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**Strategic management and the search for determinants of
organizational effectiveness**

Drago, William Albert, Ph.D.

University of Arkansas, 1990

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STRATEGIC MANAGEMENT AND THE SEARCH FOR DETERMINANTS
OF ORGANIZATIONAL EFFECTIVENESS

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OF ORGANIZATIONAL EFFECTIVENESS

A dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy

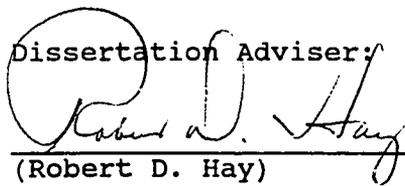
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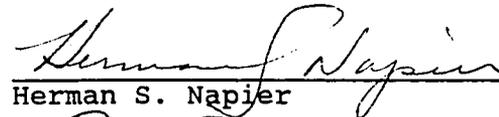
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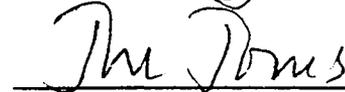


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CHAPTER 1

Background Information for the Study

What makes some organizations more effective than others? The answer to this question is management's key to competitive success and has been sought by numerous researchers from various disciplines such as industrial economics, sociology, organization behavior, and most recently, strategic management. However, results of these various investigations have been far from satisfactory. Yet the quest for answers or even insights to this complicated puzzle continues, for the potential rewards are great.

Lenz' (1981) review of several theoretical frameworks for assessing organizational performance suggested six broad categories that had previously been investigated. These were the determination of relationships between:

- 1) the environment and performance,
- 2) the environment, organization structure and performance,
- 3) organization structure and performance,
- 4) strategy, organization structure and performance,
- 5) the environment, strategy, and performance, and
- 6) administration and performance.

Although a review of these investigations and others which have surfaced more recently will be left for the next chapter, it is apparent that the search for determinants of organization performance has centered around three main areas; the organization (including its structure and administration), the organization's external environment, and its strategy.

In the past few decades a management system has been developed called the strategic management process. This

management system emphasizes internal and external environmental scanning, the development of a formal strategic plan and, then, the implementation and control of that plan, to promote the long-run success of the organization. Until recently research in the strategic management field has been substantially descriptive, emphasizing the 'process' or how the act of strategically planning or managing an organization could be carried out rather than offering actual guidelines to managers in the formulation, implementation and control of specific strategies. This has been due, in part, to the complexity and uniqueness of organizational strategy, making cross-sectional studies of determinants of strategy and then, performance within a particular strategy, difficult. However, research on the 'content' of strategy has developed classification schemes for organizational strategies which make cross-sectional studies more practical, opening up the possibility for more normative (and testable) research in this highly popular and quickly developing field.

In this study, it is proposed that determinants of, first, organizational strategy and, then, effectiveness given a particular strategy can be found by combining the two major classification schemes which have emerged from research on the content of strategy with the insight that the strategic management process provides. If successful, this combination will take the evolution of strategic management one step further along its path, from a 'way of

thinking' about the management of organizations to a 'guide to action' for practicing managers.

Additionally, this study suggests a logical combination of those areas cited by Lenz in the search for determinants of organizational effectiveness. This can best be described through a brief history of the evolution of strategic management.

The Evolution of Strategic Management

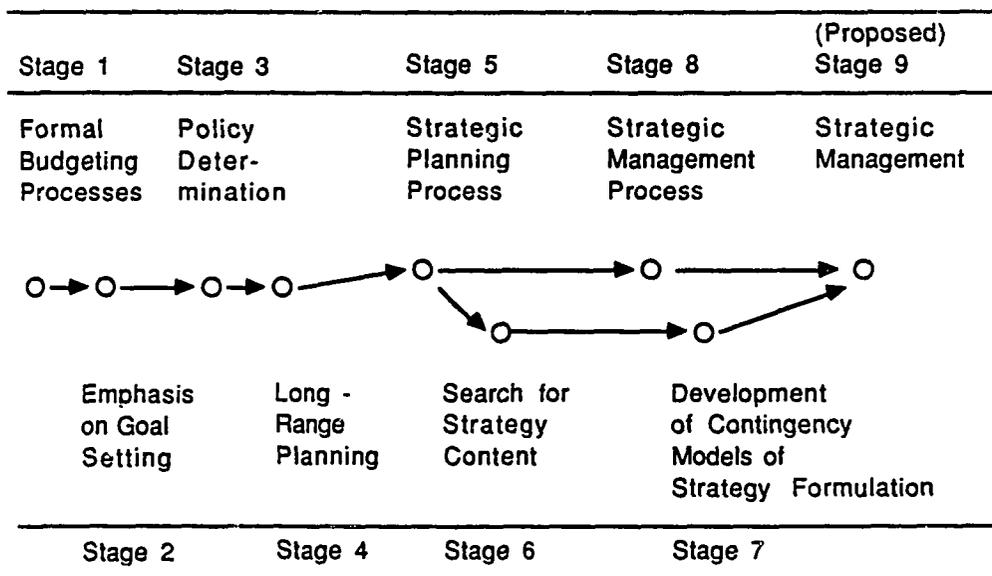
Strategic management has evolved through a number of different stages, with most stages following a natural progression from its beginning as a planning aid for managers to its current status as a comprehensive management system that could be used to help organizations' accomplish long-range success. One stage, the search for the 'content' of strategy, actually took the study of strategic management off this progressive path and into a new direction. These stages and their approximate relationship to each other are shown in Figure 1-A. A brief description of each stage is provided in the following sections.

Stage 1: Formal Budgeting Processes

Although many writers have suggested that strategic management evolved as a discipline from the incorporation of the business policy class within a college of business curriculum in the 1950's, its roots go back at least to the late 1800's when many businesses reached a developmental stage in their growth which required a formal administrative structure overseeing operations. At this point, planning,

for the most part, was rudimentary, with an emphasis on the use of formal budgeting processes as both a planning and control aid. Often, the budgeting process was guided primarily by the past activities and performance of an individual or department within the organization and only secondarily concerned with futuristic considerations. (Problems with this 'incremental approach' to budgeting were later addressed in the 1960's by Peter A. Pyhrr in his "zero-base" budgeting approach (Pyhrr, 1973)).

Figure 1-A
Stages in the Evolution of Strategic Management



Another difficulty with the use of budgeting approaches was that the emphasis remained with control of operations rather than striving for coordinated effort in the organization.

Perhaps a more important limitation to the use of

formal budgeting processes as the sole means of planning an organization's future was their short-term focus (they were typically developed for one-year time periods or less). Budgets often caused managers to make decisions based on short-run profitability even though other alternatives might have been more appropriate for the long-run success of the company.

Stage 2: An Emphasis on Goal-Setting

With increased attention toward individuals in the workplace (the 'behavioral' approach to management) an increased emphasis on goal-setting throughout the organization took place. The setting of goals was seen as a mechanism for increasing the motivation of workers and, thus, organizational productivity. By following the managerial hierarchy in the goal-setting process coordination of effort could also be enhanced, with subordinates assigned goals based on the assigned goals of their superiors. Furthermore, the use of organizational goals fit well with the belief that managers based decisions on certain economic criteria such as the maximization of wealth of the stockholders.

Stage 3: Policy Determination

During the 1950's the 'policy' class was introduced to College of Business curricula. This class was seen as a 'capstone' class where students could use their knowledge of various business 'functions' to solve the problems of companies through case studies. The introduction of this

class led to the linking of 'policy' formulation with the goal-setting process. Policy was generally considered as synonymous with strategy. However, the original emphasis was on developing functional-level policies, which were dictated by the goals of the organization, rather than company-wide strategies, which, at this time were not well developed.

Through use in the classroom, models of policy formulation and goal-setting became prevalent. These models set the foundation for later strategic planning and strategic management models.

The use of goals, and then policies, improved management's ability to coordinate actions throughout the organization. However, another major limitation was thought, by researchers, to still exist. This was the short-term orientation of managers in making decisions. This limitation was addressed in the fourth stage of strategic management's evolution.

Stage 4: Long-Range Planning

Organizational needs for more effective resource allocation and a longer term focus led to an increasing emphasis on long-range planning. Managers were asked to look past one-year time intervals in making major decisions. This long-term focus led to a greater need for forecasting the organization's future environment, both internal and external, which introduced yet another difficulty; the uncertainty involved in trying to forecast many of the variables considered to be important to the future success

of the organization (Linneman and Kennell, 1977). As organizations grew, the number of variables to be considered also grew. The difficulties introduced by the long-range planning focus led to a need for a framework for planning which described the "process" of determining an organizations' future (e.g. Linneman and Kennell's "shirt-sleeve approach to long-range plans", a forerunner to strategic planning).

Stage 5: Strategic Planning

The emphasis on long-range planning thus led to the formulation of the strategic planning process which asked managers to answer three fundamental questions;

- 1) Where is their organization now?
- 2) Where do they want it to be in the future? and,
- 3) How can they get their organization from where they are now to where they want it to be?

The answer to the first question yielded an analysis of the organization's current situation; its strengths and weaknesses, internally, and its opportunities and threats, externally. The answer to the second question gave the organization a direction to strive for, often put in the form of a mission statement and a set of long-term objectives. The answer to the third became the organization's strategy which was often defined through a hierarchy of goals and action plans within the organization. Altogether, they became the organization's strategic plan, its road map for future activities. However, at this stage of development, the emphasis was still on the 'process' of

strategy development rather than the 'content' of strategy and the building of contingency models of strategic behavior. In other words, most of the literature in the area, at this time, concentrated on how the strategic planning process could work in firms rather than on what possible strategies might be most appropriate in certain situations.

One consequence of the strategic planning research stream (and its forerunner, long-range planning) was the identification of major determinants of strategy. These major areas included the organization's external environment, the strengths and weaknesses of its internal environment, its mission and objectives and, also, the general philosophy of its top management team. Although empirical justification of these areas with relationship to strategy formulation is scarce, there is surprising agreement in the literature on their importance to the strategy decision.

Stage 6: Strategy Content

Although various generic strategies had been identified prior to the introduction of strategic planning to the business world, this research stream picked up steam as the popularity of strategic planning increased. With the increased interest in the strategic planning process a need developed for further clarification as to what exactly constituted an organization's strategy and, also, what common strategies could be found to exist within various

companies. This led to research on the content of organization strategy and to classification schemes for various alternative strategies.

Two major classification schemes have surfaced, each dealing with one characteristic of the organization's overall strategy. These include the organization's 'growth' strategy and its competitive strategy. Chandler (1962) was one of the first to emphasize generic growth strategies in the business policy/strategic management area. Various growth strategies include size growth (generally measured in terms of sales), vertical integration, product diversification and international expansion. Porter (1980) suggested three competitive strategies that organizations' used to compete within specific product/market areas. These included low-cost production leadership, product differentiation and market-focused strategies.

A major aspect of this research stream was the shift from a descriptive approach to strategic behavior to a more normative approach to the research. This was possible because strategy was broadly defined as "the basic characteristics of the match an organization achieves with its environment", (Hofer and Schendel, 1978, p.4). Thus, all organizations could be said to have a strategy, even if it was not necessarily well developed.

Stage 7: The Development of Contingency Models of Strategy Formulation

With the ability to classify various generic

organizational strategies came the possibility of building contingency models of strategy formulation, suggesting certain strategies given certain characteristics of the organization and its environment. Hofer (1975), among others, assisted research on the 'content' of strategy development when he recommended concentrating on the line-of-business level of organizations, a level which contained fewer variables than the corporate level of multi-product, multi-market corporations. Such strategic tools as the BCG matrix, the GE 9-Cell matrix and the Life-Cycle matrix have used a contingency approach based largely on line-of-business specific criteria to suggest strategies for individual products. These tools also made it possible to develop 'corporate strategy' defined in terms of an appropriate combination of single line-of-business strategies.

Thus, this early emphasis on line-of-business strategy caused a tunnel-vision effect on future 'contingency-based' research, often directed at the divisional level of larger organizations. This focus on line-of-business strategy seemed to work well as long as the primary emphasis was on the formulation of strategy as was true of the strategic planning process. As Hofer suggested (1975), a company cannot be successful at the corporate level until it is successful at the line-of-business level.

However, with the evolution of the strategic planning process to the strategic management process this emphasis on the divisional level of many organizations caused a major

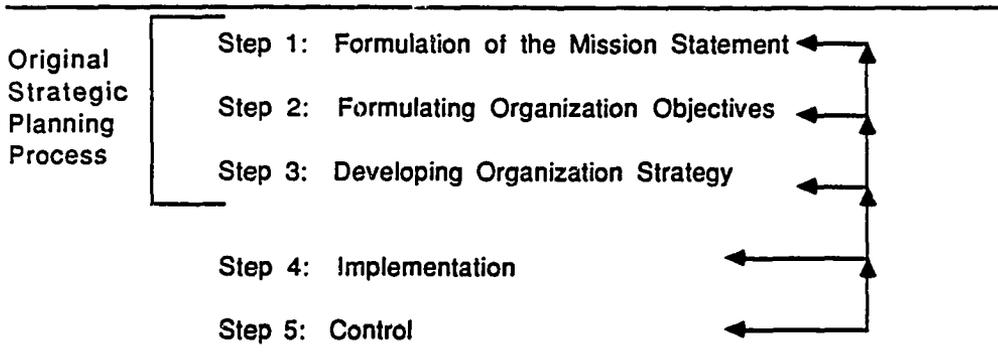
roadblock in that any research on the implementation and control of specific strategies (defined at the line-of-business level) was almost, of necessity, relegated to the divisional level of many organizations. But what of the impact on strategy implementation and control by corporate headquarters, by corporate-wide policies and procedures, by the corporate culture? Is it to be assumed that these impacts are negligible?

Stage 8: Strategic Management Process

The strategic management process was a logical extension of the strategic planning process, adding two phases; strategy implementation and control, to the process. Again, the major emphasis in this stage of development was on describing how the process might work in organizations rather than providing guidance on particular strategies. However, the evolution to the strategic management process was a major step in that it took the field of study from its old role as a possible planning technique or planning 'system' in organizations to a new role as a comprehensive 'management system' involving all major managerial functions. Also, the strategic management process more closely reflected the dynamism of managing an organization through time.

Figure 1-B shows a model depicting the various steps involved in the strategic management process.

Figure 1-B
Steps of the Strategic Management Process
(Thompson & Strickland, 1987)



This model suggests that executing major shifts in strategy is a time-consuming exercise. Once strategy has been formulated an organization must make adjustments to effectively implement and control its new 'direction'. Exactly what adjustments are necessary given particular strategies remains unclear. However, the implementation and control phases of the strategic management process have commanded considerable attention in recent strategic management literature. Although empirical research is scarce, several authors have attempted to classify major areas of concern in the successful implementation and control of organizational strategy.

