OVERALL CORPORATE STRATEGY: THE FUNCTIONAL MANAGEMENTS' INFLUENCE-MIX APPROACH

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LIST OF ABBREVIATIONS AND TERMS

OCS	the Overall Corporate Strategy of a firm
FM	a Functional Management of a firm

(The seven Functional Managements studied in this thesis are:)

1) Mktg. or MKT	Marketing
2) Proc. or PRO	Procurement
3) RD or R & D	Development, Engineering and Research
4) Prod. or PE	Production
5) Pers. or PL	Personnel and Labor
6) Fin. or FC	Finance and Control
7) EGI	External, Governmental and Institutional Relations
FMIM	the Functional Managements' Influence-Mix of a firm.
FMS	the Functional Management Strategy, e.g. Marketing Strategy.
FM*	the Strategic Functional Management, or that FM of a firm which has the highest score of influence upon its OCS, compared to the remaining six FMs of the firm. (Another method for identifying FM* is to use the "Strategicity" Index, which is defined in the following. The FM having the highest Strategicity Index is the Strategic FM.)
FM^{*S}	the Significantly Strategic Functional Management, or that Strategic Functional Management which has significantly higher influence score than all the remaining six FMs.
"Strategicity"	the relative degree to which an FM is perceived to be strategic to a firm's OCS.

"Strategicity" Index	the index which measures the "Strategicity" of a firm's FM. (The two methodologies for computing the Index are described in Chapter V.)
DC	the perceived Degree of Complexity of a firm's organizational internal and external environments. And DC = FC^2, according to Duncan (1972).
FC^2	Factors X (Components)^2 Factors are those environmental factors which are perceived to be strategically important to a firm's OCS. The environmental factors are grouped into separate Components.
dod	the degree of difficulty that a firm faces, as perceived by its CEO, during a particular time-frame, (e.g. during 1973 or during 1976).
CEO	the Chief Executive Officer of a firm
FMR	the head of a Functional Management of a firm
TEM	the Top Executive Management team of a firm that includes the CEO and his central office executives and the FMRs.
T(G)M or GM	the Top (General) Management team of a firm that consists of the top central management team headed by the CEO and his central office executives, but excludes the FMRs.

CHAPTER I

INTRODUCTION

The Organization of This Business Policy Thesis

This business policy thesis begins with a brief introductory explanation of the Functional Managements' Influence-Mix Approach to the study of Overall Corporate Strategy (OCS). This chapter also explains the nature of the study and positions it in relation to other empirical research studies done in the fields of Management.

Chapter II liberally reviews the literature to describe "the state of the art" in the field of corporate strategy or business policy. Many of the issues presented in the chapter are not empirically tested in this thesis. For instance, the Chapter eclectically reviews many issues for developing a broadened concept of strategy, which is manifested in the form of an analytical framework of the Strategic Management Process (SMP). None of the issues of SMP is empirically tested in the thesis. The chapter also reviews other selected concepts from the literature of business policy, organizational theory and behavior. These selected concepts are relevant for developing five propositions which are empirically tested in this thesis.

Chapter III develops and explains a model which is central to this study's Functional Management's Influence-Mix (FMIM) approach to the

study of OCS. Theoretical support from the literature is provided on the important assumptions and concepts of the model.

Chapter IV develops the five propositions which are empirically tested in the thesis. Specific concepts, and empirical research findings of scholars have been explained in developing each of the five propositions.

The subsequent chapters explain the research design employed in this study, and present, analyze and discuss the data obtained for this study. These chapters test the propositions, discuss the findings of the study and state the conclusions about the study.

This is a Business Policy Thesis

This thesis is in the field of corporate strategy or business policy. Consistent with the character of the field of business policy, this thesis utilizes the eclectic approach in that it draws certain relevant concepts from the fields of business policy and organizational theory and behavior. It is of an exploratory and theory-building nature. It seeks empirical support for some of the very fundamental issues of the FMIM approach.

A review of literature in the business policy area indicates that the current state of the field is still more of a conceptual, theory-formulation, and application-oriented nature than of a rigorous empirical research nature. Leading scholars in the field appear to publish more articles of a conceptual than of an empirical nature.

Compared to the relatively "harder" and more rigorous empirical research currently published in organizational theory and behavior areas the empirical research projects in business policy are fewer in number,

"softer" and less rigorous. It is important to acknowledge the idea of relativity which becomes clearer in light of the contrast in the relative "softness" of empirical research published in organizational theory and behavior areas some six years ago with that published currently in the same areas. The research methodology, techniques, tools and analyses of these areas are more matured, advanced and better established than those in the field of business policy. This may be attributed to several causes. Studies in business policy have focused upon the development of cases. From the earlier years the Harvard Business School's business policy studies have been heavily devoted to the development of cases in consultation with particular firms regarding their specific problems. This approach to research in the field of business policy has had an exemplary effect upon much of the research done in the field of business policy by other schools. The development of cases has certainly benefited the business schools through the use of the case method of instruction for their business policy courses. It has, however, resulted in a prolonged lack of development of "rigorous" analytical techniques and tools for research in the field of business policy. Therefore, most of the research studies in the field of business policy are "softer" than the earlier research studies in the areas of organizational theory and behavior. And the development of specialized techniques (viable for the integrative nature of study of research in the field of business policy) has lagged behind.

It is also important to acknowledge that it is usually more difficult to do empirical research in business policy than in the areas of organizational theory and behavior. The study of strategy has often been viewed as the study of the problems of the Top (General) Management

of large, complex corporations. By their very nature, the General Management problems are generally considered to be more broad and sprawling, complex and interrelated. The solution to problems of General Management do not generally yield to the algorithmic approach to problem solving. The approach has to be much more heuristic in most problem areas of General Management of large, complex corporations. That is why case-method has been considered to be the most suitable approach of instruction.

A Brief Introductory Explanation of This Study's "Functional Managements' Influence-Mix Approach" to the Study of Overall Corporate Strategy

The business policy literature views Corporate Strategy, or Overall Corporate Strategy (OCS), in several ways. One way is to view OCS as the basis for the firm to relate to its different environments. Another way is to view OCS as particular combination of departmental-level strategies and substrategies for managing the firm to accomplish certain agreed upon objectives and goals. The particular departmental-level strategies and substrategies can reflect the ways in which each department performs certain expected functions to enable the firm to accomplish the objectives and goals. The various functional departmental strategies are "put together" to form a particular combination, which can be viewed as the combined Overall Corporate Strategy of the whole firm.

The firm's Chief Executive Officer (CEO) and the heads of the functional departments, or Functional Managements (FMs), manage the firm's Functional Management Strategies (FMSes) and its OCS. This thesis specifically considers the following seven FMs: Marketing; Procurement; Development, Engineering and Research; Production; Personnel and Labor; Finance and Control; and External, Governmental and Institutional Relations. The particular ways in which FMSes are "put together" can reflect the particular ways in which the CEO and the FM heads perceive the relative importance of each FM upon the OCS during a particular time-frame. Thus, the relative amounts of influence of each of the seven FMs upon the OCS for a particular time-frame can be known and perceived by the firm's CEO.

This thesis is the study of the combination or "mix" of the differing amounts of influences that the seven different FMs are perceived to have upon a firm's OCS for a particular time-frame. The perceived "mix of influence" of the seven FMs is called the "Functional Managements' Influence-Mix" (FMIM). It is possible that one particular FM (e.g. Marketing) of a firm may be perceived to have considerably more influence upon the OCS than do any of the other six FMs. In such cases the particular FM (i.e. Marketing) may be designated as the firm's most important or vital FM, which we have termed the Strategic Functional Management, (FM*).

Each FM deals with its respective sub-environment and the FMS of an FM can be expected to reflect the ways in which the FM deals with its sub-environments. It is expected that the combination of FMSes, and therefore the OCS, would reflect the ways in which the whole firm and

its seven FMs deal with the total and sub-environments relevant to the firm.

FMIM and FM* can be considered to be dynamic. If the firm's total environment and the FMs' respective sub-environments change considerably the firm's FMIM too can be expected to change over a period of time. The CEO and the FM heads may interact, discuss and reprioritize the previously prevailing combination of FMIM so that the firm can effectively match its activities to the changed environmental circumstances. An increase in difficulty perceived to be facing a firm to accomplish its major objectives and goals during a time-frame can cause the CEO and the FM heads to reprioritize the FMIM. And similarly, if one particular FM (say Marketing) is the FM* of a firm during a particular time-frame it is possible that during another time-frame characterized by different environmental circumstances the CEO and the FM heads may reprioritize the FMIM so that the previous FM* (i.e. Marketing) may no longer be the FM*. Instead, another FM (say Production) may be the FM* to reflect the firm's change in emphasis from the Marketing function to the Production function.

It is also interesting to study whether or not firms operating in very similar circumstances (of environment, type of production system and firm size) do display some similarity in the nature of their FMIMs and FM*s. The search for such patterns of behavior has brought many advances in understanding organizational behavior. But our ability to find patterns rests upon the adequacy of our conceptual approaches and our research tools. This thesis seeks to bring together and use both, the concepts and the tools relevant to the problem.

Data Collection Method

The research has empirically tested five propositions which have been developed from a theoretical model based upon the foregoing introductory explanation of the corporate FMIM process on strategic issues relevant to the OCS. The study utilized a mail questionnaire (Appendix A) which was sent to the CEOs of 1,200 United States and Canadian industrial corporations which were randomly selected from the Standard and Poors Register of Corporations. The questionnaire had been sent to the CEOs and not to the heads of FMs because the CEO is less likely to be biased in favor of any one FM as compared to the FM heads themselves. Only those corporations judged to be pursuing all the seven FMs' activities were selected in the sample, even if they were not structured FM-wise. The Register lists about 37,000 corporations, of which an estimated 5,000 are banks, insurance companies, etc., all of which have been excluded from the study. The effective population for the study is 32,000 industrial (or manufacturing) corporations.

The Importance of this Business Policy Thesis

This research can be viewed to serve important needs in the area of business policy and management. It is important from the point of view that it develops a coherent body of concepts of the FMIM approach to the study of OCS and empirically tests it. It stresses the dynamic aspect of FMIM and the OCS, indicating that strategy formulation is not a once-and-for-all activity but is subject to a continual feedback and reformulation process. The dynamic aspect of FMIM is empirically ascertained. It indicates that OCS (viewed through the FMIM approach) is a more specific and concrete "mix" of guidelines for decision-making than is

sometimes viewed by several other strategy studies. And that the particular "mix" of FMIM for a particular time-frame indicates the particular nature of specificity and concreteness of the OCS.

The research is important because it reinforces the abstract conceptual approach with verisimilitude through empirical verification. It improves the empirical knowledge in the field of business policy studies. It demonstrates the utility of the application of rigor in research of business policy studies. At the same time it stresses the viability of specific research and analytical tools to serve the peculiar needs of this exploratory, theory-building business policy research study.

It brings together the field of strategy with the fields of organizational theory and behavior. It integrates with the FMIM approach, the theories of March and Simon, and Cyert and March; the concepts of Duncan's scheme for environmental analyses; Woodward's scheme of classification of production systems for indicating the Strategic FM; and firm-size analyses for the importance of the Top (General) Management and the Functional Managements.

Conclusion

This empirical research study is an attempt to advance knowledge in the area of business policy. It is exploratory in nature and builds on the fundamental model of the Functional Managements' Influence-Mix Approach to the study of Overall Corporate Strategy. The approach studies the relative amount of influence that each of the seven Functional Managements is perceived to have upon the Overall Corporate Strategy. The focus of the approach is on the particular "mix" of the differing amounts of the seven Functional Managements' influence upon

the Overall Corporate Strategy, and the possible relationships between environmental and organizational variables and the FMIM. The Chief Executive Officer's (or the Top [General] Management's) point-of-view is adopted to study the formulation of the mix of the seven Functional (or departmental) Management Strategies at the highest level of an organization.

CHAPTER II

A REVIEW OF THE MAJOR CONTRIBUTIONS FROM LITERATURE TO THE STUDY OF THE BROADENED CONCEPT OF STRATEGY

Introduction

This chapter discusses many issues relevant to the broadened concept of Strategy. This chapter's extensive review provides the broad-based background for those concepts relevant to the development of propositions tested in the thesis. The specific concepts which are directly relevant to this study's conceptual approach are explained in Chapter III. The specific empirical research findings and results relevant to the development of the propositions of the thesis are discussed in Chapter IV.

Since Chapters III and IV sharply focus on the concepts and research findings relevant to the propositions to be tested, this chapter broadly reviews important concepts in the field of Business Policy. This chapter describes "the state of art" of certain selected conceptual aspects of the field. First, it explains and integrates the interrelated concepts relevant to the Strategic Management Process (SMP). It explains a framework for SMP and discusses how the framework can be an effective, total process for completely managing the Overall Corporate Strategy

(OCS). Second, it reviews the two different processes of the OCS formulation through analytical approaches and of the OCS formation through social and political approaches. Third, it reviews the selected contributions from the organization theory literature, particularly those of March and Simon (1958) and Cyert and March (1963). The selected contributions are further pursued in Chapter III for the development of specific concepts relevant to the conceptual approach of this study and in Chapter IV for the development of the propositions.

Strategic Management: Broadening the Concept of Strategy

Strategic Management Process (SMP) is a relatively recent concept but it is perceived by several scholars to be very important and useful approach. They believe that SMP appears to be an effective way for integrating the diverse activities for the complete management of Strategy. It is dealt with in this chapter at considerable length though it is not empirically tested in this thesis.

Strategic Management Process and Overall Corporate Strategy

Strategic Management takes a broader view of the field of Business Policy or Corporate Strategy.[1] SMP has been defined by Schendel and Hatten (1972, p. 100) to be:

> . . . the managerial process of determining and maintaining a viable relationship between the organization and its environment through the use of selected objectives, and efficient allocations to the major programs and policies.

Gummesson (1974) has suggested that the sequentially pursued basic parts of the Strategic Management process are: (1) The Strategic Planning

Process, (2) Strategic Decisions, and (3) The Execution of Strategic Decisions. Salveson (1974) reviews the complete process for the total management of Strategy and stresses the need for an integrated and comprehensive approach to the management of strategy. Several other aspects of describing SMP can be found in Ansoff, et al.,(1976), and Bhattacharyya, (1976).

This wider viewpoint appears to be derived from the root concept of Strategy, which Chandler (1961) states to be:

> The determination of basic long-term goals and objectives[2] of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals.

There are other definitions of Strategy, a term used synonymously with "Corporate Strategy" and "Overall Corporate Strategy" in this paper. These definitions have been helpful in defining Overall Corporate Strategy for this paper, and a few of them have been reviewed.[3]

For the purposes of this study Overall Corporate Strategy is defined in the context of a particular organization, its particular environmental conditions and a particular time-frame to be the basic objectives and goals; the comprehensive, coherent and optimal mix of major plans of actions,[4] which can be amenable to many viable ways of accomplishing the objectives and goals for many different possible states of environmental conditions in the time-frame;[5] and the major policy guidelines for the acquisition, allocation and use of resources to accomplish the objectives and goals. The comprehensive, coherent and direction-giving optimal mix of plans of action for a particular time-frame can be viewed to be a corporate-comprehensive, generic, governing rationale for decision-making for all major decisions required for accomplishing the basic objectives

and goals. In view of this definition of OCS, one is able to fit many of the different concepts relevant to Strategic Management in the framework presented in Table I.

The Strategic Management Process for the purposes of this study will mean the formulation of a specific OCS, the complete and continuous management of the OCS, including making changes in OCS from time to time. The management of the OCS refers to the interrelated processes of the conception, formulation and formation of the OCS, of getting commitment for it, of its implementation and control, and of making changes in the OCS.[6] A considerably changed OCS can thus result from the implementation, feedback and control of the previously prevailing OCS.

The major process through which OCS is arrived at in the context of a time-frame is through the Strategic Planning Process (SPP).[7] SPP is the primary responsibility of the Top Executive Management (TEM) headed by the Chief Executive Officer (CEO).[8] The process of implementation, feedback and control of the OCS is carried out through the processes in the Management Control System and in the Operational Control System.[9]

Anthony's Framework: Aid to Strategic Management Process

Anthony's (1965) Framework for Strategic Planning and Management and Operational Control Systems is a useful one to conceptualize and integrate the different components of the Strategic Management Process. The three-tier framework of Anthony is suggested to be a viable framework for the total, complete management of OCS.

TABLE I

STRATEGIC MANAGEMENT: THE TOTAL PROCESS FOR COMPLETELY MANAGING THE OVERALL CORPORATE STRATEGY

STRATEGIC MANAGEMENT: COMPLETE MANAGEMENT OF OVERALL CORPORATE STRATEGY	Conditions of Organizations INTERNAL & EXTERNAL ENVIRONMENTS → STRATEGIC PLANNING PROCESS → OVERALL CORPORATE STRATEGY — IMPLEMENTATION, EXECUTION, FOLLOW UP, of Overall Corporate Strategy	STRATEGIC PLANNING	Strategic & Long Range Planning & Formulating O.C.S.	MANAGERIAL AND DECISION-MAKING SYSTEMS: Decision-Making System's Activity Description	Its Process's Distinguishing Style-Orientations	Locus of Decision-Making System in Orgn. Hierarchy	Multi-Bus.& Div. Diversified Conglomerate	Single Bus. Monolith
				Strategic & Entrepreneurial Decisions: (1,2,5,7,8) major, long-term objectives; choice of goals; formulation of OCS through:-- wide search of environ. opportunities to optimally match corporate competence, (e.g. product-mkt. strategies) (1,2,5) (1&7) Prescribing & adopting courses of actions, allocating resources for accomplishing objectives (1)	creative, initiative, intensive risk-taking, proactive, optimizing; (1) unstructured & irregular & tailor-made because of usual environ-orientation. (1) (1) In "normal times"-PROGRAM-orientation (3 & 4) (2) In "severe crisis times"-RESOURCE-oriented	Top Management: CEO and central office top executives and staff officers (organized on basis of Functional Management, Products, Business, Regional, etc.)		
		CONTROL SYSTEMS	MGMT. CONTROL	Administrative Planning, coordinative & control decisions: (1,7) continuous, rhythmic for formation of detailed plans and policies for operational control, budgeting, reallocating given resources, appraising, motivating & improving mgt's performance through use of integrated, internal MIS (1)	orgn-wide, coordinative, integrative, persuasive & motivating towards results attainment; (1) optimizing within given resource & time constraints (1)	Middle-level Management at sub-system headquarters (e.g. division)	Divisional Managers (of each business/ division)	Functional Management (FM) Managers (of each FM/ Product/Region/ etc.)
				HIGHLY FELT NEED TO BALANCE INTO ACCEPTABLE EQUILIBRIUM CONFLICTING ORIENTATIONS OF PROGRAM & RESOURCE				
			OPERATIONAL CONTROL	Operating & tactical decisions: (1) implementing (& controlling implementation) of given policies, execution of specific tasks, appraising, measuring & improving workers' efficiency (1)	RESOURCE ORIENTED: (3, 4, 8) prefering current states of resource equilibrium (often at cost of loss of mkts.); reactive & incremental stability, eco. of scale, standardizing, limited search, satisfying, low risks	Bottom-level (operations) Management	Functional Managers (of each FM within each division)	Departmental Managers (of each dept. within each FM/ Product/Region/ etc.
(Sources)	Gunnesson	Anthony		(1) Anthony, (2) Ansoff, (3) Cyert & March, (4) Corey & Star, (5) Taylor, (6) Schendel & Hatten, (7) Christensen (et al.), (8) Patrick Irwin			Vancil & Lorange	

The Strategic Management Process consists of the following:[10]

(1) The Strategic Planning Process through which is formulated:
The Overall Corporate Strategy,[11] including the Strategic Decisions.[12]

The implementation of the Overall Corporate Strategy, execution of the Strategic Decisions and the feedback and control process through:

(2) Management Control System, and

(3) Operational Control System.

Strategic Planning Process (SPP)

The Strategic Planning Process[13] in this paper is defined to be a continuous process[14] for deciding on the major corporate objectives and goals, and on the formation and reformation of the OCS. In addition, the process also includes the Strategic Decisions to attain these objectives and goals, as well as deciding on the resources and the policy guidelines for the acquisition, allocation and use of these resources to attain the objectives and goals. The process will also generate the broad guidelines for implementation of the OCS and the execution of Strategic Decisions through the resource conversion process to attain these objectives and goals.

The literature dealing with SPP suggests that it has many component sub-processes.[15] Several of the important sub-processes are listed in the following; they do not necessarily suggest the sequence but rather are meant to characterize the nature of these sub-processes:

(1) The analysis of the nature of conditions of the internal and external environments of the organization.[16]

(2) The evaluation of external environment's opportunities, threats, challenges, demands and risks, as they are and can be relevant to the organization.

(3) The matching of (2) above with the corporate competence through audits of strengths and weaknesses.[17]

(4) The setting of the major objectives and goals for the corporation and its subparts, and deciding on the changes in these objectives and goals.

(5) The creation, development and evaluation of many relevant alternative courses of action for the effective management of change in relevant segments of the organization's environments.

(6) The formulation-formation of the OCS in the context of the sub-process above, and deciding upon the strategic alternative,[18] which exploits the market opportunities so that it best meets with all major corporate objectives and goals.

(7) Deciding on the resources required to attain the objectives and goals and on the major policies governing the acquisition, allocation and use of the resources to attain these objectives and goals.

Management Control and Operational Control

Anthony (1976, p. 6) indicates that the functions of control (for Management and Operational Control Systems):

> . . . include (1) planning what the organization should do, (2) coordinating the activities of the several parts of the organization, (3) communicating information,

> (4) evaluating information and deciding what, if any, action should be taken, (5) influencing people to change their behavior, and (6) processing information that is used in the other functions.

Anthony (1965, p. 17) defines:

> Management Control is the process by which managers assure that resources are obtained and used efficiently in the accomplishment of the organization's objectives and goals.
>
> Operational Control is the process of assuring that specific tasks are carried out effectively and efficiently.

Management Control is a continuous, rhythmic process carried out within guidelines and resource constraints established in the Overall Corporate Strategy for the particular time-frame. Thus, Management Control first implies the constructing and operating "of a system through which management exercises control" (Anthony, 1965, p. 28).

The Management Control process, which is carried out by the middle management, essentially emphasizes the concept that the middle-level managers are in closer touch than the top-level executives in intimately dealing with actual, current realities. This enables them to make better decisions than those the top executives can make from their more remote positions. The top-level executives cannot be expected to predict or specify all the details of current and future states of environmental variables. Thus, Management Control cannot be expected to have the aim "to assure that results of operations conform as closely as possible to plans" (Anthony, 1965, p. 28).

The middle-level managers can be expected to attain effectiveness and efficiency in the implementation, execution and followup of the Overall Corporate Strategy. Barnard (1938 and 1968, pp. 19 and 60) defines:

> Effectiveness relates to the accomplishment of the cooperative purpose. . . When a specific desired end is attained we shall say that the action is effective.

On the other hand, efficiency is not defined in the way Barnard defines it but is defined in the engineering sense. Anthony (1965, pp. 27-28) defines:

> . . . the optimum relationship between input and output, the more units of output are obtained from a given input, the more efficient is the machine or process.

Management Control, like Strategic Planning, also involves planning. But the nature of planning in each of the two processes is different. The planning process in Management Control is "associated with control process, an activity related to the ongoing administration of the organization" (Anthony, 1965, p. 16). The planning process in Strategic Planning "is identified by terms such as policy formulation, goal setting and top management planning" (Anthony, 1965, p. 15). Therefore, Management Control's planning process is likely to be more detailed and intra-organization in its application because it must have in it the control, integration and coordination aspects. Management Control has in it the interplay of planning and control "because the two are singularly inseparable" (Anthony, 1965, p. 15).

Thus, Management Control is a process of implementation <u>through people</u> of those activities designed to achieve performance within the broad guidelines of Overall Corporate Strategy. The criteria for judging the performance of Management Control are effectiveness and efficiency. Management Control places demands upon the middle management for a need to pursue more detailed planning and for a more immediately relevant time, place and results relationship than does the planning process of the Strategic Planning. The more detailed "immediate-type"

of planning of Management Control takes over from the planning process of Strategic Planning.

Management Control's control process, which is characterized by coordination and by effectiveness and efficiency, is further developed into much more detailed, more operational and tactical control processes in Operational Control. Operational Control caters to specific tasks.

It is suggested that executives and managers of a corporation pursuing an "Anthony-like" planning and control system approach would make decisions in the different hierarchically structured decision-making systems.[18] It is discussed in the following:

The Three Managerial Decision-Making Systems of the Strategic Management Process

The following classification of decision-making systems has been adapted to correspond to Anthony's three-tiered framework. The three decision-making systems pertain to:

(1) Strategic and entrepreneurial decisions,
(this system corresponds to Anthony's Strategic Planning, it is pursued by the top management headed by the CEO).

(2) Administrative planning, coordinative and control decisions,
(this system corresponds to Anthony's Management Control, it is pursued by middle management, e.g. divisional managers, functional managers).

(3) Tactical and operating decisions,
(this system corresponds to Anthony's Operating Control, it is pursued by the bottom-level management, e.g.

> departmental managers and other managers and supervisors in the department).

The three decision-making systems are briefly described in the framework presented in Table I and in the following. The strategic and entrepreneurial decision-making system is primarily concerned with major decisions,[19] such as: (1) changes in the scope, mission and size of business; (2) product-market decisions and decisions having implications for the organizational pursuit of innovation, both of which can affect the nature of objective setting;[20] and (3) other strategic decisions which can affect the nature and character of the organization and can change the future directions of the organization.

The administrative, planning coordination and control decision-making system is concerned with organization-wide detailed coordination process through closer communication and motivation for the various on-going processes. The tactical and operating decision-making system deals with what Chandler (1962, p. 11) calls the tactical decisions:

> . . . more with day-to-day activities necessary for efficient and smooth operations

(and are carried out)

> by using the resources already allocated.

The Different Program and Resource Orientations of the Three Managerial Decision-Making Systems of the Strategic Management Process

Corey and Star (1971), in their discussions on Organization Strategy, have distinguished between the two extreme priority systems of Program and Resource orientations in OCS formation. This distinction is relevant to the understanding of Style Orientations of the three

decision-making systems described in the framework presented in Table I. In the framework the selected concepts of Corey and Star have been integrated with those of Cyert and March (1963, Chapters 3, 6 and 9), Patrick Irwin (1974, p. 65, Table I), Anthony (1965, pp. 19 and 67) and Bhattacharyya (1976, pp. 12-14, 22-23).

Corey and Star have described "Program" as a total, integrated plan of action which, through resource conversion process, is aimed to satisfy the needs of a specific target market segment. The orientation and priority system in Program-orientation in OCS formation is the making of effective changes in the plan of action and resource conversion process to effectively match the changes in the marketing environments for the satisfying of needs of the specific target market segments. In this priority system the focus is on achieving of an optimal organization-environment match.

Resource-orientation in OCS formation has its emphasis on the current relationship and equilibrium among the elements of resources engaged in production, operations and supporting activities. The priority system of Resource-orientation is the maintenance of a status quo in the current, internal equilibrium among the factors of the production resources. The current equilibrium may have been accrued through considerable effort and over a period of time and, therefore, there is the strong reluctance to disrupt the current equilibrium in the relationship. The lower levels of management (operating decision-making system) can be expected to have this priority system.

