___: ___: ___: ___: ___: ___	Fast
Concerned	___: ___: ___: ___: ___: ___: ___	Unconcerned
Active	___: ___: ___: ___: ___: ___: ___	Passive
Uncooperative	___: ___: ___: ___: ___: ___: ___	Cooperative
Disloyal	___: ___: ___: ___: ___: ___: ___	Loyal

Your Firm's Employees

Uncooperative	___: ___: ___: ___: ___: ___: ___	Cooperative
Effective	___: ___: ___: ___: ___: ___: ___	Ineffective
Strong	___: ___: ___: ___: ___: ___: ___	Weak
Concerned	___: ___: ___: ___: ___: ___: ___	Unconcerned
Passive	___: ___: ___: ___: ___: ___: ___	Active
Friendly	___: ___: ___: ___: ___: ___: ___	Hostile
Disloyal	___: ___: ___: ___: ___: ___: ___	Loyal
Slow	___: ___: ___: ___: ___: ___: ___	Fast
Stable	___: ___: ___: ___: ___: ___: ___	Unstable
Unfair	___: ___: ___: ___: ___: ___: ___	Fair

APPENDIX C

Questionnaire C

Company Code_____

1. How many people, on the average, do the executives in your organization supervise?

   ( ) 10 persons or more
   ( ) 9-8 persons
   ( ) 7-6 persons
   ( ) 5 persons or less

2. Please consider the organization chart that I have with me. Its purpose is to provide a general idea of a hypothetical manufacturing organization. The numbers on the side indicate the levels of hierarchy between the management positions. Thus, the level between the President and the Vice President of manufacturing is termed level 1, the level between the vice president of manufacturing and manager for production is level 2, and so on for other positions. In this diagram there are 7 levels of managers between the President and the blue-collar workers engaged in production. With this diagram as your frame of reference:

   (a) how many levels of executives do you have between the President and the blue-collar production workers?

   ( ) 5 levels or less
   ( ) 6-8 levels
   ( ) 9-11 levels
   ( ) 12 levels or more

   (b) how many levels of executives do you have in marketing? That is, how many levels are there between the President and the salesmen?

   ( ) 5 levels or less
   ( ) 6-8 levels
   ( ) 9-11 levels
   ( ) 12 levels or more

   (c) how many levels of executives do you have in Research and Engineering?

   ( ) 5 levels or less
   ( ) 6-8 levels
   ( ) 9-11 levels
   ( ) 12 levels or more

3. In your organization, what is the time interval of review by the President or the executives reporting directly to the President of:

   (a) production department performance?

   ( ) less often than once each month
   ( ) monthly
   ( ) weekly
   ( ) daily

   (b) Marketing department performance?

   ( ) less than once each month
   ( ) monthly
   ( ) weekly
   ( ) daily

   (c) research and engineering department performance?

   ( ) less than once each month
   ( ) monthly
   ( ) weekly
   ( ) daily

4. Which of the following statements best describes the specificity of review of departmental performance?

   ( ) general oral review
   ( ) general written review
   ( ) review with one or more general statistics
   ( ) review with detail statistics

5. Which of the following statements best describes the use of formal rules in your organization?

   ( ) no rules
   ( ) some rules on minor routine procedures
   ( ) comprehensive rules on routine procedures and some rules on operations
   ( ) comprehensive rules on all routine procedures and operations

6. Here are some statements describing methods for evaluation of executives. Which is applicable to your organization?

   ( ) no formal evaluation
   ( ) formal evaluation without any fixed criteria
   ( ) formal evaluation with less than five detailed criteria
   ( ) formal evaluation with more than five detailed criteria

APPENDIX D

Questionnaire D

Company Code_____

Please check one answer for each of the eight following questions.

1. Which of the following groups is responsible for establishing major policies that affect the organization in a general manner?