Remarks on the Past Evolution of Strategic Management.

At this point it is necessary to reiterate a few of the peaks and valleys through which strategic management has traveled in its evolutionary path. First, strategic planning can be seen as a response to the limitations of budgeting

processes and a short-term planning horizon in the managing of organizations. Although the strategic planning process did effectively categorize several broad areas as important determinants of strategy, its approach was generally descriptive and normative, suggesting how the process should work in organizations rather than determining what organizations actually did to formulate strategy. One reason for this may have been the belief that organizations without formal, written strategies had no strategy. Another possible reason may have been the belief, still held by many, that strategy was so unique to the organization and its situation that research beyond individual case studies was not practical.

Literature on the content of strategy opened the door to a contingency approach to research in the area, making the assumption (by definition) that all organizations had some characteristics of a strategy, whether the strategy was well developed or not. From this stream of research there emerged two strategy classification schemes which emphasized major characteristics of organizational strategy; the intended 'growth' of the firm and the firm's competitive strategy. These strategy characteristics could be identified in most organizations. The ability to classify various generic strategies made it possible to formulate and test contingency theories of strategic behavior which led to the popular strategic planning tools of the 1970's (i.e., the BCG matrix, the GE 9-cell matrix, ect.). However, because of the emphasis on line-of-business specific strategies, most

of the following research concentrated in this area, even though there has been a general trend since World War II for firms to have increasingly more diverse operations and markets.

The strategic management process took strategic planning from a proposed way of planning in organizations to a proposed way of managing organizations. However, the literature in this area continues to be substantially descriptive, in nature, suggesting how the process might work rather than identifying specific actions which have led to increased effectiveness in firms. The past concentration on line-of-business specific strategies has hindered the ability of researchers to test for the effectiveness of organizations in implementing and controlling specific strategies except on a line-of-business specific basis. In other words, researchers are limited to testing for effectiveness of certain implementation and control devices within single line-of-business firms, which are becoming exceedingly rare, or treating divisions of multi-line-of-business organizations as autonomous units, an assumption that is undoubtedly misleading in many of today's larger companies.

Stage 9: Strategic Management

The last stage to be described will be referred to simply as strategic management. Strategic management is seen as the culmination of the preceding stages of the evolutionary process just described. Most importantly, it is

seen as the incorporation of strategy 'content' and the strategic management process. From the strategy 'content' stream of research it is possible to describe two major aspects of strategy that ring true for most organizations; the 'growth' characteristics of organizational strategy and the competitive characteristics of the strategy. From the strategic management process stream of research it is clear that major changes in strategy take time to execute. So, to assess the effectiveness of the implementation and control of certain strategies some time must elapse between the formulation of the strategy and measures of the effectiveness of the implementation and control of that strategy by the organization. Also, from the strategic planning process literature there is some agreement on the major determinants of strategy. From the strategic management literature, major determinants of successful implementation and control mechanisms used by organizations are also suggested, although agreement between writers on the subject is not quite as consistent as in the strategy formulation phase of the process.

The success of research devoted to the development of contingency models of strategy formulation suggests the possibility of extending this research on two fronts simultaneously. This would include an investigation of the determinants of strategy for all firms (including multiple line-of-business organizations), plus the determination of appropriate implementation and control mechanisms for given

strategies.

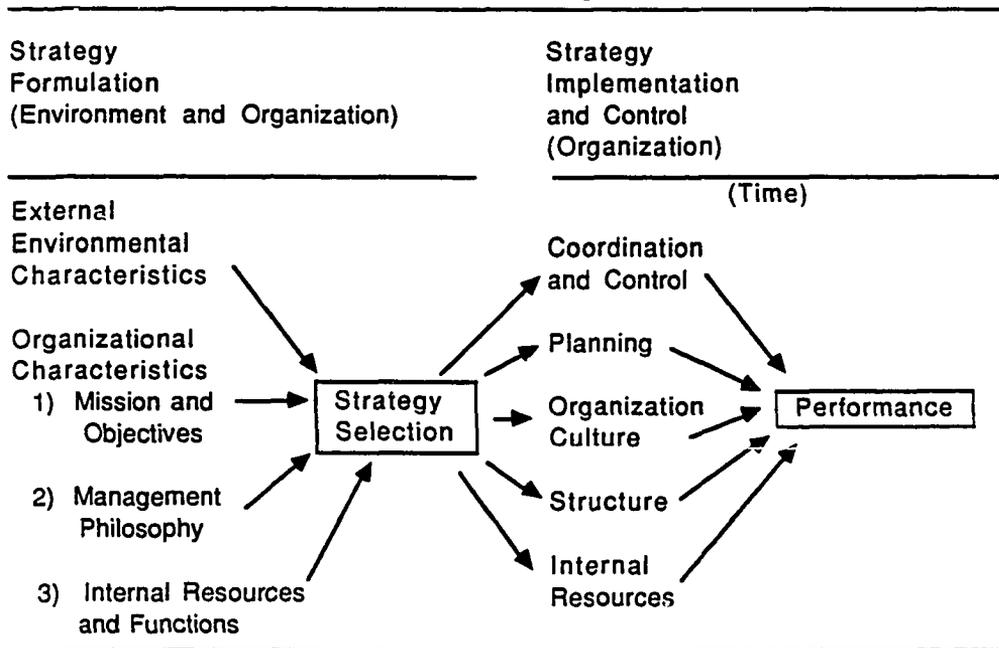
Finally, the strategic management process suggests a logical combination of those major areas cited by Lenz as important to the determination of organizational effectiveness. Using the insights that the strategic management process provides and the strategy classification schemes which have emerged from the strategy 'content' stream of research, it will be possible to empirically test for specific relationships, first for the appropriate strategy given certain organizational and environmental characteristics, and then for organizational performance given a particular strategy and the characteristics of the organization during the implementation and control phase of that strategy.

The performance model suggested by these past research streams is provided on the following page.

What is proposed is that the two classification schemes which have emerged from the research on strategy content (growth strategies and competitive strategies) be examined first, as dependent variables, for possible relationships with major categories of variables which emerged from the long-range planning and strategic planning stages of strategic management as primary determinants of strategy. Then, these two types of generic strategies will be treated as fixed variables, with performance of the organization acting as the dependent variable and major determinants of performance which have emerged from the strategic management process literature acting as the independent variables.

If successful, this analysis will take strategic management from just a 'way of thinking' about the management of complex organizations to a 'guide-to-action' for practicing managers. This research will suggest specific strategies given certain organizational and environmental characteristics and then, once a company has chosen a particular strategy, the results of this investigation may suggest specific adjustments in the organization required to effectively implement and control the chosen strategy.

Figure 1-C
A Strategic Management Model of Organizational Effectiveness



Can the Evolutionary Process Continue?

The problem addressed by this investigation is that the past study of strategic management has concentrated on the process involved in managing strategically, without offering

specific guidelines in the formulation, implementation and control of specific strategies. What little has been done in this regard has been concentrated within the strategy formulation phase of the strategic management process and has emphasized single line-of-business strategies and variables, internal and external to the organization, which are primarily line-of-business specific.

For too long, strategic management has been considered a management system, or a 'process' of management which organizations' could adopt or not, as they so chose. In reality, all organizations have some characteristics of strategy whether these strategies are pre-planned or simply emerge from the organization's continual interaction with its environment. Also, many organizations occasionally find that they must make major adjustments or changes in their strategies to remain effective. Thus, the strategic management process can be viewed as the formalization of strategic change. The process of strategic change, whether formal or informal, exists whenever an organization changes its strategy, and does not depend on top managements' belief in the merits of the strategic management process. Following this line of thought, strategic management can be viewed in a much broader perspective, as the study of the effective management of organizations within society. Although the strategic management process has been a useful tool to many managers, it is seen, here, as only one stage through which the study of strategic management will eventually evolve.

Research on the 'content' of strategy and the following formulation of contingency models suggesting certain strategies given particular characteristics of the organization and its environment suggests that this evolution has already occurred to a certain extent. Unfortunately, this research has largely been confined to single line-of-business firms or divisions within firms.

The key to the future of this field and its vast potential for the effective management of today's complex organizations lies in its successful evolution to strategic management. The potential benefits from the combination of the strategy content research stream with the insights of the strategic management process are great. If successful, this integration will provide actual guidelines to follow for future managers, in both the formulation of specific strategies and the implementation and control of those strategies leading to greater effectiveness and efficiency of tomorrow's organizations.

If This Research Is So Important,

Why Haven't Others Investigated It?

Three reasons are identified which have handicapped the pace of progress in the evolution of strategic management. The resolution of these difficulties is seen as a necessary first step in continuing the developmental progress of this field of study. Each of these difficulties are addressed in the following sections.

A Lack of Generalizability in Past Research

One reason for the slow progress in identifying specific relationships with strategy and performance within the context of the strategic management process model has been the lack of generalizable research across organizational types (usually the concentration has been on single line-of-business firms or divisions within firms and/or on specific industries). Although limiting research to one organizational type and/or to one industry reduces the necessary factors to be considered, it also forces progress in the development of strategic management to proceed in a piecemeal fashion. Also, this lack of generalizability restricts the appropriate use of any findings from the research to act as guidelines for managers of today's exceedingly complex and structurally diverse companies. What is needed is a set of guidelines for the formulation, implementation and control of strategy that can be of use to all (or more realistically, most) firms, rather than concentrating on single line-of-business, and often, functionally departmentalized firms which are becoming more and more scarce among large companies across the world (Hofer and Schendel, 1978).

In order to increase generalizability, strategy 'content' must be described in such a way that it fits the strategies of most organizations, not just single line-of-business firms. If this is possible, then it follows that characteristics of organizations' internal and external environments can be analyzed to determine significant

impacts on the strategy formulation phase of the strategic management process. These same strategies can then be used to determine how organizations effectively implement and control their chosen strategies by making comparisons between high and low performers (without making the assumption that the corporate headquarters of an organization with multiple lines-of-business has a negligible influence on implementation and control or limiting the sample to exclusively single line-of-business firms).

The Number of Variables to be Considered

Another reason for the general lack of empirical research in this area has to do with the sheer number of variables which must be considered. Only recently have studies of organizational effectiveness started to consider linkages between external environmental variables, strategy and internal organizational variables with performance. Yet this is precisely what needs to be studied for the complete integration of the strategic management process with strategy content. With improved statistical techniques and greater computing power, the ability to work with such large numbers of variables has become more practical, although still cumbersome.

The various models of strategy formulation and implementation which have been proposed have helped to narrow the focus on certain broad categories of variables, although within each category is an almost endless list of

possible variables which could be considered. It is almost a "Catch-22" in which empirical testing needs to be done to determine the most important variables to consider, but where does one start? What is needed is research like that instigated by the PIMS data set to empirically determine which variables are most important to the formulation, implementation and control of strategy, yet not relegated, as the PIMS research stream generally is, to the line-of-business level of organizations.

Obtaining Data

A final problem which plagues research in this area is the difficulty in collecting appropriate data to make these investigations. Much of the information must be gleaned from overworked corporate heads through mail questionnaires or personal interviews on topics that are many times considered very private and not for public consumption.

The increasing availability of secondary data sources may ease this problem in the future; however, their current use in this area has been restricted due to their almost exclusively financial nature. What is intriguing about these secondary sources is that they make it possible to analyze large numbers of firms over a period of years, something that is most difficult to accomplish using primary data collection methods. Given the importance of timing in investigating determinants of organizational effectiveness, this characteristic of secondary sources makes them particularly attractive to researchers in this area.

However, the availability of data does not reflect the availability of information, at this point. More work must be undertaken to develop this potentially important information source for future researchers in the strategic management field.

How Can We Get To Where We Want to Go?

What follows is a general description of the proposed analysis. Each of the three problems which were identified above will be addressed. Possible solutions will be introduced which, if successful, will contribute significantly to the future use of strategic management as a guide to action for managers of tomorrow's organizations.

Increasing Generalizability

In order to take the study of strategic management to its next stage of development as a 'guide to action', determinants of strategy and strategy itself must be developed at the organization-wide level. This will make it possible to investigate and identify relationships between the organization, its environment, its strategy and performance which will help guide all managers in the strategy formulation, implementation and control phases of the strategic management process.

Classifying strategy. In order to accomplish the purpose of this proposed analysis strategy classification schemes must be developed for all firms whether they are single line-of-business or multi-product/multi-market

organizations. The proposed research will classify various organizational strategies in two ways. First, the "growth" of the firm will be determined by defining strategy in terms of its intended impact on the current domain of the organization. Secondly, the 'competitive' strategy will be determined, using a modified form of Porter's classification scheme (1980).

In a broad sense the domain of an organization represents the claims it has staked out for itself in the external environment (Harrison, 1986, p.139). In other words, an organization's domain is that part of its environment in which the organization concentrates its strategic efforts. All organizations, whether they are primarily single function (usually marketing or production), single product/market, or multi-product/multi-market, have four alternatives from which to choose their future direction. These are:

- 1) domain enlargement - to enlarge their domains to include additional activities in the form of vertical integration, product diversification or market expansion,
- 2) domain enhancement - to concentrate on their current domain through efforts to increase sales or reduce costs,
- 3) domain reduction - to reduce their total domain, dropping some activity, product, or market from their current operations, and
- 4) domain restructuring - which will be defined as a combination of the above alternatives, where no one alternative is considered to have the greatest importance.

These four alternatives will be used to define the organization's domain direction strategy.

The second way strategy will be defined is by its competitive strategy. Porter (1980) suggests that there are three generic competitive strategies available for any single line-of-business. These are:

- 1) a low-cost production leadership strategy,
- 2) a product differentiation strategy, and
- 3) a market-focused strategy.

Although these are generally considered line-of-business specific, they may also become corporate-wide competitive strategies (e.g. IBM with its corporate-wide emphasis on customer service, (Peters and Waterman, 1982)). However, organizations may choose to change the competitive strategies of their various product/market areas to fit their specific environments. Also, organizations may choose some combination of Porter's original three strategies (for instance, striving to be a low-cost producer within a focused market). Thus, the competitive strategy classifications (the three mentioned above) will be analyzed along with two other possibilities. These are:

- 4) multiple competitive strategies, aligned to specific product/market areas, and
- 5) a corporate-wide combination strategy.