The top management team may have different priority-systems depending upon its control position among the (Cyert and March's) coalitional groups. In case of "normal times" the top management is free to

pursue, if it wants to, strategies which are Program-oriented because the coalitional groups are satisfied with their "inducements". In case of "crisis periods" the coalitional groups would compel the top management to solely pursue immediate economic and profit-oriented strategies, many of which can be directed at achieving optimality of the current relationship among the elements of resource. And in case of organizational situations which fall between these two extremes, one can expect a mix of Program-Resource orientation (of varying proportions) on the part of the top management.

The middle management essentially has to perceive the actual nature of orientations and priority systems of the top management and of the bottom-level management, and then balance the differing orientations of the top and bottom managements into an equilibrium which is most acceptable. Thus, it is expected that middle-level management will bridge both sides, top and bottom managements' orientations and priority systems.

Thus, the foregoing can be classified:

The top management:

(1) in "normal times" is free to pursue strategies of Program-orientation,

(2) in "crisis times" is under increased pressure from other coalitional groups to pursue strategies of Resource-orientations.

The middle management:

bridges the orientation gap between top and bottom managements' priority-systems and brings them into a balance.

The bottom-level management:

Resource-oriented priority system to achieve optimum relationships among elements of resource and then continue to maintain such an equilibrium.

To conclude, the foregoing has described the current ideas on Strategic Management in which the Overall Corporate Strategy is the comprehensive, direction-giving action plan which is formulated, implemented, controlled and reformulated through the process-framework of the three: Strategic Planning, Management Control System and Operational Control System.

Additional Concepts and Issues From Strategy Literature

There are many other interrelated concepts and issues which have not been dealt with in the foregoing discussion on Strategic Management, but which are important to the field of Strategy. Many of the following concepts and issues are the underlying assumptions that have contributed to the conceptual development of this study's approach. Because these issues are many in number they are only briefly delineated here. In the next chapters on the development of a theory of this study's approach and of the propositions, the directly relevant concepts will be integrated and discussed in greater detail.

The OCS Formulation Process: the Rational, Analytical and Intellectual Aspects[21]

It is suggested by many scholars that the process of OCS formulation must adopt a more total systems approach.[22] The justification of this viewpoint stems from the argument that for an OCS to be effective it must

be coherently integrated at appropriate organizational levels of decision-making relevant to the formulation of the OCS, its component strategies and their substrategies. The integration of Strategic Planning system with "pure" Functional Management strategy planning system is suggested.[23] The FM strategies are considered to be integral parts of the OCS.[24] As has been discussed in Strategic Management the Strategic Planning and Management Control Systems must be integrated as if they are interrelated parts of a unified organizational policy system. All relevant and strategic factors must be properly analyzed and integrated in the multi-stage, multi-level decision-making process. The suggestion that OCS must be well integrated is consistent with the total systems approach.

There is a need for a coherently integrated OCS, whether a particular organization pursues OCS formulation through planning in the Strategic Planning Mode on the one extreme, or on the other extreme, the Incremental Planning Mode (described in Christensen, et al., 1976). In the OCS formulation process through planning in the Strategic Planning Mode the OCS can be expected to be well integrated because the planning process itself is deliberate, methodical and systematic. It involves the three planning decision-making levels of the CEO, Divisional Manager and Functional Departmental Managers, as described by Vancil and Lorange (1975). In the OCS formulation process through planning in the Incremental Planning Mode, it is even more important for management to consciously strive toward a coherently integrated OCS. "The Science of Muddling Through" (Lindblom, 1959) suggests that multi-stage, incremental planning is without goals. When goals are not clear, or are subject to revisions in them, the incremental approach would be more of processes

of stage-by-stage decision-making and close review.[25] The pattern in a stream of decisions on strategic issues would indicate the governing rationale and would serve a firm in a similar manner that OCS would serve. In this context the pattern of implemented decisions can be retrospectively analyzed and the OCS identified.

In the OCS formulation through planning in either of the two extreme modes (or in other modes between them) a currently operative OCS can be reviewed and reformulated into a new, changed OCS for the same firm in different time-frames. This viewpoint has been also discussed in Strategic Management. The reformulation can be prompted through implementation and feedback processes of a previously operative OCS. This dynamic aspect of OCS has been suggested by many scholars.[26] Robert Katz views that the particular priorities in the combination or mix (of FMIM for instance) "must never be frozen". They must change as major changes take place in the environments relevant to the organization's subsystems and as these environmental changes are perceived to require changes in the strategic postures of the enterprise.

The OCS Formation Process: The Social And Political Interaction Aspects[27]

In the OCS formation process the sources for initiating the formation and reformation can be in any part or level of an organization. This is because of existence of the multi-level organizational decision-making systems pertaining to Strategic Planning, Management Control and Operational Control, all of which are relevant to OCS formation and reformation. Therefore, both approaches: top-down and bottom-up are relevant and should be integrated for effective OCS formation process.[28]

Vancil and Lorange's (1975) Strategic Planning Process is an example of a multi-level systematic approach which effectively combines the top-down and bottom-up approaches.

In an organization each of its subsystem's orientations and perceptions are different. This is a strong reason why there should be interaction among the executives of the top management in the OCS formation process.

An organization's different subsystems' groups of people develop perceptual biases which are typical of their subsystem's interaction with their subsystem's respective subenvironments. (These issues are further discussed in this chapter's subsection on contributions from Organization Theory.) Managerial perceptions rather than objective characteristics of organization-environment interactions determine the pattern of organizational responses to environmental issues.[29] The perceptions of the CEO and other key executives of the top management are extremely important for studying a firm's strategic postures to its changing environments. It is possible that the key executives of FMs could influence the thinking of the CEO to accept those strategies and policies which would enable them to achieve their FM's (or subsystem or subunit) objectives and goals. The CEO should encourage each FM's executives to defend their FM's objectives, goals, strategies and policies in open discussions. In this way it is possible that all the different FMs' key executives and the CEO can develop a thoroughly considered and well-balanced OCS. Such an OCS would balance the divergent considerations of the different FMs and those of the total enterprise.[30]

When different FMs' groups of people form coalitional groups it can be expected that coalitional bargaining process would take place in the OCS formation process. This would stimulate interaction among the different FMs' executives and the CEO. The more the CEO encourages the different coalitional groups to come into the open with their respective viewpoints and issues, the more is the likelihood that the planning, OCS formation and decision-making procedures will make the coalition groups themselves more objective and less biased.[31]

The CEO's major task in the OCS formation process is to ensure the quality of coherent integration of the different perceptual viewpoints of the key members belonging to different organizational subsystems. This can be done through the active and involved interaction by the CEO. It is expected that for the pursuit of a coherently integrated OCS the CEO would interact with other executives of the top management, including those of the different FMs.[32] Some scholars strongly believe that the CEO should actively involve himself and interact with other members of the top management team in OCS formation process.[33] Sometimes the pressures of tactical and operating problems, (because of the immediacy of their time-frame and clear visibility of cause-effect relationships in them), can lead a CEO to devote most of his time to the tactical and operating decision-making system. He should be concentrating on the strategic and entrepreneurial decision-making system. Wrapp (1967), in his article "Good Managers Don't Make Policy Decisions," similarly suggests that top management must concentrate on strategic decisions and allow lower levels of management to make detailed policy decisions pertaining to detailed implementation, tactics, operations and control.

Contributions From the Organization Theory

Formal Strategic Planning pursued in a really systematic manner is seldom found even in very large, professionally managed corporations; this is because there are many difficulties, some of which are highlighted by Bernard Taylor (1975, pp. 28-29). Therefore, "less than the ideal" systematic, planned approaches to Strategic Planning and OCS formation are often utilized. Coalitional bargaining is one of such "less-than-ideal", people interacting approaches to planning and OCS formation processes. Incremental and ad hoc decision-making, realignment of corporate goals and of subunit goals are pursued intermittently or continually. This would result in a more adjusting and fine-tuning of the OCS to suit changing internal FM coalitional alignments and the changing influences that each FM actually has upon the OCS in the processes of the formation, implementation, control and reformation of the OCS.

It is difficult for many researchers who have studied OCS formation in the industry to believe that the CEO single-handedly formulates explicit objectives, strategies and detailed policies and then sends them downward through a memorandum. Such a method would frequently explode the sensitive coalition balance by making the hitherto dormant conflicts in coalitional groups' values and aspirations more overt and active. The CEO can better unite his coalition of different FM groups on <u>very specific issues</u> through skillful negotiations. This is one of the many reasons why very systematic Formal Strategic Planning in reality has given way to the kind of approach of this study and the incremental approach. Goal formation and OCS formation processes are

not economic or rational processes alone, they are also social and political processes.[34]

In view of the viewpoint that many corporations resort to planning and OCS formation process in less than the so-called "ideal", systematic planned approach of the Strategic Planning Mode of Christensen (et al., 1976), it is necessary to discuss more about the people-related, interaction-oriented approaches to planning. The different concepts relevant to the people-related, interaction-oriented approaches are discussed. The selective perceptions of the people of the different organizational subsystems and how the many subsystems' (or FMs') goals can result in power distribution will also be discussed; how the dynamic nature of these subsystem power distributions can affect the OCS formation process that is pursued through dynamic coalitional bargaining which can land the top management in different possible power positions in the control hierarchy among the coalitional groups; and how all these internally focused subsystem or coalitional type of processes can be influenced by different contingent or situational analysis of the organization's internal-external environmental linkages will also be discussed. Each of these issues are briefly delineated.

The Different Orientations and Influences of the Different FMs

Functional and departmental influences are very common and strong. Perceptual biases and selective perceptions of the people of an FM or department towards their task environments and organization-environment interactions lead them to their developing particular orientations, perspectives, values, prior experiences, preconceived standpoints and a

strong pledge or identification that clearly reflect the goals, issues and problems of their own FM and department, sometimes even when these goals conflict with those of the total enterprise.[35] Some of the major causes for functional orientations are task differentiation and specialization and the fine tuning of the primary task.[36]

Multiple FM goals (or subunit goals) engender the diverse and multiple judgments of the executives of different FMs and of the CEO. This causes them to interact into a bargaining mode of OCS formation, rather than the judgmental, planning, entrepreneurial or analytical modes for the purpose of decision-making in OCS formation process.[37] In such circumstances the power to decide upon various aspects of the OCS formation is divided and distributed in the different parts of the organization.

Functional and departmental influences have been viewed as a dynamic process. The more a subunit copes with uncertainty the more is its power within the organization for having reduced uncertainty for other subunits.[38]

The Dynamic Coalitional Bargaining by the Different Functional Management Groups

The use of "organizational slack" to resolve conflicts in organizations through "policy commitments" (as a management approach to the "side-payment" method of conflict resolution) results in coalition groups interacting with each other in coalitional bargaining process for goal formation. The interrelated concepts of bounded and local rationality, satisficing rather than optimizing, and problemistic search process are

relevant to the conflict resolution process of coalitional bargaining for goal formation.[39]

March and Simon's "Theory of Organizational Equilibrium" can be utilized to derive deductions about the nature of FMIM interaction.[40] Allied to this concept is the concept of Cyert and March's. "The General Preference Function" of the Top Executive Management (TEM).[41] These two concepts are applied to this study's approach. The executives of each FM and the CEO will exert themselves to make "contributions" to their FM strategies and the OCS formation, implementation, feedback and control processes only to the extent that they perceive that the "inducements" which they receive in return are at least equal to or more than their "contributions". In particular, the TEM will go one major step further, which manifests "The General Preference Function". During periods of perceived normal times for the organization the TEM as a team would be able to pursue its own self-interest. Also, because there would be a "control hierarchy" among the groups with the TEM in dominant power of primacy position among (March and Simon's, and Cyert and March's) "coalitional groups", the TEM would be able to formulate the particular nature of the OCS and the FMIM configuration free of other coalitional groups' interference. In particular the CEO's dominant power of primacy position among the TEM may perhaps even enable him to formulate the OCS without unduly excessive orientation to any one particular FM because of the lower degree of FMR's political pressure. However, in times of perceived "organizational crisis" there will be a higher degree of concern among the coalitional groups and they will emphasize upon the TEM the importance of solely pursuing the economic and profitability goals of the organization. In such a set of circumstances there will be

a "control equality" among the coalitional groups and thus the OCS and FMIM configuration will reflect stronger profitability and economic orientations.

Interactions and coalitional bargaining among the FM groups and the CEO in the goal formation process are not usually a smooth functioning process that results in a once-and-for-all (Cyert and March's) "Joint Preference Ordering". Rather, the process manifests continual realignments and readjustments through the dynamic coalition bargaining and realignment processes.[42] This is similar to Lindblom's "science of muddling through" and to the incremental, multi-state, disjointed planning without goals.

The Application of Contingency Theory

The relationship between the Contingency Theory and the approach of this study is a very strong one indeed. Individual FM policies and tactics and the OCS are all totally contingent upon the (perceived) interactions among subsystems-subenvironments. Each particular policy and FM strategy and OCS have to specifically relate the enterprise (or its subsystems) to its environment (or subenvironments) at a particular point in time.[43] The field of Strategy has long espoused the concept of Contingency approach to the extent that from its inception in 1911 Business Policy courses at the Harvard Business School have been taught through the case method which still remains a major vehicle for instruction.[44]

In concluding this chapter, it may be stated that OCS formation and formulation processes require both types of processes: the people-related and interaction-oriented processes, and the rational, analytical and mental processes. The more formalized a corporation's Strategic Planning

System becomes the more it will rely upon a deliberate, methodical, pre-planned system through which Strategic Planning and OCS formulation-cum-formation would take place. The less formalized and the more ad hoc its decision-making processes are, the more likely is the planning and OCS formation to depend upon the culture of key people, their styles of managing and their interactions. These two extremes are similar to Christensen's (et al., 1976) two extreme modes. Different organizations can be positioned on different points of this continuum which has the two extreme modes: the Strategic Planning Mode and the Incremental Planning Mode.

Conclusion

This chapter has discussed a viable process of completely managing the OCS through the Strategic Management Process. It relies on many important issues helpful to broaden the Concept of Strategy through the use of SMP. Many scholars' ideas have been integrated, notably those of Anthony, in developing the framework for SMP. Additional concepts from Organizational Theory literature have been discussed. The different Functional Managements' orientations and influences can provide a wide variety of mix or combinations of influences through the continuous coalitional Functional Managements' bargaining and the formulation-formation processes of the dynamic OCS.

The specific concepts directly relevant to this study's conceptual and analytical frameworks are explained in Chapter III. The specific research findings and results relevant for the development of the propositions of the thesis are discussed in Chapter IV.

FOOTNOTES

[1]Schendel and Hatten, 1972, p. 99; Taylor, Sept. 1973, pp. 34-36; Gummesson, 1974, pp. 14-19; Irwin, 1974, pp. 64-68; and Salveson, 1974, pp. 19-28; Ansoff, et al., 1976; Bhattacharyya, 1976, pp. 22,23.

[2]Vancil and Lorange, Jan.-Feb. 1975, p. 89: "It is worth differentiating between objectives and goals, since these terms are used separately here.

"Objectives are general statements describing the size, scope and style of the enterprise in the long term. They embody the values and aspirations of the managers, based on their assessment of the environment and of the capabilities and health of the corporation. For example, the financial objective of a large, diversified, multinational corporation might be to rank in the top 10 percent worldwide in compound rate of growth in earnings per share.

"Goals are more specific statements of the achievements targeted for certain deadlines. At the corporate level these statements are likely to include such aspects as sales, profits and EPS targets. Annual budgets constitute goals at all levels in the organization."

Anthony, 1965, p. 16:"'Objectives' are what the organization wishes to accomplish (in military parlance, the 'mission'). . ."

Drucker, 1973, p. 99: "objectives, in other words, are the fundamental strategy of a business." "The basic definition of business and of its purpose and mission must be translated into objectives."

Glueck, 1976, p. 21: "Organizational objectives are those ends which the organization seeks to achieve by its existence and operations."

[3]Ramsay (1976) pp. 171-180: "Corporate Strategy is concerned with major patterns of actions to carry out the corporate value objectives."

Glueck (1976) p. 3: "A Strategy is a unified, comprehensive and integrated plan designed to assure that the basic objectives of the enterprise are achieved."

Christensen, (et al.), 1973, p. 110: "identify the four components of Strategy: (1) market opportunity, (2) corporate competence and resources, (3) personal values and aspirations, and (4) acknowledged obligations to segments of society other than shareholders."

It is important to distinguish between Strategy and policy. Haner (1976) distinguishes them: "A strategy is a multiple-step approach to achieve a

specific objective. It is controlled by a plan, involves coordinated use of selected components and resources of the company, and covers the time frame necessary to accomplish the objective." (p. 259). "A policy is a statement, verbal, written or implied, of those principles and rules that are set by managerial leadership as guidelines and constraints for organizational thought and action."(p.53)

[4]Christensen, et al., 1973, p. 112-114 "What is needed is the concept of a moving balance among the considerations on which strategy is based, the concept of strategy that progressively evolves in the direction of improving the match between company's resources and opportunities in its environment. To design a strategy that is optimal is a challenge to insight and intelligence which simply lies beyond the capacity of an effective operator."

[5]Christensen, et al., 1973, p. 112-114, are most cognent on this issue: "A more serious limitation is that over dedication to plan may result in lost opportunity. . . .that maintenance of flexibility to take advantage of unanticipated opportunity is more important that commitment to fixed plans over long time periods. One must admit at once that the determination of strategy must not be so rigid that unexpected opportunity cannot be considered. But it is possible to conceive of a strategy as being firm and influential without its being cast in concrete."

[6]Gummesson, (April 1974), p. 15: the basic parts of Strategic Management consists of the Strategic Planning Process, the generating of Strategic Decisions, and the execution and implementation of Strategic Decisions. Also: Ansoff, et al., 1976; Bhattacharyya, 1976, p. 22, 23.

[7]Ibid.

[8]Steiner and Cannon, 1966, pp. 11-16: "Strategic Planning--is conducted at the highest levels of management and is concerned with the development of fundamental goals and objectives and the major policies and allocations of corporate resources to meet the goals."(p. 7)

[9]Anthony, 1976, p. 7: "We shall classify these planning and control activities into three categories: (1) strategic planning, (2) management control, and (3) operational control." Also, Bhattacharyya, 1976, pp. 12-14.

[10]Schendel and Hatten, 1972, p. 99, and Anthony, 1976, p. 7: "We shall classify these planning and control activities into three categories: (1) strategic planning, (2) management control, and (3) operational control." Also, Bhattacharyya, 1976, pp. 12-14.

[11]Glueck, 1976, p. 3: "Strategic planning is that set of decisions and actions which leads to the development of an effective strategy."

[12]Gummesson, 1974, p. 15, defines Strategic Decisions: "Decisions to reach a defined situation in the future. These decisions can be compiled into a strategic plan."

Chandler, 1961, p. 11, defines strategic decisions to "concerned with the long term health of the enterprise" and with "the allocation and reallocation of resources for the enterprise as a whole."

Taylor, Sept. 1973, p. 73, considers strategic decisions to be also "concerned with the effecting major changes in the 'linkages' between the enterprise and its environment."

Also see: Ansoff, 1965, p. 5; Drucker, 1973, p. 122; and Christensen, et al., 1973, pp. 109-111.

[13]Anthony, 1965, p. 10: Strategic Planning is ". . .the process of deciding on objectives of the organization, on changes in these objectives, on the resources used to obtain these objectives, and on the policies that are to govern the acquisition, use and disposition of these resources." (page 10)

Steiner and Cannon, 1966, pp. 11-16; also see footnote #8.

[14]Drucker, 1973, p. 125, indicates that SPP is "the continuous process of making present entrepreneurial (risk-taking) decisions systematically with the greatest knowledge of futurity."

[15]Taylor, (Sept. 1973), pp. 34-36; Schendel and Hatten, 1972, pp. 99-102.

[16]Gummesson, 1974, p. 16, Figure 3; Also: Ansoff, et al., 1976; and Bhattacharyya, 1976, p. 22,23.

[17]Christensen, et al., 1973, pp. 112-114: "What is needed is the concept of a moving balance among the considerations on which strategy is based, the concept of strategy that progressively evolves in the direction of improving the match between company's resources and opportunities and its environment. To design a strategy that is optimal is a challenge to insight and intelligence which simply lies beyond the capacity of an effective operator."

[18]Christensen, et al., 1973, pp. 109-110 discuss the idea of deciding upon the strategic alternative. It is one which best meets all the major oblectives of a firm, within the constraints of the firm's resources, and at the same time promises to exploit market opportunities at an "acceptable" level of risk. To arrive at the strategic decision the firm must possess the ability to identify the components of strategy (see footnote #3) in the firm's specific internal and external environments.

[19]Taylor, September 1973, p. 35.

[20]Drucker, 1973, p. 103: "Marketing and innovation are foundation areas in objective setting."

[21]It is useful to distinguish between formulation and formation. In this paper formulation is used in the context of rational or analytical

process, while in people-related and interaction-based processes formation is used. Webster's Dictionary: formulation - the act of expressing in or reducing to a formula; to form (verb transitive): to give shape or form or to shape by training and discipline, to come together into; to take the formation of; to organize into. formation (noun): the act of forming or being formed.

[22]Schwendel and Hatten, 1975, pp. 99-102; Anderson and Paine, 1975; Argenti, 1974, pp. 60-61; Schwendiman, 1973, p. 32; Saunders, 1973, pp. 29-41; Taylor, 1975, p. 30; Vancil, 1970, p. 396; Steiner, 1949, Chp. 9.

[23]Anthony, 1965; Anthony and Dearden, 1976; Schwendiman, 1973 p. 36; Robert L. Katz, 1956, pp. 602-604; Holstein, 1970; Vancil, 1970, p. 396.

[24]Steiner, 1969, Chp. 9; and personal communication from Anthony to the researcher, (Sept. 12, 1974): "You do not mention it explicitly, but implicit in your structure is the idea that marketing strategy must be considered as a part of overall corporate strategy, rather than as a separate matter, and I agree with this."

[25]Lindblom, 1959: Mintzberg, 1973, p. 45; Glueck, 1972, p. 108; Ansoff, 1965, pp. 24-25; Steiner, 1969, p. 20; Wrapp, 1967, p. 91; McCaskey, 1974, pp. 281-291; Rhenman, 1973, p. 55, England, 1967, p. 107.

[26]Robert L. Katz, 1956, p. 602-604; Saunders, 1973, p. 29-41; Guth, 1976; Cohen & Cyert, 1973; Christensen, et al., 1973, pp. 108-115.

[27]It is useful to distinguish between formulation and formation. In this thesis formulation is used in the context of rational or analytical process, while in people-related and interaction-based processes formation is used. Webster's Dictionary: formulation - the act of expressing in or reducing to a formula; to put together and express (a theory, plan, etc.) in a systematic way; to form (verb transitive): to give shape or form or to shape by training and discipline; to come together into; to take the formation of; to organize into. formation (noun): the act of forming or being formed.

[28]Paine and Naumes, 1974, Chp. 1; Schwendiman, 1973, p. 15 and 43; Saunders, 1973, p. 29-41; Hayes and Nolan, 1974, pp. 104-108; Vancil and Lorange, 1975, p. 81.

[29]Miles, Snow and Pfeffer, 1974, p. 244-264; Child, 1972, p. 1-23; Richards, 1973, p. 40-46.

[30]Petit, 1972, p. 107; Andrews, 1971, p. 227; Robert L. Katz, 1956, pp. 602-604; Mintzberg, 1975(b), p. 24 and 32; Hofer, 1973, pp. 48-70; Saunders, 1973, pp. 29-41.

[31]Mintzberg, 1975(b), pp. 24 & 32; Saunders, 1973, pp. 29-41; Ansoff, 1965, p. 20; Schwendiman, 1973, p. 40; Newman, 1972.

[32]Schwendiman, 1973, pp. 40-43; Christensen, 1973, p. 14; Schendel, 1972.

[33]Ringbakk, 1968, pp. 67-68; Saunders, 1973, pp. 29-41; Robert L. Katz, 1956, pp. 602-604; Steiner and Schollhammer, April, 1975, p. 4; Schabacker, 1970, p. 128.

[34]Cyert and March, 1963, pp. 32-36; March and Simon, 1958, pp. 84-111; Koontz and O'Donnel, 1964, p. 32; Saunders, 1973, pp. 29-41; Katz and Kahn, 1966; Taylor and MacMillan, 1974.

[35]March and Simon, 1958, pp. 152-159, 162, 203; Simon, 1974, pp. 240-241; Dearborn and Simon, 1959, pp. 140-144; Anderson and Paine, 1975, p. 816; Salancik, Pfeffer and Kelly, 1974, p. 55; Bruner, 1957, pp. 123-152; Lindblom, 1959, pp. 79-99; Downey, 1974, pp. 200-203; Richards, 1973, pp. 40-46; Woodward, 1965; McClelland, 1961, pp. 266-267; Harrison, 1975, p. 76; Lawrence and Lorsch, 1967, pp. 8-10; Litterer, 1965, pp. 63-64; Bernthal, 1962, p. 190; Lundberg and Richards, 1972, p. 95; Lundberg and Wolek, 1970, p. 186.

[36]Rice, 1958, pp. 227-233; Lawrence and Lorsch, 1967, p. 21; Saunders, 1975, p. 83.

[37]March and Simon, 1958, p. 213; Pfiffner, 1960, p. 218; Thompson and Trudent, 1964; Mintzberg, 1975(b), p. 24; Taylor, 1975, p. 32.

[38]Hickson, Hinnings, Lee, Schneck and Pennings, 1971, pp. 216-228.

[39]March and Simon, 1958; Cyert and March, 1963; Thompson, 1967.

[40]March and Simon, 1958, Chapter 4.

[41]Cyert and March, 1963, Chapters 3, 6 and 9.

[42]March and Simon, 1958, pp. 129-135; Cyert and March, 1963, p. 28; Mintzberg, 1975(b), p. 32.

[43]Kast and Rosenzweig, 1972; Robert L Katz, 1970, p. 513; McCaskey, 1974; Hofer, 1975; Salancik, et al., 1974; Schwendiman, 1973, p. 34 and 38; Hickson, et al., 1971.

[44]Taylor and MacMillan, 1973.

[45]Christensen, et al., 1976, p. 12.

CHAPTER III

THE CONCEPTUAL AND ANALYTICAL FRAMEWORKS

Introduction

The literature review in Chapter II provides support for the FMIM approach to the study of OCS. Chapter III shall discuss further the basic assumption of the Functional Managements' Influence-Mix Approach to the study of OCS and outline the different components of this study's conceptual framework. This study's theoretical background lays the conceptual foundation for the discussion of the FMIM model of OCS. To help the reader, a summary of salient, specific, possible conceptual indications is drawn from this chapter for further treatment in the next chapter on propositions. In the next chapter we shall discuss the theoretical support for and specific research findings for the development of the specific propositions tested in this research. In order to avoid repetition they are not discussed in this chapter.

A Theoretical Background of This Study's Approach

The basic assumption of this study is that a firm's Functional Managements (FMs), namely: (1) Marketing, (2) Procurement, (3) Development, Engineering and Research, (4) Production, (5) Personnel and Labor, (6) Finance and Control and (7) External, Governmental and Institutional Relations; and Top (General) Management can have influence upon its

Overall Corporate Strategy. The study probes the relative amount of influence that each FM of a firm has over the OCS compared to the firm's other six FMs. This probe helps us to understand the nature in which the influences of all seven FMs of a firm combine. The particular combination of the influences of all the seven FMs of a firm is what we call "the Functional Managements' Influence-Mix" (FMIM) of the firm. The FMIM approach to the study of the OCS is the central approach of this study.