   ( ) Majority of the executives that are one or two levels removed from the chief executive
   ( ) The executive committee
   ( ) Chief executive only

2. Which of the following groups is responsible for establishing organizational sales policies?

   ( ) The executive committee with representation of relevant functional areas (e.g., production, sales, research & engineering)
   ( ) Chief executive with the help of sales executive
   ( ) Chief executive only

3. Which of the following groups is responsible for establishing organizational policies regarding product-mix?

   ( ) The executive committee with representation of relevant functional areas (e.g., sales, production, research & engineering)
   ( ) Chief executive with the help of production manager
   ( ) Chief executive with the help of Marketing manager
   ( ) Chief executive only

4. Which of the following groups is responsible for establighing production standards?

   ( ) The executive committee with representation of relevant functional areas (e.g., marketing, research & engineering, production)
   ( ) Chief executive with production manager
   ( ) Production manager only
   ( ) Chief executive only

5. Which of the following is responsible for establishing organization policies regarding manpower?

( ) The executive committee with representation of all functional areas (e.g., marketing, production, engineering, accounting)
( ) Chief executive with personnel manager
( ) Chief executive only

6. Which of the following groups is responsible for establishing policies regarding executive personnel selection?

( ) The executive committee with representation of all functional areas
( ) Chief executive with personnel manager
( ) Chief executive only

7. Which of the following groups participates in long-range planning (i.e., planning for 3 years or more) for the organization?

( ) All executives at all levels
( ) Chief executive and those who report directly to him
( ) Chief executive alone

8. Which of the following statements, concerning sharing of information with other executives, is applicable to your organization?

( ) There is considerable sharing - general memos on all major aspects of company's operation are transmitted to all executives
( ) There is fair amount of sharing - special reports on company's affairs are distributed to executives in upper and middle echelons
( ) There is limited sharing - all information is shared only among the few executives in the upper echelons

APPENDIX E

Questionnaire E

Company Code _____

Please check one answer for each of the eight following questions.

1. Which of the following statements concerning ability to attract and retain high-level manpower is applicable to your company?

   ( ) Able to attract and retain highly trained personnel
   ( ) Able to attract and retain moderately trained personnel
   ( ) Not able to attract and retain moderately trained personnel

2. Which of the following statements concerning employee morale and satisfaction in work is applicable to your company?

   ( ) Excellent morale and highly satisfied
   ( ) Average morale and somewhat satisfied
   ( ) Low morale and dissatisfied

3a. Which of the following figures concerning employee turnover is applicable to your organization?

   ( ) 0-5 per cent per month
   ( ) 6-11 per cent per month
   ( ) 12 per cent and more per month

3b. Employee absenteeism?

   ( ) 0-5 per cent per month
   ( ) 6-11 per cent per month
   ( ) 12 per cent and more per month

4. Which of the following statements concerning interpersonal relationships (i.e., informal relations) among executives in work situations is applicable to your organization?

   ( ) Very cooperative
   ( ) Somewhat cooperative
   ( ) Low cooperation

5. Which of the following statements concerning interaction among departments is applicable to your organization?

( ) Very cooperative
( ) Somewhat cooperative
( ) Low cooperation

6. Which of the following statements best describes the nature of work in which the executives are mostly involved?

( ) Executives mostly involved with policy making and future planning
( ) Executives mostly involved with coordination with other departments
( ) Executives mostly involved with routine work, day-to-day work, and supervision of subordinates

7. Which of the following statements best describes the average sales growth of the last five years?

( ) Phenomenal growth (50 to 100 per cent)
( ) Moderate growth (49 to 25 per cent)
( ) Slight growth (24 to 10 per cent)
( ) Virtually no growth (9 per cent to negative change)

8. Which of the following figures describes average net profits on invested capital during the past five years?

( ) 25 per cent and more
( ) 15 to 24 per cent
( ) Less than 15 per cent

APPENDIX F

Interview Questions

Company Code_____

1. I would like to know more about the background of your organization. More specifically can you tell me:

   a. When your organization was formed?

   b. How did your organization get started?

   c. Which products were produced initially?

   d. What was the initial market area?

2. Can you provide me with information concerning:

   a. Types of products that are produced today?

   b. How many different products are manufactured presently?

   c. Present market area?