Organization-wide variables to be considered. Variables to be considered in investigating relationships with strategy will be chosen under the assumption that both single line-of-business and multi-line-of-business firms will be included in the sample. Such variables as market share and market potential will not be considered even though they have been popular variables in past models of

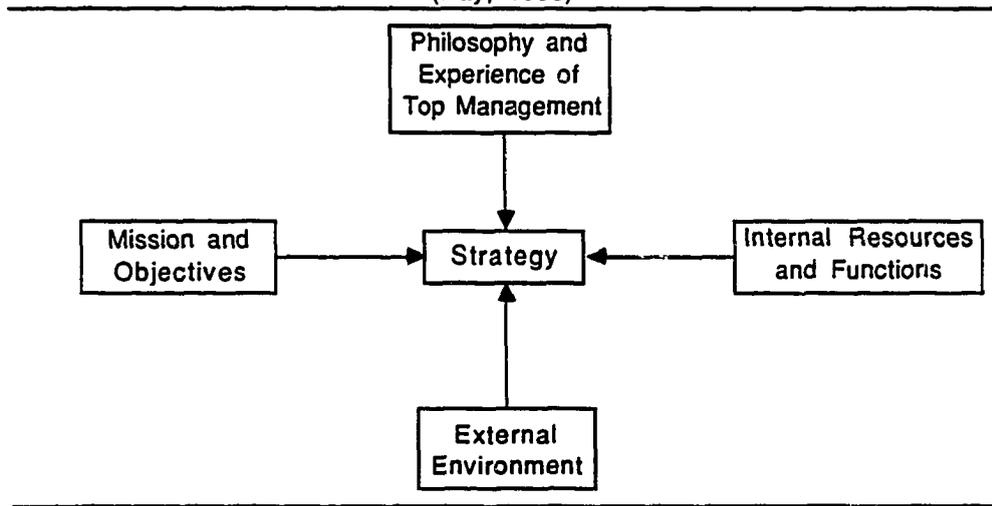
strategic analysis concentrating on the line-of-business level.

Determining Which Variables to Consider

The variables to be considered in the analysis will be determined from two models developed from a review of past literature on the formulation, implementation and control of organization strategy. These models present broad categories of variables which have been proposed as important to the various phases of the strategic management process. Each model will be presented in the following sections. Specific variables to be included within each category will be further specified in the following chapters.

Determining variables for strategy formulation. Several models of the determinants of organization strategy have been proposed. In fact, agreement is surprisingly widespread on general areas of importance. The variables to be considered in the strategy formulation phase of this study will be generated from the model shown in Figure 1-D.

Figure 1-D
Major Determinants of Strategy Formulation
(Hay, 1988)



From the model it can be seen that there are four major areas considered to be important in determining organization strategy. A brief discussion of why these are considered of major importance follows.

The philosophy and past experience of top management is included because top managers are generally considered to be the primary strategists in the organization, usually given the ultimate responsibility for picking the organization's future direction. Even though 'leadership' continues to be one of the most researched and discussed topics in management literature, this major area is probably the one most often left out in some models of strategy formulation (see, for example, W.F. Glueck's "Strategic Management Process Model", 1980, p.7)

The mission and objectives are the second major area to be considered in this analysis. Actually, formulating a

mission statement and long-term objectives for the company are generally considered preliminary steps in formulating organization strategy and were introduced earlier as part of the strategic plan. Both the mission and long-term goals of an organization are direction-setting devices. The mission statement is often a very general statement of the organization's purpose or 'reason for being' while long-term objectives define, more specifically, endpoints for which the organization will strive. Surprisingly little has been done to actually tie the mission statement and long-term goals to specific strategies. This may be due to the very general nature of mission statements, the realization that organization's have multiple objectives or, perhaps more importantly, the realization that not all firms actually bother to formally state their mission or long-term objectives.

Internal resources and functions (sometimes referred to in more general terms as the organization's internal environment) make up the third major area to be included in this formulation phase of the analysis. What are being sought are major strengths or weaknesses of the organization which could trigger one strategy to be chosen over another. At the line-of-business level, competitive strength (often measured in terms of the company's relative market share) was often used as the sole internal determinant of strategy formulation. Although it has been suggested that a firm's 'distinctive competence' is an important consideration in

the formulation of strategy (Thompson and Strickland, 1987), specific relationships between the firm's strengths and/or weaknesses and strategy content have not been well developed.

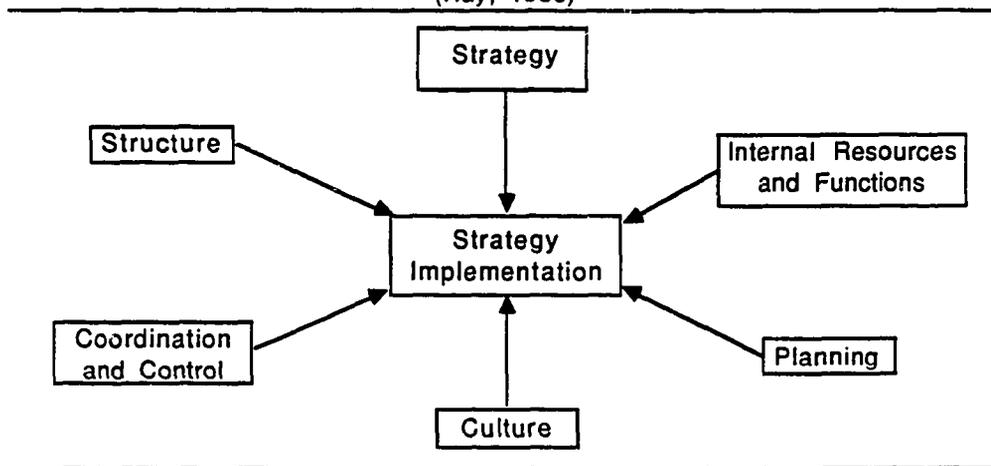
Finally, the external environment is considered as the last major area of concern in strategy formulation. Here, major opportunities or threats in the environment are believed to have an important impact on strategy selection. In the past, market potential (stage of the product life cycle, average growth of the market) was often used as the sole external environmental determinant of strategy formulation. Yet, the environment of an organization is vast and there is substantial evidence that other variables have an important impact on the organization such as environmental volatility and diversity, which thus far have not been thoroughly analyzed. Also, 'stakeholder analysis' is becoming a popular aid in the strategic management field but actual links between strategy and the influence of various stakeholder groups have not been well developed.

These major areas will act as a format for the selection of variables to be used in determining possible relationships with the two dimensions of strategy to be investigated in this study; domain direction and competitive strategy.

Determining variables for effective strategy implementation and control. The development of models of strategy implementation and control has been a relatively

recent phenomena in the strategic management field, even at the line-of-business level. Because of its recent origin there is less agreement on major areas of concern. However, a review of the literature in this area does suggest six areas which have been addressed. These are shown in the following model.

Figure 1-E
Determinants of Successful Strategy Implementation and Control
(Hay, 1988)



Delineating the strategy chosen seems to be a logical first step in determining appropriate organizational adjustments necessary to effectively implement and control the chosen strategy. However, much of the past literature on organizational change fails to include strategy as a possible starting point. It is hoped that from this analysis it will be shown that the strategy of an organization is an important determinant of the appropriate organizational adjustments necessary to enhance performance. The same two dimensions of strategy; domain direction and the competitive

strategy, will be used in this phase of the analysis.

Structure is the second major area of concern which will be addressed in this study. Structure will be defined as the overall departmentalization of the organization. In other words, the primary concern in this area will be in describing how the organization divides itself into subunits, its division of labor. The link between structure and strategy is one of the few areas in which there has been considerable activity, pushed most notably by Chandler (1962) in his landmark history of several American organizations. The link between strategy, the organization's structure and performance has not been so clearly developed and it is this link which will be sought in the analysis.

The third area of concern groups together coordination and control. Coordination is seen as the "glue" which holds the organization together. Where structure addresses the division of labor within the organization, coordination addresses the integrating mechanisms used by the organization to effectively tie the activities of its subunits together. Control will be defined as the ability of the organization to make behaviors of individuals within it predictable. As such, it becomes an important intervening variable in effective coordination. The mechanisms used to coordinate the activities of the organization's subunits are often used simultaneously to control activities. It is for this reason that these two important managerial functions are grouped together in one category. It is also for this reason that the last two phases of the strategic management

process (implementation and control) will be treated as one in the analysis, although this may be an over simplification.

The fourth major area of concern in this phase of the analysis is the internal resources and functions of the organization. This is a holdover from the formulation phase of the study. Keeping in mind that the internal environment of the organization is only one area of concern thought to be important to the formulation of strategy, once the strategy has been chosen, the organization must make appropriate use of its resources, deal with its weaknesses and take advantage of its strengths in terms of the chosen strategy.

The fifth area to be covered in the analysis will be planning. Planning has been referred to as the 'primary' management function (Kreitner, 1983) in the belief that when planning takes place other functions of the manager are more easily accomplished. But is it important enough in the implementation and control stages of the strategic management process to affect performance? Or is its importance primarily when the organization decides that a major strategic change is warranted? Finally, does its importance vary with the strategy currently being implemented by the organization?

The last major area of concern in the effective implementation and control of organization strategy is organizational culture. Organizational culture is a very

broad construct derived to more fully describe the behavioral patterns found within organizations. Many researchers have suggested that the shared values of individuals within the organization are the central core of the corporate culture (i.e. Peters and Waterman, 1982) and others have suggested that shared values between individuals may be the coordinating mechanism used in organizations of the future (Mintzberg, 1979).

Shrivastava and Guth (1985) have proposed a link between corporate culture and various strategic types (prospectors, analysers and defenders); however, there is little empirical evidence, thus far supporting a match between strategy, organization culture and performance.

These six areas of concern will be used to select those variables which will be analyzed to investigate possible links between strategy, the organization and performance.

Determining organization performance. How does one assess the performance of an organization? There is little agreement among writers in the field on any one ultimate measure of performance. Actually, several variables have been used and the trend, at least according to Steers (1975), has been to use multivariate measures in the assessment of organization performance. Although the ultimate decision deserves greater attention, this will be reserved for the next chapter. Suffice it to say at this point that performance will be assessed using return on investment (ROI) as the sole criterion. This does not

suggest that ROI be considered as the ultimate criterion for assessing the performance of organizations. Its use implies only that we accept its limitations in measuring only one aspect of organization performance, but we believe this to be an important aspect of performance which will contribute to our understanding of organizations and strategic management.

The Collection of Data

Although the following study does not 'solve' the difficult problem of data collection and the dependence of researchers in this area on the good graces of corporate heads for needed information, it may 'resolve' this problem to some degree for future researchers. What is proposed is that the sample of firms to be used in the analysis be taken from a secondary data source, Industrial Compustat (Standard & Poor's Compustat Services, Inc.). It will then become possible to use the financial data from this source to determine if surrogate measures of certain variables found to be important to the formulation of specific strategies can be obtained. Even if only a few variables are found to have adequate surrogate measures from this secondary data source, it may be enough to 'break-in' to the strategic management effectiveness model at the strategy formulation level (see Figure 1-F, pg. 37).

Not only would this be valuable to future researchers in suggesting the importance of select financial criteria to the study of strategic management, but it would also become

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strategic changes of key competitors.

Formulation of the Research Questions

It is now possible to state in formal terms the three
research questions which will be addressed in the three
phases of this analysis. The research question to be
addressed in the first phase of the analysis is:

1. What organizational and environmental conditions exist
which have a significant impact on the formulation of
particular organization strategies?

In the second phase of the study the research question to be
addressed can be stated as:

2. What internal organizational conditions exist which seem
to most effectively enhance the performance of firms in
the implementation and control of particular strategies?

In the third phase of the analysis the research question
which will be addressed is:

3a. Which variables found to be of significance in the
formulation of certain strategies have adequate surrogate
measures which can be determined from secondary data
sources?

As a corollary to the above research question:

3b. What is the predictive power of these surrogate measures
in determining the chosen strategy.

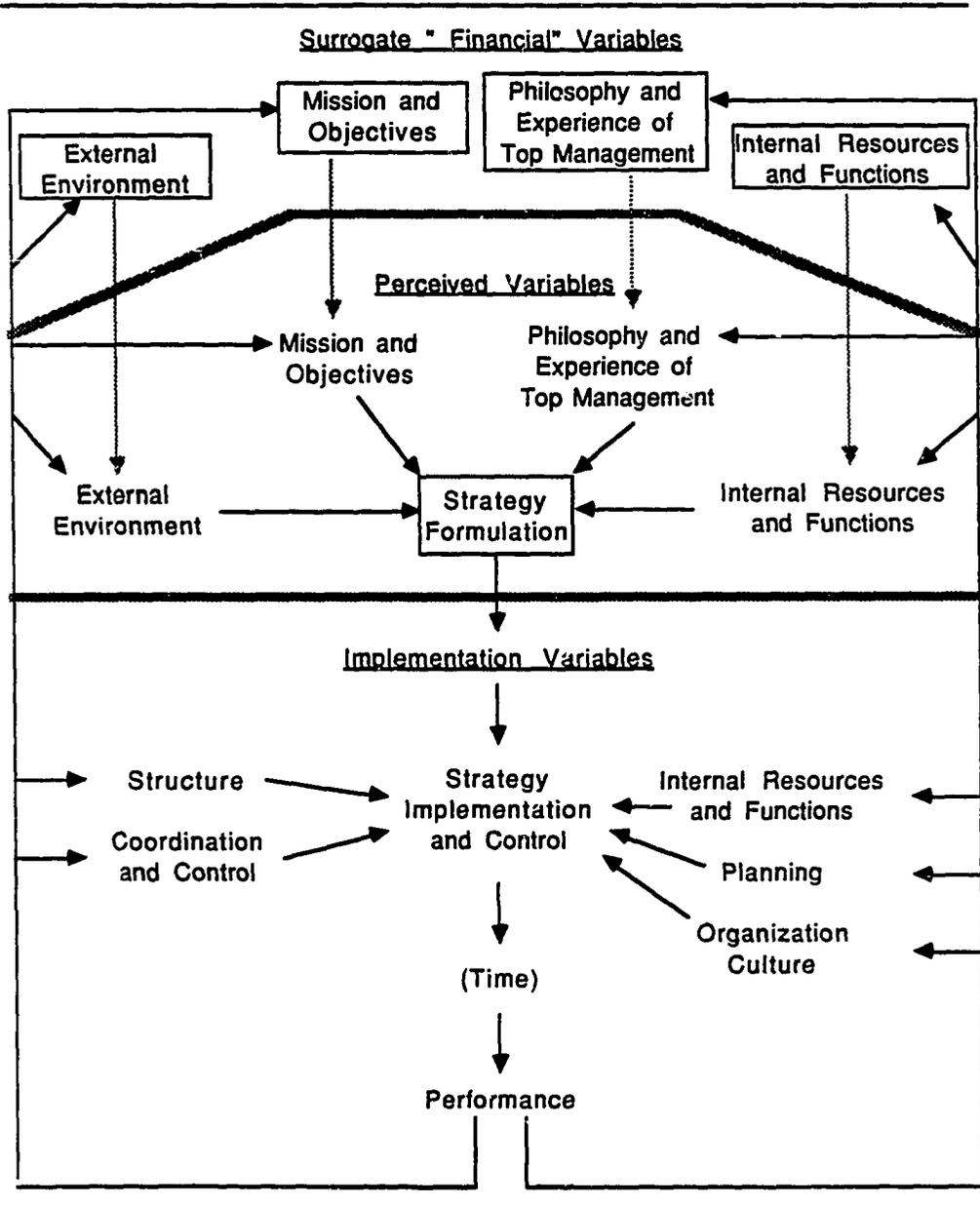
Because this is an exploratory study no specific
hypotheses will be tested. However, past research has
presented enough evidence to suggest certain relationships.
These proposed relationships will be discussed in Chapter 2
and are formally stated in Chapter 3 of the dissertation.