The Utilization of Functional Managements' Influence-Mix

The rationale for using approach of Functional Managements' (FM) and, consequently, Functional Managements' Influence Mix (FMIM) approach to the study of OCS is supported in the literature.

Grinyer and Norburn (1974, p. 81) discuss their findings of Strategic Planning in 21 UK companies. They study, among other things, the nature of influence that each of the functions have upon each of some 18 company objectives. Their list of functions pertain to: Marketing, Finance, Production, Personnel, Technical and to the roles of Chairman and Managing Director. Most of the 18 company objectives can be arranged FM-wise: e.g. liquidity, leverage (Finance); penetration, customer service (Marketing); capacity utilization, steady production (Production); and company image, community responsibility (External, governmental and institutional relations). The assumptions of their functional approach to the study of company objectives are similar to our study's FMIM approach to the study of OCS. Anthony (1965, p. 19), in listing examples

of activities for Strategic Planning, cites five FM-oriented activities, namely,Personnel, Marketing, R & D, Finance and Production.

Hayes and Radosevich (1974, p. 45) state that most companies have been relying upon the functional groups for handling "the task of gathering data, processing the data into information and disseminating information. . .". Because of the increasing sophistication in information technology and of the increasing importance that information has become to the top management for strategic decision-making, the information specialists now have been playing an important part. The information specialist complements the data gathering pursued through the time-honored data gathering channels of the different FMs.

Why has this study chosen the FM approach to the study of OCS, given that FM perspectives are not comparable to the OCS perspective? It may be argued that on the one hand, FM preoccupations are more of (Anthony's) Management Control-orientations having the decision-making system of administrative, coordinative and control nature; while on the other hand OCS is more overall and strategic in its nature. Two major counter-arguments can be provided. One is that each FM can "elevate" itself to its top management-level of FM-strategic decision-making and FM strategic planning. To illustrate, for the Marketing FM there can be "Strategic Marketing" which will have a similar decision-making system as that of Corporate Strategic Planning. And there would also be the systems of Marketing Management Control and Marketing Operational Control. Of course, Strategic Marketing must be considered as an integral part of Corporate Strategic Planning. Anthony (September, 1974) agrees with this explanation. The perspectives of the strategic nature of the different FMs can themselves become important inputs for the OCS

formulation-formation processes. In a sense the FM's strategic perspectives can and should be coherently integrated into the intensely strategic perspective of the OCS. This is true despite the usual connotation that FMs are usually coordinative, tactical and control in character.

The second counter-argument is that even the Management and Operational Control-oriented processes of FMs can be important inputs for OCS formation and (organizational) goal formation. In Strategic Management (discussed in Chapter II) the implementation of OCS control and feedback have an effect upon subsequent OCS formation. Rosen (1974) discusses this issue further. The different FM preoccupations, reflecting the different FMs, are characterized by line and operations administration by the current "rules of games", with their existing characteristics and with their commitment to visible and immediate goals and to effectiveness and efficiency. On the other hand, OCS's concerns are with the "assumptions of the game", with the equilibrium of its responses to the environment and with its future ability to respond to change. In the goal formation process the FMs' personnel are treated here to be coalitional groups which interact among themselves. Consequently, they would influence the OCS and goal formation process. Cyert and March (1963), March and Simon (1958), Cohen and Cyert (1976), Guth (1976) and Saunders (1975) also deal with this at great length. FM activities in this way can become important inputs for OCS and goals. Further, the actual performance and results of OCS's implementation themselves have a feedback impact upon evaluation of Strategy and, therefore, OCS implementation in the past is important to OCS formation for the current and the future time-frames (Gummesson, 1974).

Petit (1972) argues the foregoing viewpoint further and involves the interface between the two decision-making systems pertaining to strategic decisions, and to administrative, coordinative and control decisions:

> Middle managers should not wait for executives to hand down a corporate strategy which establishes the premises for functional policies because they become involved in policy formulation. They should more or less continuously try to influence the executives to accept policies that will enable them to achieve their subsystem goals. They need not fear that this will lead to suboptimization at the expense of overall organizational goals, because it is the responsibility of the executives to see that this does not happen. This view is in accord with the idea that organizational goals are established through coalitional bargaining.

He states the role of the middle-level FM managers in the policy formation in the way

> . . . .where (the) systems approach to policy formation prevails middle managers initiate and promote policy recommendations that help achieve their subsystem goals, and executives develop corporate strategy that balances these policies with each other and with considerations of institutional survival.

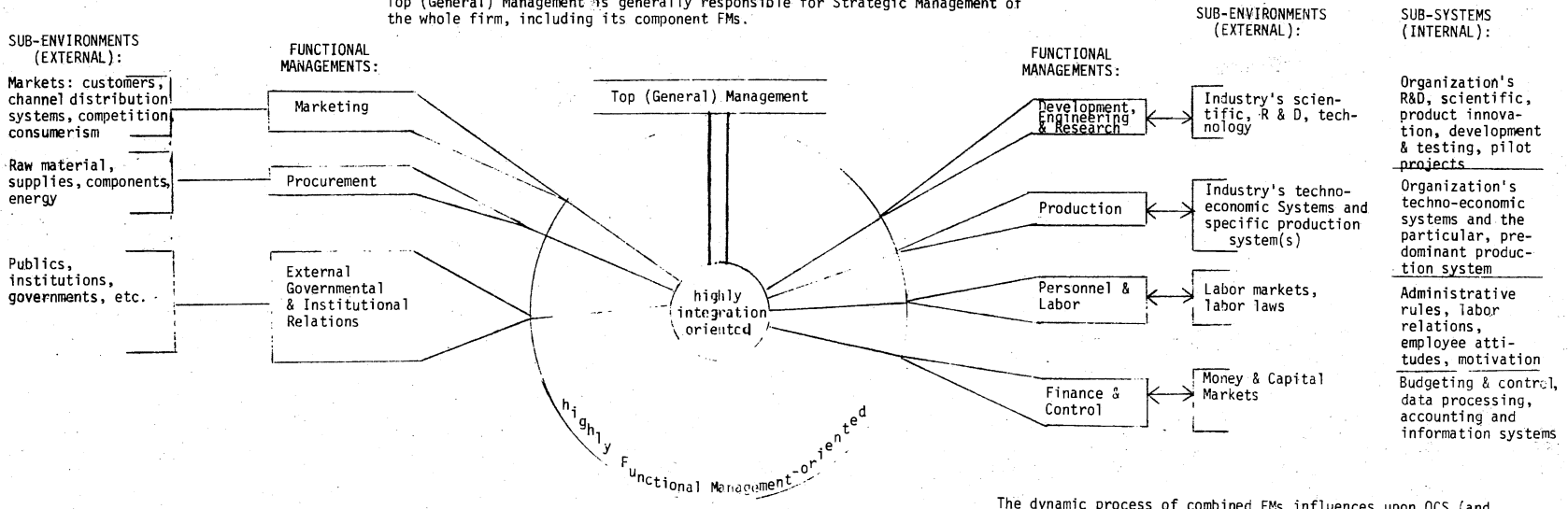
Guth (1976) emphasizes the importance of viewing Strategy formation through perspectives of a theory of social system rather than the perspectives of a formal decision theory.

A Model of the Dynamic Overall Corporate Strategy

It is important to understand the way in which this study's basic conceptual components are integrated. They are diagrammatically presented in the Model presented in Figure 1. The people of each of the seven FMs interact with their respective subenvironments and with the people of the other FMs (or subsystems) in order to achieve the FM objectives, goals and strategies. They negotiate with their relevant

OCS at a point in time is expected to reflect the nature of influence-mix of Functional Managements. The assumption of the model is that the people of each of the FMs interact with their corresponding sub-environments and other sub-systems in order to achieve their FM's effectiveness and exert influence over the people of the other FMs, the CEO, and the OCS. The relative amount of perceived influence can be depicted within the circle.

And the people of all FMs and the CEO collectively manage the firm (which operates in particular industry, environments and production system), in face of the various challanges and difficulties perceived to be facing the firm. The Top (General) Management is generally responsible for Strategic Management of the whole firm, including its component FMs.



The dynamic process of combined FMs influences upon OCS (and vice versa) takes place for the "corporate interactions stages". This process can be viewed to take place inside the circle. To illustrate "corporate interactions stage," the influence of marketing may be very highly influential so that the plotting of this FM would be very close to the rim of the circle. But the rest of the FMs may vary from medium degree to low degree of influence upon OCS, and therefore, would be plotted nearer the center of the circle. Similarly, for other "corporate interactions stages" the plotting of relative perceived influence of FMs may be done. For different "corporate interactions stages" the configruation of relative perceived degree of FMs' influence-mix would be different.

Figure 1. A Model of the Dynamic Overall Corporate Strategy

subenvironments in order to achieve their objectives and goals. They place demands upon or seek concessions from their subenvironments in order to achieve their objectives. In different ways each FM's people strive to make their FM effective. The subunit goals of the FM should usually be to ensure that the perceived expectations of the FM's performance are achieved in context of overall corporate objectives and goals and in face of possible environmental challenges and internal resource constraints and policy guidelines. The people of each FM, particularly the apex or top role(s) like the Vice President of the FM, desire that their FM's performance is perceived to be at least minimally acceptable by the board of directors, CEO and other key executives of the TEM.

In order to increase the effectiveness of their FM the FM's people should cooperate and coordinate with the people of other FMs of the organization in a combined manner. At the same time they deal externally with the relevant subenvironments on which they may considerably rely to derive their FM's results. Each FM's apex-role would at the same time like to install some resource slack upon which they can fall in unexpected situations rather than forego some unexpected opportunity. The FM's slack is wrought through inter-FM coalitional bargaining process. This bargaining is not a once-and-for-all activity, but a continuous process.

The people of different FMs are treated as different coalitional groups in a similar manner as coalitional or claimant groups are treated in March and Simon (1958), and Cyert and March, (1963). Their classification of coalitional groups is: shareholders, top management, workers, customers and suppliers. The nature of coalitional bargaining process that is expected to take place among the FM groups is similar to that

illustrated in March and Simon, and Cyert and March. Saunders (1975), Guth (1976) and Cohen and Cyert (1976) discuss strategy formation as a political process in a similar way in the context of coalitional bargaining. Of course, not all of the bargaining process is of a negative nature, some of it brings to the surface the differing aspirations, perspectives, preoccupations and biases of the different FMs' people and gives it the opportunity for other FMs' people to understand each other (Schwendiman, 1973).

The FMs' interactions result (for a current time-frame at least) in somewhat of a resolution of relative FM influence-mix upon the OCS; that is, the relative amount of influence that each FM has upon the firm's OCS for that time-frame in the nature of the given states of subenvironment-subsystem, subsystem-subsystem and subenvironment-subenvironment interrelationships. The combination of the relative influences of all the FMs is what we term as the FMIM. It is suggested that just as goal formation process is wrought through and reflects the particular nature of coalitional bargaining process, March and Simon (1958), Guth (1976) and Cyert and March (1963), so also the OCS formation process is expected to wrought through and reflects the nature of coalitional bargaining process of the different FM coalitional groups.

For different time-frames the nature of interrelationships among subenvironments-subsystems and inter-subsystems and inter-subenvironments would be expected to be of a different nature and this would have a different influence upon their respective FMs. A realignment process would be expected to take place in the FMIM configuration as the nature of interrelationships changes significantly during another time-frame. That is, the previous particular nature of mix of influence of the FMs

upon OCS would change into a new mix of a different nature. It is expected that the OCS would reflect this changed FMIM in the different time-frame and in the changed circumstances and in wake of the changed nature of interrelationships among subsystems-subenvironments and inter-subenvironments and inter-subsystems.

In the context of Anthony's Framework (discussed in the Chapter II of this paper) it is expected that the inter-FM interactions could possibly take place in all the three hierarchical decision-making systems of strategic decisions (of top-level management); and tactical and operating decisions (of bottom-level management). For example, for Marketing FM there could be Strategic Marketing, Marketing Management Control and Marketing Operational Control, each corresponding with the aforementioned hierarchical decision-making systems.

A simple diagram for displaying the three hierarchical decision-making systems of each of the seven FMs is presented in Figure 2. Interaction can take place among any two or more of the (3 x 7) = 21 subparts, and can involve the CEO. The CEO bears the overall responsibility for the firm's Strategic Management Process. He is specifically responsible for Strategic Planning Process and for deciding upon the OCS for the particular time-frame so that there is an "optimal match" between the firms organizational characteristics and the opportunities and difficulties perceived in the environments.

When the top executives of an FM perceive major changes in their FM's subenvironments in ways that they perceive would impose severe challenges and threats upon their FM to a signigicant extent they can be expected to perceive their FM's capacities to be seriously constrained. When there is increased perceived difficulty for the FM to

Levels of Management for each of the 7 FMs	Decision-making system pertaining to decisions of
Top Managements of each FM	Strategic nature
Middle Managements of each FM	administrative, coordinative and control nature
Bottom-level Managements of each FM	tactical and operating Nature

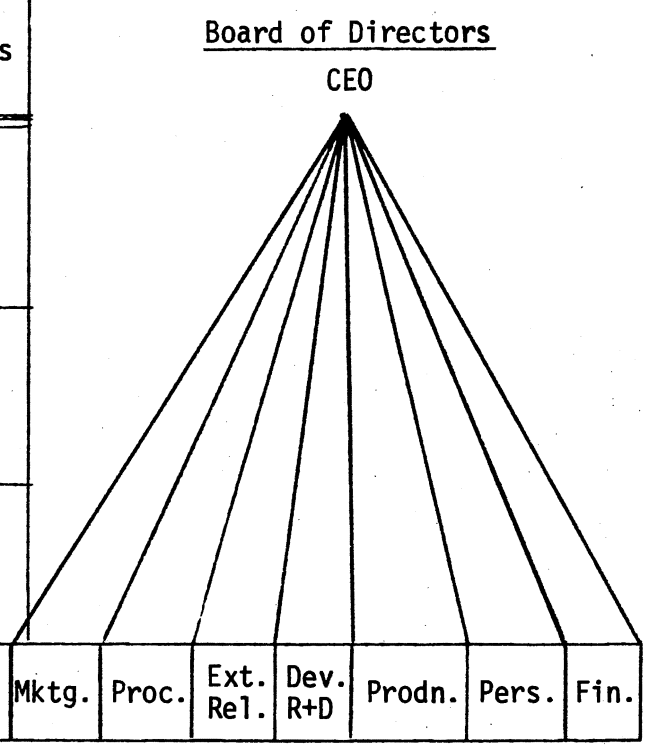


Figure 2. A Schematic Presentation of an FM-Design Organization and the Three Decision-Making Systems

accomplish its objectives they would perceive that their FM's effectiveness is lessened. They can be expected to exert pressure, if they perceive that they successfully can, upon the other FMs' personnel and the CEO for the reordering and reprioritizing of the FMIM in favor of their FM so that their FM can become more effective. When the ordering of the influence-mix (FMIM) undergoes a very significant change then the OCS can be said to reflect in it this change. Similarly, if there is increased perceived difficulty for the firm as a whole to accomplish its corporate objectives the CEO and other members of top management can reprioritize the FMIM.

The literature suggests that the study of Strategy is the study of a firm relating itself to its environments at different points in time and place. Thus, the Model has the subsystem-subenvironment paradigm, which has largely been derived from the basic approaches of Lawrence adn Lorsch.[1] In this study's approach the influences and effects of organization-environment interactions are expected to be reflected in the nature of FMIM. Thus, the FMIM is one approach to the study of Corporate Strategy. The idea is that an organization's multiple subsystems interact with their corresponding subenvironments. There can be expected inter-subsystem and inter-subenvironments interactions as well as interactions among different subsystems with different subenvironments. The Model's diagram is too simplistic in its dilineation of the organizational subsystems and subenvironments. In reality, of course, there is a considerable overlap as well as a criss-cross interaction among the subsystems and subenvironments. The simplicity of the diagram of the Model is not intended to vitiate reality but is

deliberately intended to impose certain clarity to facilitate the conceptualizing of the theory upon which this study is built.

The circle in the center of the diagram of the Model (Figure 1) is of focal interest to this study's approach. The greater an FM's influence upon the OCS, the closer is the plotting of its score to the rim of the circle. The lesser an FM's influence upon the OCS, the closer is its plotting of its score to the center of the circle. While the plotting closer to the rim represents the intense functional-orientation of an FM, the center plotting of score represents an FM's intense integration-orientation with other FMs. Thus, for a particular time period the seven different FMs can possibly have seven different plottings of scores on the "spokes" inside the circle.

Woodward (1965) suggests that firms in different production systems can be expected to have different "critical functions". Her findings indicate a particular nature and sequence of FM-by-FM process that firms operating in a particular production system are likely to pursue.

The picture of configuration inside the circle can be used to depict the nature of the FMIM at that particular "corporate-environment interactions state" with all the combined interactions of the total organizational system and the total organizational environment. The "corporate-environment interactions state" is here treated in the context of our study's definition of OCS in Chapter II. It is specifically referred to in the context of a particular organization in its particular environments in the particular time-frame. Thus, the nature of organization-environment interactions captured during the time-frame is then considered to be the particular state of interactions between the organization and its environment.

During a considerably different "corporate-environment interactions state" for different time-frames the nature of total organization-environment interactions would be considerably different. And consequently, therefore, the nature of configuration inside the circle of the Model would be considerably different. That is, the FMIM would be different. This would indicate, by definition, that the OCS would be considerably different at the two considerably different "corporate-environment interactions states" for the two different time-frames. Some of the very different hypothetical combinations of FMIM are presented in Figure 3 for illustration of the different nature of "corporate-environment interaction states".

The concept of influence-mix, configuration (or gestalt), especially emphasizes the particular combination or arrangement or pattern in the FMIM elements (namely, the seven FMs) that is perceived to give a particular character to the OCS during a particular "corporate-environment interactions state" in a particular time-frame. And the study of the nature of combination as a whole is distinguished from the separate studies of the individual FMs.

The study of OCS should derive significance from the combination that the FMIM elements are believed to assume for a particular state so as to be perceived to be interrelated and combined in a particular way. For markedly different "corporate-environment interactions states" the nature of FMIM combinations could be expected to be different. Figure 3 gives some examples of hypothetical configurations or combinations of FMIM.

The study of OCS is therefore the study of the nature of interrelation and interaction among subsystems-subenvironments, and consequently,

Examples of hypothetical combinations of FMIM when one FM is perceived to be strategic, (or having the highest amount of influence upon the OCS in a particular "corporate interactions state" in a particular time frame).

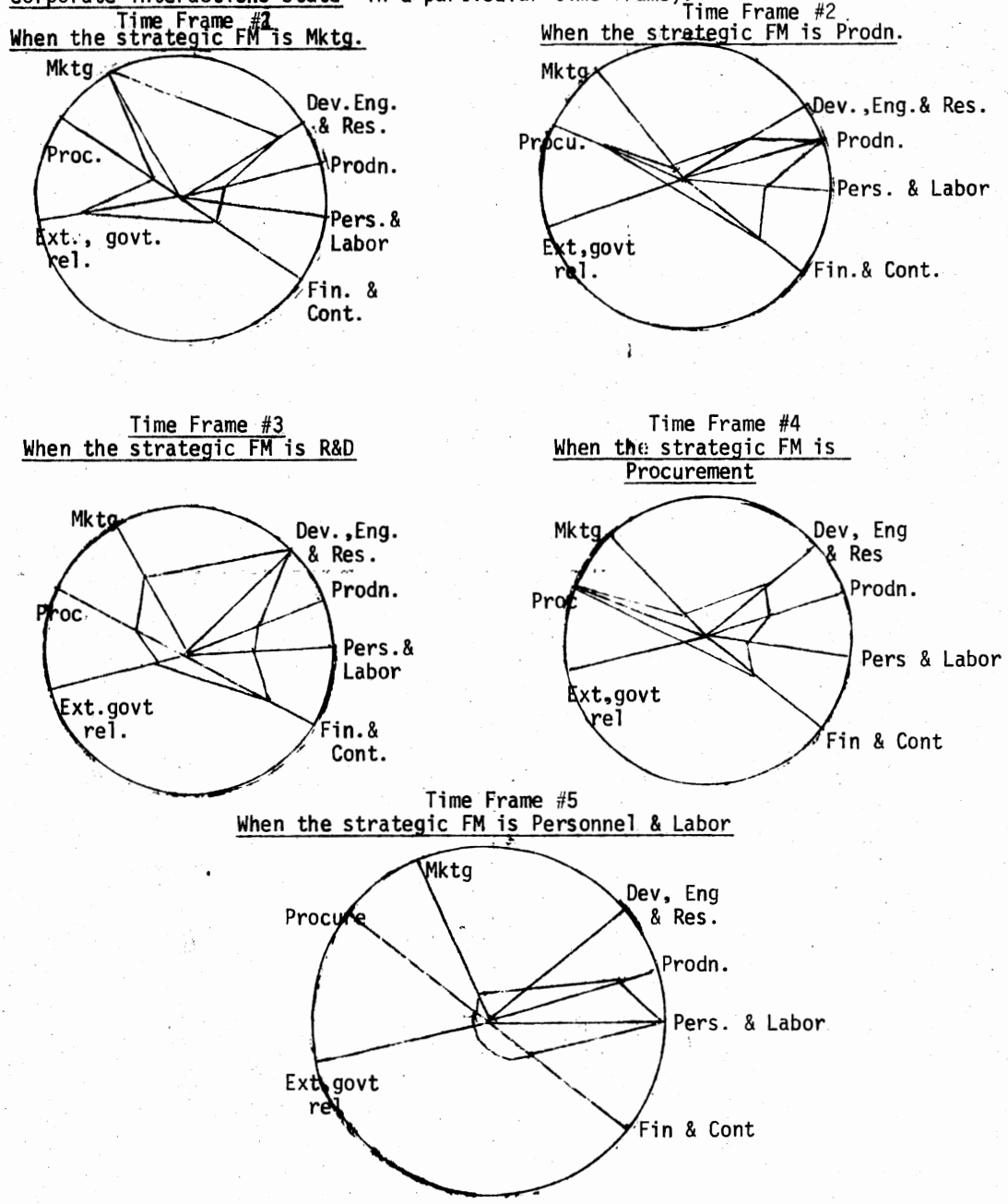


Figure 3. Hypothetical Combinations of Functional Managements' Influence-Mix for 5 different "corporate-environment interactions states" for 5 different time-frames

of combination of FMIM. In a sense this is an integrative study which views the "mixing" of its Functional Managements' Influences at the highest strategy-formulation levels in the organization, namely at the CEO and the top FM roles.

The concept of the nature of integration or combination is as appealing as the puzzle of the manner of combination is complex. This research is designed to examine the combination of corporate strategy elements from the viewpoint of Functional Managements because of the understanding that the Functional Managements of a business corporation are not only rudimentary to its business and to its Business and Corporate Strategy, but also significantly important to the results and performance of the corporation. While the existing body of knowledge of the Strategy field has suggestions for many other approaches to study Strategy, the FMIM approach does not seem to be much explored, nor empirically tested.

During the theory building stage of this study's FMIM approach several other directions had also been pursued. They have not been presented here because those are not the directions that the current research has followed.

The theory of this study's approach has applications from the fields of Strategy and Organizational Theory. It is in its most fundamental stages and therefore the basic issues need to be first tested. The nature of current research, therefore, can be expected to be exploratory, and hypothesis testing for facilitating theory-building.

Definitions of the Basic Terms Used in This Study's FMIM Approach

The basic concepts can be illustrated through explanatory definitions of the major terms used in this study's FMIM approach.

The conceptual terms (for an organization) are:

(a) FMs, or the Functional Managements,

(b) FMRs, people of an FM, or the personnel of an FM particularly the important key executives,

(c) FMSs, or the Functional Management Strategies,

(d) CEO, or the Chief Executive Officer,

(e) TEM, or the Top Executive Management,

(f) FMIM, or the Functional Managements' Influence-Mix,

(g) FM*, or the Strategid Functional Management,

(h) OCS, or the Overall Corporate Strategy.

The above terms are interrelated among one another. They are sequenced in a systematic order. The definitions of the terms now follow in the same sequence as has been noted above:

(a) FMs, (Functional Managements) in this study are:

1) Marketing

2) Procurement

3) Development, Engineering and Research

4) Production

5) Personnel and Labor

6) Finance and Control

7) External, Governmental and Institutional Relations.

The preceding category is a simple one. Many corporations could have different categories; they could have some additional FMs, or an overlap among the nature of responsibilities. The preceding list was drawn up from literature on organizations, organizational structure and strategy.[2] In particular, Lawrence and Lorsch's[3] classification has been helpful for the above category. The interrelationships among FMs and their subsystems and subenvironments can be found in the Model in Figure 1.

(b) FMRs, (Functional Management Roles). People of each of the seven FMs mentioned in (a) above, in particular the top, key and influential people. Their actual designations may differ in different organizations. To illustrate the different possible designations for Marketing we can have: Vice President (Marketing), or Director of Marketing and Sales, or Marketing and Market Planning Manager, or Marketing and Advertising Controller, or even, General Manager (Marketing).

(c) FMS, (or Functional Management Strategy) refers to the Functional-Management-comprehensive strategy. Conceptually it may be the overall strategy for an FM.[4] For our study there would be seven possible FMSes. The OCS is at the corporate level and an FMS is at the FM level. And the FMS for each FM would also have the elements of FM sub-strategies combining in a particular mix or configuration at FM level.[5] The Intra-FMS analysis is, however, beyond the scope of this research. An important conceptually-generated statement is that all the seven FMSes are integral parts of the OCS.[6] They are derived from the OCS, and also, they are capable of influencing the OCS.

(d) CEO, (Chief Executive Officer) refers to the top role in the organization which makes or approves all corporate-comprehensive strategic decisions, is responsible for Strategic Management Process (particularly, Strategic Planning Process), and is the chief architect of OCS. The role of CEO can be characterized by nature of the dynamic decision-making process and by the "one-man responsibility" to the board of directors and shareholders for the performance and effectiveness of the overall corporation. In Question 1 of the Questionnaire used to collect data for this thesis, we have used the term "Top (General) Management", T(G)M or GM. The term refers to the central and non-FM top-management, of which the most appropriate single role is that of the CEO. Often the CEO's senior staff who are specifically non-FM may be considered as an integral role for the pursuit of the activities performed by the CEO himself. The designation may vary, but the more common ones are President and Chairman. In some organizations the CEO's responsibilities are shared by more than one role; e.g., President and an Executive Vice President. Royal Dutch Shell (England) has three Co-Chairmen operating as a "triumvirate" with a Senior Co-Chairman.

(e) TEM, (or Top Executive Management) refers to the top management team of an organization, (including that of the FM-suborganizations), which shares the delegated burden of the total responsibility of the management of the overall corporate process, including the formulation and coherent and consistent integration of the OCS and the FMSes. The TEM composition may

vary, depending upon organizational objectives and structure. By and large it consists of the CEO as its leader and the top executives of each FM. Also, some special roles which are not mentioned here may also be included, e.g., Vice Presidents for Product Groups, Product Planning, International Operations, Strategic Planning, and Operational Control Systems. The scope of this study includes only the CEO, through Top (General) Management, and each of the seven FMs mentioned in (a) and (b) sections above.