3. Some of the typical reasons, given by manufacturers, for deciding on a product-mix are:

   a. tradition ( )

   b. superior technical competence of the organization in manufacturing these products ( )

   c. lack of competition in the products manufactured ( )

   d. products manufactured are complimentary to each other ( )

   e. substantial profit gain ( )

   f. customer preference ( )

   g. other ( )

   To what would you attribute your decision in manufacturing the present line of products?

4. Will it be possible for me to obtain the sales figures (in dollars) of your company for the past five years?

	1969	1970	1971	1972	1973
Sales (in $1000)					

5. (a) Most management members, when asked about specific goals/objectives of the organization, list the following:

		most attention
Increased market share	( )	( )
Increased sales	( )	( )
Increased profitability as measured by ROI	( )	( )
Increased goodwill	( )	( )
Better relations with the local community	( )	( )
Increased international operations	( )	( )
Other	( )	( )

What have been your goals/objective in the past five years? Which areas have received the most attention?

(b) To what extent has the organization been able to achieve these goals? Please mark on the following scale:

(c) What actions have been taken by management if the achievement rate of these goals have been below 50%?

6. (a) What are the present goal(s) of the organization?

(b) Can you order them in order of priority?

7. (a) In your opinion what are some of the specific strengths/advantages present in this organization that help in the achievement of goals

Human	( )
Technical	( )
Capital	( )
Organizational or Managerial	( )
Other	( )

(b) If these strengths can be measured on a seven point scale with 1 referring to maximum criticality and 7 referring to least criticality for achievement of goals where would you place them? (Please circle One)

8. (a) Who are your principal competitors?

Domestic	Foreign

(b) What is the approximate share of the market claimed by your firm and by each of your principal competitors?

	Domestic	Foreign
Your Company		
Competitors		

(c) With reference to the strengths/advantages mentioned earlier, if you were to rate your competitors as either being stronger, about the same, or weaker than your company for each element how would you rate them? (Please mark these slips.)

9. For an organization like yours, competing in this industry, what are some of the major problems

a. that are difficult to solve?

b. that are critical to the success of the organization?

10. How do you go about solving these most critical problems?

11. a. Do you expect the present market trend for your products to continue in the future?

( ) yes ( ) no

b. If not, what changes do you anticipate?

c. Why?

d. What is the management of this company doing in anticipation of these changes?

12. (a) When did your management decide to expand operations into foreign market?

(b) Why was the decision made to expand into the foreign market?

(c) Who were involved with that decision?

(d) What factors influenced you to select the market that you did?

(e) What is the extent and scope of your operation in these foreign markets?

13. I have some slips of papers which identify categories of persons interested in your firm (for example, government, consumers, unions, creditors, community, employees, competitors, suppliers). Can you arrange these in order of their criticalness to your organization?

14. Are the following items available in your organization?

	yes	no
a. written goals for the organization	( )	( )
b. formal organization chart	( )	( )
c. written job description for all executive positions	( )	( )
d. written job description for all blue-collar workers	( )	( )
e. a long range plan covering three years or more	( )	( )

APPENDIX G

Sample Introductory Letter

[Address]

Dear Mr.

We are undertaking a study of some factors which may affect managerial practices and effectiveness of Oklahoma firms. We are particularly seeking to determine whether these factors are different for companies which have activities outside the United States. Approximately fifty firms of different sizes and industries will participate, half with foreign operations and half with only domestic operations. We believe the results will be interesting and useful to business leaders as well as to students and teachers.

Because of the status of your organization in the Oklahoma business community, we would like to include your firm in this study. The results of the study will be presented only in aggregate terms of those companies with foreign operations and those which are wholly domestic. No data for single firms or individuals will be presented.

The Center for Economic and Management Research, College of Business Administration, is sponsoring this research. The primary responsibility for this study rests with Mr. Manoj Basuray, under the supervision of Dr. William H. Keown, both of the Division of Management in the College of Business Administration.

The enclosed questionnaire and self-addressed, stamped envelope will permit you to indicate your interest in this study, Mr. Basuray will contact you directly and arrange for an appointment so that he may explain the purpose and methodology of this project.

Your cooperation will be greatly appreciated.

Very sincerely,

Neil J. Dikeman, Jr.
Assistant Director

Enclosures

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