Summary

What is proposed in this study is the development of a general 'guide to action' to future students and managers in the formulation, implementation and control of strategies with certain strategic characteristics (domain direction and competitive strategy). If successful, a model will be developed which specifies those characteristics most significant to the selection of an appropriate strategy and then depicts the organizational characteristics necessary for effective implementation and control. Finally, the use of secondary data will be introduced to 'break-in' to the model at the formulation stage, making it possible for those with only 'public' information to predict the appropriate strategy for the firm. This model is depicted on the following page.

The business policy/strategic management field has come a long way through its development. Evidence of its importance can be seen through the widespread use of its tenets by practicing managers and through the popularity of the articles, journals and books in this area which have flourished in the recent past. As a 'way of thinking' it has been a great benefit to many in the successful management of today's organizations. However, there is more to do. Its developmental path is not yet complete, nor will it probably ever be, for the study of strategic management must evolve just as the organizations and the world to which it is

Figure 1-F
Determinants of Organizational Effectiveness



directed evolve. This study is seen as an important and necessary step in the continued development of strategic management. It is seen as a major step in taking the field from a 'way of thinking' to a 'guide to action' in the increasingly complex and dynamic world of managing tomorrow's organizations.

CHAPTER 2

The Search for Determinants of Organizational Effectiveness: A Review of the Literature

Investigations of determinants of organizational effectiveness continue to flourish in the behavioral sciences. In the preceding chapter it was noted that numerous researchers have sought relationships between the organization, its environment, its strategy and organization performance; although seldom in all areas at the same time. Also, the evolution of strategic management was presented. Two major phases within this evolutionary process, the strategic management process and strategy content, actually took research in two diverse but important directions. It is felt that by bringing these two major research streams of the strategic management area together it will be possible to add to the foundation that others have already started in the search for determinants of organizational effectiveness.

In this chapter of the dissertation past literature will be reviewed that pertains to the proposed study. The chapter begins with a definition of organization effectiveness and a review of past research on the search for determinants of organizational effectiveness, structured around different combinations of four contingent variables; the environment, the organization (structure and processes), strategy and performance. This review will highlight the diversity of research frameworks used and numerous apparent ambiguities in reported results.

Progress in the strategic management/business policy area will then be discussed. More specifically, the strategic management process will be described as it has evolved from past phases of development. Also, a review of the research on the content of strategy is provided, suggesting two major dimensions of the strategy construct.

One contribution of the content of strategy research has been the increased usefulness of investigations of contingent relationships between strategy and other major factors thought to contribute to an organization's effectiveness. Thus, a description of contingency theory and current thought on its contribution to this area is also included.

In the next two sections of the chapter past studies will be discussed of contingency approaches which investigated major variables thought to be important to the strategic management process. The first section will consider relationships with major variables thought to be important to the formulation of strategy. The next section will center around relationships thought to be important to the implementation and control of strategy. The results of these studies will be used to form propositions to be tested in this investigation.

Finally, a brief discussion of the ongoing controversy between the importance of 'perceived' vs. 'real' information on organization action is provided. The final outcome of this controversy may weigh heavily on the future research

orientation in the strategic management area by elevating or dismissing the increasingly abundant secondary information available on today's companies.

The Past Search for Determinants
of Organizational Effectiveness

Effectiveness, taken literally, means to have an effect (Katz and Kahn, 1966). However, in the study of organizations it has come to have at least two more specific meanings. Herbert Simon (1957) suggested that the term 'effectiveness' was used with reference to the attainment of goals of leading coalitions or members of the organization. Thus, one common definition of organizational effectiveness has to do with the attainment of goals. Simplistically, effective organizations reach or 'satisfy' their goals, ineffective organizations do not. Also, Steers (1975), in a review of common measures of organizational effectiveness found that adaptation was often an underlying concern in various discussions of the concept. Effective organizations were able to adapt to changes in their environment, or alternatively, protect themselves from environmental changes. Thus, flexibility or adaptability of the organization seems to be another important criterion of organizational effectiveness.

These two criteria of organizational effectiveness are not necessarily incompatible. Adaptation can be seen as a dynamic aspect of goal attainment in that an organization must adapt its goal or goal set to the situation in which it

finds itself, or, alternatively, change its situation to make the goal or goal set more practical.

Frameworks of Organizational Effectiveness

As noted above, the past search for determinants of organizational effectiveness has been extensive. Lenz' (1981) review suggests that these investigations can be categorized in terms of the major areas considered in each particular study. These categories consist of different combinations of the environment, the organization and the organization's strategy.

The environment - performance link. Many of the studies concerned with investigating possible relationships solely between the environment and organizational performance have emphasized line-of-business specific criteria, such as sales concentration ratios, the rate of growth in demand, and the advertising-to-sales ratio, as general measures of the industry or market structure. Empirical research in this area has been extensive yet it is widely accepted that the power of structural characteristics of the market alone to enhance performance is quite modest (Vernon, 1972). One reason for this may be that the effect of certain aspects of market structure on performance is not uniform across industries or classes of products. Cattin and Wittink (1976) found that the relationship between the advertising-to-sales ratio and profitability differs greatly among industries. Of course, another reason may be that there are other determinants of organizational performance besides industry

or market structure.

Porter (1980) suggests that rivalries among competing firms results in the formation of strategic groups of firms having similar characteristics of their competitive strategies. Porter proposed that performance, to some extent, was influenced by strategic group membership. Hatten and Schendel (1977) also detected the existence of strategic groups in a study of the U.S. brewing industry. Their findings indicated that the strategies of firms enhanced their ability to explain performance, thus suggesting that strategic characteristics of all firms in an industry contributed toward organizational effectiveness.

Others have suggested that the relationship between the organization and its environment is reciprocal. It has been argued that firm behavior influences the structure of the market and the industry. For instance, Elzinga (1973), in another study of the U.S. brewing industry, found that economies of scale in production and efforts toward product differentiation affect market structure by giving rise to increased concentration and fewer, larger firms. Hirsch's (1975) study of the phonograph record and pharmaceutical industries provided further evidence of the influence organization action can have on the environment. In this study Hirsh claimed that the high performance of the pharmaceutical industry as a whole, could be attributed largely to the access of individual firms to patents and the use of brand loyalty for the various products in the

industry. In the record industry, the lack of effectiveness of the industry as a whole was associated with the inability of incumbent firms to control price and channels of distribution and their failure to effect legislation granting full copyright protection to recordings.

More recently, the impact of interorganizational linkages on organizational performance has become an important area of consideration. In 1967, Thompson suggested that organizations may enter into exchange relationships to reduce environmental uncertainty by achieving negotiated environments (1967, p.34). Pfeffer and Salancik (1978) presented their resource dependence theory of organization action suggesting that scarcity of resources in organizations' environments was a major factor in leading them to increase their interorganizational dependencies. Finally, Aldrich (1979) suggested that the complexity of resources in the environment promotes interorganizational dependence. Stearns, Hoffman and Heide (1987), in an investigation of commercial television stations investigated possible relationships between environmental uncertainty, interorganizational dependence and performance. The results of this investigation partially demonstrated that, "within a set of organizations interacting closely with their environments, interorganizational arrangements can increase organizational performance when correctly matched with environmental dimensions." (Stearns, Hoffman and Heide, 1987, p.85)

As could be expected, the environment alone does not

seem to be enough in determining organizational performance. The competitive position of the firm, which involves both organizational and strategic variables, certainly comes into play. Also, the environment seems to be both "cause" and "effect". As Lenz suggests, "Through an evolving pattern of interaction, some of its (the environment's) features are altered through organizational initiatives. These features, in subsequent periods, influence strategic choice and firm performance." (Lenz, 1981, p.133). Finally, the environment is multifaceted and relationships between the organization and specific facets (ie. resource holders) may influence other facets (environmental uncertainty).

The organization - performance link. Investigations concerned with the relationship between characteristics of the organization and performance abound throughout the social sciences. A thorough review would be too voluminous for even the most avid reader. Instead, five major areas will be discussed; organization size, market share, structure, planning and degree of centralization of decision making.

In an inter-industry study of Fortune 500 companies, Hall and Weiss (1967) found a positive relationship between firm size and profitability. They suggested that the ability of larger firms to take advantage of economies of scale along with greater access to capital markets gave them a competitive advantage over smaller firms. However, these findings were not supported by Marcus' (1969) study of U.S.

corporations, or Child's (1974) study of British firms. One possible reason for the differences between these studies is that other variables besides organization size are influencing organization performance.

Chevalier's (1972) investigation of the size-performance link found that market share was a more powerful predictor of financial performance than its absolute size. This finding has been widely confirmed by others (e.g., Schoeffler, Buzzell, and Heany, 1974; Buzzell, Gale, and Sultan, 1975; Schoeffler, 1977).

In fact, in the 1970's the use of market share as a major determinant of competitive position was widely publicized through the increased popularity of the BCG matrix and other strategic management tools. However, others have disagreed suggesting that high performance can be attained without high market share (Hamermesh, et al., 1978) or, alternatively, that high market share does not guarantee success (Bloom and Kotler, 1975).

Most research on the link between the structural configuration of organizations and ultimate performance has centered around the multi-divisional form vs. the functional form of organization structure with performance. Armour and Teece (1978) found a positive relationship between the adoption of the multi-divisional form and return-on-equity. However, Steer and Cable (1978) found that performance was enhanced when organization structure was designed to fit its size, environment and the diversity of its operations, again

suggesting the influence of other major variables in the effectiveness puzzle.

The use of formal planning systems in organizations and their effect on organizational performance has become of increasing importance as the popularity of strategic management spreads throughout the business world. Again, however, findings have not been consistent. Thune and House (1970), in a study of 36 firms in four major industries found that over a seven year period 'planners' outperformed 'non-planners' in terms of ROI, ROE, and EPS growth while equaling or surpassing the non-planners in sales growth. They also found that the planners' performance had been increased since the implementation of formal planning systems into their organization. These results have been confirmed by several others (i.e., Herold, 1972; Eastlack and McDonald, 1970; Karger and Malik, 1975). Not surprisingly, others have not been able to come to the same conclusions. Rue and Fulmer (1973a and b), in a study of 432 firms in three major industries found that nonplanners outperformed planners in the service industry. Sheehan (1975) found that levels of planning seemed to be inversely related to growth. The non-planners and lower-level planners grew consistently faster than organizations with more extensive planning systems. Thus, even the use of formal planning systems, which secondarily includes consideration of strategic and environmental considerations, does not seem to be enough, in all cases, to affect performance.

The degree of centralization of decision-making in

organizations should be mentioned only because it provides further evidence of contingent relationships with other variables besides performance and from a most unlikely source. Fayol (1949), commonly referred to as the father of the Universal Process Approach to management, suggested that the degree of centralization or decentralization should be determined for each organization, dependent on its particular situation. In fact, this was one of Fayol's fourteen principles of management and its implied contingent relationships with other characteristics of the organization and its environment makes this principle stand out among Fayol's other 'absolutes'. Thus, the major thrust of research concerning the centralization of decision-making has been on identifying these contingent relationships, rather than testing for its sole effect on performance.

Lawrence and Lorsch (1967) found that power for a decision tends to rest at that point in the organization where the necessary information can best be accumulated. Because information required to make decisions must often come from both internal and external sources, this implies a wider focus than the organization, itself, in the search for appropriate levels of centralization. If the level of centralization of decision-making requires a focus on the external as well as the internal organization, is it not obvious that overall effectiveness of the organization would also require a wider focus?

Khandwalla's findings in the early 1970s are very

illuminating in the investigation of possible links between the organization and performance. Khandwalla (1973) investigated possible links between certain structural characteristics of the firm (i.e. delegation of authority, participative management, divisionalization, use of functional departments) and, between these structural characteristics and certain contingent factors (i.e. environmental uncertainty, size of organization). What is most illuminating is that Khandwalla could not find a single significant correlation between any single structural variable with performance. However, he did find a number of significant correlations within the set of structural variables tested and between these structural variables and the contingent factors. This was especially true when the sample of firms was collapsed into high and low performers. Khandwalla concluded that success seemed to stem not from the use of any single structural variable but from an appropriate combination of structural variables and contingent factors.

The strategy - performance link. Early work in this area concentrated on the relationship between mergers and consolidations with performance. Reid (1968) found that actively merging firms were generally unprofitable. Kelly (1967), however concluded that active acquirers were neither more nor less profitable than other comparable firms in their industry. Hogarty (1970) found that the investment performance of heavily merging firms was generally worse

than the average investment performance of other firms in their industries.

On a wider front, diversification has also been considered. However, diversification has been defined in rather broad terms to include vertical integration and different degrees of related and unrelated diversification. In 1974, Rumelt found that related diversification was more profitable than unrelated diversification and the greater the relationship, generally, the greater the performance. However, vertical integration was generally associated with low performance. Subsequent research has offered some support for these findings. Stubbart and Grant (1983) found that the superior performers in their sample of diversified firms were those that were most closely related. Palepu (1985), and Varadarajan and Ramanujam (1987) both observed higher performance in those firms that practiced some form of related diversification. However, a key issue arising from research in this area is whether the higher performance in firms that have practiced related diversification may be due to other effects. Christensen and Montgomery (1981) and Bettis (1981) both confirmed that related diversification was associated with higher performance, however, they attributed these performance differences to the characteristics of the industries inhabited by the better performing firms.

Divergent results have also been found. Michel and Shaked (1984) found that risk-adjusted stock returns were higher for unrelated than for related diversifiers. Dolan

(1985), in a study of 80 large U.S. firms found that conglomerates earned the highest return on equity. Rajagopalan and Harrigan (1986) found no significant differences in stockholder returns and risk-adjusted accounting returns between Rumelt's diversification strategies.

There has been little research, to this point, on the relationship between other domain direction strategies such as domain enhancement or domain reduction on performance. Also, the relationship between competitive strategies and performance has been largely overlooked. Although Porter (1980) suggested that firms which emphasized one of his competitive strategies (low-cost, differentiation or focus) over the others would generally be more successful, little has been done to validate this claim. However, the relationship between competitive strategy and performance has not been completely neglected. Many researchers have sought to tie dimensions of a firm's competitive strategy to environmental and structural characteristics of the firm as will be shown in later sections.