(f) FMIM, (Functional Managements' Influence-Mix): In this study, which has used questionnaires mailed to the CEO of United States and Canadian corporations, the CEO (or the Chief Corporate Planner) of each responding corporation indicates his score of the perceived influence for each of the seven FM's (considered individually) upon the OCS for a specific time-frame. Thus, the respondent's FMIM is the seven relative scores of his perceptions of the seven individually considered FMs' influence over the OCS for the specific time-frame.

(g) FM*, (or the Strategic Functional Management) is that Functional Management which, according to the respondent, has the greatest amount of perceived influence over the OCS, compared to the perceived influence of all other FMs over the OCS for a specific time-frame. For a firm it is possible to have two or even there Strategic FMs. The concept of the Strategic FM has been derived from many sources in the Strategy literature. In particular, they are Ferguson (1974),[7]

and Steiner's (1969a) Strategic Factors in Business,[8] in which he defines strategic factors:

> Strategic factor refers to an action, element, or condition which for a business may be of critical importance in its success.
>
> Success, as the word is used in this survey, refers to the desired achievement of major objectives and goals established for your company.

In a discussion on FM*, the concept of FM*, (or the Strategic Functional Management), is important to this study's FMIM approach to the study of the OCS. Each company's TEM could (and should) ask itself:

1) What are the very vital factors and the strategic FM for our organization's success and effectiveness, with respect to the accomplishment of its objectives for the current and future "corporate-environment interactions states"?

2) How should the analyses of (1) above be utilized to develop the most effective and viable FMIM configuration which would best help the organizational members to accomplish corporate objectives and goals?

4) Is there strategic FM, (FM*), which should be given over-riding consideration and priority, compared to the remainder FMs? (Sometimes there can be two or three FM*s.)

5) And if so, how should this FM* be combined with certain strategic factors which "belong" to other FM*s in order to formulate a coherent and viable OCS?

6) And how should the FM* be treated in the context of certain "limiting factors" and elements of other FMs?

The nature of the above questions indicates that the strategic FM must be well coordinated in its interrelationships with the remaining FMs and also with the elements or factors "within" each of the remaining FMs. This, of course, indicates that the TEM's OCS formulation process at level of the complex, corporate-comprehensive is not just a sience, but also an art.[9]

(h) OCS, (or Overall Corporate Strategy) is conceptually defined as the corporate-comprehensive generic, governing rationale for strategic decision-making. In this study's approach the OCS, by definition, reflects the configuration of the FMIM of the CEO (or the corporate planner) for a specific time-frame. If the FMIM configuration has changed considerably the OCS too is expected, by definition, to reflect the nature of the changed FMIM. The definition of FMIM is relevant and is given in the previous pages. Please refer to the Model in Figure 1, to Figure 2 and to the examples of hypothetical combinations of FMIM in Figure 3 in this chapter.

The above explanatory definitions of the basic terms used in the theory of this study's approach are expected to clarify the terms to the reader.

Summary of Salient Conceptual Issues

This chapter has developed the general FMIM Model as one way to study OCS. To help the reader, a brief summary is drawn from this chapter of those specific, salient, possible conceptual indications which are discussed in the next chapter on the development of propositions.

A particular firm can have different nature of FMIM for two different time-frames. The difference in the two FMIMs can be due to many reasons. Some of them could be because of perceived changes in the dynamic organizational (internal and external) environments. The FM personnel and the CEO may reprioritize the FMIM in order to effectively adapt the firm to the changed environmental conditions. Reprioritizing of the FMIM may reflect the perceived relative amounts of difficulty that faces the firm to accomplish its corporate and FM objectives during the two different time-frames.

It is expected that the CEO of a firm is aware of the opportunities, problems, difficulties and circumstances facing the firm, ("the corporate-environment interactions state") for a particular time-frame. It is also expected that he is aware of the relative amount of influence that each FM of his firm has upon the OCS, and therefore, can communicate the FMIM of his firm for the particular time-frame. It is possible that firms operating in very similar circumstances, (e.g. nature of environment, type of production system, and firm size), might display some similarity in the nature of their FMIMs. And firms operating in vastly dissimilar circumstances may display differing nature of FMIM. The next chapter develops several of these possible conceptual indications into five propositions which are tested in Chapter V.

Conclusion

To conclude, the theoretical background of this study's approach, derived from the relevant parts of Chapter II on literature review, have been discussed in this chapter. The basic theory and a model integrating component parts of this theory have been presented and discussed in

this chapter. This study's approach has the requsite theoretical support from both, Organizational Theory literature and Strategy literature. With this understanding of the theory and of the possible conceptual indications summarized from this chapter, we discuss in Chapter V the rationale, the specific concepts and the specific research findings and results that have been utilized for the development of the propositions for this research study.

FOOTNOTES

[1]Lawrence and Lorsch, 1967, pages 1-8.

[2]Ferguson, 1974, pp. 33-43.

[3]Lawrence and Lorsch, 1967, pp. 1-47.

[4]Ferguson, 1974, pp. 33-43.

[5]Anthony (Sept. 1974), quoted in Chapter II.

[6]Anthony (Sept. 1974), quoted in Chapter II.

[7]Ferguson, 1974, pp. 3-8.

[8]Steiner, (1969a), p. 2.

[9]Only a President, 1969; Ramsden, 1973, Chapter V; Mintzberg, Oct. 1971; Holden, 1968; Mann, 1971, pages IX-XII; 1-2, 6; 51-52; Ansoff and Brandenburg, Spring, 1969; Taylor and MacMillan, 1973(c), pp. 69-96.

CHAPTER IV

THE PROPOSITIONS

This chapter states the five propositions developed for empirical testing and explains them. In developing the propositions the chapter refers to the conceptual discussions and empirical research findings of other scholars. Chapter V will explain the research design and the methodology for testing the five propositions. It may be necessary for the reader to refer to the different questions of this study's questionnaire while reading this chapter for the development and statement of the five propositions. The questionnaire is presented in Appendix A.

Summarized Statement of the Five Propositions

To aid the reader the five propositions are first presented in a summarized form. Subsequently, each section for the propositions proceeds to first give explanation of ideas relevant to each proposition, then appropriate support is provided from literature to aid the development of the proposition and finally the proposition is stated. Whenever the propositions are stated they are typed with a different type-face so that they may stand out for the reader's attention.

The five propositions are presented together here in a summarized manner:

Proposition 1:

(a) The change in the degree of difficulty (that a firm faces) is associated with the change in the total amount of influence that all the seven Functional Managements have upon the firm's Overall Corporate Strategy when the change from 1973 to 1976 is considered.

Proposition 1:

(b) The degree of difficulty facing a firm during 1976 is associated with the total amount of influence that all the seven Functional Managements of the firm are perceived to have upon its Overall Corporate Strategy during 1976.

Proposition 2:

(a) The change in the degree of difficulty (that a firm faces) is associated with the change in the amount of influence that the Top (General) Management has upon the firm's Overall Corporate Strategy when the change from 1973 to 1976 is considered.

Proposition 2:

(b) The degree of difficulty facing a firm during 1976 is associated with the amount of influence that the Top (General) Management of the firm is perceived to have upon its Overall Corporate Strategy during 1976.

Proposition 3:

The nature of each firm's environments are classified into one of the four cells:

DEGREE OF COMPLEXITY (DC)

DEGREE OF DYNAMISM	*simple*	*complex*
Static	μ_1 *cell 1*	μ_2 *cell 2*
Dynamic	μ_3 *cell 3*	μ_4 *cell 4*

The proposition states that the mean of the difference (μ) between: (1) the seven FMs' score-sum for 1976, and (2) the seven FMs' score-sum for 1973 of the firms, would be such that the following statement of inequality is expected to be found from the data:

$$\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4 .$$

Proposition 4:

The type of production system is associated with the Strategic FM (FM). Woodward's (1965) scheme is utilized to state that for each type of production system there is a specific FM*. Woodward's (1965) scheme is presented for predicting FM*:*

	For each type of Production System	*There is a particular FM**
1.	*Unit and small batch*	*Development, Engineering and Research*
2.	*Mass and large batch*	*Production*
3.	*Process*	*Marketing*

Proposition 5:

(a) Firm-size category is associated with the influence score of Top (General) Management, [T(G)M].

(b) Firm-size category is associated with FM.*

The firm-size categories are formed on the basis of a firm's sales revenue and are presented here:

Size Categories:	Sales Volume of Firms:
Size #1 (Small)	$ 50 million and less
Size #2 (Medium)	$ 51 million to $250 million
Size #3 (Large)	$251 million and above

Development and Statement of Propositions 1 and 2

In Chapters II and III we have discussed that OCS formulation and formation processes are not only a rational and analytical process but also a political and social process involving interaction and coalitional bargaining. In particular, the interrelated issues of coalitional bargaining and "The General Preference Function" of March and Simon (1958) and Cyert and March (1963) have been discussed. The ideas central to the propositions are explained and then the theoretical support for the concepts of the above-mentioned authors is provided. Questions one and four of the questionnaire presented in Appendix A are relevant to these propositions.

Explanation of Ideas Relevant
to Propositions 1 and 2

A firm's perceived degree of difficulty for accomplishing its objectives may be related to the total amount of influence that all FMs have upon the OCS. If a firm's CEO, the key, top people of the different FMs and other members of the TEM perceive an increase in difficulty in achieving the firm's major objectives and goals during a particular time period then they can be expected to be more concerned with, take greater interest in and exert greater influence upon the firm's OCS, compared to what they can be expected to exert in the way of influence upon the OCS during another time period if they perceive lesser difficulty for the firm to achieve its major objectives and goals.

During very difficult times the focus of attention of the CEO and the seven groups of FMs' key people will be on the firm's overall performance because the firm's very survival as a healthy economic and business entity is perceived to be in jeopardy. The influence of the key people of the various FM groups would be expected to perceive that their own respective FM's survival and satisfactory performance is possible only if the total firm's survival and minimally acceptable or satisfactory performance is first perceived to be accomplishable. Therefore, while the key people of the various FM groups would be concerned about their own respective FM's survival and satisfactory performance, however, greater will be their concern for improving the firm's overall performance, (e.g. through greater FM performance in a coordinated manner to improve overall corporate performance). Not that their interest in their FM *per se* is less, but that their interest in the OCS

is more. It is expected that they will see beyond the narrow walls of their own FM's interest and beyond into the positive, strengthening contributions that the FM can have upon the OCS. FM objectives and goals can be expected not to be the be-all and end-all of FM-people, but more so as means to effectively serve the larger corporate good and the accomplishment of the OCS in the firm's vital pursuit of its survival and acceptable performance.

One can draw an analogy of perceived crisis situation in business organization to that in the context of national politics and government. In the wake of perceived severe national crisis the previous dissensions among political parties are shrugged aside and the common, overriding goals of the nation become the superordinate objectives which bind the factions together.

During other time periods if the CEO and the top, key people of the various FM groups perceive that their firm is very easily able to (and also does) accomplish its major objectives and goals, then the CEO and the top, key people of the various FM groups can be expected to concentrate on the accomplishing of their own respective FM's objectives and goals. In a manner of speaking they can tend to become more FM-selfish and less corporate-overall in their perspectives, propensities and goal-orientations.

It can be argued that during crisis periods the heads of FMs get directives from the CEO and, therefore, the FMs' influences upon the OCS would become less. It may be pointed out that this study does not specifically study the influence of the individual persons who head the FMs, but it studies the Functional Managements' influences upon the OCS. Also, even when the CEO is found to himself direct the different

FMs during crisis periods he can and may direct them in such a way that the sum of the influences of all the seven FMs (and not that of their heads) increase.

There can be organizational situations between the two extremes. And such as the varying degrees of difficulty in the scale in Question 4 of the questionnaire in Appendix A describes these situations.

Support from Literature for Propositions 1 and 2

The similarities between the concepts of March and Simon and of Cyert and March and those of this study's approach are explicitly stated in the following paragraphs and in Table II. The five coalitional groups of March and Simon (1958, p. 89) are similarly treated as this study's seven FM groups. Just as in March and Simon, and in Cyert and March, the five coalitional groups interact into coalitional bargaining for goal formation, so also the seven FM groups can be perceived to interact among themselves and enter into coalitional bargaining for OCS formation. Just as goal re-formation is pursued through the dynamic process of realignment among (Cyert and March's) coalitional groups, so also the seven FM groups can be perceived to interact and reorder the priorities in the previous OCS and in the previous mix in the FMIM through the dynamic and on-going process of FM bargaining. In this way the realigned, changed FMIM and the changed OCS portray the dynamic character of FMIM and OCS for two different time-frames. Therefore, it is very possible for a firm to have a different, reordered mix in the FMIM for two different time periods. In this study we have solicited responses from CEOs about their firm's perceived FMIM for the two years, 1973 and 1976. In light of the above discussion it is plausible that if a CEO perceives

TABLE II

A CONCEPTUAL RECONSTRUCTION OF CYERT & MARCH"S "THE GENERAL PREFERENCE FUNCTION"[1/]

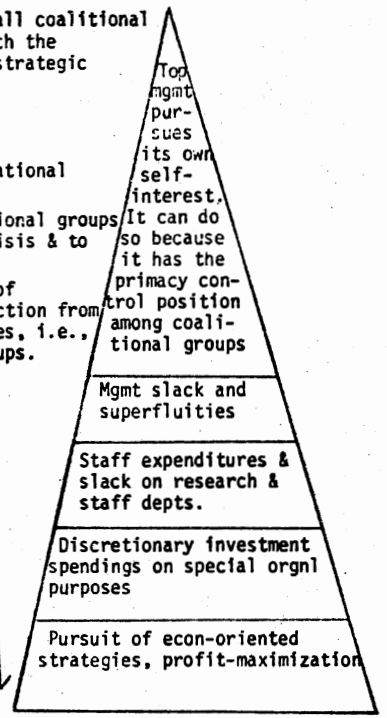
ONE END OF THE CONTINUUM CHARACTERIZED BY: ⟶

1. Normal times, smooth-sailing for organization, organizational growth and munificence, all coalitional groups receiving payments or inducements in excess of what is required to keep them with the organization and to keep them participating in and contributing to the organizational strategic processes, as formulated by top management from time to time.
2. Little market competition--may be because of firm's good product-market strategies.
3. No serious external threat is visible.
4. No need for an effective, active board, which may actually be disinterested in organizational process on strategic issues.
5. Top management is in primacy position of control in the control hierarchy among coalitional groups of the organization. President is capable of negotiating with envirnoment to avert crisis & to develop & utilize opportunities & resources.

   Top management is left free by other coalitional groups to pursue its <u>own</u> formulation of objectives, goals, strategies & programs & their implementation. There is little direction from other coalitional groups. Top management is also left free to pursue its own activities, i.e., its own self-interest & consolidating its control competence among the coalitional groups.

THE OTHER END OF THE CONTINUUM CHARACTERIZED BY:

1. Organizational crisis is very severe and organizational activities are the concern of all coalitional groups, the focus of concern is on organizational activities that can have direct bearing upon organization's economic results. Therefore, strong coalitional pressure is on top management to pursue immediate profit-maximization as the single dominant organizational behavior. This is because coalitional groups perceive that their inducements (payments) may be in jeopardy.
2. There may be severe market competition, possibly resulting from poor product-market strategies.
3. There is high visibility of current or imminent external threat--and common agreement regarding the nature of the threat's severe restraining influence upon organizational processes.
4. Board of directors mobilizes itself into radiant activity and takes keen, critical interest in top management's strategic decision-making and implementation activities. There is greater Board's influence-interference in top management's strategic, policy and tactical process of the organization.
5. Top management is no longer in primacy-power control position--there is now control equality because of all coalitional groups' intense involvement in corporate processes. President's ineffectiveness in negotiating with threats and constraining external and internal criticalities impels externally-based board members to use their own external resource-power bases. In very severe situations of Board's complete lack of confidence in the CEO, the Board may itself assume the major responsibilities of OCS's evaluation & reformulation (over and above top management's hitherto pursued strategy) and this would generate a feeling of failure of president and other top management's policies.



THE GENERAL PREFERENCE FUNCTION

[1/] Adapted from Cyert and March, 1963, Chapters 3, 6, and 9; March & Simon, 1958, Chapter 4; and Zald (1969).

that his firm's environmental influences upon his firm's seven subsystems (i.e. the seven FMs) have led to change in the influence-mix from 1973 to the year 1976, he can reflect his perception by indicating this change in the FMIM when he answers Question 1 of the questionnaire.

Carter (1971) examined top-level planning decisions of a particular firm in the context of Cyert and March's behavioral theory. He found the process of "realignment of goals and expectations," which is related to the concept of a dynamic hierarchy of goals and Cyert and March's sequential attention to goals "as a form of conflict resolution that allowed the organization to live with an inconsistent goal structure".

The "normal times" of Cyert and March (1963, Chapter 3, 6 and 9) are similar to this study's lesser degree of difficulty which the firm (as perceived by the responding CEO) has had for a particular time period, to achieve the firm's major objectives and goals set for the time period. Question 4 of the Questionnaire is designed to elicit this answer. The characteristics of the circumstances typically attendant during "normal times" are briefly delineated in upper end of the continuum in Table II. According to Cyert and March during "normal times" the top management as a coalitional group will be able to pursue its own self-interest subject to normal constraints. Among all the five coalitional groups of Cyert and March the top management group will be in dominant power of primacy position. Thus, here would be a control hierarchy among the groups, with the top management in the top of the control hierarchy. The other coalitional groups do not exert much influence over the management of the firm because they are satisfied with the economic and business results of the firm. The groups will exert lesser degree of influence in the goal-formation process.

Applying this concept to this study's Proposition 1, we can state that if a firm is perceived to have lesser degree of difficulty in achieving its major objectives for a particular time period, then the degree of influence of most of the seven FMs upon OCS will be of lesser degree than what it would be for another time period when the perceived degree of difficulty for the firm is greater. In lesser adversity each of FM's people will not be concerned about their firm's performance, thus FMs' influence over OCS would be lesser for the particular time period.

The "crisis period" of Cyert and March (1953, Chapter 3, 6 and 9) is similar to this study's higher degree of difficulty which the firm (as perceived by the responding CEO) has had for a particular time period to achieve the firm's major objectives and goals set for the time period. Question 4 of the questionnaire is designed to elicit this answer. The characteristics typically attendant with "crisis period" is briefly delineated in the lower end of the continuum in Table II. The coalitional groups' concern for the firm's survival will bring in greater influence on and control over the management of the firm. The top management will not enjoy primacy position among the coalitional groups. There will be control equality. The even redistribution of control, with the advent of greater influence by coalitional members, results in a reordering of influence over the management of the firm. Similarly, during higher difficulty time period in the context of this study it is likely that the different FM groups will take greater interest in and have greater influence over the OCS. The reprioritising of the FMIM would be such that it would reflect influence equality. It would also reflect a greater aggregate influence of all FMs for the time period characterized by higher degree of difficulty, compared to another time period when the perceived degree of difficulty is lesser.

The foregoing discussion has portrayed the two extreme ends of the continuum in Table II. There can be other situations which can be characterized by other points within the continuum. Similarly, there can be different degrees of difficulty as indicated in the scale used in Question 4. The different possible organizational situations reflecting varying degrees of difficulty point to the contingency aspect of this study's approach.

Statement of Propositions 1 and 2

We now state the propositions.

Proposition 1 (a) *The change in the degree of difficulty perceived to be facing a firm is associated with the change in the total amount of influence that all the seven Functional Managements of the firm are perceived to have upon the Overall Corporate Strategy when change from 1973 to 1976 is considered.*

Proposition 1 (b) *The degree of difficulty perceived to be facing a firm during 1976 is associated with the total amount of influence that all the seven Functional Managements of the firm are perceived to have upon the Overall Corporate Strategy during 1976.*

Proposition 2 (a) *The change in the degree of difficulty perceived to be facing a firm is associated with the change in the amount of influence that the Top (General) Management of the firm is perceived to have upon its Overall Corporate Strategy when the change from 1973 to 1976 is considered.*

Proposition 2 (b) *The degree of difficulty perceived to be facing a firm during 1976 is associated with the amount of influence that the Top (General) Management*

of the firm is perceived to have upon Overall Corporate Strategy during 1976.

Development and Statement of Proposition 3

The proposition studies the relationship between a responding firm's subenvironments and its Functional Managements' Influence-Mix (FMIM) for the two time-frames of 1973 and 1976. It is expected that the more dynamic and complex subenvironments would engender a more dynamic FMIM. This proposition draws from the concepts of both Organizational Theory and Strategy.

Explanation of Ideas About Proposition 3

People of some FMs of a firm might be operating in dynamic, changing subenvironments. They can be expected to interact with their respective subenvironments. This has been explained in Chapter III. For instance, the people of a firm's Marketing FM would be expected to interact with the markets relevant to the firm, the relevant target market segments, the channel distribution system through which the firm flows its products and services to its customers and consumers, the advertising agencies which develop the promotion activities for the firm, the competition relevant to the firm and many other sections of the external subenvironments relevant to the firm's Marketing FM. A firm's FM can also be expected to interact with the firm's internal subenvironments or subsystems. The Marketing FM would interact with Production FM for scheduling customer deliveries; with Development, Engineering and Research FM for developing a package system required to be tailored to a customer's particular needs, and so on with different

FMs for accomplishing Marketing FM's objectives and goals on an on-going basis and, in turn, for accomplishing overall corporate objectives and goals.

If a firm's various external subenvironments and internal subsystems are dynamic and change over a period of time the particular nature of combination of seven FMs' influence upon OCS, called Functional Managements' Influence-Mix (FMIM), can also be expected to change. This is the dynamic aspect of FMIM and has been discussed in Chapters II and III, together with theoretical support from scholars of strategy.

Question 1 of the Questionnaire is designed to obtain the information about each responding firm's FMIM for 1973 and FMIM for 1976. If the (Karl Weick's) "enacted environment"[1] relevant to a particular firm is perceived to be very dynamic, then we can expect that a firm's FMIMs for 1973 and 1976, or for other different time-frames, would be different. Of course, in a very turbulent "enacted environment", in which a particular firm may be operating, the FMIM can be expected to change relatively more compared to what it would be had the firm been operating in a less dynamic (or more stable) environment. Questions 2 and 3 are designed to categorize each responding firm's internal and external environments on the basis of two dimensions, static-dynamic and simple-complex. Thus, to study a responding firm's FMIM dynamism aspect we can do so by studying the nature of its external and internal environments.

Support from Literature for Proposition 3

Lawrence and Lorsch's (July, 1967, p. 5) concept is similar to the ideas explained in the foregoing subsection. They discuss the firm's

internal basic subsystems interacting with the relevant external subenvironments. Their scheme can be arranged as in the following:

A Firm's Internal, Basic Subsystems (similar to what we call FMs)	The Subsystems' Relevant External Subenvironments
1. Sales	Market
2. Production	Technical-economic
3. Research and Development	Scientific

Kast and Rozensweig's (1973) anthology has several indications that firms effectively cope with very complex dynamic, unpredictable environments through very "organic" approaches to organization and to the management of the OCS. Very stable and simple environments may well be coped with through mechanistic and centralized approaches to organization and management of a firm. The major point to be noted for this study is that the nature of the FMIM of a firm is contingent upon the nature of the circumstances of its external subenvironments and internal subsystems in a particular time-frame. Cannon (1968) states that Corporate Strategy is indicative of the ways in which the top management of a firm relates the firm to its environment at a particular time and place.

The concepts of FMIM and of the dynamic aspect of FMIM find support form Christensen, et al. (1973, pp. 112-114), who state that:

> What is needed is the concept of a moving balance among the considerations on which strategy is based, the concept of strategy that progressively evolves in the direction of improving the match between company's resources and opportunities in its environment.

There are other scholars who discuss similar ideas which indicate the dynamic or changing nature of Strategy in various other ways.[2] The

concept of Incremental Planning approach (Christensen, et al. 1976; Lindblom, 1959) is similar to "the concept of a moving balance" and indicates the continuous process of OCS formulation and reformulation to match the firm's dynamic environments. Robert Katz strongly expresses his belief that the particular priorities in the combination or mix (of FMIM, for instance) "must never be frozen. They must change as major changes take place in the environment".[3]

Cyert and March (1963) indicate that goal (or OCS) formulation process is neither smooth, nor does it result in once and for all "Joint Preference Ordering". Rather, the process manifests continual realignments and readjustments through dynamic coalitional bargaining among the coalitional groups, (which for this study is similar to FM groups of people).[4]

Organization-Environment: The Internal and External Dichotomy Approach for Strategic Responses

Many scholars divide the sources of information and factors for managerial decision-making into two broad categories: the external environment relevant to the firm and its internal organizational environments. Duncan (1972) follows this external-internal dichotomy. Questions 2 and 3 of the Questionnaire utilize Duncan's list of factors of the external and internal environments. Other scholars adopting the external-internal dichotomy are Estaphen (1971, p. 55), Denning (March, 1973, p. 26) and Xiemer and Maycock (1973, p. 7). Their approaches, when integrated, can be explained in the following way. The external variables (sociological, economic, political and others),

establish a ceiling on the firm's performance. The firm pursues "system transfer" process by utilizing internal resource variables through steady state of flows of men, materials and information. The "system transfer" process helps the firm to deal with its external groups of consumers, competitors, government, suppliers, labor market and stockholders. The utility of this approach is that managers can identify the key controllable variables for the whole firm and for its different subparts which have interfacial interactions with their sub-environments. This approach has also been developed in Chapter II and Figure 1 identifies the various internal and external environments relevant to each of the seven FMs.

The adoption of the external-internal dichotomy is especially relevant to the study of OCS. Christensen, et al. (1973), specify the first two elements of Strategy to be market opportunities (executive's eliciting them from the external environment) and corporate competence (analysis of strengths and weaknesses of the organization's internal resources). In this context Aguiliar (1967, p. 4) asserts that:

> Strategy should be responsive to both the risks and opportunities confronting the company in the external environment and the strengths and weaknesses--present and potential--within the firm itself.

Other scholars of strategy view it as a basis for organizational adaptation to its environment. Miller (1973) defines:

> Strategy formulation is defined as the process employed by executives to adjust the organization and its activities to the environment.

Miles, Snow and Pfeffer, (1974, pp. 246-247), discuss organizational adaptation to its external environmental demands through the application of the map of "Decision Points". The decision points are the firm's <u>domain</u> (those activities it wants to pursue), the <u>basic strategy</u> for

managing the domain, the technology, and the organizational structure through which the basic OCS can be effectively implemented for organizational continuity and growth.

The above mentioned authors also discuss domain definition as a useful approach for enabling strategic responses. A firm defines its domain through the definition of its basic mission and specific activities it intends to pursue. A firm defines its domain further when it interacts with the segments of external environment relevant for pursuing its activities. The firm's definition of its domain considerably influences the nature of its strategic response for managing the pattern of its interdependence with the relevant segments of the environment. Various strategic responses to manage the segments are discussed by the authors, such as, influencing, coordinating, negotiating, regulating, conforming or even changing the domain. Taylor (Sept., 1973, p. 73) considers strategic decisions to be:

> Concerned with effecting major changes in the "linkages" between the enterprise and its environment.