The environment - organization - performance link.

Burns and Stalker (1961) were one of the first to discuss possible links between the organization, its environment, and performance. They suggested that performance was, in part, a result of the adoption of an organization structure (organic vs. mechanistic) that is able to deal with changing environmental circumstances. This suggested the importance

of environmental uncertainty as a major determinant in the effectiveness puzzle. Lawrence and Lorsch (1967) confirmed this proposition in a study of firms in the food, plastics and container industries. They found that high-performing firms adopted structures that were consistent with the uncertainty of their environments (appropriate combinations of differentiation and integration). However, Pennings (1975), in a study of forty branch offices of a single brokerage firm, found that the 'goodness of fit' between environmental conditions and structure was not related to effectiveness of the organization. Instead, he found that, of the two major areas under consideration, the organization and its environment, the organization's structure was most closely related to performance.

What these studies do not include, however, is the strategy of the firms in their samples. In Snow's (1976) study of college textbook publishing firms, he found that firms with essentially the same environments implement different strategies and employ organization structures sufficient to implement those strategies. Thus, researchers investigating determinants of organizational effectiveness cannot bypass the mediating affects of strategy by assuming that organizations with similar external environments will necessarily adopt similar strategies.

The strategy - organization - performance link.

Chandler's (1962) historical review of some major U.S. firms (most notably Du Pont, General Motors, Sears and Standard

Oil) was one of the first to point out the link between strategy, organization structure and performance. What Chandler found was that as organizations moved toward greater diversity (of products and/or markets) there became an increased strain on the administration of the enterprise. These strains (which generally led to decreased performance) led the firms to adopt a new structural form (the multi-divisional form of organization). Following the work of Chandler and others, Rumelt (1974) found that it was the kind rather than the amount of diversification and the use of an efficient organization structure which contributed most toward changes in performance.

Also, there is some evidence that current strategies affect the future strategic choices of managers in organizations. Rumelt (1974) found that managers frequently develop emotional attachment to a strategy which hinders possible changes, even when those changes seem warranted. Snow (1976) suggested that individuals whose skills are consistent with a given strategy are often the ones promoted. This serves to perpetuate the strategy perhaps past its useful life. In general, these findings suggest that strategy and structure often affect managerial perceptions and behaviors which, in turn, affect future strategic choices and the organization's ultimate performance.

The environment - strategy - performance link. Much of the research which has investigated possible links between

the environment, strategy and performance has come about through the PIMS (Profit Impact and Market Strategies) Program. Schoeffler, Buzzell and Heany (1974) and Schoeffler (1977) found that market conditions and corporate strategy explain up to 80% of the variance in return on investment. Of most importance were market share, product (service) quality, marketing expenditures, research and development expenditures, and the breadth of the product line. Also, Hatten, Schendel and Cooper (1978) found that, in the brewing industry, strategy variables accounted for 70% of the variance on performance while measures of the environment were found to be not significantly related to performance. On the other hand, Fruhan (1972) found just the opposite situation in a study of the airline industry where environmental characteristics had a much greater role in influencing performance than the strategies of the organizations in the sample.

Two other studies of the U.S. brewing industry concentrated on the importance of goals in the search for determinants of effectiveness. Schendel and Patton (1978) and Thiel (1979) found that achieving a goal requires the manipulation of several strategic variables and that the role of these strategic variables does change with the goal an organization is trying to reach. Bourgeois (1985) looked for possible relationships between the organization's goal set and environmental uncertainty. Results indicated that the presence of consensus among top managers as to perceived

environmental uncertainty and goal consensus together was associated with poor economic performance. Additionally, the number of strategic goals was not found to have a significant relationship to performance. A by-product of this investigation was the finding that congruence between perceived environmental uncertainty and actual environmental volatility was positively related to economic performance.

Jauch, Osborn and Glueck (1980) examined the interacting effects of nine environmental changes on eight strategic decisions using two measures of performance. Their results indicated that environmental change has little relationship to performance, although strategic decisions concerning financial changes and production efficiency were statistically significantly related to performance. The interaction of environmental changes and strategic decisions was not found to be significant. Hitt, Ireland and Stadter (1982) examined the moderating effects of two variables, grand or corporate strategy and type of industry, on the strategic importance of functional areas and company performance. Their results indicated that both grand strategy and type of industry had separate, significant moderating effects on the relationship between functional areas and performance. Prescott (1983) examined the effects of the interaction of Porter's (1980) generic strategies (low-cost production, focus and differentiation) and generic industries (fragmented, mature, declining, global, and emerging) on the performance of business units. Generic strategies were found to account for 12 percent of the

variance in performance while generic industries explained 1 percent. In a later investigation Prescott (1986) found the relationship between strategy and performance to be even stronger, with 40 percent of the variance in performance being explained by strategy variables and the environment only accounting for 2 percent of the variance. Interestingly enough, the interaction between the strategic and environmental variables was not found to be significant.

The environment - structure - strategy - performance link. Recently, there have been a number of investigations concerned with the determination of relationships between the environment, organization structure and processes, strategy and performance. Lenz (1980), in an investigation of fifty savings and loan associations found evidence of a fit between the environment, structure and strategy with performance. He concluded that "combinations of environment, strategy and structure associated with high performance firms differ from combinations associated with low performance firms" (Lenz, 1980, p.220). Lenz' investigation, although encompassing, suffers from two major limitations; 1) it is directed at one industry, limiting its generalizability and 2) the timing of strategic changes is not taken into account.

Miller and Friesen (1984) and Miller (1988) presented further evidence of these gestalts, or three-way organizational, environmental and strategic links. Further, Miller (1988) found these gestalts to be stronger in high

performing firms.

Miller (1987) investigated structural and environmental correlates of business strategy using as his strategic dimensions product/service innovation, marketing differentiation, breadth (niche vs. related diversification) and conservative cost control. Environmental characteristics investigated included dynamism, heterogeneity and hostility. Structural characteristics considered were uncertainty reduction, differentiation and integration devices divided into two broad categories; bureaucratic vs. organic.

Miller found that when a strategy increases the number of predictable, stable contingencies facing the firm, it is likely to be accompanied by the use of more bureaucratic uncertainty reduction, differentiation, or integration devices. This was found to be true for the marketing differentiation strategy, conservative cost control and, in part, for the breadth strategy ('breadth' in this investigation was considered to be the opposite of Porter's 'focus' strategy).

When a strategy increases the uncertainty of contingencies facing the firm, it will be associated with organic uncertainty reduction, differentiation or integration devices as was found for the complex product innovation strategy and the breadth-innovation strategy.

The marketing differentiation strategy was found to be correlated with both organic and bureaucratic uncertainty reduction and integration devices, perhaps due to the need

for flexible marketing and bureaucratic production procedures.

Finally, Miller found that these strategies were also strongly related to environmental characteristics. Complex product innovation and breadth-innovation strategies were found to be commonly pursued in dynamic environments, conservative cost control strategies were most common in stable environments and marketing differentiation strategies were most often found in hostile, highly competitive environments.

Miller's research was largely directed at line-of-business level strategies and the length of time any one strategy had been in use was not considered. However, it is a major effort in the combination of current research in both the strategic management and organization theory areas. Also, it challenges claims made by Porter (1980) and others who suggest that different strategies can be used quite successfully in the same industrial environment (Lenz, 1981; Miles & Snow, 1978; Porter, 1980). Finally, Miller's research suggests that the environmental variables considered in organization theory research (uncertainty, hostility) may, at times, have stronger relationships with strategy than have some of the industry-wide parameters of the industrial economists (Miller, 1988, pg.304).

Keats and Hitt (1988) sought relationships among environmental dimensions (munificence, instability and complexity), firm size, diversification, structural divisionalization and economic performance using 110 large

manufacturing firms. Their results suggested that: 1) higher levels of environmental instability were associated with lower levels of divisionalization and diversification, 2) organizational strategy (diversification) seems to follow structure in most cases, and 3) size did not mediate the strategy-structure relationship. Furthermore, they suggest that a strategy of diversification may be selected to increase market-based performance measures of the organization. Apparently, investors view diversification as a means of balancing risk and return favorably and may view moves into volatile environments as providing additional opportunities, even though firm risk is also increased (Keats and Hitt, 1988, pg.591).

Although research investigating links between all four major areas of the organization effectiveness puzzle have only just begun, results so far are promising. However, there is still much to do if a better understanding of organizational effectiveness is to be forthcoming. For instance, are these studies determining the environment and organizational conditions most likely to lead to the formulation of certain strategies or are they, instead determining the characteristics of the organization and environment found when an organization has effectively implemented a strategy? Thus far, the assumption seems to be that both situations are being investigated. Unfortunately, if this assumption is wrong it may be that neither situation is being accurately depicted in the

current research.

Summary of the Past Search for Determinants of Effectiveness

The preceding review of past research on the investigation of possible relationships between the organization's environment, the organization's structure, its strategy and performance has led to the following conclusions:

- 1) many of the investigations left out major elements of the puzzle, especially characteristics of the organization's strategy, which often led to confusion and an inability to confirm results under different circumstances,
- 2) many of the investigations concentrated on one industry, causing a severe lack of generalizability and often having the results of the study refuted by others in investigations of other industries,
- 3) the trend seems to be toward more encompassing investigations, taking into consideration variables internal and external to the organization as well as the strategy of the organization,
- 4) the primary emphasis continues to be on defining and investigating correlates of business-level strategy rather than grand strategy or corporate-wide strategic characteristics, and
- 5) there have been few studies which have considered the timing of strategic changes, finding relationships between the organization and its environment with strategy at the approximate time of the decision to change strategy, and then determining contingent relationships with performance only after the organization has had an adequate period of time to make adjustments and thus affect performance.

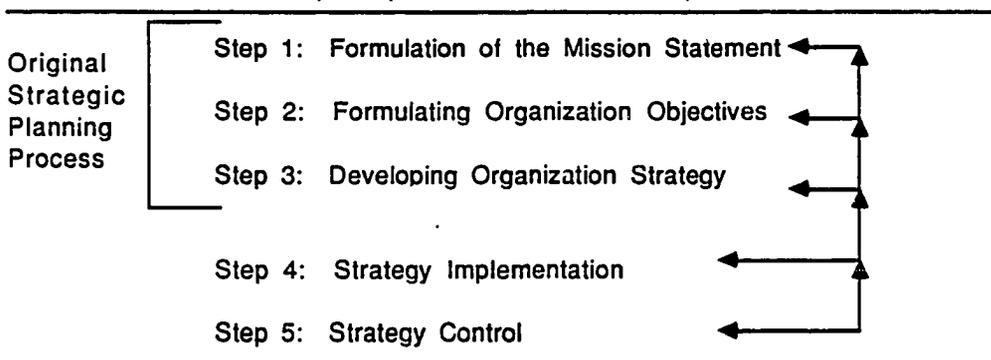
The Strategic Management Process

The strategic management process is, in many regards, the culmination of past attempts to provide managers with a mechanism for increasing the effectiveness of their

organizations. It incorporates the budgeting process, the setting of goals, environmental scanning and a long-term time horizon. Yet it goes beyond these characteristics to describe a system of management which envelops the entire organization. In fact, it has become so all-encompassing that it is generally viewed as a management system and was suggested by Koontz (1980) as the management approach which might unify the 'jungle' of management approaches which abound in the current literature.

There have been a number of models formulated to depict the strategic management process. In fact, each writer on the subject seems to propose a slightly different variation of the model. However, there is a surprising similarity between most models concerning the steps within the process and the important elements concerned. A simplified version of the various steps within the strategic management process was provided in Chapter 1. This is reprinted below.

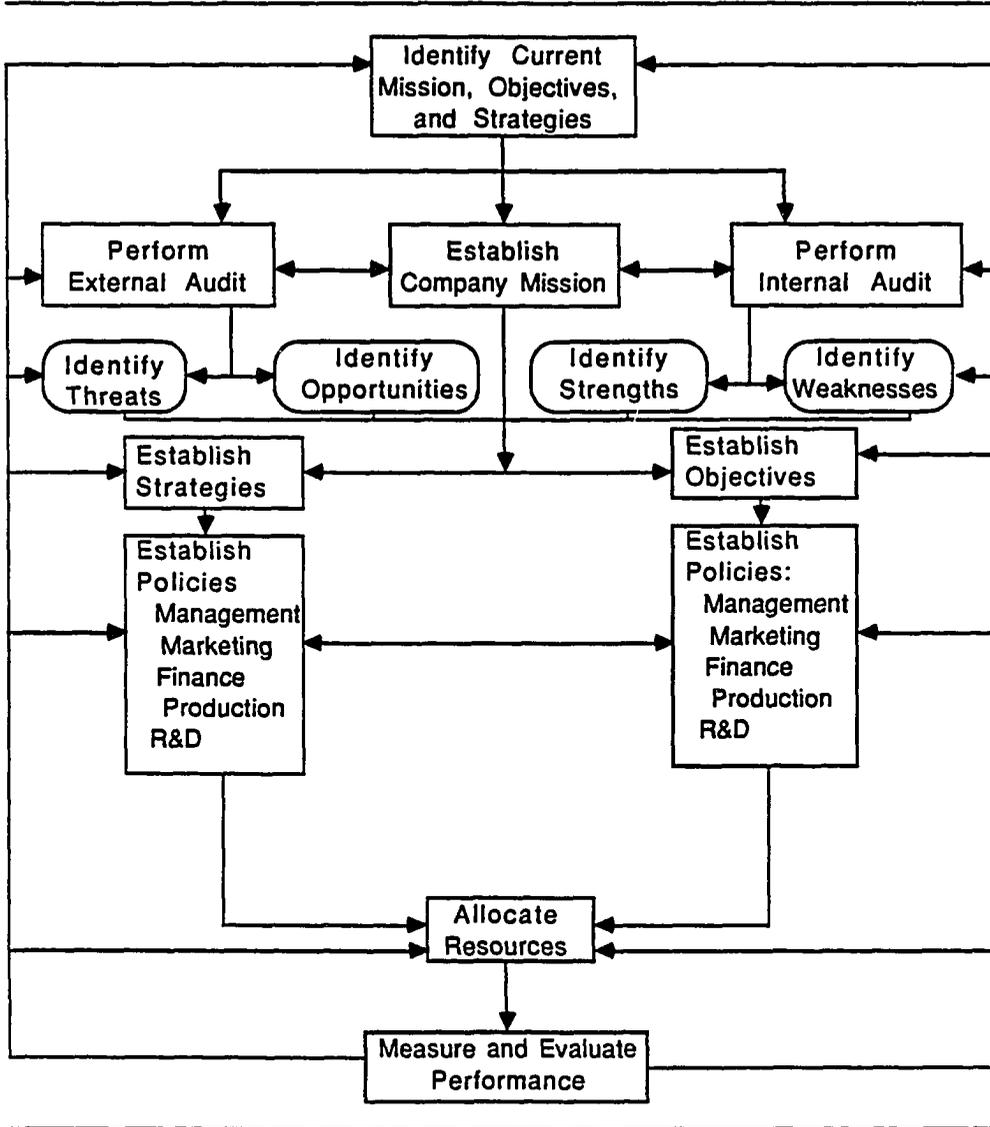
Figure 2-A
Steps of the Strategic Management Process
(Thompson & Strickland, 1987)



The first three steps in the model are generally considered to be concerned with the development of the strategic plan, a firm's 'roadmap' for future activities. The last two steps involve the actual implementation and control of the strategic plan. The arrows on the right in the model suggest the 'fleeting' character of an organization's strategy. At any step in the process problems or changes may occur which cause a need to re-evaluate previous steps.

A more in-depth look at the process is provided by David (1986). This model suggests major elements of the process not included in the previous model. Also, this model depicts the dynamic aspect of the strategic management process, beginning with the identification of the current mission statement, objectives and strategies, or what Thompson and Strickland refer to as the strategic plan. Once identification of the past strategic plan is made, the firm re-establishes its mission statement while scanning the internal and external environment to determine major strengths and weaknesses of the organization and major threats and opportunities from the organization's environment. Occasionally, the mission statement will be adjusted due to results of the internal and external audit. However, a proper mission statement should be designed for the long-term, specific enough to give some direction but general enough to give the organization strategic flexibility.

Figure 2-B
David's Strategic Management Model
(David, 1986)



From the mission statement and findings from the internal and external audit the organization then sets its long-term objectives and strategies. David's model suggests that these are established simultaneously which is slightly different than Thompson and Strickland's model, where the

strategy is formed after objectives are set.

The relationship between strategy and objectives is not clear. Certainly it is easier to form strategies with specific objectives in mind. On the other hand, one dimension of strategy is defining an organization's domain of operations. It may prove difficult to establish meaningful objectives without first establishing the domain in which the organization operates. Alternatively, an organization may decide to expand or reduce parts of its given domain based on its relationship to stakeholders (major influencers of the organization's objectives) within its current domain. Thus, objectives and strategies are often intertwined in the process with each depending to some extent on the formation of the other.

David suggests that implementation begins with the establishment of goals (short-term objectives) and policies (often referred to as tactical plans) for management and major functional areas of the organization. In a diversified firm these steps would be preceded by the establishment of goals and strategies for the various lines-of-business within the firm. Once functional goals and policies are established, the organization allocates resources to accomplish its goals and objectives through the policies and strategies which it has defined.

According to David, after allocation of resources, management is responsible for the continuous evaluation and measurement of performance of the organization, making adjustments when necessary in the plan or the way it is

being implemented.

Although there are nearly as many models of strategic management as there are writers on the subject, most suggest similar guidelines, starting with the formulation of strategy, and then the implementation of that strategy and evaluation of performance. In general, the formulation of strategy has been emphasized even though, as Hofer and Schendel (1978) suggest, managers spend considerably more time implementing strategy than they do in the actual formulation process.

Variables Affecting Strategy Formulation

It is now time to take a closer look at the variables considered to be important to the actual formulation of specific strategies. Christensen, et al., (1985) suggest four major areas that have an impact on the formulation process. These are the organization's environment, its resources, the values of management (those making the final decision) and organizational responsibility toward various stakeholders.

From the organization's environment, possible opportunities will develop as well as threats. Highly profitable market segments may develop or innovations in technology or marketing may open new doors for an organization. At the same time, decreasing sales and profits in an industry may signal a need for an organization to develop new markets or products.

The resources available will limit the number of

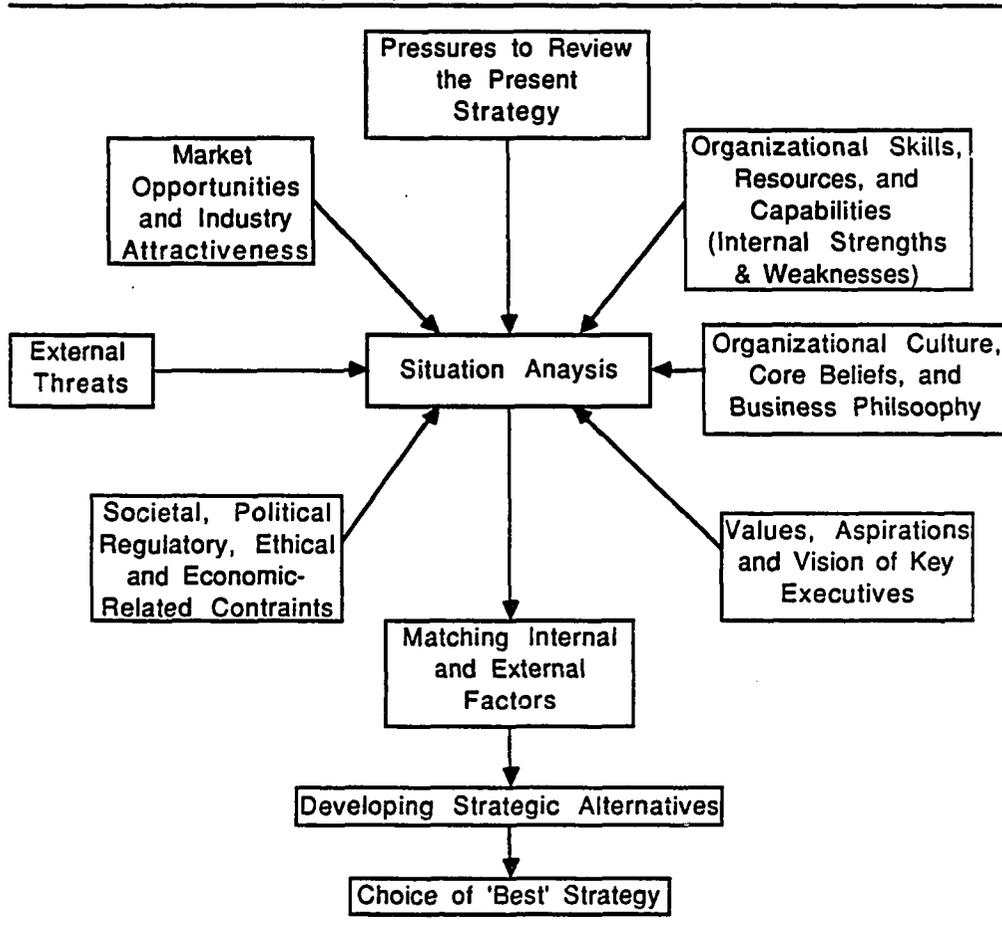
strategic choices available to an organization.

Organizations which find themselves in turnaround situations often have little choice but to find new ways of competing within their current domain of operations (Hofer, 1980).

The values of top management are also seen to play an important role in the determination of strategic choice. Personal values will play a role, not only on the final choice, but also in developing the alternatives from which to choose. These values will also have an affect on the organization's perceived responsibility toward various stakeholder groups and to society in general. Although economic objectives are certainly common, it is believed that organizations often feel some responsibility in other areas, such as employee safety, or the welfare of mankind.

Thompson and Strickland (1987) provide a slightly more indepth view of the variables which affect strategy. This model (provided on the following page) follows the same general guidelines offered by Christensen, et al., (1985). The organization's environment is analyzed in terms of its market or industry and also general environmental characteristics (society, political, regulatory, economic). Internally, the focus is on the skills and resources of the organization, its culture and business philosophy, in general, and the values and aspirations of top management.

Figure 2-C
 The Primary Determinants of Strategy
 (Thompson & Strickland, 1987)



Two additional determinants of strategy, which are implied but not specifically stated are the organization's mission and long-term objectives of the organization which precede or, in the case of long-term objectives, may be formed simultaneously with the organization's strategy. The mission statement is implied in the Thompson and Strickland model through the consideration of business philosophy, core beliefs and overall corporate culture, which are often

formalized within the mission statement. The inclusion of long-term objectives is implied by Christensen, et al., through consideration of the organization's responsibilities toward society, in general, and its stakeholders, in particular, which are often explicitly stated through the set of objectives determined by the organization. These are also considered in the models of the strategic management process provided earlier.

Thus, four main contributors to the formulation of strategy can be identified. These are the mission and long-term objectives of the organization, the organization's external environment, its resources and skills, and the values and aspirations of top management.

Strategy Implementation and Control

The implementation and control phases of the strategic management process have, only recently, come to the attention of major writers in the area. Thus, no one set of major variables have been universally accepted as primary determinants of successful implementation and control processes. In fact, many current strategic management models suggest little more than that implementation and control are important steps in the process.

David's (1986) model (Figure 2-C) includes the formulation of functional level goals and 'policies' (tactical plans) as part of the implementation process. Most authors would suggest the continuation of this process through all levels and positions within the organization

(e.g. Mintzberg, 1979). Many others have suggested that strategy implementation must be viewed on a much wider front than the continuation of goal-setting and the development of action plans throughout the organization. A few of these studies are reviewed in the following paragraphs.

In Peters and Waterman's (1982) McKinsey 7-S Framework for Administrative Fit, it is suggested that the following areas be considered in implementing strategy. These include; 1) the strategy, 2) the structure of the organization, 3) shared values, attitudes and philosophy, 4) the staffing of the organization, 5) the administrative systems, practices, and procedures used to run the organization on a day-to-day basis, 6) the organization's major skills, capabilities and distinctive competences, and 7) the style of top management. According to Peters and Waterman, shared values are the central core of the framework because they are the heart-and-soul of the organization, driving the corporate culture (Thompson and Strickland, 1987, p. 252).

Andrews (1987) suggests a twelve step profile of implementation activities. These are provided in the following table.

TABLE 2-D
Andrew's Twelve Steps Toward Successful Implementation
(Andrews, 1987)

- 1) identify key tasks to be performed and the decisions which are required,
 - 2) responsibility for accomplishing key tasks and making decisions must be assigned to individuals or departments,
 - 3) provisions for the coordination of activities must be made,
 - 4) information systems adequate for coordination must be installed,
 - 5) tactical or lower level plans and objectives should be formulated,
 - 6) performance should be judged in order to test achievement, budgeting processes, the adequacy of standards and the competence of individuals,
 - 7) individuals and groups must be recruited and assigned to essential tasks in accordance with the skills they possess,
 - 8) individual performance should be guided by incentives to make it effective in accomplishing organizational goals,
 - 9) incentive programs should be designed to meet each individual's unique needs,
 - 10) a system of constraints, controls and penalties must be devised to contain nonfunctional activity and to enforce standards,
 - 11) provisions for the continuing development of technical and managerial skills should be made,
 - 12) energetic and personal leadership is required.
-

Harrison (1986), after noting the close relationship between those activities required to implement strategy and those required to control the process, provides three major determinants of successful implementation. These include:

structural considerations (structural configuration, differentiation and integration), process considerations (policies and procedures, decision-making, resource allocation), and leadership (style, strategic).

Because research in this area is of relatively recent origin, there is far less agreement on major areas which should be considered in the successful implementation and control of chosen strategies. However, from the studies just described five major areas can be identified as important. These are the structure of the organization, resources and functions (distinctive competences) of the organization, organization culture, the extent of planning and goal-setting throughout the organization, and the organization's ability to coordinate and control activities.

The 'Content' of Strategy

In this section, research on the 'content' of strategy will be reviewed. First, strategy is defined and then, two research streams are identified, with each concentrating on different major dimensions of the strategy construct.

Strategy Defined

One possible reason why strategy has been left out of so many of the prior investigations for the building of frameworks of organizational effectiveness is that few writers on the subject can agree on exactly what it entails. Most would agree that all organizations have characteristics of a strategy even when it is not well formulated. Most would agree that an organization's strategy is multi-

dimensional, like the organization that it purportedly guides. Most would agree that if one looks too closely, the organization's strategy becomes unique to that organization and the situation surrounding it. Finally, most would agree that an organization's strategy is fleeting. That, in some respects, the minute it is satisfactorily defined it changes, for because it is multi-dimensional, and because organizations must exist in a dynamic world, at least some parts of the whole are constantly being adjusted or changed to fit the demands of the various constituents that make up the organization and the environment within which that organization strives to survive and succeed.

Hofer and Schendel define an organization's strategy as the "fundamental pattern of present and planned resource deployments and environmental interactions that indicates how an organization will achieve its goals" (1978, p. 25). Mintzberg defined strategy as "a mediating force between the organization and its environment: consistent patterns in streams of organizational decisions to deal with the environment" (1979, p. 25). From these two definitions it can be seen that strategy is a set of organizational decisions or actions that match an organization to its environment in such a way that it may reach its objectives. One of the difficulties in doing research in the business policy/ strategic management field is that different organizations have unique situations and, as a result, unique strategies. However, some have made the attempt to

categorize various generic strategies or certain dimensions of strategy.

Major Dimensions of Strategy

Bourgeois (1980) described two types of strategies found in organizations. The first will be referred to as the 'domain direction strategy' which depicts the organization's choice of domain or change of domain that might occur, for example, when an organization chooses to diversify into other products and/or markets. The second type of strategy will be referred to as the firm's "competitive strategy" (Bourgeois' "domain navigation" strategy). This strategy was concerned with competitive decisions made within particular product-market areas describing how the organization was actually going to compete.

Assessing domain direction strategies. Galbraith and Kazanjian (1986), in summarizing research on the evolutionary growth of organizations, suggested that American firms have generally followed similar paths through their development. Each step in the path was associated with a particular growth strategy. The first growth strategy along the path is size growth. Younger, smaller firms first make decisions or take actions to increase sales within their current domain. The next growth strategy is vertical integration. Vertical integration is the envelopment within the organization of additional activities in the transformation of raw materials to the distribution, retailing and, in some cases, even the consumption of the

final product. The third growth stage, related diversification, includes actions or decisions to expand operations to include the manufacturing and/or marketing of products related in some way to products already in the organization's domain of operations. The relationship usually occurs in the types of materials used in production, the technology used in production, or the customers for the new product. The last stage mentioned is that of international expansion, where the organization's operations expand across national borders.

However, there are other common strategies not included in Galbraith and Kazanjian's Dominant Growth path. For instance, two other growth strategies would be market expansion within national borders (which differs from the size growth strategy in which the concentration is on increasing sales within current markets), and unrelated product diversification (where products are sought that have no obvious relationship to the organization's current operations). Also, a firm could conceivably stop anywhere along the 'growth' path. If a firm so chooses it would seem to have four general alternatives, these are; 1) a market share enlargement strategy (with an emphasis on increasing sales within its current domain/s), 2) a maintenance strategy (with an emphasis on decreasing costs within its chosen domain/s, 3) a reduction strategy (where the emphasis lies in the reduction of activities, markets or product/market arenas in which the firm chooses to operate)

or 4) some combination of these.