In this context it is relevant to discuss Anthony's Framework (Anthony, 1965, pp. 19 and 67) and the concept of the three managerial decision-making systems explained in Chapter II and in Table I of this study. In the top management's strategic decision-making system the emphasis for obtaining strategic information is on the external environment. Anthony indicates that because the source of information is more external than internal and more complex and heterogeneous, the nature of strategic information is less accurate and more predictive. Aguiliar (1967, pp. 48, 50, 56, 57) agrees with this emphasis. His findings indicate that external information of marketing and technical nature were perceived to be of great importance for strategic responses for

the top management. In the middle management's administrative, coordinative and control decision-making system the emphasis of the nature of information is more internal, historical and more accurate and integrated because of lesser complexity (Anthony, 1965, p. 67). The lower-level management, pursuing the tactical and operating decision-making system, show relatively greater involvement with operating type of information. Their preoccupation is more internal information, particularly related to product problems; except for the lower level Marketing FM's personnel, whose major preoccupations were market potential and reacting to market feedback information.

Brief Review of Dimensions for Measuring Organizational Environments

It is worthwhile to mention that various other dimensions used by other scholars for measuring the various traits of environment, such as complexity, change, etc. Jurkovitch's (1974) excellent review of research of organizational environment is a comprehensive repository of dimensions for measuring various environmental traits.

The different approaches to study a firm's environment, as pursued by different researchers, can be reveiwed by delineating the dimensions for measuring certain traits of environment in the following:

Researcher	Dimensions
1. Duncan: (1972, p. 314-320)	(1) simple-complex, (2) static-dynamic.
2. Thompson: (1967, p. 70-73)	(1) homogeneity-heterogeneity (2) stable-shifting

3. Lawrence & Lorsch: (1967, b, p. 70-73)	(1) degree of diversity (2) degree of dynamism
4. Emery & Trist: (1965, p. 21-32)	(1) change-rate continuum (very slow-very fast)
5. Emery & Trist's 4 cells: (1965, p. 21-32)	(1) placid-random (2) placid-clustered (3) distrubed-reactive (4) turbulent
6. Jurkovitch's core-typology: (1974, p. 380-382)	(a) movement: (1) degree of dynamism (2) degree of stability (b) general characteristics: (1) degree of complexity (2) degree of routineness (3) organized-unorganized (4) directly-indirectly related sectors
7. Cook: (1975, p. 42-54)	(1) stable-dynamic (2) benign-hostile

For this study Duncan's (1972) list of external and internal environments was chosen.

Statement of Proposition 3

This research selectively utilizes Duncan's (1972) simple-complex and static-dynamic dimensions for the study of the nature of each responding firm's external and internal environment. Question 2 of the Questionnaire is relevant for positioning (or categorizing) a responding

firm on the simple-complex dimension, which can have two possible values, simple and complex. A firm's responses to Question 2 would indicate the spread of the firm's strategically important factors among the different and dissimilar environmental components. The greater the spread of the firm's strategically important factors among the different environmental components, the greater is the dissimilarity and complexity of the nature of firm's strategically important environmental factors. On the other hand, if all the strategically important factors for a firm, as identified by the responding firm, belong to only one environmental component then the nature of the firm's strategically important factors would be very simple. In this way all responding firms can be said to be either, simple or complex insofar as their respective strategically important factors are concerned. The methodology for positioning the firms is discussed in the subsequent chapter.

Question 3 of the Questionnaire is relevant for positioning a responding firm on the static-dynamic dimension, which can have two possible values, stable and dynamic. The respondent's perceived rate of change of his firm's strategically important factors gives us the indication about the nature of dynamism of its strategic environmental factors. The methodology of positioning a firm into either of the two, static or dynamic category, is discussed in the subsequent chapter.

In this way each one of the responding firms can be positioned or categorized in one of the four cells:

DEGREE OF COMPLEXITY (DC)

DEGREE OF DYNAMISM	simple	complex
static	cell 1 μ_1	cell 2 μ_2
dynamic	cell 3 μ_3	cell 4 μ_4

Proposition 3 states that the difference between FMIM for 1973 and FMIM for 1976 for each firm would be such that we would expect to find the mean of the differences (μ) of the firms categorized in each of the above four cells such that the following relationship of inequality would be found in the data:

$$\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4$$

where μ_1 is the mean of the difference between FMIM for 1973 and FMIM for 1976 for all firms categorized in cell #1, which is simple-stable nature of organizational environments. Similar definitions are applicable for μ_2, μ_3 and μ_4.

Development and Statement of Proposition 4

The proposition is intended to study the relationship between the types of basic production systems (unit, mass, process) and the identity of the FM(s) which has been perceived to have the greatest degree of influence upon the OCS of the firm during 1976. The concept is that same basic type of production system in most cases can be expected to have the same FM(s) which have the greatest influence upon the firm's OCS. And also, different basic production systems can be expected in

most cases to have different FMs which have the greatest influence upon the firm's OCS. Questions 1 and 6 of the Questionnaire in Appendix A are relevant to this proposition.

Support from Literature for Proposition 4

To identify the "critical function" (or, in terms of our study, FM*), Joan Woodward (1965) studied the relationship between the type of production system (unit, mass, process) and only the three functions, Development, Production and Marketing. She studied only these three because she believed them to be the three main task functions.[5] She excluded another task function, Finance, and all the element functions, such as Planning and Control.

Her analysis of the relationship indicated that the identity of the critical function was dependent upon the type of production systems of the firm. No one function was the most important function for all organizations. In her discussion on the critical function she states that in each type of production system "there seemed to be one function that was central and critical in that it had the greatest effect on success and survival" (p. 126).

She classifies the different production systems into three broad categories (p. 128): (1) unit and small batch, (2) large batch and mass and (3) process. She identifies the critical function (or Strategic FM) for each type of the production systems:

Types of Pruduction System	Critical Function (or Strategic FM)
1. Unit and small batch	Development
2. Large batch and mass manufacturing	Production
3. Process	Marketing

Her explanation of the rationale for the above scheme is briefly delineated. In unit and small batch production system the sequence in the cycle moves from Marketing (finding a customer) to development, (designing and developing a product which has the particular traits and functions required to satisfy the specific needs of the customer) to Production. Thus, the Development function is the most critical function because with a superior product, having a superior and viable design, there would be little difficulty in either producing it or finding customers.

In mass and large-batch production system the sequence begins with development of a product and its design such that mass production process is smooth. Mass production system requires large resource investments and relies upon effective cost reduction in order to achieve economies of scale. In this case Production is the critical function because of the large investment in production-related resources that is committed. This engenders the adoption of the objective of superior economic performance that is expected through optimizing the relationship among production-resource variables. Marketing is looked upon merely for disposing of the products. Because mass production is taken up only after large enough volume is ascertained, the question of creating a need for the product does not arise. Price reduction and delivery terms become the competitive edges for the firm; Production is the critical function.

In process production system the sequence starts with basic research, then moves to finding new needs in the market. It is necessary to have assured high volume demand on the market because of the higher degree of inflexibility of production resources of the process

production system. The critical function is Marketing because of the imperative need for a large volume demand of the product, whose life cycle in the market must be long enough to keep utilizing the inflexible process production system.

For this proposition, however, we shall include all seven FMs for the study of the proposition. Other scholars do not limit the possibility of a function to be critical or strategic to only the three as Woodward has done. Steiner's (1969 (a), pp. 29, 58, 59) findings indicate that the strategic factors having the greatest importance to different firms' success have also been Finance, Procurement and Personnel, in addition to Woodward's three functions of Development, Production and Marketing. And we shall keep Woodward's classification of firms as the basis of the three production systems: unit and small batch, mass and large batch, and process. Since it is not known which particular FMs can be expected to be the FM*s for the three production systems when all seven FMs are included, the Proposition 4 is stated in the form of a research question.

Statement of Proposition 4

The type of production system is associated with FM. Woodward's (1965) scheme is utilized to state that for each type of production system there is a particular FM*. Woodward's scheme for predicting the FM* is presented:*

For each type of Production Systems	*There is a particular FM**
1. *Unit and small batch*	*Development, Engineering and Research*
2. *Mass and large batch*	*Production*
3. *Process*	*Marketing*

Proposition 5

(a) Firm-size is associated with Top (General) Management's Influence Scores.

*(b) Firm-size is associated with FM**

The firm-size categories are formed on the basis of a firm's sales revenue and are presented here:

Size Categories of Firms:	Sales Volume of Firms:
(1) small-sized firms	$ 50 million and less
(2) medium-sized firms	$ 51 million to $250 million
(3) large-sized firms	$251 million and above

Conclusion

This chapter brings in specific concepts and research findings of other scholars and discusses them in the process of developing the five propositions which are stated here. The propositions are of exploratory nature and they are concerned with the more fundamental issues of the FMIM approach to the study of OCS. Other related concepts are connected with the study's central approach of FMIM in the development of the propositions. The concepts, theory and empirical findings of March and Simon (1958), and Cyert and March (1963) are relevant to Propositions 1 and 2. The empirical study on environment by Duncan (1972) and its

environmental dimensions are utilized to develop Proposition 3. Joan Woodward's (1965) empirical findings regarding the identification of FM* on the basis of the type of a firm's production system have helped to develop the Proposition 4. Proposition 5 analyzes the FM's and Top (General) Management's influences according to category of firm size.

Thus, the findings and concepts of March and Simon, Cyert and March, Duncan and Woodward are coherently connected with the central FMIM approach to the study of OCS. The methodology related to data collection and the data analyses for testing the propositions are discussed in the subsequent chapters.

FOOTNOTES

[1]Karl Weick, 1969, discusses that not all of the total country's environments are relevant to a particular firm, but only certain specific segments of the total are relevant to the firm. He terms the relevant environment segments "enacted environment".

[2]Ansoff, 1965, pp. 24-25; Steiner, 1969 (b), p. 20; Hofer, 1975; Lindblom, 1959; McNichols, 1972; Mintzberg, 1973, p. 46; Glueck, 1972, p. 108; Hickson, et al., 1971; Robert L. Katz, 1970, pp. 19-20, 512-514; McCaskey, 1974, pp. 281-291; Salancik, et al., 1974; Andrews, 1971; Wrapp, 1967, p. 91; Schwendiman, 1973, pp. 34 and 38.

[3]Robert L. Katz, 1970, pp. 19-20, 512-514; and 1956, pp. 602-604. For similar discussions also see: Saunders, 1973, pp. 29-41; Guth, 1976; Cohen and Cyert, 1973; Christensen, et al., pp. 108-115.

[4]Cyert and March, 1963, p. 28; also, March and Simon, pp. 129-135; and Mitzberg, 1975 (b), p. 32.

[5]Woodward (1965, p. 97) differentiates between the two different types of functions: task functions and element functions. Task functions are the "basic activities", the most important of which are financing the enterprise, developing the product and marketing it. They "are directed toward specific and definable end results, and to ensure the efficient achievement of overall objectives these results must be coordinated". They can be, within reasonable limits, carried out independently of each other in view of the specificity of tangible end results.

Element functions are the intrinsic parts of the management process, such as personnel, planning, control, inspection and maintenance. They are rarely "directed toward specific and definable results", at least not in the same sense as it can be said for the task functions. To illustrate, companies do not exist solely for the purpose of hiring personnel, and consequently the personnel function cannot be expected to be carried out independently of other activities. Thus, it is difficult to separate element functions in time and space because of the character of their functions of providing support to task functions and to each other and of their being the intrinsic and interrelated parts of the managerial process.

CHAPTER V

THE RESEARCH STRATEGY AND DESIGN

In the business policy literature it is generally suggested that strategy leads to (organization) structure, and that organizational structure can provide important inputs to the subsequent formulation of strategy. In this context we first discuss the nature of this Business Policy research study and the specific nature of the five propositions. Such discussions would generate indications for a viable research design for the study. This chapter also discusses the pilot study and the main study. It details the data gathering procedure. It briefly explains the methodology for testing the five propositions. It acknowledges the limitations of this study. The actual testing of the propositions, analyses of the data and discussions on the findings can be found in the next chapter.

A Discussion on the General Nature of This Business Policy Thesis to Aid the Choice of a Viable Research Strategy and Design

The nature of this business policy research is exploratory and theory building. The purposes and character of the thesis are closer to those of basic, exploratory research than to those of applied research. It is not the purpose of the thesis to prescribe methods for solving

problems in business. It is the purpose of the thesis to analyze and explain the nature of possible relationships between a focal or central conceptual component (namely, the FMIM, and the FM* approach to the study of a firm's OCS) and several "outer" (or external) conceptual components as they are suggested to be interrelated to the central conceptual component in the larger theoretical frameworks explained in the Chapters II, III and IV.

The "outer" conceptual components are developed into the propositions discussed in Chapter IV. Each of the propositions is an exploratory, tentative statement for the suggested nature in which the "outer" conceptual component may possibly be related or integrated with the central FMIM conceptual component. This points to the attempt to test the possible integrative relationships between the "outer" and the central conceptual components.

The "outer" conceptual components chosen in this study are only a few specifically selected for empirical testing. The perceived degree of difficulty facing a firm to accomplish its objectives (as an "outer" conceptual component) is interrelated with the central FMIM conceptual component in Propositions 1 and 2. The outer conceptual component brings in the empirical findings and theories of March and Simon, 1958, ("The Theory of Organizational Equilibrium"), and Cyert and March, 1963, ("The General Preference Function"). The nature of organizational environments of a firm is interrelated with the central FMIM conceptual component in the form of Proposition 3. This outer conceptual component utilizes Duncan's (1972) list of environmental components to categorize the nature of a firm's environment. The type of production system of a firm, as the basis for identifying its FM*, is derived from Woodward

(1965) to develop Proposition 4. The Analyses of FM*s for each firm-size category is developed in Proposition 5. The theories and empirical findings of each of the above-mentioned "outer" conceptual components can be viewed to be suggestive of the nature of interrelationships that each of them have with the central FMIM conceptual component. The suggestive nature of interrelationships between the outer conceptual components and the central FMIM and FM* component are crystalized in the form of the five propositions. The five propositions, which suggest integrative relationships with the central conceptual component of FMIM approach to the study of OCS, are only a choice of selected integrative statements from among many other statements that can be derived from this study's conceptual frameworks in Chapters II and III. This study's theoretical approach has been designed to provide one possible explanation for the study of OCS and has sought to do so in the special way of the FMIM approach as its focal or central conceptual component.

This study's theoretical approach seeks to integrate the different components into a larger theoretical framework and the model, as has been suggested in Chapters II and III, which in turn may be components of an even larger framework. To illustrate, Einstein's theory of relativity is larger than Newton's laws of physics, which are a special case of the larger, general theory suggested by Einstein.

Business Policy can be thus viewed as an integrative discipline with the primary emphasis on the eclectical integration of the many different components relevant to the central study of Strategy. This thesis studies strategy (or OCS) as the central component but from the particular perspective of the FMIM approach as a special case of the larger, general study of Strategy. The reasons for the choice of this

study's central and "outer" conceptual components are explained in the earlier chapters. This study seeks such primary knowledge obtained through this basic, exploratory research of theory building nature in the business policy area and it is hoped that such studies would result in a more enlarged understanding of the study of OCS.

The Specific Nature of the Five Propositions: Its Implications Upon the Choice of a Viable Research Strategy and Design

The five propositions deal with the perceptions or opinions of the respondent of the relative influence of each of the seven FMs upon the firm's OCS. This is the nature of the central FMIM conceptual component. All of the other "outer" conceptual components (except that of firm-size) also require the perceptions or opinions of the respondent. The specific nature of the propositions require the perceptions or opinions of an expert witness in a firm who is knowledgeable about the firm's FMIM and who is involved in the formulation, planning and implementation of the OCS. It was thought that the best choice for a single respondent would be the firm's CEO and the alternative choice was thought to be the Long-Range Planner. The FM heads were excluded because of their probably being biased in favor of their own FM when providing the firm's FMIM. For example, if a Marketing Vice President was the sole respondent for his firm then his reported FMIM probably would be biased in favor of the Marketing FM. And since we would not have other FMs' heads reporting their perceptions of the firm's FMIM it is likely that such bias would enter the data of the study. Therefore, if only one respondent is to be chosen for each firm, the best choice is the CEO of the Long-Range

Planner. It was clear that the approach of a field study eliciting the responses of the CEO's perceptions or opinions about the central and outer conceptual components would be the suitable research strategy.

Other research strategies such as those utilizing secondary data were thought to be inappropriate for this study's FMIM approach because they were not expected to yield the required perceptions or opinions of the CEOs. A field study utilizing personal interviews (with or without a questionnaire) was not preferred because of the high cost and time required. Besides, it is likely that the coverage would not be very wide and that the CEOs would usually be inaccessible to grant interviews.

A field survey approach utilizing the mail questionnaire method was adopted because of several advantages. The mail questionnaire method permitted a wide coverage with corporations of different production systems and firm sizes with a minimum involvement of expense, effort and time. It afforded a wider geographic contact. It also afforded a greater coverage through a larger and more representative sample, likely to yield greater validity. It gave respondents the feeling of anonymity and security to respond to questions which they might consider to be of sensitive or confidential nature. The six questions of the main study's questionnaire presented a certain uniformity in the manner in which the qiestions have been posed. The language and terminologies utilized are generally thought to be usual and familiar to the practicing executives. The questionnaire did require some thought and consideration before the CEO could give his responses, particularly in the case of questions 2 and 3. The mail questionnaire approach appeared to be effective enough to permit the CEOs to spend time to give their considered responses. In those cases in which the CEO did not want to respond to the questionnaire

himself, this research design made it possible and convenient for the CEO to pass the questionnaire to a suitable respondent in his firm. (The covering letter specifies such a provision for the CEO to pass it on to his Long-Range Planner.)

The Pilot Study

Certain considerations of the research design did specify the need for having a pilot study. The main purposes of the pilot study were to ascertain whether or not a questionnaire mailed to the CEOs would yield the minimum amount of responses and to ascertain the quality of their responses. The pilot study entailed sending questionnaires to 55 CEOs, most of them belonging to industrial firms in the state of Oklahoma. It was thought that they would be more likely to want to respond to a questionnaire from the Oklahoma State University. Some others were CEOs of nationally well-known firms from other states of the country. The sample of 55 firms were chosen at random from the Standard and Poors Directory of Corporations. It was checked whether the firms were likely to have all of the seven FM activities. Whether or not they were actually organized on FM dimensions was not considered. The questionnaire was sent as an enclosure to a covering letter and was addressed to the CEO by his name and official address. A stamped, self-addressed envelope was enclosed. The questionnaire and the covering letter used in the pilot study are presented in the Appendix B. Out of the 55 questionnaires mailed, the pilot study generated 18 usable responses. This response rate was thought to be encouraging enough to pursue with the mail questionnaire method for the main, nation-wide field study.

The pilot study's outcome necessitated the making of certain corrections. It was found that in many cases the respondents were not treating the continuous percentage scale used in Question 1 as it was intended. The scale was changed to a five point Likert-type scale for the main study.

To ascertain whether or not people understood the questions several executives in a few firms in Oklahoma City were given the questionnaire of the main study and were asked what they thought each of the questions meant and what was expected of each of the questions. This was done by personal interview. No attempt was made to clarify issues or coach the executives. It was found that the executives generally understood the intent of the questions in the same perspective as the way in which the questions were framed. It appeared that the questions were capable of obtaining the information and perceptions which were being sought.

The Main Study

The Instrument

The questionnaire of the main study was changed to include those questions that were designed to obtain the information required to test the five propositions. The questionnaire and the covering letter are presented in Appendix A. A stamped, self-addressed envelope was enclosed with the letter. A copy of the letter, the questionnaire and the return envelope was sent by mail to the CEO. It was addressed to him by his name and was sent to his official address. It was mentioned in the covering letter that anonymity would be respected. It was also mentioned that they could indicate if they would like to receive a summarized analysis of the study's findings. The CEO was encouraged to

fill out the questionnaire himself since it required only the placing of (✓) check marks. However, as an alternative he could have the Corporate/Strategic/Long Range Planner fill out the questionnaire and return it in the enclosed envelope. It was expected that the Corporate Planner, like the CEO, would be less biased in favor of any one FM than the FM heads. In the case of many large corporations, the head of the Planning division responded to the questionnaire and had expressed considerable interest in this study in their correspondence.

The Sample of the Main Study

The sample of the main study consisted of 1,200 CEOs of industrial (or manufacturing) corporations in the United States and Canada. The corporations were chosen at random from Standard and Poors Corporation Directory. A random sampling was done so that there would be wide coverage--geographically, types of production system and firm-size. It was ascertained if each of the chosen firms was judged to have all the seven FM activities, whether or not the firms were organized on FM-basis did not matter. Therefore, banks, financial institutions and insurance companies were excluded from the sample because they were not expected to have Production FM. Such firms were not allowed to form a part of the sample.

An estimate of the total number of corporations listed in the directory is 37,000. An estimated 5,000 corporations are banks, financial institutions and life insurance corporations, all of which have been excluded in this study. Thus, the effective population for this study is 32,000 industrial corporations.

The Rate of Response of the Main Study

Out of the 1,200 questionnaires mailed 320 questionnaires were filled and returned. Of the 320 questionnaires, 295 were found to be usable for data analysis. Another 32 were returned unopened by the Post Office with a remark indicating that the individual CEO was no longer at the address and that the letter was not forwardable. There were no follow-ups in the main study because it was thought that a usable response of 295 questionnaires was sufficient for data analyses purposes for a response rate of 24.5 percent.

Time and Budget

The pilot study was carried out in August and the main study was started in mid-October, 1976. After each batch of mailings of each study, the returns started coming within a few days and most of the returns were received between the 10th day and the forty-first day. For the main study, it took about 14 days to mail the 1,200 mailings at the rate of about 100 a day.

The pilot study was undertaken to ascertain the chances of obtaining the required data before a large-scale study was begun. The pilot study was intended to be a safety-step. Only after the response rate was found to be very encouraging was it decided to start the main study using the same research design and a similar type of instrument.

The Methodology for Testing the Five Propositions

A brief explanation for the methodology for testing the five propositions is provided here. The next section of this chapter discusses

the limitations of this study and of its instrument, and also the efforts taken to offset them. A pilot study and several personal interviews were conducted by the researcher to improve the questionnaire, which was not rigorously tested for reliability and validity. It can be said that the instrument has "face validity". The limitations of this study are discussed in the next section of this chapter. The actual testing of the five propositions, the analyses of data and discussion of the findings are pursued in detail in the next chapter.

Propositions 1 and 2

The propositions are briefly stated.

Proposition 1 (a)

states that the change in the degree of difficulty facing a firm is associated with the change in the seven FM score-sum from 1973 to 1976.

Proposition 2 (a)

similarly states for the change in GM score.

Proposition 1 (b)

states that the degree of a firm's difficulty during 1976 is associated with the FM score-sum for 1976.

Proposition 2 (b)

similarly states for GM score for 1976.

The methodology for testing all the above propositions is the same. The Pearson product-moment correlation coefficient is computed and a significance test is run to see if there is any relationship between the variables. In addition, t-tests would be run for propositions 1(a) and 2(a) to study the nature of the change in the FM score-sum

and the GM score from 1973 to 1976. All significance tests were made at the 0.05 level.

Proposition 3

Briefly, the proposition stated that the difference between FMIM for 1976 and FMIM for 1973 for each firm would be such that we would expect to find the mean differences (μ) of the sample of firms in each of the four cells to be such that the following relationship of inequality would be found in the data:

$$\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4 .$$

DEGREE OF COMPLEXITY (DC)

DEGREE OF DYNAMISM	*simple*	*complex*
stable	μ_1 *cell 1*	μ_2 *cell 2*
dynamic	μ_3 *cell 3*	μ_4 *cell 4*

Where μ_1 is the mean of the difference between FMIM (1976) and FMIM (1973) for all firms categorized in cell #1, which is of simple-stable nature of organizational environments of firms categorized in this cell. Similar explanations are applicable for μ_2, μ_3, and μ_4.

The Methodology for Determining the Definitional Demarcation Points of the Two Environmental Dimensions: Static-Dynamic and Simple-Complex Dimensions

The two dimensions indicate the Degree of Dynamism and the Degree of Complexity respectively.

Static-Dynamic Dimension: The demarcation point for dividing the static and dynamic categories of organizational environments is explained. Each firm's scores on Question 3 are added up and then divided by the number of checked entries. If this figure is:

(a) less than 3.0: then firm's organizational enrironments are categorized to be static; or

(b) 3.0 or more: then the firm's organizational environments are categorized to be dynamic.

(The figure 3.0 was chosen because it is the middle figure between one and five on the five-point Likert-type scale used in Question 3.)

Simple-Complex Dimension: The demarcation point for dividing the simple-complex dimension into simple and complex categories of organizational environments is explained. Duncan's (1972) method is used here for arriving at the index of complexity, which we shall call Degree of Complexity (DC). According to Duncan $DC = F \times C^2$, where F is the number of strategically important factors checked for a firm, and C is the number of different components checked within each factor. For example, if a firm has these factors checked in Questions 2 and 3:

1 (A), 1 (B), 4 (A), 5 (A), 5 (B), 6 (A) and 8 (A)

then the number of factors checked is seven and the number of different components is five. That is, F = 7 and C = 5. Therefore, $DC = FC^2 = 7 \times (5)^2 = 175$. The complexity index for the firm is 175.

The dividing point for separating into simple and complex categories required a theoretically and statistically sound dividing point. All possible observations of the $DC = FC^2$ values were computed. Given the Duncan scheme, as presented for the Questions 2 and 3, there are 102 possible observations with two ties. The FC^2 values range from one to 1,600. All of the 100 different possible FC^2 values were computed. The frequency for each of the 100 different FC^2 values was also computed. Then each value of FC^2 was multiplied by its frequency of occurrence. The sum of the products (of each FC^2 value x its frequency number) was divided by the sum of the frequencies. The resultant mean is 225.86. Thus, the theoretical dividing point for categorizing a firm's organizational environment into simple and complex is $DC = FC^2 = 226$.

Therefore, each firm's FC^2 value was computed and if it was:

(a) <u>less than 226</u>: the firm's environments are categorized to be simple; or

(b) <u>226 or more</u>: the firm's environments are categorized to be complex.

In the above method all firms' environments can be categorized as belonging to one of the four cells described in the beginning of the proposition.

The Two Methodologies for Computing the Index of Similarity for Comparing the Degree of Similarity Between a Firm's 1973 FMIM and 1976 FMIM: by the Absolute Method and the Squaring Method

The method of computing the Index of Similarity between 1973 FMIM and 1976 FMIM of a firm is explained. The lower the value of this Index, the more similar is the firm's FMIM for 1976 and FMIM for 1973. If they are identical then the Similarity Index is zero. The higher the Index, the more dissimilar the FMIM for 1976 and FMIM for 1973. Thus, the mean of the difference between a firm's FMIM for 1976 and FMIM for 1973 (μ) is measured by this Index of Similarity.

The Index of Similarity is computed by two different methods: the "Absolute Mehtod" and the "Squaring Method". They are as follows:

Let
$$D_i = (\text{FM score for 1976}_i) - (\text{FM score for 1973}_i)$$

$i = 1, 2, 3, \ldots 7$ are indices for the FMs.

where D is the difference; and

$$\overline{D} = \frac{1}{7} \sum_{i=1}^{7} D_i \quad \text{is computed.}$$

The Index of Similarity for firm c using the Absolute Method, (Ac), is

$$A_c = \sum_{i=1}^{7} \left| D_i - \overline{D} \right| .$$

The Index of Similarity for firm c using the Squaring Method, (S_c), is

$$S_c = \sum_{i=1}^{7} (D_i - \overline{D})^2$$

where c ranges from 1 through 295 and represents the idenfification number for a company.