Much of the research on domain direction strategies has centered around diversification strategies as developed by Wrigley (1970) and Rumelt (1974). In contrast to the industrial organization approach to diversification, which concentrates on an organization's operations within different industries, the emphasis of the Wrigley/Rumelt approach is the management function of the firm (Grant and Jammine, 1988). In this approach the significance of diversification is the need to extend the skills of the firm and to adjust the organization to a wider range of activities. Thus, the key features of this approach are, first, the extent of the firms' involvement in activities which draw upon different skills and, second, the way in which new activities are related to old activities.

Rumelt classified various levels of diversification as follows:

- 1) Single business
- 2) Dominant vertical - vertically related sales,
- 3) Dominant constrained - majority of businesses related to one another through a core asset or skill,
- 4) Dominant-linked - majority of other businesses related to at least one other within the firm,
- 5) Dominant-unrelated - majority of other businesses unrelated
- 6) Related constrained - no dominant business, majority of businesses related
- 7) Related-linked - no dominant business, majority of businesses related to at least one other in the firm,
- 8) Unrelated business

Much of the research in this area, especially as it is related to performance, has been on past strategies of firms. There is seldom any attempt to determine if diversification is the current strategy of the firm. Also,

research on domain enhancement and domain reduction in firms is scarce. Domain reduction, if considered at all, is often considered as simply a failure of a firm's past diversification strategy (e.g. Porter, 1987).

It has long been suggested that domain direction strategy is the responsibility of the corporate-level of most organizations (Bourgeois, 1980; Porter, 1987). How the firm will actually compete in its chosen domain/s is often assumed to be delegated to the divisional levels of most organizations or to those individuals who are held accountable for performance of the organization within that domain. This dimension of organization strategy is referred to as its 'competitive' strategy.

Assessing competitive strategies. Another common classification scheme for organization strategy is based on the competitive emphasis used by the organization to produce and market its product. Porter (1980), suggests that there are three competitive strategies possible for any single line-of-business firm or division. These are:

- 1) low-cost production leadership - where the emphasis lies in gaining a competitive edge through lower cost operations,
- 2) product differentiation - where the emphasis lies in differentiating the product package (including service) from that of other competitors, and
- 3) market focus - where the emphasis lies in focusing on particular markets or market segments for a competitive edge.

Although these competitive strategies have been described as line-of-business specific, they may also be used

corporate-wide, forming a distinctive competence for the entire organization. In fact, references to a consistent competitive strategy often can be found in mission statements, such as in the acknowledgement of the importance of customer service, product quality or efficient operations. These references may also indicate a shared value system throughout the organization consistent with its competitive strategy.

Porter believed that organizations which concentrated on one of his competitive strategies within a particular product-market area would be more likely to succeed over others which tried to compete using combinations of the three strategies. Additionally, he argued that firms competing with focus or differentiation strategies would receive the highest ROI with lower levels of market share while firms competing with low-cost leadership strategies required higher levels of market share to increase ROI (Porter, 1980). Wright (1987) disagreed with this argument suggesting that ROI for firms competing with either differentiation or low-cost strategies would be associated positively with higher levels of market share.

The market-focus strategy seems to have caused the greatest confusion among researchers and practitioners in the strategic management area (Murray, 1988). Porter (1985) attempted to resolve this confusion by suggesting that the choice of a focused or broad market strategy was independent of the choice of product differentiation or cost leadership.

Thus, a firm could choose a focus or broad market strategy with either a low-cost or differentiation strategy. The focus vs. broad market strategic decision was, apparently, yet another dimension of a firm's overall strategy.

What this leaves us with is Porter's differentiation and low-cost leadership strategies combined with either focus or broad market strategies. A strategy of product 'package' differentiation suggests that the organization strives to differentiate its product package from those of its competitors. Generally, this requires the installation of greater value into the package, often at greater cost to the company. As Porter (1980) suggested, the company with a product differentiation strategy hopes that increased prices will offset the increased cost of production. Some researchers have chosen to divide the strategy of product differentiation into two strategies, marketing differentiation and innovative differentiation (e.g., Miller, 1988). A marketing differentiation strategy suggests that the differentiating characteristic is the result of a marketing activity (such as customer service). Innovative differentiation suggests that the differentiating characteristic is a result of an innovation in the product itself. As Miller discovered, these two dimensions of the differentiation strategy may require different environmental and organizational conditions for optimal results. Both may also require a different set of conditions than a low cost leadership strategy.

A low-cost leadership strategy suggests that one

company strives to produce at a lower cost than its competitors. There seems to be little confusion over this strategy by researchers. Unfortunately, there is generally only room for one successful low-cost leader in an industry and many ways to differentiate a product package. Thus, successful low-cost producers may be difficult to find.

However, are firms better off choosing to either differentiate or produce at a lower cost, if possible? Several authors have suggested that high performance is not dependent on exclusively competing with either low-cost leadership or differentiation strategies, as Porter proposed. Hill (1988) suggested that under certain circumstances a firm using a differentiation strategy may, in fact, reach a low-cost leadership position in the industry through increased sales and greater economies. On the otherhand, a firm competing in an industry where many firms compete on a low-cost leadership basis may find it necessary to compete on both fronts simultaneously, differentiating their product from other low-cost producers while being forced to keep production costs (and prices) down, due to the guidelines set by its other low-cost competitors.

Murray (1988), in proposing a contingency framework for Porter's various generic strategies suggested that the contingent variables which made low-cost leadership attractive were different, in kind, from those variables making a strategy of differentiation attractive. Thus, an

organization could find itself in a situation where both strategies were warranted.

Even Porter seems to hedge on this issue suggesting that "a cost leader must achieve parity or proximity in the bases of differentiation relative to its competitors to be an above average performer, even though it relies on cost leadership for its competitive advantage" (1985, pg.13). Similarly, he states: "A differentiator cannot ignore its cost position, because its premium prices will be nullified by a markedly inferior cost position. A differentiator thus aims at cost parity or proximity relative to its competitors, by reducing costs in all areas that do not affect differentiation" (1985, pg 14).

The development of appropriate competitive strategies has come a long way in the last ten years. However several questions remain unanswered. Perhaps Hambrick (1983) comes closest to the truth when he suggests that Porter's generic business strategies are actually three dimensions of a firm's overall competitive strategy; efficiency, differentiation, and scale/scope.

Summary of the Content of Strategy

In general, research on the content of strategy has led to two broad classification schemes. The first, referred to as the domain direction strategy, deals with possible changes in the overall domain of the organization. The second, referred to as the firm's competitive strategy, concentrates on how the firm will actually compete in its

chosen domain. To effectively define the overall strategy of an organization it then becomes necessary to assess the firm's domain direction and its competitive strategy within its current domain.

With the ability to classify various generic dimensions of organization strategy came the possibility of creating contingency models of strategy formulation and implementation based on common characteristics of organizations and their environments.

Contingency Models of Strategy Formulation and Implementation

The popularity of contingency theory in recent strategic management research stems from the organization theory area and the fundamental assumption that there is no one best way to organize. In other words, any one way of organizing is not equally effective under all conditions (Galbraith, 1973). Strategy is rooted in the concept of matching organizational resources with the organization's environment. Thus, if the above assumption is extended to the strategy area it would suggest that there is no one universal strategy which is optimal for all businesses, irrespective of the resources or environmental conditions which exist (Ginsberg and Venkatraman, 1985).

Contingency theory is based on the perspective that contingent relationships exist between one or more independent variables and a dependent variable. According to Harvey, "The contingency approach to strategy suggests that

for a certain set of organizational and environmental conditions an optimal strategy exists" (1982, pg.81). With the ability to classify various generic organizational strategies came the possibility of investigating relationships between strategy and the organization's internal and external environments.

Contingency theory has become an important research design for researchers in the strategic management area and has led to a number of contingency models in common use in both the education and business worlds. Examples of these 'tools' for strategic managers, developed from past contingency-based research, are provided in the next section.

Common Contingency Tools of Strategic Management

Certainly the majority of past studies have concentrated on the strategy formulation perspective of strategic management, viewing strategy as the dependent variable or as a variable which directly affects performance. The majority of these studies have concentrated on line-of-business level strategies. Also, there has been a tendency in the past to investigate firms in a single industry. Although the generalizability of these studies is reduced, the possibility of finding statistically significant results may be heightened, given the major emphasis placed on building a competitive edge, in the strategic management area.

Findings from past studies investigating contingent

relationships with strategy from a strategy formulation perspective have resulted in the development of numerous models or strategy formulation 'tools'. One of the best known examples is the BCG matrix. This portfolio matrix tool is presented on the following page.

The BCG matrix was intended to give diversified organizations a tool for combining line-of-business strategies into a coordinated whole. In general, strategies for each line-of-business were determined from the market share and the growth rate of the particular market. The four possible categories are described as follows:

1) Stars - these businesses represent the best long-run possibilities for the organization. Their position as market leaders in high growth areas call for a grow and build strategy. At times, these businesses can fuel their own expansion, but at other times require some resources from the organization as a whole.

2) Cash cows - these businesses are often past "stars" of the organization where their markets have become saturated. However, they still hold a strong market position in the industry. These businesses are to follow a "hold and maintain" position with most of their profits "milked" and then fed to other businesses which hold greater promise for the future.

3) Dogs - these businesses hold weak positions (in terms of market share) in slow growth markets. Their futures look bleak and it is generally recommended that these businesses be divested from the organization's portfolio.

4) Question marks - these businesses hold weak positions in fast growing markets. Success is seen as the ability for these businesses to increase their market share and move toward a star position. Unfortunately, these businesses are seldom highly profitable and generally require large financial resources to make this move. An organization then has a choice as to the future of its question mark businesses, to increase market share (using profits from other divisions) or to divest.

Figure 2-E
The BCG Growth/Share Matrix
(Hedley, 1977)

		Relative Competitive Position (market share)	
		High	Low
Market Growth Rate	High	Star	Question Marks
	Low	Cash Cow	Dog

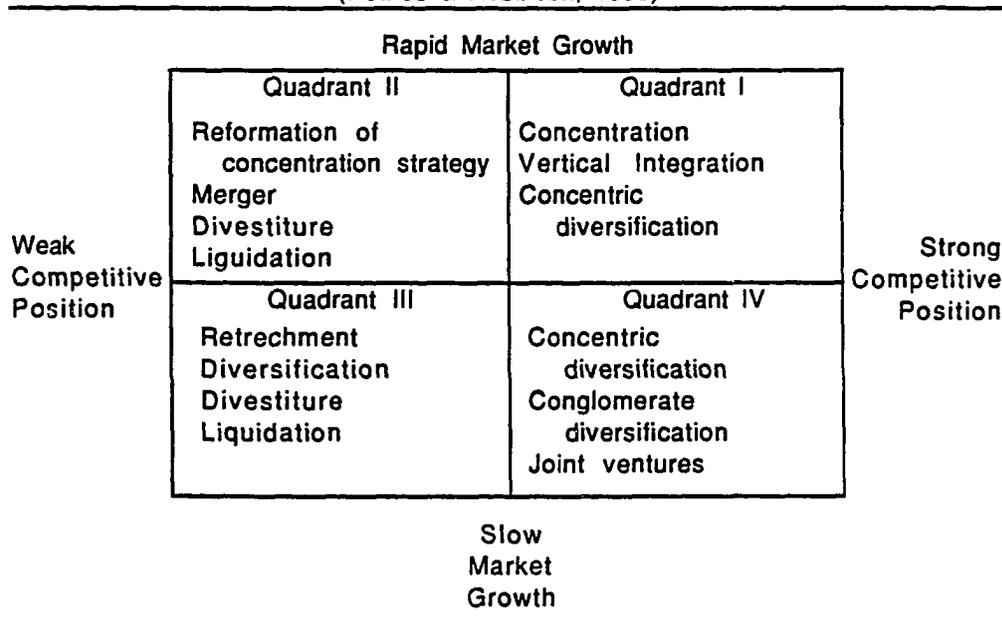
As can be seen, this early attempt at a contingency approach to strategy formulation was, at best, simplistic. The strategic alternatives (cells in the matrix) and the variables used to make the choice were both limited. Additionally, the BCG matrix was more concerned with investment decisions for individual businesses within the corporate portfolio than in developing corporate or even line-of-business strategies.

Other portfolio tools to strategy formulation followed the BCG matrix, generally increasing the organizational and environmental characteristics that were considered. These improvements, however, seemed to follow the same assumption as the BCG matrix, that corporate strategy could only be defined through the line-of-business strategies of its divisions. The additional variables to determine an appropriate strategy remained largely line-of-business specific, concerned with market potential and competitive

advantage. Also, strategic alternatives were concerned for the most part with 'growth' options for each division.

Contingency approaches to strategy formulation which can be used for both non-diversified and diversified firms are rare, yet they do exist. The figure on the following page presents an example of a contingency model of strategy formulation which would seem to be appropriate for both single line-of-business firms or diversified corporations, although it is presented as a model matching a firm's circumstances to its 'corporate' strategy.

Figure 2-F
A Contingency Model of Strategy Formulation
(Pearce & Robinson, 1988)



Again, the association between characteristics of the organization and its environment with the strategy chosen is weak. Competitive position and market growth for diversified

organizations are difficult variables to measure, at best. Does competitive position refer to the organization's general ability to compete with firms making similar products or does it include an assessment of all resource holders of the organization and the organization's bargaining ability for those resources? Realistically, it should probably include both. The term 'market' also has certain disadvantages in its actual measurement. Does 'market' for a business with a differentiation strategy refer to all possible consumers who have needs the product addresses, or only the individuals or institutions likely to value the differentiated product. The same problem exists for firms which concentrate on target markets. Should the market growth measurement be confined to the target market or be determined from the overall market of the product. When a diversified organization is asked to assess its competitive position and market growth, these problems become magnified. Perhaps there are other variables which more easily cross organizational types which are important to the strategy formulation question.

Even though contingency research on the formulation of specific strategies has been relatively common, the tools developed from this research continue to be simplistic and vague. Much work lies ahead if more specific guidelines are to be developed in this area.

Contingency studies of strategy from a strategy implementation perspective are still rare. Most investigations have simply added implementation variables to

formulation and strategy variables without determining the point in time major strategic changes occurred. Thus, investigators may be measuring the performance of a past strategy and its organizational context yet 'see' the current strategy and, thus, present results which are inaccurate. Still others have concentrated exclusively with the 'tactics' of implementation, without differentiating between strategies (e.g. Nutt, 1987). To develop actual guidelines for the successful implementation and control of specific strategies, another research design must be used, one that includes the determination of specific strategies as well as the timing of strategic change. This model is provided in the next section.