Therefore $\hat{\mu}_j$ for cell j is computed by the Absolute Method in the following way:

$$\hat{\mu}_j = \overline{A}_j = \frac{1}{N_j} \sum_{c=1}^{N_j} A_c$$

where there are N_j companies in cell j, and the summation is over the A_c values for those companies.

Similarly $\hat{\mu}_j$ for cell j is computed by the Squaring Method in the following way:

$$\hat{\mu}_j = \overline{S}_j = \frac{1}{N_j} \sum_{c=1}^{N_j} S_c.$$

The next step is to test the Proposition 3, namely, to find out if the following relationship among population means finds support from the data:

$$\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4.$$

A Pearson product-moment correlation was administered on a random test sample of 38 responding firms between:

(a) the degree of similarity between FMIM for 1973 and FMIM for 1976 for each of the 36 sample firms, as subjectively judged by the researcher; and

(b) the Similarity Index computed by (i) the Absolute Method, and (ii) the Squaring Method.

From the data of the test sample significance was observed at .001 level. It was also found that the (a) above was highly correlated (.87) to (b)(i); and that (a) was also highly correlated (.83) to (b)(ii). And that b(i) was very highly correlated (.96 at .0001 level of confidence) with b(ii). This indicated that the Indices of Similarity by both methods measured the degree of similarity (or dissimilarity) between

the patterns of FMIM for 1973 and of FMIM for 1976 of each firm, as subjectively judged by the researcher.

Proposition 4:

The type of production system is associated with FM. Woodward's (1965) scheme was utilized to state that for each type of production system there is a particular FM*. Woodward's scheme for predicting the FM* is presented:*

For Each Type of Production System	*There is a Specific Strategic FM, (FM*):*
1. *Unit and small batch*	*Development, Engineering and Research*
2. *Mass and large batch*	*Production*
3. *Process*	*Marketing*

The Interrelated Concepts of "Strategicity," "Strategicity" Index and Significantly Strategic FM

Each of the 295 firms of this study's sample would be categorized by their type of production system. Question 6 gives the information for sorting the firms into the types of production systems. Two different methods would be used to compute "the DEGREE to which a firm's FM is perceived to be STRATEGIC", and the terminology used for this degree is "strategicity".

The first method for computing the "strategicity" of each FM, (or the degree to which a firm's FM is perceived to be strategic to its OCS), is explained. For each firm in each type of production system the FM having the highest influence score during 1976 (in Question 1 of the

questionnaire) receives the "Strategicity" Index of seven. The FM having the second highest influence score for 1976 receives the "Strategicity" Index of six. The third highest FM receives five, and so on. The least strategic FM receives one. If there is a tie between two or more FMs' influence scores for 1976 the "Strategicity" Index is shared equally among them. For example, if two FMs were both deemed to be equally strategic, and the "Strategicity" Indices for them would be six and five, then each could be assigned an index of 5.5, (6 + 5 = 11; and $\frac{11}{2}$ = 5.5). In this way each FM of each firm in the three cells will have a "Strategicity" Index. The mean of the "Strategicity" Index for each FM is computed for all firms belonging to each type of production system. Steiner's 1969(a) study measures the relative importance of each strategic factor to the firm's success.

The Concept of "Significantly Strategic" FM (FM^{*S}): A series of two sample t-tests (an approximation of protected L.S.D. test) was administered to test whether or not there is any significant difference among the means of the seven FMs' "Strategicity" Indices for each type of production system. If an FM is the highest ranking FM, (having the maximum "Strategicity" Index), for a particular type of production system then that FM is the Strategic FM, (FM*) for that type of production system. Its "Strategicity" Index is the highest compared to that of the other FMs. In addition, if the mean of its "Strategicity" Index is also significantly higher than those of all the other FMs in the same type then the FM is called "Significantly Strategic FM," (FM^{*S}).

Thus, the Strategic FMs for the three types of production systems can be identified. It may be revealed from the data that two or three FMs may be very closely important FMs for a particular production system.

An analyses also involving firm-size categories (from Question 5 of the questionnaire) will be done in a 3 x 3 factorial analyses for the identification of FM*s.

For the second method of computing the "Strategicity" Index the FM having the highest influence score for 1976 of each firm (derived from Question 1) receives the "Strategicity" Index of 1.0. Each of the remaining six FMs receive "Strategicity" Index of zero. If two FMs are tied with the highest influence score, each of the two FMs receive the "Strategicity" Index of 0.5. If there are three highest FM*s then each get 0.33, and so on. In this method the idea is that the total possible amount of "strategic influence" for the highest influencing FM(s) is 1.00. The remaining parts of the method for testing the proposition are the same as those described under the first method for computing the "Strategicity" Index.

Thus, "Strategicity" of an FM is measured by the "Strategicity" Index, which can be computed by the two different methods described above. In a sense the "Strategicity" Index of a firm's FM reflects the FM's Influence-Mix Ratio when the amount of the FM's influence is expressed as a ratio of the total amount of influence (in the FMIM) of all the FMs of the firm for the particular time-frame.

Proposition 5 has two parts:

(a) Firm-size is associated with Top (General) Management's influence scores.

(b) Firm-size is associated with FM.*

The firm-size categories are formed on the basis of a firm's sales revenue and are presented here:

Categories of firm size:	Sales volume:
Size #1 small-sized firms	$ 50 million and less
Size #2 medium-sized firms	$ 51 million to $250 million
Size #3 large-sized firms	$251 million and above

The "Strategicity" Index and their means for each FM for all the firms belonging to each size category are computed in the same way under the two different methods of "Strategicity" Index computation described for testing Proposition 4. The means of Top (General) Management, or "GM", for firms in each category is computed. One-way AOV was administered to test for the presence of significant difference among FMs within each category, and from among categories for each FM. The three types of production systems are brought in for 3 x 3 factorial analysis for the "Strategicity" of the FMs, and of the nature of influence of GM upon the OCS in each of the nine cells.

The Limitations of the Study's Research Design and a Discussion on the Efforts Made to Offset the Effects of the Limitations

There are several limitations of this study. They are mainly due to constraints of several types. Whenever possible efforts have been made to overcome or minimize the effects due to these constraints. The instrument was not rigorously tested for reliability and validity. However, a pilot study was conducted and several improvements were made based upon the way in which the study's respondents were responding to

the pilot study questionnaire. The questionnaire was greatly revised for the main study. Also, the questionnaire was shown to several executives in Oklahoma City in personal interviews and it appeared that the questions were effective in the communication of the inquiry of the information that was being sought. It appeared that the questions were capable of obtaining the information and preceptions which were being sought. The Duncan's list of environmental components and factors (used for Questions 2 and 3) has been used in empirical studies and is believed to be satisfactory. This list clearly conceptualizes the elements or factors of organizational environments. Other environmental studies have not done so as completely as has the Duncan's study. Duncan (1972, p. 314) discusses certain limitations of other environmental studies. In the case of Duncan's study the environment is viewed as "the totality of physical and social factors that are taken directly into consideration in the decision-making behavior of individuals in the organization" (Duncan, 1972, p. 314). The specific environmental components and factors have been identified through a special study by Duncan (1968) to formulate the list of internal and external environmental factors. Also, Duncan's computation of the dissimilarity index which is the Degree of Complexity = DC = FC^2, is discussed earlier in this chapter. The reason for squaring the Component (C) is that the amount of variance between components is more than that between factors because of greater dissimilarity among different components than among factors within the same component. Of course, it can be argued that the component (C) should be raised to some other power rather than squared if it is a component, rather than factor, and that this reflects the dissimilarity in the nature of environments. However, this is a matter

of judgment and this thesis takes Duncan's approach by squaring Component (C). Also, the computation of the Degree of Dynamism index uses Duncan's approach of a five-point Likert-type scale as is used in Question 3 of the main study's questionnaire. It is generally acknowledged that the Likert-type scale is an effective measuring instrument in research studies. The five-point Likert-type scale has been used throughout the questionnaire, except for Questions 2, 5 and 6. This scale was used after observing the way in which respondents to the pilot study responded to the continuous percentage scale.

Question 1 of the questionnaire seeks to obtain the recapitulation of the CEO's responses of FMIM for the year 1973. There can be certain reservations expressed about the veracity of the recapitulation of perceptions. For example, it is quite likely that current (1976) pressures upon the CEO and the firm may weigh heavily in his responses to the 1973's FMIM. To cope with this reservation, an additional part, namely part (b), has been included to Propositions 1 and 2. The (b) parts refer to the static-type analyses of combined-FM influence and GM's influence upon OCS during 1976 only. Thus, recapitulation is obviated in the static analysis.

The other way by which this limitation, due to recapitulation, could have been overcome is to have done a longitudinal study. The responses of two periods could have been taken during the actual periods themselves. Under the circumstances and the temporal limitations imposed upon the research this was infeasible, therefore a compromise was developed to obtain CEO's recapitulated response of the 1973 FMIM. It is assumed that the CEO is an expert witness to analyze and respond to such issues, including those questions which require reflecting in

the historical perspective. It is possible that the CEO may have been an FM head in 1973 or that he may not have been with the corporation at all. In either case there is little choice but to accept his present understanding of the 1973 FMIM as the best unbiased, expert witness available. It is assumed that he is now an "unbiased" overall CEO, supposedly without much allegiance to any one FM. In any case he would be the better choice than any FM head who would be more likely to be a biased respondent.

Question 4 of the questionnaire of the main study asks for perceptions of the relative degree of difficulty facing a firm during 1973 and 1976. A responding CEO may check (✓) score 1 for 1973 and score 2 for 1976; and another CEO may check (✓) score 4 for 1973 and score 5 for 1976. Therefore, the difference between the 1976 and 1973 scores in case of each of these two CEOs is 1, (2-1 = 1; and 5-4 = 1). It can be asked whether these two firms should be grouped together, since both indicate a change in the degree of difficulty of one unit on the Likert-type scale. A one-way AOV was run in which firms were categorized into 25 groups based on their change in the degree of difficulty. No significant difference in the "Strategicity" Indices was observed for either method of computation of the Index. This would seem to indicate that firms having a change in difficulty score of one unit could safely be pooled together regardless of the raw degree of difficulty scores generating the change score. Thus, for FMIM, FM and FM* analyses, the use of difference scores based on Likert scale was deemed to be suitable.

Conclusion

This chapter describes the nature of this business policy research and the five propositions in order to better discuss the particular choice of research strategy and of research design for this study. The integrative relationships between the central FMIM conceptual component and each of the "outer" conceptual components have been suggested to be the nature of this basic, exploratory business policy research study. The way in which data was gathered has been described for the pilot and the main study. The limitations of this study have been acknowledged. The methodology for testing each of the five propositions have been briefly explained. The specific tests to be used have also been delineated. The next chapter tests the propositions, analyzes the data and discusses the findings of the study.

CHAPTER VI

TESTING THE FIVE PROPOSITIONS, ANALYSES OF DATA, AND BRIEF DISCUSSION ON THE ANALYSES

The chapter tests the five propositions on the basis of the methodology for testing which has been described in Chapter V. The five propositions are tested one-by-one and appropriate additional analyses of data, discussions and comments have been provided. Summary tables of findings relevant to each proposition are also presented. A conclusion on the analyses for each proposition is provided after the testing of each proposition. At the end of the chapter a summary of conclusions and analyses of all propositions is provided. The next chapter provides summary and conclusions of this thesis.

Chapter V has pointed out certain reservations which can be made about the recapitulation of the responding CEO's 1973 FM and GM influence scores. It can be observed at the outset of this chapter that Propositions 1(b), 2(b), 4 and 5 obviate the problem of recapitulation because they do not utilize the 1973 FM and GM influence scores. They utilize the FM and GM influence scores during 1976 only.

Propositions 1(a) and (b) and 2(a) and (b) are tested one-by-one. A table summarizing all the findings relevant to the propositions are presented in Table III.

TABLE III

SUMMARY TABLE OF FINDINGS FOR PROPOSITIONS 1(a) and (b) AND 2(a) and (b): CORRELATION COEFFICIENTS AND VALUES OF SIGNIFICANCE FOR THE DEGREE OF DIFFICULTY (dod) AND SEVEN FMs' INFLUENCE SCORE-SUMS AND GM's INFLUENCE SCORES DURING 1973 AND 1976.

For Propositions:	The Two Variables (analyzed for the nature of relationship between them) are:	Actual values found in the data for: Significance	Correlation Coefficients
1(a)	(1) dod(1976) - dod(1973) (2) $\sum_{i=1}^{7}$ (1976 FMs scores) - $\sum_{i=1}^{7}$ (1973 FMs scores)	.089	.098
1(b)	(1) dod 1976 (2) $\sum_{i=1}^{7}$ (1976 FMs scores)	.0105*	.150
2(a)	(1) dod(1976)- dod(1973) (2) GM(1976)- GM(1973)	.0001*	.291
2(b)	(1) dod(1976) (2) GM(1976)	.0019*	.186
Additional Analyses relevant to propositions:			
1(b)	(1) dod(1973) (2) $\sum_{i=1}^{7}$ (1973 FMs scores)	.08	.099
1(b)	(1) dod(1973) (2) $\sum_{i=1}^{7}$ (1976 FMs scores)	.24	.068
2(b)	(1) dod(1973) (2) GM(1973)	.007*	.156

* indicates significance at .05 level

(An explanation of symbols and expression is given on the next page.)

Table III (Continued)

Explanation of symbols and expressions:

(1) dod is degree of difficulty during a particular time-frame

(2) dod (1976) - dod (1973) means the change in the degree of difficulty from 1973 to 1976.

(3) $\sum_{i=1}^{7}$ (1973 FMs scores) means the combined, seven FMs' influence score-sums during 1973.

(4) $\sum_{i=1}^{7}$ (1976 FMs scores) means the combined, seven FMs' influence score-sums during 1976.

(5) $\sum_{i=1}^{7}$ (1976 FMs scores) - $\sum_{i=1}^{7}$ (1973 FMs scores) means the change in the combined, seven FMs' influence score-sums from 1973 to 1976.

(6) GM (1973) means the GM's influence scores during 1973.

(7) GM (1976) means the GM's influence scores during 1976.

(8) GM (1976) - GM (1973) means the change in GM's influence scores from 1973 to 1976.

Proposition 1(a)

States that the change in the degree of difficulty facing a firm is associated with the change in the seven FM score-sum from 1973 to 1976.

Testing of Proposition 1(a)

This proposition was tested by utilizing the Pearson product-moment correlation. The correlation coefficient was computed. A significance test at the 0.05 level was administered to ascertain if there was any relationship between the variables and to study the nature of the relationship between the change in the degree of difficulty and the change in the seven FM score-sum. The significance test indicated no significance at 0.05 level in the data. Therefore, there is not sufficient evidence in the data to support this proposition.

Proposition 1(b)

States that the degree of difficulty facing a firm during 1976 is associated with the seven FM score-sum during 1976.

Testing of Proposition 1(b)

The same methodology had been followed for testing this proposition as has been described for Proposition 1(a) in the above. A significance test indicated significance at the .05 level in the data. The correlation between the degree of difficulty during 1976 and the seven FM score-sum for 1976 was found to be positive. The correlation coefficient was

0.15. This indicated that there is sufficient evidence in the data to support this proposition.

Additional Analyses Related to Proposition 1(b)

Similar analyses for the following did not yield significance at the 0.05 level:

(a) between the degree of difficulty during 1973 and the seven FM score-sum for 1973.

(b) between the degree of difficulty during 1973 and the seven FM score-sum for 1976.

It appears that the responding CEOs were relating the degree of difficulty for 1976 with the combined FM analyses for 1976, but were not doing so for 1973. This can be viewed to indicate the possibility of the problem of CEOs' recapitulation of the FMs' influences for 1973, as has been discussed in Chapter V.

Proposition 2(a)

States that the change in the degree of difficulty facing a firm from 1973 to 1976 is associated with the change in the GM's influence score from 1973 to 1976.

Testing of Proposition 2(a)

The same methodology for testing this proposition had been followed as has been described for Proposition 1(a). A significance test indicated significance at the 0.05 level. This indicated that there is sufficient evidence in the data to support this proposition. The correlation between the change in the degree of difficulty from 1973 to

1976 and the change in the GM score from 1973 to 1976 was found to be 0.29.

Proposition 2(b)

States that the degree of a firm's difficulty during 1976 is associated with the GM's influence score for 1976.

Testing of Proposition 2(b)

The same methodology had been followed for testing this proposition as has been described for Proposition 1(a) above. A significance test indicated significance at the 0.05 level. The correlation between the degree of difficulty during 1976 and the GM's score for 1976 was found to be 0.18. This indicated that there is sufficient evidence in the data to support this proposition.

Additional Analyses for Proposition 2(b)

A similar analysis did yield significance at the 0.05 level for the correlation between the degree of difficulty for 1973 and FM's score for 1973. This indicated that CEO's recapitulation of GM's influence during 1973 was such that they were responding consistently to their responses for degree of difficulty for 1973. This was not found to be true for CEO's recapitulation for FMs' scores for 1973, as has been discussed in Proposition 1(b).

Additional Analyses and Comments for Propositions 1(a) and 2(a)

It was found through different analyses (by using paired t-tests) that both the seven FM score-sums and the GM scores increased from 1973 to 1976 irrespective of whether the degree of difficulty increased, decreased or remained the same from 1973 to 1976. The t-test indicated significance at the 0.05 level. A summary table of findings is presented in Table IV.

Proposition 3

States that the difference between FMIM for 1973 and FMIM for 1976 for each firm would be such that we would expect to find the mean differences (μ) of the sample of firms in each of the four cells to be such that the following relationship of inequality would be found in the data:

$$\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4.$$

DEGREE OF COMPLEXITY (DC)

DEGREE OF DYNAMISM	*simple*	*complex*
stable	μ_1 *cell 1*	μ_2 *cell 2*
dynamic	μ_3 *cell 3*	μ_4 *cell 4*

where μ_1 is the mean of the difference between FMIM for 1973 and FMIM for 1976 for all firms categorized in cell #1, which is simple-stable

TABLE IV

SUMMARY TABLE OF FINDINGS FOR ADDITIONAL ANALYSES RELEVANT TO PROPOSITIONS 1(a) AND (b) AND 2(a) AND (b): ANALYSES OF THE CHANGE (FROM 1973 TO 1976) IN THE SEVEN FMs' INFLUENCE SCORE-SUMS AND IN THE GM's INFLUENCE SCORES WHEN THE DEGREE OF DIFFICULTY (dod) (1) INCREASES, (2) DECREASES, AND (3) REMAINS THE SAME. PAIRED t-TEST WAS ADMINISTERED.

Nature of Change in Degree of Difficulty (dod) from 1973 to 1976	Nature of Change in Influence Scores from 1973 to 1976			
	Combined, Seven FMs' Influence Score-Sums		GM's Influence Scores	
dod(1976)-dod(1973) is:	$\sum_{i=1}^{7}$ (1976 FMs scores) - $\sum_{i=1}^{7}$ (1973 FMs scores)		GM(1976)- GM(1973)	
	Nature of Difference	t-Statistic	Nature of Difference	t-statistic
Positive (N=190)	positive & significant	15.66	positive & significant	12.07
Negative (N= 40)	positive & significant	6.45	positive & significant	2.95
Zero (N= 65)	positive & significant	6.86	positive & significant	2.35

Note: All symbols and expressions in the above have the same meaning as those explained in the explanations in Table III.

nature of organizational environments of firms. Similar explanations are applicable for μ_2, μ_3 and μ_4.

Testing of the Proposition 3

The methodology for categorizing each firm into the four cells has been described in Chapter V. The methodology for computing the Index of Similarity for comparing the degree of similarity between a firm's 1973 FMIM and 1976 FMIM by both the Absolute Method and the Squaring Method has also been described in Chapter V. After all 295 firms were categorized into one of the four cells and after their Indices of Similarity by both methods were computed a one-way AOV was administered. No significance at the 0.05 level was found in the data. Therefore, there is not sufficient evidence in the data to support Proposition 3.

The following table summarizes that the analysis relevant to Proposition 3.

TABLE V

A TABLE SUMMARIZING THE VALUES OF $\hat{\mu}_1$, $\hat{\mu}_2$, $\hat{\mu}_3$ AND $\hat{\mu}_4$ BY THE TWO METHODS OF COMPUTING THE INDEX OF SIMILARITY: ONE-WAY ANALYSIS OF VARIANCE WAS ADMINISTERED

Cell	N	$\hat{\mu}$	Index of Similarity By Absolute Method	Index of Similarity By Squaring Method
1	28	$\hat{\mu}_1$	3.86	5.86
2	27	$\hat{\mu}_2$	4.11	4.14
3	111	$\hat{\mu}_3$	3.70	3.74
4	129	$\hat{\mu}_4$	4.15	4.50
(Total:)	295	(overall means)	4.046	4.37

(No significant difference among the cells was found at the 0.05 level when one-way AOV was administered.)

Proposition 4

The type of production system is associated with FM. Woodward's (1965) scheme indicates that for each type of production system there is a particular FM*, as the scheme is presented here:*

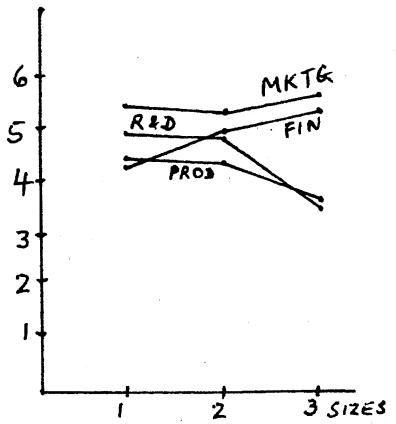
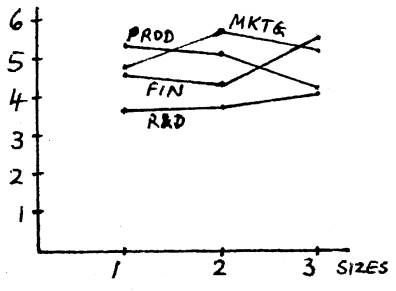
For Each Type of Production System	*There is a Particular Strategic FM*
1. *Unit and Small Batch*	*Development, Engineering and Research*
2. *Mass Manufacturing and Large Batch*	*Production*
3. *Process*	*Marketing*

Testing Proposition 4

Each firm of this study's sample of 295 firms had been categorized into the firm's particular type of production system. Chapter V describes the methodology for computing the "Strategicity" Index by the two methods. The ranking method of computing the Index has been utilized in testing Propositions 4 and 5. The ranking method is such that for each firm the highest influencing FM gets seven points, the second highest gets six points, the third highest gets five points, and so on. As has been explained in Chapter V, if there is a tie, the total "Strategicity" Index for the tied FMs is equally shared among those tied FMs. Analyses through the use of the other method has not been presented here because it is believed that much of the information in the data has been lost by that method. A summarized table of findings using the ranking method is presented in Table VI. Only the more important FMs in each type are mentioned in the table. Those other FMs which

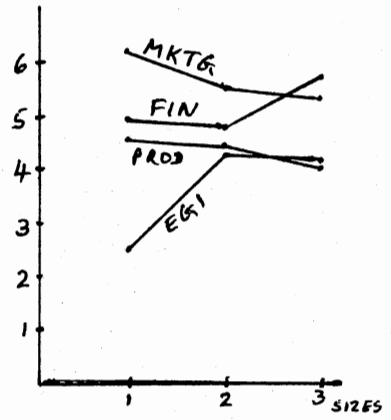
TABLE VI

A SUMMARY TABLE OF ANALYSES FOR PROPOSITION 4: TABLE OF MEANS OF INDICES OF "STRATEGICITY" OF FMS FOR EACH TYPE OF PRODUCTION SYSTEM

Type of Production System	Woodward's Expectations of the identity of FM*	This Study's Analyses			
		When firm-size categories			FM Analyses with each type of production system
		are not considered	are considered		
Unit and Small Batch N = 93	R & D	Mktg. 5.32 * Fin. 4.77 R & D 4.48 Prod. 4.15	Small N = 31	Mktg. 5.36 R & D 4.80 Prod. 4.33 Fin. 4.25	
			Med. N = 38	Mktg. 5.14 Fin. 4.84 R & D 4.78 Prod. 4.30	
			Large N = 24	Mktg. 5.50 Fin. 5.32 EGI 4.02 Prod. 3.68 R & D 3.56	
Mass Mfg. & Large Batch	Prod.	Mktg. 5.27 * Fin. 4.80 Prod. 4.78 * R & D 3.93	Small N = 15	Prod. 5.32 Mktg. 4.84 Fin. 4.77 Pers. 4.14 R & D 3.63	
			Med. N = 54	Mktg. 5.73 Prod.* 5.07 Fin. 4.29 R & D 3.89	

(continued on next page)

TABLE VI (continued)

Type of Production System	Woodward's Expectations of the identity of FM*	This Study's Analyses			FM Analyses with each type of production system
		When firm-size categories are not considered	When firm-size categories are considered		
N = 106			Large N = 37	Fin. 5.55 Mktg.* 5.28 Prod. 4.17 R & D 4.12	
Process	Mktg.	Mktg. 5.41 Fin. 5.23 * Prod. 4.23 EGI 4.01	Small N = 9	Mktg. 6.17 Fin. 4.95 Prod. 4.55 Pers. 3.89	
			Med. N = 36	Mktg. 5.50 Fin. 4.87 Prod. 4.46 EGI 4.25	
N = 96			Large N = 51	Fin. 5.55 Mktg.* 5.22 EGI 4.02 Prod. 4.00	

* Indicates that the mean of the Index of "Strategicity" of the asterisked (*) FM is significantly higher than the mean of each of the remaining FMs mentioned below the asterisked (*) FM in the same cell. This was ascertained by comparing the means by administering an approximate protected Least Significance Difference (L.S.D.) test, or an approximate 2 - sample t-test.

are not mentioned in each type in the table had very low "Strategicity" Indices.

In unit and small batch type of production system, Woodward's scheme predicts that R & D will be the FM*. It was found in the data that R & D was not the FM* because R & D does not have the highest "Strategicity" Index. It has the third highest Index, ranking very close to the second ranker, Finance and Control. Marketing was found to be the Significantly Strategic FM, (FM^{*S}). Its Strategicity Index was significantly higher than those of all other FMs in the unit type. When firm-size categories were introduced in the analysis R & D was found to be more important for smaller sized-firms than for larger-sized firms. Therefore, the data suggests Woodward's scheme needs modification for predicting FM* for unit type. Marketing is the FM^{*S}.

In the mass manufacturing and large batch type of production system Woodward's scheme predicts Production to be the FM*, but Marketing was found to be the Significantly Strategic FM, (FM^{*S}). Its "Strategicity" Index was significantly higher than those of each of the other FMs in mass type. Again, Woodward's scheme needs modification for mass type.

In Process type of production system Woodward's scheme predicts that Marketing will be the FM*. It was found in the data that Marketing was the FM*, followed closely by Finance. The Strategicity Index of Marketing was not found to be significantly higher than that of Finance. When size categories were considered it was found that Marketing was more important for small-sized firms than for large-sized firms. However, even for large-sized firms Marketing was important; it was a close second to Finance, and Marketing was significantly higher than each of the other five FMs for this cell.

Concluding Remarks for Proposition 4

The data suggests that the scheme used by Woodward needs modification. For a unit type of production system, Marketing was found to be the FM*S. It was found to be significantly more important than R & D. For a mass type of system, Marketing was again found to be FM*S. It was found to be significantly more important than Production. For a Process type, Marketing was the FM*. Therefore, Woodward's scheme, as presented by her, needs to be modified in light of the findings of this study. Marketing, Finance and Production are important FMs when all three types of production systems were considered together.

Proposition 5

(a) Firm-size category is associated with Top (General) Management's influence scores.

(b) Firm-size category is associated with FM.*

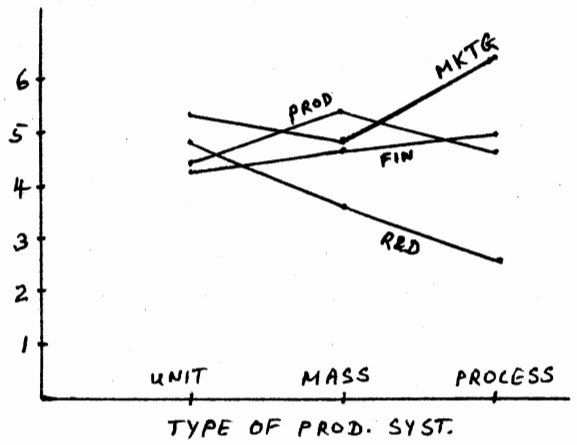
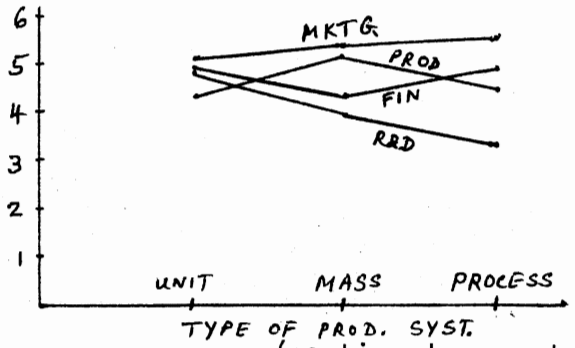
The firm-size categories are formed on the basis of a firm's sales revenue and are presented here:

Categories of firm-size:	Sales volume:
Size #1 small-sized firms	$ 50 million and less
Size #2 medium-sized firms	$ 51 million to $250 million
Size #3 large-sized firms	$251 million and above

A summarized table of the more important FMs in each firm-size category is presented in Table VII. Those other FMs which are not mentioned had very low "Strategicity" Index. The ranking method for computing the "Strategicity" Index has been utilized for testing Proposition 5.

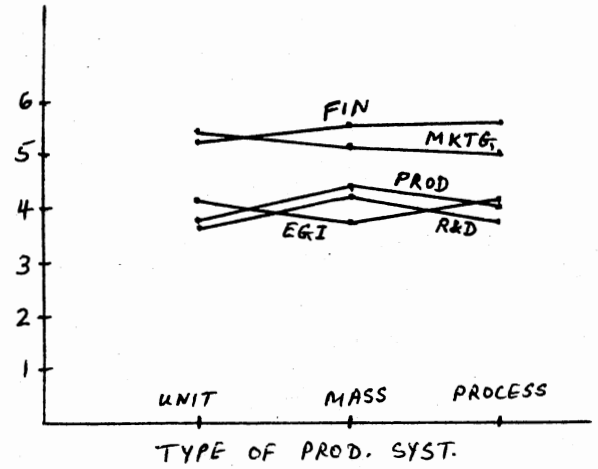
TABLE VII

A SUMMARY TABLE OF ANALYSES FOR PROPOSITION 5: TABLE OF MEANS OF INDICES OF "STRATEGICITY" OF FMs FOR EACH FIRM-SIZE CATEGORY

Firm Size Categories	When Production System Types are not considered	When Production System Types are considered		FM Analyses Within Each Firm-Size Category
Small-sized Firms N = 55	Mktg. 5.36 * Prod. 4.58 Fin. 4.51 R & D 4.14	Unit N = 31	Mktg. 5.35 R & D 4.80 Prod. 4.33 Fin. 4.25	
		Mass N = 15	Prod. 5.23 Mktg. 4.83 Fin. 4.77 Pers. 4.14 R & D 3.63	
		Process N = 9	Mktg. 6.17 Fin. 4.95 Prod. 4.55 Pers. 3.89	
Medium-sized Firms	Mktg. 5.34 * Prod. 4.68 Fin. 4.62 *	Unit N = 38	Mktg. 5.14 Fin. 4.84 R & D 4.78 Prod. 4.30	
		Mass N = 54	Mktg. 5.37 Prod.* 5.07 Fin. 4.29 R & D 3.89	

(continued on next page)

Table VII (Continued)

Firm Size Categories	When Production System Types are not considered	When Production System Types are considered			FM Analyses Within Each Firm-Size Category
N =128	R & D 4.05	Process N = 36	Mktg.	5.50	
			Fin.	4.87	
			Prod.	4.46	
			EGI	4.25	
Large-sized Firms	Fin. 5.51	Unit N = 24	Mktg.	5.50	
			Fin.	5.32	
			EGI	4.02	
			Prod.	3.62	
			R & D	3.56	
	Mktg. 5.30 *	Mass N = 37	Fin.	5.55	
	Prod. 4.01		Mktg.*	5.28	
	EGI 4.00		Prod.	4.17	
			R & D	4.12	
N = 112	R & D 3.77	Process N = 51	Fin.	5.55	
			Mktg.*	5.22	
			EGI	4.02	
			Prod.	4.00	

* Indicates that the mean of the Index of "Strategicity" of the asterisked (*) FM is significantly higher than the mean of each of the remaining FMs mentioned below the asterisked (*) FM in the same cell. This was ascertained by comparing the means by administering an approximate protected Least Significance Difference (L.S.D.) test, or an approximate 2 - sample t-test.

Testing of Proposition 5

The GM influence score increased from 1973 to 1976, regardless of size of the firm. Also, the score-sums increased from 1973 to 1976 regardless of size of the firm. Significant differences in the magnitude of these increases with size were noted, with medium size firms having a significantly higher score-sum than other firms, and large firms having a significantly smaller GM influence score increase than other firms.

Inter-FM analyses within each size category indicated that for:

(a) small-sized firm categories: Marketing is the Significantly Strategic FM. Production and Finance were important FMs.

(b) medium-sized firm categories: Marketing was again the Significantly Strategic FM. And again Production and Finance were also very important FMs.

(c) large-sized firm categories: Finance was the FM*. Marketing, which closely followed Finance, was significantly higher than each of the other five FMs in this category.

Concluding Comments for Proposition 5

For all firms in all size categories considered together, Marketing was the single-most important FM. Finance and Production were other very important FMs. Finance was more important in large-sized firm categories than in small and medium-sized firm categories. Production was almost uniformly important for all the three size-categories. External, Governmental and Institutional Relations was somewhat important only for large-sized categories.

Additional Analyses Related to
Propositions 4 and 5

These analyses are intra-FM-cum-inter-size and inter-production-system analyses. The data was partitioned into nine cells according to the size and production system classification of the firm. A one-way AOV showed a significant difference among the cell mean "Strategicity" Indices for the FMs: R & D, Production, Personnel, Finance, and External Government, and Institutional Relations. An unweighted two-way factorial AOV was then attempted using size and production system as main effects. No significant main effects or interactions were found. However, Protected Least Significance Difference (L.S.D.) tests showed significant differences.

The means for the nine cells (for each FM considered at a time) were ranked and a comparison was made. They are presented in Table VIII. Any set of cell means of an FM which is underlined in Table VIII by the same line indicated that the cell means of the FM are not significantly different from each other. Those other cell means of an FM which are not underlined by the same line are significantly different from each other.

Conclusion

The five propositions have been tested individually. A brief summarized conclusion of each proposition is provided in the following :

TABLE VIII

SUMMARY TABLE FOR LEAST SIGNIFICANCE DIFFERENCE TESTS (L.S.D.) FOR ADDITIONAL ANALYSES FOR PROPOSITIONS 4 AND 5: INTRA FM ANALYSES OF MEANS OF INDICES OF "STRATEGICITY" (IS) OF EACH FM WITHIN EACH OF THE NINE CELLS (3x3 FACTORIAL ANALYSES) OF SIZE x PRODUCTION SYSTEM TYPES (p.s.t.)

FMs		IS cell means of each FM are arranged in ascending order, from left to right.								
		1	2	3	4	5	6	7	8	9
R & D (LSD = .82)	cell by size,p.s.t.	1,1	2,1	3,2	2,2	1,2	3,3	3,1	2,3	1,3
	IS means	3.20	3.23	3.88	4.11	4.37	4.41	4.42	4.48	5.39
Production (LSD = .77)	cell by size,p.s.t.	1,2	2,2	1,3	2,3	1,1	2,1	3,2	3,3	3,1
	IS means	2.77	2.95	3.44	3.54	3.66	3.70	3.82	4.0	4.33
Personnel (LSD = .71)	cell by size,p.s.t.	1,2	2,2	1,3	2,1	1,1	3,1	2,3	3,3	3,2
	IS means	3.87	3.99	4.11	4.57	4.60	4.65	4.88	4.95	5.24
Finance (LSD = .66)	cell by size,p.s.t.	3,3	3,2	3,1	1,3	2,3	2,1	1,2	2,2	1,1
	IS means	2.44	2.45	2.69	3.06	3.12	3.15	3.23	3.71	3.74
Ext. Govt. relations (LSD = .86)	cell by size,p.s.t.	2,3	3,1	3,3	3,2	2,1	1,1	1,3	2,2	1,2
	IS means	3.75	3.97	3.98	4.32	4.92	4.93	5.06	5.18	5.37

TABLE VIII (continued)

Explanation of terms and expressions:

size = firm-size categories; and 1 = small size, 2 = medium size, and 3 = large size.

p.s.t. = production system types; and 1 = unit type, 2 = mass mfg. type, and 3 = process type.

(For cell formation the first number is size category number, and the second number is production system type number.)

I.S. means = the mean of Indices of "Strategicity" of the FM in each of the nine cells.

L.S.D. = the value of Least Significance Difference for each FM.

(The IS means and LSD values are correct to two decimals.)
Any set of IS cell means of an FM which is underlined by the same line indicates that the IS cell means of the FM are not significantly different from each other. Those other IS cell means of an FM which are not underlined by the same line are significantly different from each other. Unweighted two-way AOV was initially administered and significance was found in the above five FMs.

Propositions 1(a) and 2(a): Dynamic FM and GM Influence Score Analyses:

There was not sufficient evidence in the data to support the proposition that the change in the degree of difficulty from 1973 to 1976 is associated with the change in the combined-FM score-sum from 1973 to 1976. However, there was sufficient evidence in the data to support the similar proposition for the change in GM score from 1973 to 1976.

Also, the dynamic analyses indicated that both changes in FM score-sums and GM scores from 1973 to 1976 were positive and significant. This was irrespective of whether the degree of difficulty increased, or decreased, or remained the same from 1973 to 1976.

Propositions 1(b) and 2(b): Static FM and GM Influence Score Analyses

There was sufficient evidence in the data to support both these propositions that the degree of difficulty during 1976 is associated with each, the seven FM score-sum for 1976, and the GM score for 1976. The Static analysis avoids the problem of the responding CEO's recapitulation of 1973 FM and GM influence scores since only 1976 influence scores had been used.

Proposition 3: Environmental and FMIM-Similarity Analyses:

There was not sufficient evidence in the data to support this proposition that the difference between FMIM (1973) and FMIM (1976)

of firms in each of the four cells would be such that the following relationship of inequality would be expected

$$\mu_1 \neq \mu_2 \neq \mu_3 \neq \mu_4 .$$

No significance was found at the o.05 level. There is insufficient evidence in the data to support this proposition.

Proposition 4: Production Systems and Strategic FM Analyses:

The findings from the data suggest that additions need to be made to Woodward's scheme. Marketing, Finance and Production were the three most important FMs for all three production system types. For the unit type, Marketing was the Significantly Strategic FM (FM^{*S}). For the mass manufacturing type, Marketing was again the Significantly Strategic FM (FM^{*S}). For the process type, Marketing was found to be the Strategic FM (FM^{*}). Therefore, this study's findings suggest modifications to the Woodward scheme.

Proposition 5: Firm-size Categories and FM and GM Influence Score Analyses:

As in (4) above, Marketing, Finance and Production were the more important FMs for all the three firm-size categories. For small-size, Marketing was the Significantly Strategic FM (FM^{*S}). For medium-size, Marketing was again the Significantly Strategic FM. For large-size, Finance was the FM^{*}. Finance increased in its importance as we move from small-to-medium-to-large sized firms.

GM also increased in its importance as we move from small-to-medium-to-large-sized firms for each of the years, 1973 and 1976. The seven FM score-sums too similarly increased during each year.

To conclude, the five propositions have been thoroughly tested. Except for Proposition 3, the other propositions did find varying degrees of support from the data. Woodward's scheme may be expanded through the addition of Marketing, Finance and Production as important FMs for each type of production system. This is the concept of co-FM*s. The firm-size category analyses can receive a similar observation, namely that Marketing, Finance and Production were more important. General Management and Finance each increased their importance as we move from the small-to-medium-to-large sized firms. The chapter's findings yield interesting results and have provided a thorough testing and analyses of the five propositions.

CHAPTER VII

CONCLUSION

The chapter summarizes the study's conceptual aspects relevant for the study's empirical analyses. It provides the conclusions of this study's empirical analyses of data relevant to the five propositions and draws upon possible implications from the analyses. It suggests several possible future directions of research for the purpose of further developing the FMIM approach to the study of strategy. The study's analyses of data appears to promise fertile areas for future research studies. A conclusion to the chapter summarizes the salient features of the importance of this study to theory and practice of and research in business policy.

The Conceptual Aspects of this Study

This research has integrated several abstract concepts from the fields of strategy, organizational theory and behavior. The thesis puts forth and develops the study's approach to the study of OCS. The FMIM, FM* and "Strategicity" approach to the study of OCS has been developed through the integration of concepts from several scholars. The central FMIM approach of this study is similar to the theories of March and Simon's and Cyert and March's resultant mix of coalitional bargaining among the firm's five claimant groups. Thus, the central FMIM concept has considerably been derived from and developed upon their theories.

The conceptual model in Chapter II has been the major underlying theoretical framework which is central to the FMIM approach of the thesis. The application of March and Simon's coalitional groups' post-bargaining combination to the study of strategy can be found in the explanation of the model. The development and rationale of the FMIM approach and of the model have been discussed in Chapter II. The different perceptual biases of the people of different FMs and the bargaining by the different FM groups to pursue their respective FM-related interests result in the particular state of equilibrium of FMIM. Each of the seven FM groups and CEO can be viewed to accept for some time the nature of prevailing equilibrium of FMIM. Each FM's people, in dealing with their respective FM subsystems and subenvironments and the firm's total environment, can be viewed as a desire to maintain their own FM's effectiveness and performance. They can also be viewed as a desire to cope with any constraining factor that is perceived to limit their FM's effectiveness. To do this they can be viewed to interact with people of other FMs and of their subsystems and subenvironments.

The concept of the Strategic FM (FM*) has several root sources in strategy literature. Steiner (1969, a) discussed strategic factors for business success. His analyses of the many factors proceed mainly along the lines of FM and GM. He too has a measure similar to the "Strategicity" Index. Christensen, et al., (1973, pp. 109-114) discuss the "strategic alternative" in the context of a combination of several alternatives for providing an optimal "match between company's resources and opportunities and its environments".

Chapter II devotes considerable attention to the conceptual development of the Strategic Management Process (SMP). The emerging

comcepts of SMP have been developed in light of the current conceptual literature. The SMP is of interest to several scholars of strategy who consider it to be a major way for meaningfully integrating the broad, sprawling fields of strategy. The problems of the Top (General) Management are indeed broad, interrelated and complex. They have often to be approached through a heuristic approach rather than an alogrithmic approach. In this context the FMIM combination approach and Cyert and March's coalitional bargaining approach appear to be consistent. The SMP has been explained in Chapter II to be a total way for completely managing the firm's OCS through the interrelated processes of Anthony's (1965) Strategic Planning, Management Control and Operational Control. As has been indicated none of the SMP aspects have been empirically tested in the thesis.

The integrative five propositions suggest possible nature of integration between the central FMIM, FM*, "Strategicity" conceptual component and the five "outer" (or external) conceptual components. The five "outer" conceptual components are March and Simon's and Cyert and March's (static and dynamic analyses of) degree of difficulty facing a firm, Duncan's environmental analyses, Woodward's scheme using the production system as a basis for predicting FM*, and the firm-size analyses. The five "outer" conceptual components have been related to the central FMIM, FM* and "Strategicity" conceptual component. Support from the literature and empirical studies for suggesting the possible nature of interrelationships has been pursued in Chapters II, III, IV and V. The probable nature of relationships has been a guiding factor for the formulation of the five propositions. Cyert and March's "The General Preference Function" indicates the probable nature of the static

and dynamic relationships between the nature of the FMIM and firm's degree of difficulty, (Propositions 1(a) and (b) and 2(a) and (b)). The Contingency theory and Duncan's four-cell types of firm's environment indicate the probable nature of Proposition 3. Woodward's scheme using production systems as a basis for predicitng the likely FM* indicates very directly the nature of integration between the central conceptual component and this "outer" conceptual component, (Proposition 4). The firm-size and the possible problem of the management of complexity and the possible greater concern for optimization for large scale operations lend greater importance to the GM influence and to the Finance and Control for larger-sized companies, (Proposition 5).

Conclusions of the Study

The conclusions of the testing of each proposition are briefly mentioned. Their implications are discussed.

DYNAMIC ANALYSES:

Propositions 1(a) and 2(a)

The dynamic analyses of the nature of correlation between the change in a firm's degree of difficulty from 1973 to 1976 was such that (a) it did not indicate significance for the change in the seven FM score-sum from 1973 to 1976; but (b) it did indicate significance and positive correlation with the change in GM score from 1973 to 1976. This can possibly be implied that the responding CEOs were of the opinion that when the degree of difficulty (for example) increased from 1973 to 1976 they felt the perceived need of the importance of GM's influence (which is their own influence) to increase in order to cope

with the more difficult general management problem facing the company as a whole. The degree of difficulty is viewed for the firm as a whole. And, therefore, the whole firm's management of the overall difficulty was perceived by responding CEOs to be more important for the GM (or CEO's involvement) to cope with the perceived increased difficulty for the firm to achieve its major objectives and goals.

However, the above comments on the possible implications of findings for 1(a) and 2(a) propositions should be seasoned by the reservations about CEO's recapitulation of his perceptions of the FMIM for 1973. That is why the Static Analyses for the then current period (1976) have been pursued in Propositions 1(b) and 2(b).

STATIC ANALYSES:

Propositions 1(b) and 2(b)

The static analyses of the study help to offset possible reservations of the CEO's recapitulation of the 1973 organizational situation. The analyses of the nature of correlation between a firm's degree of difficulty for 1976 and both, (a) the seven FM score-sum for 1976 and (b) GM score for 1976 were found to be both significant and positively correlated.

The implications from the conclusions of the Propositions 1(b) and 2(b) appeared to be that CEOs are responsive to their perceptions of the nature of difficulty currently (during 1976) facing their firm to achieve the firm's major objectives and goals. For example, if they perceived the degree of difficulty very high, they were responsive to the needs of the perceived problem and gave more importance (i.e. higher influence scores) to the GM and to the seven FMs collectively. This does appear

consistent with the underlying theory of static analyses of the Propositions 1(b) and 2(b), which are derived from March and Simon, and Cyert and March. "The General Preference Function" does indicate that when a firm's economic performance is perceived to be bad ("organizational crisis") the firm's five claimant groups will take increased interest in the operations and activities of the firm. Thus, higher degree of difficulty (synonymous with "organizational crisis") results in higher influence scores of FMs (considered collectively) and of GMs, which are the "groups" in this study. Therefore, the conclusions of analyses of Propositions 1(b) and 2(b) appear to be consistent in this context with the theories of March and Simon and Cyert and March.

Firm's Environmental Analyses and
the FMIM Proposition 3:

The conclusions of analyses and the testing of the proposition did not find significance. There appears to be no evidence in the data to support the proposition. And it can be conjectured that if the degree of similarity between FMIM (1973) and FMIM (1976) could not be explained by the four cells according to Duncan's classification of types of organizational environments, there is perhaps another nature or approach of environmental analyses that can explain the relationship. This field appears fertile for other forms of OCS-related environmental analyses. Of course, a major task is to identify which approach of analyses to adopt for study. In this way it does promise the selective pursuits of different directions of inquiry. It is also possible that data limitations (such as the lack of longitudinal data) obscure our ability to identify and explain the relationship between environmental

differences and the FMIM. Obviously, conducting a longitudinal study should answer this question.

Production System Analyses for the Identity of the Strategic FM(s): Proposition 4:

Woodward's scheme for predicting the identity of FM*, (using the types of production system as the basis for predicting the identity of FM*) had been utilized for the analyses. The findings from the data did not support her scheme. For all the three types of production systems considered together it was found that Marketing, Finance and Production were the more important FMs. For the unit type of production system Marketing was the Significantly Strategic FM (FM^{*S}). For mass manufacturing type, Marketing was again the FM^{*S}. For process type her predicted FM*, Marketing, was the Strategic FM (FM*).

There appear to be certain reasons why Woodward's scheme has not been exhaustive to use technology as a basis for determining the FM*. At the very outset of her analyses, Woodward (1965, p. 125) limits the scope of analyses to merely three out of four (of what she calls) task functions. She excludes all element functions. Her distinction between task and element functions has been discussed in a footnote number 5 of Chapter IV of this thesis. The three task functions included by her for the analysis are (1) Marketing; (2) Production, and (a) Development, Engineering and Research. She excludes Finance, which she also calls a task function, and Finance was found to be second most influential FM. Thus, the "incompleteness" of Woodward's scheme appears to be caused by the limited scope of her analyses and by her excluding Finance from her analyses. Also, her sample is very small. She studied only 15 firms

out of 23 firms for the study of technology as the dominant factor in the determining the FM*. It is possible that the choice of sample and the small sample-size may have generated such data that might have caused her to formulate her particular scheme for predicting FM* for each type of production system.

Firm-Size Analyses and FMIM and GM Influence: Proposition 5

The GM influence increased as we move from small-to-medium-to-large sized firms. Significance was found in the data. This indicated that the GM, as a basis for integrating the many interrelated complexities of large corporations, was recognized as an important "function" to be performed. For the larger firms, therefore, the GM function was perceived to serve the more important need for the total, comprehensive management of the corporate-comprehensive-integrated Overall Corporate Strategy. Anghony (1965), Taylor and MacMillan (1973, a), and Christensen, et al. (1973) discuss this aspect. Steiner (1960) found in his empirical study of strategic factors that high quality top, (general) management was very highly or strategically important factor for business success.

In the FM analyses for all the three firm sizes considered together, Marketing, Finance and Production were considered to be the more important FMs. (This was the same case for the analyses of production systems.) For categories of small-sized and medium-sized firms, Marketing appeared to be the Significantly Strategic FM (FM^{*S}). For large-size firms, Finance was the FM*, followed closely by Marketing, which

was significantly higher than each of the remaining five FMs in this size-category.

In the intra-FM-cum-inter-size-category analyses, it can be observed that Marketing was uniformly important for all the three size categories. Finance and Control, like the GM analyses described above, increased in its importance (i.e. through higher Indices of "Strategicity") as we move from small-to-medium-to-large sized firm categories. This might be attributed to the possibly higher felt importance in the perception of the CEOs that larger firms (due to their larger scale of usually complex operations) needed the pursuit of economic optimization through Finance and Control. Thus, Finance and Control and GM were more important for large-sized firms than what they were for small or medium sized firms, implying the possible importance of the management, economic evaluation and control of the complexities and intricacies of large-scale of interrelated operations. Production appeared to be uniform in its amount of influence for all the three size categories.

The foregoing has summarized the salient aspects of analyses and conclusions of testing of all the five propositions. As can possibly be deduced, certain tentative implications have been presented based upon the conclusions. The next section discusses some of the likely directions of future research utilizing the FMIM approach to the study of strategy.

Suggested Future Directions of Research

Following through the theories of March and Simon, and of Cyert and March, certain other approaches may be explored for their possible relationships with the FMIM. For example, the effects of March and

Simon's five coalitional or claimant groups (investors, customers, suppliers, employees and top management) upon the FMIM and FM* and GM influence can be studied. A possible approach could be to study the nature of combination of coalitional groups (including their influence upon OCS), and the nature of the FMIM. The use of the concept of individual FM-slack being built up in times of perceived munificence and during "normal times" or very low degree of perceived difficulty facing the firm can be an additional direction of study. And it may be interesting to study the "off-loading" of individual FM-slack during "crisis periods" or when the perceived degree of difficulty has become very high. The relevance of slack is important in this context because Cyert and March regard that the use of slack to resolve conflicts in organizations through "policy commitments" (as a management approach to the side-payment method of conflict resolution) results in particular coalition combination relevant for goal formulation process.

Another form of inquiry needs to be pursued to understand the nature of relationship between the nature of subenvironments relevant to each FM as well as the Duncan's totality of organizational environments relevant to decision-making and to the dynamic FMIM analyses. Such dynamic analyses may need a longitudinal study rather than a recapitulation approach.

Woodward's scheme is another very fertile area for the FMIM approach to the study of Strategy and deeper probes may be justified. Steiner's strategic factors (organized mainly along FM and GM lines) can provide the basis for deeper analyses of Woodward's scheme for FM* analyses. Size category analyses can also be incorporated with the additional in-depth analyses suggested for Woodward's analyses.

The FMIM approach can be modified and applied to settings other than corporations. For example it can be applied to university settings. The President would be the CEO and the academic departments may be considered to be equivalent to this study's FM groups. The other non-academic departments too may be considered in the scope of the study, such as Finance, Student Relations, Atheletics, Research, and External Relations. Similarly, the FMIM approach can be applied to state government settings.

To conclude, there can be many important reasons for FMIM of a firm. This study has taken the view the degree of difficulty facing a firm can have important effect upon the nature of a firm's FMIM formation and its OCS formulation. The nature of environment in which a firm operates can have important effects upon its FMIM formation and its OCS formulation. The type of production system (or the nature of technology) can have an important effect upon a firm's FMIM formation and OCS formulation. And the particular size-category of a firm can have an effect upon FMIM and GM's influence because of the possible nature of its problems of coordination due to complexities and interrelatedness. For example, large-sized firm categories found GM as well as Finance and Control to be more important.

The Anthony-like framework of Strategic Management Process needs additional development and empirical testing. It is sincerely hoped that empirical verification of the SMP framework would clarify many of the new, emerging concepts in the strategy literature.

Conclusion

This business policy research has sought to integrate the relevant concepts into a theory of FMIM, FM* and "Strategicity" as an approach to the study of strategy. It has enrichened the field of strategy by integrating certain important concepts from organization theory and behavior. It has provided empirical verification to the various aspects of the FMIM approach to the study of strategy. The analyses of the five propositions describe the nature of relationships between the central FMIM approach of this study and each of the five "outer" conceptual components, which have been derived from the fields of strategy, organizational theory and behavior. The conclusions of the analyses of the data indicate a promise for additional research using the central conceptual component of FMIM Approach to the study of OCS.

Contributions to Theory

The study has provided empirical support for the integrative approach to the study of OCS. A view has been suggested in the thesis that the study of OCS is the study of strategic decision-making for the whole firm, as pursued by the top-level management. The view that top-level management members pursue (Cyert and March's) coalitional bargaining, which results in FMIM, has been established as one way to study strategy. The concept of coalitional bargaining has been effectively applied in this thesis to the study of OCS. The FMIM approach is this study's central contribution to theory. Evolved from the FMIM concept are the ideas of the Strategic FM and Significantly Strategic FM, and the "Strategicity" of an FM. Together these interrelated ideas

and concepts have been developed into a coherent body of concepts which have been empirically tested. The study has established the dynamic nature of the FMIM and of the OCS.

The study has contributed to the existing body of knowledge regarding the influences of environment, technology and firm-size upon a firm's FMIM and OCS. It has provided evidence that, contrary to certain expectations, the type of firm's environments does not by itself cause a firm's members to change its FMIM from one time-frame to another time-frame in a particular way, as has been discussed in Proposition 3. It has enlarged and enrichened Woodward's scheme for the use of technology as a dominant factor to study the co-FM*s.

The study's integration of many interrelated concepts into a framework of Strategic Management Process crystalizes the current, emerging trends in the enlarged field of business policy. The framework can be a viable approach to study strategy and recent publications indicate good promise for research using the SMP approach.

Contributions to Research

The study has provided a research methodology for integrative, theory-building and exploratory research using the FMIM approach to the study of OCS. It has opened many research avenues for the study of OCS. This study has indicated that research approaches can integrate the different fields of management for the study of OCS. The empirical testing and analyses of the five propositions indicated the pursuit of an inter-disciplinary approach to the study of OCS.

The thesis has added empirical verification and verisimilitude to the abstract concepts of OCS. The FMIM approach has indicated that OCS

is a more specific and concrete set of "mix" of perceived guidelines for decision-making than is sometimes viewed by several other strategy studies. It has improved the application of empirical knowledge in the field of business policy. In providing rigor to business policy research, it has stressed upon the viability of specific research and analytical tools to serve the peculiar needs of this exploratory, theory-building research study.

It has provided a methodology for measuring the relative degree to which a firm's FM is strategic compared to its other FMs, (the "Strategicity" Index). It has developed a theoretically and statistically sound methodology for determining the definitional demarcation point on the simple-complex environmental dimension, (Degree of Complexity). It has provided a methodology for measuring the degree of similarity between a firm's FMIM for 1973 and FMIM for 1976, (the Index of Similarity using the Absolute and Squaring Methods). This thesis has provided research methodologies specifically for the FMIM approach to study the OCS.

Contributions to Practice

The study has practical contributions to offer to a practicing manager. The real world of organizations is often believed to be a "political jungle". This study's concept of FM groups' coalitional bargaining and its FMIM approach has provided to the practicing manager a practical and perhaps a more familiar explanation of the OCS. The FMIM approach reinforces the viewpoint that interdependencies exist among different parts (or FMs) of an organization.

The conceptual model in Chapter III depicts the segments of the internal subsystem and the external subenvironments. The study operationalizes this conceptual model through the use of Duncan's scheme and relates a firm's organizational environmental factors to its FMIM.

The study clearly indicates to a practicing CEO which are his firm's co-FM*s on the basis of his firm's technology-cum-size-category. This provides him with a practical perspective for the overall management guidelines of his firm's activities and for the relative importance he may place upon the co-FM*s.

It provides practical analyses for FM*S and utilizes the concept of "Strategicity" for explaining the practical approach to emphasize the importance of one (or two) FMs during certain time-frame, depending upon the particular nature of contingencies facing the firm at the time-frame. The study utilizes the perceptions of the practicing CEO and, therefore, the study's findings are likely to be of interest to the practicing managers. Moreover, it is likely to make him more sensitive to the "mix" of his firm's FMs and induce him to search for possible reasons for a particular FMIM. It can make him sensitive to the coalitional bargaining as it is particularly relevant for studying the formation of OCS.

The study's integration of concepts into the SMP framework can be viewed as a viable, practicable framework for analyzing real world strategic decision-making issues. The comprehensive nature of the framework to the complete management of the OCS provides the practicing CEO at one glimpse an integrated approach to the study of OCS.

To conclude, this thesis has made contributions to the study of strategy. It's FMIM approach has provided a way to study OCS not

usually found in strategy literature. It has integrated different concepts from strategy literature and organizational theory and behavior literature in a coherent manner and has empirically studied certain relationships. It has contributed to the research methodology in the field of business policy. It has done so through the development of methodologies for analyzing a firm's FMIM, for measuring the degree of similarity between its FMIM for 1973 and FMIM for 1976, for measuring the "Strategicity" of an FM and for correctly arriving at the definitional demarcation point on the simple-complex environmental dimension. The study has interesting applications of the FMIM for the practicing CEO. The thesis suggests several avenues for additional research utilizing the central conceptual component of the Functional Managements' Influence-Mix Approach to the study of Overall Corporate Strategy.

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APPENDICES

APPENDIX A

Oklahoma State University

COLLEGE OF BUSINESS ADMINISTRATION

STILLWATER, OKLAHOMA 74074
(405) 624-5064

October 15, 1976

Chief Executive Officers and Corporate Planners are most concerned with Corporate Strategy. They are also the best people to give meaningful insights about it. This study intends to learn from you, the top practicing executive, about the nature of influence that the different Functional Management units (Marketing, Production, Finance, etc.) and their environments have upon your firm's Overall Corporate Strategy. The study of the influence of the various dynamic environments of a firm upon its Overall Corporate Strategy has been of great interest, particularly after the impact of the energy crisis was felt from early 1974 onwards. We are also interested in the implications of increasing government requirements and how they affect U. S. firms.

This study has also aroused the interest of the Financial Executive Institute, which is an independent professional body taking interest in Strategy studies. They think that this study should contribute significantly to the evolving concepts of Corporate Strategy. And they have suggested that we write in their magazine about the findings and analysis of this study.

This study, which uses the Functional Management approach to study Overall Corporate Strategy, appears to be the first of its kind. We do hope that you will wish to participate in this pioneering study by taking only a few minutes to put check marks (✓) in the few places on the enclosed simple questionnaire. And may we request you to kindly return it in the enclosed stamped, self-addressed envelope at your earliest convenience please? If your firm is in many different businesses, choose one predominant business or division.

The questionnaire may be filled out (preferably) by the Chief Executive Officer, or by the Corporate/Strategic/Long Range Planner. If you would like to give us any advice regarding this study we would be most happy to receive it. We would also be most happy to share with you the important conclusions of this study (please see the end of the enclosed questionnaire). Of course, the confidentiality of the information you provide will be respected.

Yours sincerely,

Yezdi M. Godiwalla
Research Analyst

W. A. Meinhart
Professor of Management
Project Director

CORPORATE STRATEGY QUESTIONNAIRE

Explanation of the scale used in questions: -

Very Low	Low	Average	High	Very High
[1]	[2]	[3]	[4]	[5]

Please return in the enclosed self-addressed, stamped envelope to: -

Yezdi M. Godiwalla
College of Business Admin.
Oklahoma State University
Stillwater, OK 74074
Tel. (405) 377-4079

QUESTION 1: How much influence do you think each of the seven Functional Managements (or Departments or Divisions) and Top Management have had upon your firm's Overall Corporate Strategy during each of the years, 1973 and 1976?
(Please put one check mark (✓) on each scale for 1973 and 1976.)

Functional Managements:	Degree of influence upon your firm's Overall Corporate Strategy during 1973					during 1976				
	Very Low				Very High	Very Low				Very High
1. Marketing	[1]	[2]	[3]	[4]	[5]	[1]	[2]	[3]	[4]	[5]
2. Procurement	[1]	[2]	[3]	[4]	[5]	[1]	[2]	[3]	[4]	[5]
3. Development, Engineering & Research	[1]	[2]	[3]	[4]	[5]	[1]	[2]	[3]	[4]	[5]
4. Production	[1]	[2]	[3]	[4]	[5]	[1]	[2]	[3]	[4]	[5]
5. Personnel & Labor	[1]	[2]	[3]	[4]	[5]	[1]	[2]	[3]	[4]	[5]
6. Finance & Control	[1]	[2]	[3]	[4]	[5]	[1]	[2]	[3]	[4]	[5]
7. External, Govt., Institutional Relations	[1]	[2]	[3]	[4]	[5]	[1]	[2]	[3]	[4]	[5]
Others (Specify) _____	[1]	[2]	[3]	[4]	[5]	[1]	[2]	[3]	[4]	[5]
Top (General) Management	[1]	[2]	[3]	[4]	[5]	[1]	[2]	[3]	[4]	[5]

(overleaf)

NOTE FOR QUESTIONS 2 & 3: - The following is a comprehensive list of Internal and External ENVIRONMENTAL FACTORS, some of which may be more important than others to your firm's Overall Corporate Strategy. (Questions 2 & 3 both involve this list.)

QUESTION 2: Please identify those factors which you think are strategically important (SI) to your firm's Overall Corporate Strategy. Please identify by placing check marks (✓) on boxes [SI] next to those factors in the following list.

QUESTION 3: How much do you think each of the factors (that you have marked strategically important [SI]) have changed during the 3 years from 1973 to 1976?

Firm's Environmental Factors	for Question 2: Check boxes for strategically important [SI] factors	for Question 3: Degree of change between 1973 & 1976 in factors which you have marked strategically important [SI] for Question 2. Very Low / Low / Average / High / Very High
Internal environment		
(1) Organizational personnel component		
(A) Educational and technological background and skills	[SI]	[1] [2] [3] [4] [5]
(B) Previous technological and managerial skill	[SI]	[1] [2] [3] [4] [5]
(C) Individual member's involvement and commitment to attaining system's goals	[SI]	[1] [2] [3] [4] [5]
(D) Interpersonal behavior styles	[SI]	[1] [2] [3] [4] [5]
(E) Availability of manpower for utilization within the system	[SI]	[1] [2] [3] [4] [5]
(2) Organizational functional and staff units component		
(A) Technological characteristics of organizational units	[SI]	[1] [2] [3] [4] [5]
(B) Interdependence of organizational units in carrying out their objectives	[SI]	[1] [2] [3] [4] [5]
(C) Intra-unit conflict among organizational functional and staff units	[SI]	[1] [2] [3] [4] [5]
(D) Inter-unit conflict among organizational functional and staff units	[SI]	[1] [2] [3] [4] [5]
(3) Organizational level component		
(A) Organizational objectives and goals	[SI]	[1] [2] [3] [4] [5]
(B) Integrative process integrating individuals and groups into contributing maximally to attaining organizational goals	[SI]	[1] [2] [3] [4] [5]
(C) Nature of the organization's product service	[SI]	[1] [2] [3] [4] [5]
External environment		
(4) Customer component		
(A) Distributors of product or service.	[SI]	[1] [2] [3] [4] [5]
(B) Actual users of product or service.	[SI]	[1] [2] [3] [4] [5]
(5) Suppliers component		
(A) New materials suppliers	[SI]	[1] [2] [3] [4] [5]
(B) Equipment suppliers	[SI]	[1] [2] [3] [4] [5]
(C) Product parts suppliers	[SI]	[1] [2] [3] [4] [5]
(D) Labor supply	[SI]	[1] [2] [3] [4] [5]
(6) Competitor component		
(A) Competitors for suppliers	[SI]	[1] [2] [3] [4] [5]
(B) Competitors for customers	[SI]	[1] [2] [3] [4] [5]
(7) Socio-political component.		
(A) Government regulatory control over the industry	[SI]	[1] [2] [3] [4] [5]
(B) Public political attitude towards industry and its particular product	[SI]	[1] [2] [3] [4] [5]
(C) Relationship with trade unions with jurisdiction in the organization	[SI]	[1] [2] [3] [4] [5]
(8) Technological component		
(A) Meeting new technological requirements of own industry and related industries in production of product or service	[SI]	[1] [2] [3] [4] [5]
(B) Improving and developing new products by implementing new technological advances in the industry	[SI]	[1] [2] [3] [4] [5]

NOTE FOR QUESTION 4: -

[A firm (as a whole) can experience varying degrees of difficulty to achieve their major objectives and goals during different years. Here is an example of extremely high difficulty: a mass producing, labor-intensive firm facing stiff competition and price wars, rising costs of production and serious labor crisis, thus making it very difficult for the firm to achieve its major objectives and goals. Also, very low degree of difficulty would be characterized by very easy conditions.]

QUESTION 4: Please indicate the degree of difficulty that you think your firm (as a whole) has faced in achieving its major objectives and goals set for each of the years: -

Degree of Difficulty for your (whole) firm

Years	Very Low	Low	Average	High	Very High
1973	[1]	[2]	[3]	[4]	[5]
1976	[1]	[2]	[3]	[4]	[5]

QUESTION 5: What is your firm's (current) annual sales revenue, excluding taxes?

(please check one)

1. $50 million and less ☐
2. $51 million to $250 million ☐
3. $251 million and above ☐

(overleaf)

QUESTION 6: What is the single, most predominant production system of your firm?

(please check only one)

Type of predominant production system of your firm

1. Unit or small batch production system ☐
   (The production of unit articles to one or some customers' specific requirements; e.g. special equipment, prototypes, fabrication and small quantity production.)

2. Mass production (including large batch mfg.) ☐
   (e.g. automobile production and assembly)

3. Process production system ☐
   (continuous-flow production, e.g. chemicals, gases and liquids)

   None of the above, but another ☐
   (please specify) ______________________

Would you please promptly mail this in the enclosed envelope. Thank you very much!

NOTE: The data below is optional. Confidentiality will be respected even if you give it.

If you wish that we send you summarized findings and analysis of this study, please check here ☐
Should you wish to remain anonymous and also want the findings of the study, please mail the completed questionnaire and this portion below separately after detaching it.

- -

Your Name ______________________

Designation ______________________

Name of Firm ______________________

Office Address ______________________

City ____________ State ____________ Zip Code ________

Telephone ______________________

APPENDIX B

Yezdi M. Godiwalla
College of Business Administration
Oklahoma State University
Stillwater, Oklahoma 74074
Tel. (405) 377-4079

August 6, 1976

Chief Executive Officers and Corporate Planners are most concerned with Corporate Strategy. They are also the best people to give meaningful insights about it. This study intends to learn from you, the top practicing executive, about the nature of influence that the different Functional Management units (Marketing, Production, Finance, etc.) and their environments have upon your firm's Overall Corporate Strategy. The study of the influence of the various dynamic environments of a firm upon its Overall Corporate Strategy has been of great interest, particularly after the impact of the energy crisis was felt from early 1974 onwards.

This study has also aroused keen interest of the Financial Executive Institute, which is an independent professional body taking interest in Strategy studies. They think that this study should contribute significantly to the evolving concepts of Corporate Strategy. And they have suggested that I write in their magazine about the findings and analysis of this study.

This study, which uses the Functional Management approach to study Overall Corporate Strategy, appears to be the first of its kind. I do believe that you would be keen to participate in this pioneering study by taking only a few minutes to put check marks (✓) in the few places in the enclosed simple questionnaire. And may I request you to kindly return it in the enclosed stamped, self-addressed envelope at your earliest convenience please? This study is my Ph.D. thesis on Overall Corporate Strategy and I need to get my data in very quickly. I deeply appreciate your cooperation, which you would agree is indispensable for this study!

The questionnaire may be filled out (preferably) by the Chief Executive Officer, or by the Corporate/Strategic/Long Range Planner. If you would like to give me any advice regarding this study I would be most happy to receive it. I would also be most happy to share with you the important conclusions of this study, (please see page 5 of the enclosed questionnaire).

Thank you very much!

Your sincerely,

OVERALL CORPORATE STRATEGY AND FUNCTIONAL MANAGEMENT INFLUENCE-MIX QUESTIONNAIRE

After completing this questionnaire please return it in the self-addressed, stamped envelope to: -

Yezdi M. Godiwalla
College of Business Administration
Oklahoma State University
Stillwater, Oklahoma 74074
Tel. (405) 377-4079

QUESTION 1: How much influence do you think each of the seven Functional Managements (or Departments or Divisions) and General (or Top) Management have had upon your firm's Overall Corporate Strategy during each of the years, 1973 and 1976?

(Please put check mark (✓) on each scale for 1973 and 1976.)

Functional Managements:	Degree of influence upon your firm's Overall Corporate Strategy during 1973 (No influence … Maximum influence)	during 1976 (No influence … Maximum influence)
1. Marketing	0% 20 40 60 80 100%	0% 20 40 60 80 100%
2. Procurement	0% 20 40 60 80 100%	0% 20 40 60 80 100%
3. Research & Development	0% 20 40 60 80 100%	0% 20 40 60 80 100%
4. Production & Engineering	0% 20 40 60 80 100%	0% 20 40 60 80 100%
5. Personnel & Labor	0% 20 40 60 80 100%	0% 20 40 60 80 100%
6. Finance & Control	0% 20 40 60 80 100%	0% 20 40 60 80 100%
7. External, Govt., Institutional Relations	0% 20 40 60 80 100%	0% 20 40 60 80 100%
and General (Top) Management	0% 20 40 60 80 100%	0% 20 40 60 80 100%

A NOTE FOR QUESTION 2:

[Environments of each Functional Management (FM) can have influence upon Overall Corporate Strategy. E.g. environments of Marketing FM for a firm could include factors such as relevant target markets and customers, competitors, distribution system, etc. The issue here is whether there have been changes in these environments that affect your firm's Overall Corporate Strategy during 1973 and 1976.]

QUESTION 2: Please indicate the degree of importance that you think environments of each of the Functional Managements have had upon your firm's Overall Corporate Strategy during each of the years 1973 and 1976: -

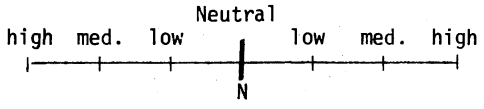
Degree of importance to your firm's Overall Corporate Strategy

Environments of each Functional Management:	during 1973	during 1976
	No importance ... Maximum importance	No importance ... Maximum importance
1. Environ. of Marketing	0% 20 40 60 80 100%	0% 20 40 60 80 100%
2. Environ. of Procurement	0% 20 40 60 80 100%	0% 20 40 60 80 100%
3. Environ. of R. & D.	0% 20 40 60 80 100%	0% 20 40 60 80 100%
4. Environ. of Prod. & Eng.	0% 20 40 60 80 100%	0% 20 40 60 80 100%
5. Environ. of Personnel & Labor	0% 20 40 60 80 100%	0% 20 40 60 80 100%
6. Environ. of Finance & Control	0% 20 40 60 80 100%	0% 20 40 60 80 100%
7. Environ. of External, Govt., Inst. Relations (Govts., Public Bodies, etc.)	0% 20 40 60 80 100%	0% 20 40 60 80 100%
and All environments of the total organization taken together	0% 20 40 60 80 100%	0% 20 40 60 80 100%

A NOTE FOR QUESTION 3:

'[A firm often appears to be a combination of dissimilar Functional Managements, each of which is staffed by people of different disciplines with varying nature of specialization and therefore people of certain Functional Managements may subordinate the overall corporate goals to their own Functional Management (or departmental) goals. Thus, people of different FMs can display varying nature of goal-orientations which can be noted on the scale explained here: -

Highly Corporate-goal-oriented.
Highly committed to corporate goals, even if it calls for subordinating FM/Departmental goals to Corporate goals.



Highly FM-goal-oriented.
Highly committed to FM/Departmental goals, even if they conflict with overall corporate goals.

QUESTION 3: Please indicate the nature of goal-orientation of the people of different

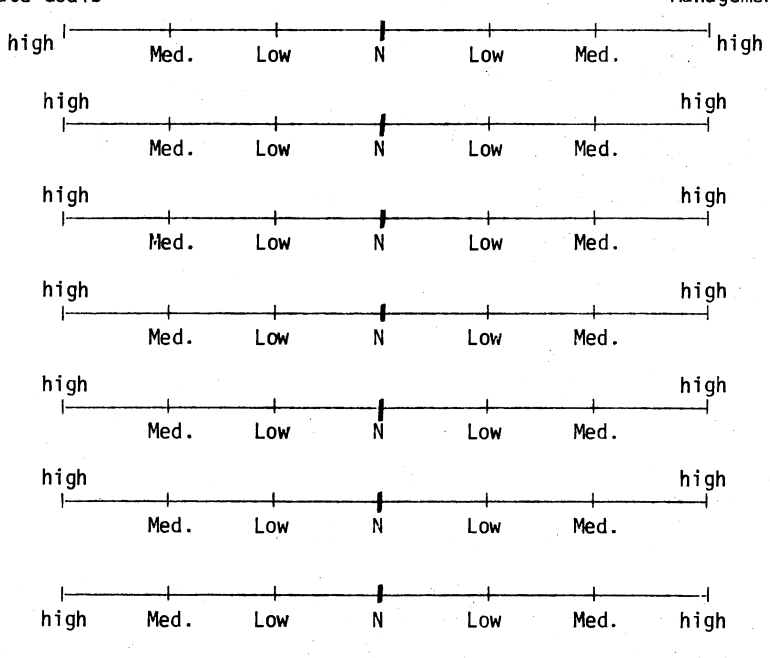
Functional Management during the year 1976 on the following scales:

People of Functional Managements:

Nature of goal-orientation (1976)

highly oriented to Overall Corporate Goals — Neutral — highly oriented to Functional Management goals

1. People of Marketing
2. People of Procurement
3. People of R. & D.
4. People of Prod. & Eng.
5. People of Personnel
6. People of Finance & Control
7. People of External, Govt., Institutional Relations

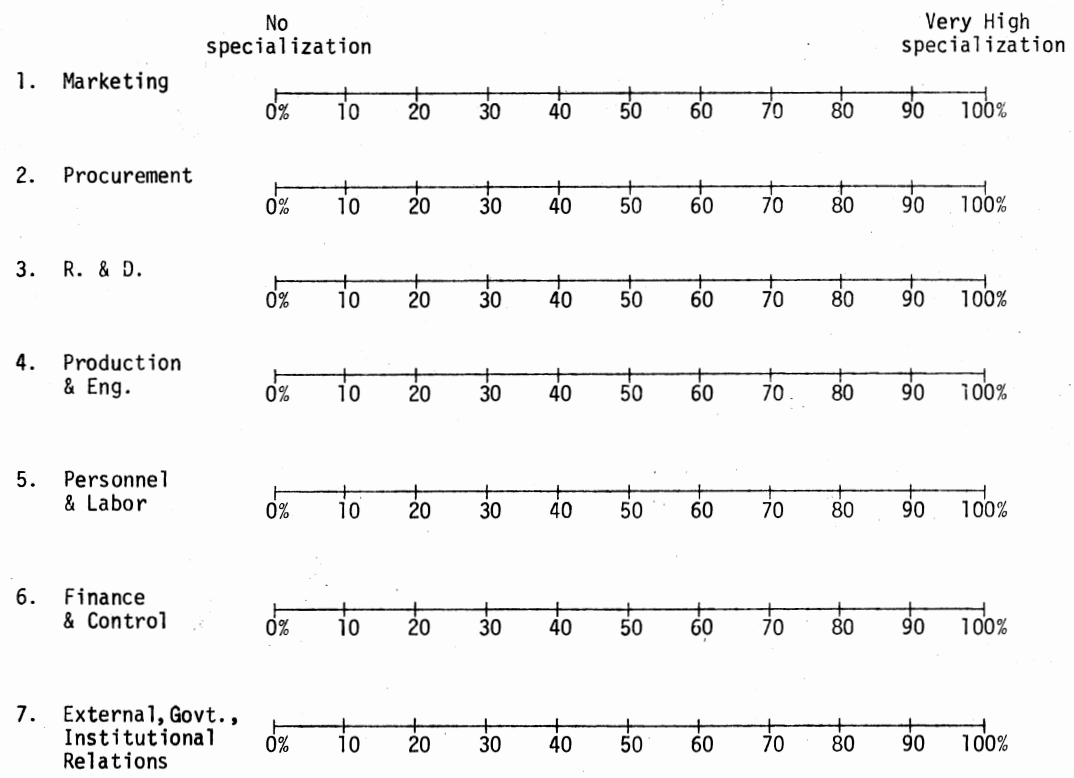


A NOTE FOR QUESTION 4:

[Different Functional Managements can have varying degrees of specialization (low/high, etc.). E.g. very high degree of specialization of a Functional Management could be characterized by a very large number of very distinct occupational/professional specialities. Very low degree of specialization will have very few, indistinct occupational/professional specialities.]

QUESTION 4: What do you think is the degree of specialization of each Functional Management of your firm for 1976?

Functional Managements: Degree of Specialization (1976)

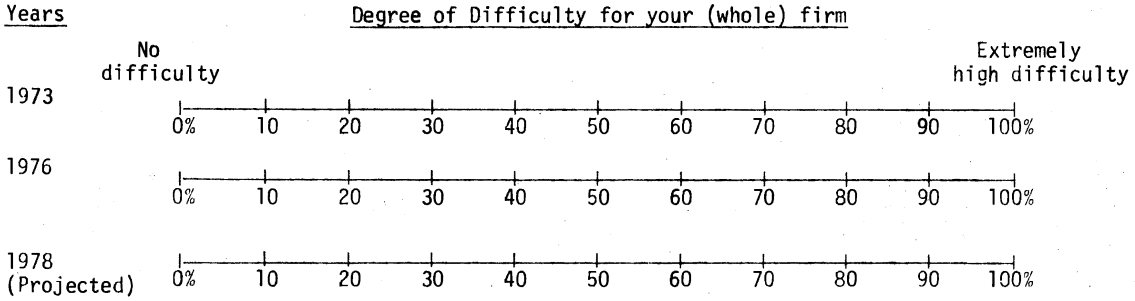


5

'A NOTE FOR QUESTION 5:

[A firm (as a whole) can experience varying degrees of difficulty to achieve their major objectives and goals during different years. Here is an example of extremely high difficulty: a mass producing, labor-intensive firm which faces stiff competition and price wars, rising costs of production and serious labor crisis--thus making it very difficult for the firm to achieve its major objectives and goals. Low degree of difficulty would be characterized by very easy conditions.]

QUESTION 5: Please indicate the degree of difficulty that you think your firm (as a whole) has faced in achieving its major objectives and goals set for each of the years: -



Note: The data below is optional. You need not give it. Anonymity will be respected in any case, even if you give it. If you wish that I send you summarized findings and analysis of this study, please check here ☐

Should you wish to remain anonymous, please mail the completed questionnaire and this portion below separately after detaching it.

Your Name _____

Designation _____

Office Address _____

_____

Telephone _____

Would you please promptly mail this in the enclosed envelope. Thank you very much!

VITA[2]

Yezdi Minoo Godiwalla

Candidate for the Degree of

Doctor of Philosophy

Thesis: OVERALL CORPORATE STRATEGY: THE FUNCTIONAL MANAGEMENTS' INFLUENCE-MIX APPROACH

Major Field: Business Administration

Biographical:

Personal Data: Born in Bombay, India, April 23, 1943, the son of Mr. and Mrs. Minoo E. Godiwalla.

Education: Graduated from St. Mary's High School (Cambridge Section), Bombay; received Bachelor of Arts (Honours) degree in English Literature (Honours) and Economics, from Ranchi University, India, in 1966; MBA (Post-Graduate Diploma in Business Administration) in General Management, Organizational Behaviour and Marketing from the Indian Institute of Management, Ahmedabad, India, in 1968; completed all requirements for the Doctor of Philosophy degree at the Oklahoma State University in May, 1977.

Professional Experience: Over five years of practicing experience as a Manager in Godrej and Boyce Company, Bombay, in many fields of marketing and general management, 1968-1973; Instructor at the Oklahoma State University and taught many different courses in the areas of Marketing and Management, including Business Policy, 1974-1977.