A Closer Look at the Contingent Relationships Between the Organization, its Environment, its Strategy and Performance

In order to develop more rigorous models of organizational effectiveness it may be worthwhile to look more closely at past investigations to determine a more appropriate combination of possible relationships. Generally, organizational performance has been included in two ways, as a third contingency to the strategy adopted, and as a measure of the optimality of strategy under specific conditions. In other words, performance has been used as both an independent and as a dependent variable in contingency approaches to strategy. How performance is used in the approach seems to indicate either a strategy formulation perspective or a strategy implementation

perspective. Similarly, the strategy construct has seen dual roles. As Ginsberg and Venkatraman (1985) suggest, "Treatment of strategy either as a dependent variable or as a variable directly influencing performance emphasizes a strategy formulation perspective. Viewing strategy as the exogenous variable that influences the organizational context or that influences performance through the organizational context adopts an implementation perspective." (pg. 423)

However, are both perspectives warranted? Some researchers (e.g. Bourgeois, 1980; Quinn, 1980) have suggested that the interdependencies between strategy formulation and implementation are so great that they should not be considered separately within a managerial context. Still others (e.g. Ginsberg, 1984; Venkatraman and Camillus, 1984; White and Hamermesh, 1981) have argued that studies should include both formulation and implementation variables. Studies which include both formulation and implementation variables are becoming more frequent (e.g. Miller, 1987, 1988) yet seldom is the age of the strategy considered. This can be attributed to the dynamic aspect of strategy. As was noted earlier, organization strategy is multi-faceted and complex. As such, parts of the strategy can be assumed to be changing regularly. Managers within the organization may be involved in the implementation of strategy and be making adjustments to that strategy at approximately the same time.

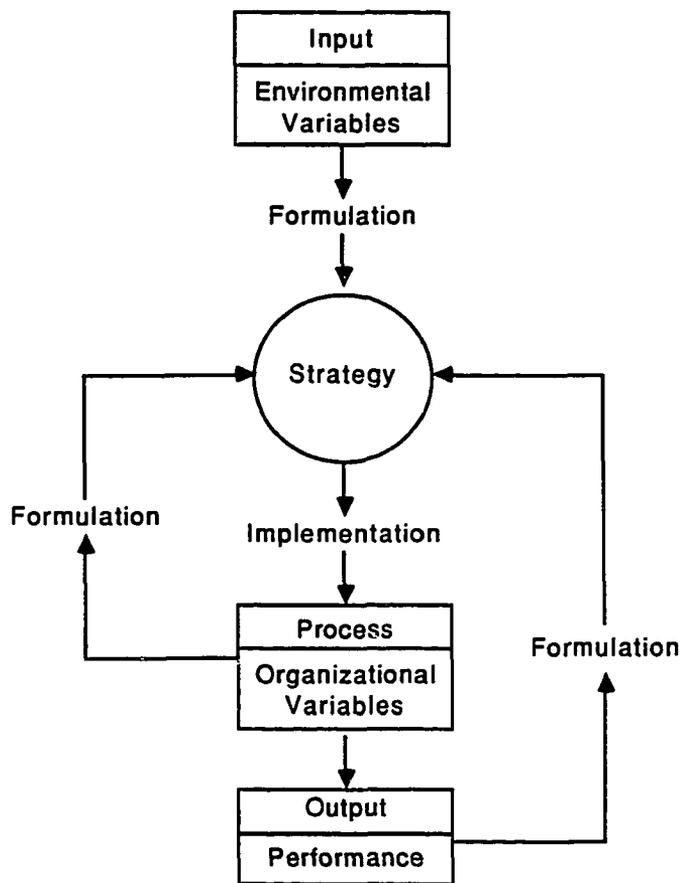
So is there, in fact, a separation of the strategy formulation phase and the strategy implementation phase? The answer seems to be yes and no. If one looks too closely, then the organization and its strategy is in a constant state of change and the separation of formulation and implementation does not exist. However, if one looks at major dimensions of strategy, it is probable that these major dimensions of strategy will remain unchanged for long periods of time. By so doing, it may be possible to isolate those variables which are contingent with strategy at or close to the strategic change (strategy formulation perspective) and those variables which influence the successful implementation of the strategy, after some time has elapsed for adjustments in the organization to take place and for those adjustments to affect performance.

So what contingent relationships are important within the phases of strategy formulation and implementation? Ginsberg and Venkatraman (1985) proposed the following model which they believe represents important contingent relationships among the organization, the environment, strategy and performance.

Strategy formulation can be seen as contingent relationships between the organization's environment, the organization and past performance. If one assumes that the past performance of the organization is going to reflect the resources available to the organization and if organizational variables include the mission and long-term objectives of the organization, along with distinctive

competencies of the organization then Ginsberg and Venkatraman's conceptualization of contingency relationships coincides with those relationships established earlier in the discussion of the strategy formulation stage of the strategic management process.

Figure 2-G
A Systems Model of Contingency Theory-Based Research
(Ginsberg & Venkatraman, 1985)



Strategy implementation, according to Ginsberg and Venkatraman, involves the relationship between strategy and various organizational variables. The effectiveness of the implementation stage will be reflected in the performance of the organization, but only after such time has elapsed that adjustments in the organization for the proper implementation of the strategy can take effect.

Summary of Contingency Theory and the Search for Determinants of Effectiveness

Contingency theory has become an important research design in the strategic management field. However, the results of past investigations have led to very general guidelines of strategic behavior centered on the formulation of certain strategies. Tools for the implementation of particular strategies, based on past empirical investigations are all but non-existent. In order to develop more rigorous models of strategy formulation and implementation another view of the contingent relationships between the organization, its environment, its strategy and performance is suggested. This view depicts a strategy formulation perspective with contingent relationships between the organization, its environment, and its strategy. The strategy implementation view then suggests relationships between the organization, its strategy and performance, but only after such time that adjustments in the organization can take place to affect performance.

To Strategic Management

In the following sections a review of past contingency studies is provided. First, investigations which took into consideration variables associated with strategy formulation are discussed. Then, studies which considered variables thought to be important to strategy implementation and control are presented. These studies are the foundation for yet another stage of the evolution of strategic management. Through this stage, strategic management will offer practitioners specific guidelines, not only for the formulation of specific strategies given certain internal and external organizational conditions, but also, guidelines for the effective implementation of those strategies.

Strategy Formulation

In this section past studies of contingent relationships will be reviewed which are primarily concerned with the formulation of various strategies. The major areas discussed include characteristics of top management, the organization's mission and objectives, the external environment, and the resources and functions of the organization.

Characteristics of the CEO. In recent years there has been an increasing interest on the influence of external forces on organizations. The underlying belief would seem to be that organizations and their managements are inherently dependent on the environments in which they operate. This

belief has implicitly diminished the importance of managers and their leadership capabilities as a direct, instrumental force in shaping organizational outcomes (Meindl and Ehrlich, 1987).

However, the concept of leadership and its importance seems to be firmly entrenched. Survey results indicate that academicians and practitioners alike agree that leadership is the most important topic of all within the realm of organizational behavior (Rahim, 1981). Meindl and Ehrlich (1987) estimated that, during the period 1972 to 1983, approximately 250 scholarly studies and articles were published per year on this subject.

One of the problems with studying the effect of top management on organizational outcomes has been to decide which characteristics of top management to consider. Hambrick and Mason (1984) suggested seven major categories of characteristics to consider in relating top management to organizational action and performance. These categories were - age-related, functional experiences, corporate influences, education, socioeconomic background, stockholding and group heterogeneity. In an empirical investigation of these relationships Hambrick and D'Aveni (1985) found that bankrupt organizations showed a greater preponderance of production/operations and accounting experience rather than marketing, sales, or product R&D expertise. Also, top management of bankrupt organizations held shorter tenure in their positions, had fewer technical degrees but more MBAs

and BBAs and had fewer outside directors. Norburn and Birley (1988), using Hambrick and Mason's categories of variables found that functional experience and education were stronger than the others in predicting corporate performance variability within industry norms. Furthermore, from the results of their inter-industry investigation they advanced the following theory:

"top management teams which demonstrate a preponderance of output functional experience, of multiple company employment, and of wider educational training will outperform those which do not, whether this be upon criterion of inter- or intra-industry productivity."
(Norburn and Birley, 1988, p.236)

In the strategic management area the emphasis has been placed on personal values of top management or their philosophy and its impact on organizational outcomes. Learned, et al (1965) identified personal values and aspirations as one of four major components of strategy. Chamberlain (1973) argued that corporations are managed by individuals who still believe deeply in the values of which their organizations are the chief carriers. Schendel and Hofer (1979) suggested that in a balanced approach to strategy formulation, the environment, the organization's resources, and the values of top management were roughly of equal importance and should be considered simultaneously in the process.

An empirical study of top managements' general philosophy or value system requires the selection and measurement of specific constructs. Conservatism has been used in the past as such a construct. Wilson (1973), in his

study of conservatism stated that literal definitions of the word stressed a preference for existing and traditional institutions, resistance to change and the disposition towards being moderate and cautious. He also suggested that conservatism was positively related to authoritarianism and anti-innovation and negatively related to stimulus seeking. Peters and Waterman (1982) refer to conservatism as the underlying cause in arguing that 'Today's version of rationality does not value experimentation and abhors mistakes.' Also, conservatism seems to fit well with Thompson's (1967) view that managers have a bias towards certainty and a low tolerance for ambiguity. Wilson (1973) contrasts conservatism and liberalism by observing that a liberal attitude will stress new things, change or innovation. Sturdivant, Ginter and Sawyer (1985) suggest that the fundamental difference between conservatism and liberalism is resistance to change. Furthermore, they view these as opposites, two ends of a continuum.

Empirical investigations relating top managements' general philosophy or value systems to strategy formulation remain scarce. In their empirical investigation, Sturdivant, et al, found that the conservatism construct was strongly associated with social responsiveness. Also, they found a small, negative association between conservatism and economic performance.

Mission and objectives. The second major area included in the formulation of strategy includes the firm's mission

and long-term objectives. Thompson and Strickland state that "management's view of what the organization seeks to do and to become over the long-term is the organization's strategic mission" (1987, p. 5). Thus, the mission statement provides a very general description of what the organization wants to be and whom it wants to serve (David, 1989). Recent investigations suggest that about 60% of all organizations have a formal mission statement and that high performing firms have more well developed mission statements than low performing firms (Pearce and David, 1987).

A well developed mission statement should, according to David, include descriptions of the following:

1. customers,
2. products or services,
3. markets,
4. technology,
5. concern for survival, growth and profitability,
6. philosophy,
7. self-concept,
8. concern for public image, and
9. concern for employees.

A mission statement is generally a broad statement of intent (some would say vague). As the first step in identifying the future direction of the organization, it is written in such a way that it will remain true for long periods of time. Guidelines are often suggested of 10 to 15 years. Because the future cannot be perfectly forecasted and because of the mission statement's long-term nature, it is necessary to design it in such a way as to give the organization some strategic flexibility in order to effectively deal with its environment.

Theodore Levitt's "Marketing Myopia" (1960) made this point quite forcefully by suggesting that the railroad industry (among others), was nearly destroyed because these firms failed to define themselves as being in the transportation industry. Instead, they saw themselves as being in the railroad business. In other words, they defined their business too narrowly and, thus, gave themselves no strategic flexibility. As new modes of transportation were invented which could effectively compete with the railroads, these giants of the U.S. business world had as good a chance as others (if not a better chance, given their expertise in the transportation field) to diversify into other modes of transportation or related fields.

On the other hand, it should be remembered that because the mission statement is the first step in setting an organization's direction it should be specific enough to give some guidance to managers making strategic decisions for the organization. It is interesting to note that Levitt's article was taken to heart by many corporate managers, some to the point of defining their business in such general terms as "improving the quality of life for all mankind". In fact, after the merger mania of the 1970s, Abell (1980) suggested that organizations should define their business in terms of the needs they fill for their customers, the customers they strive to reach and the technology their product uses in fulfilling that need. Apparently, it was being suggested that the railroad

companies should, again, view themselves as being in the railroad business.

Because of its very general nature, there has been very little research, to date, relating a firm's mission statement to the strategies formulated by that firm. However, it may be possible to view different components of the mission statement in future investigations.

As noted previously, the components of an organization's mission statement include a description of the organization's concerns for survival, growth, and profitability, its self-concept and, also, its concerns for various constituents (from David, 1989). This resembles Mintzberg's (1983) system goals of survival, efficiency, control, growth plus the organization's mission, which Mintzberg defines as "describing the organization's basic function in society, the reason for its existence in the eyes of the world at large" (1983, pg.278). It can also be seen as a modification of the earlier work of Tuzzolino and Armandi (1981) on organizational needs. They suggested that organizations have certain needs that must be fulfilled, much like Maslow's (1970) hierarchy of human needs.

The primary organizational need which the firm wants fulfilled describes, in general terms, what the organization's major concerns are for the future. Following Maslow's lead, Tuzzolino and Armandi saw these organizational needs as a hierarchy in which lower level needs (physiological, then safety, etc.) would have to be satisfied prior to an emphasis on higher level needs. These

needs are provided in the following figure.

FIGURE 2-H
Organizational Need Hierarchy
(Tuzzolino & Armandi, 1981)

-
1. Physiological (survival)
 2. Safety
 3. Affiliative (toward the community, industry)
 4. Esteem
 5. Self-actualization
-

Also included in this category are the organization's long-term objectives. The long-term objectives of an organization specify the ends toward which the organization strives and go hand-in-hand with the mission statement. Where the mission statement gives a broad description of where the organization is going, the objectives suggest targets to be reached in accomplishing the mission.

What are the major long-term objectives of an organization and who has influence over their formulation? Early classical economists, viewing organizations as entrepreneurial firms - one owner/manager - believed that only those firms which maximized their profits would survive (Mintzberg, 1983). Allison (1971) referred to this as the 'rational actor model' of organization action where the organization was seen as one individual which acted rationally when decisions were made to maximize profits.

But why not some other goal? Robert Gordon (1945) and William Baumol (1959) suggested that many firms maximized sales subject to a profit constraint. Others (e.g.

Williamson, 1963) argued that the firm maximized other goals such as managerial welfare. Papandreou (1952) suggested that organizations should be viewed as having multiple goals, imposed on the organization from outside. Although he saw these goals as flowing through a single actor (the owner/manager), this opened the door to the idea that there were multiple constituents with influence on the organization's goal system. March and Simon (1958) went one step further in identifying five major classes of participants in the goal-setting process; investors, employees, suppliers, distributors and consumers. Finally, Simon (1964) argued that the basic assumption of maximization should be dropped in favor of treating all goals of an organization as constraints or levels of satisfaction to be attained. Goal formulation theory has, thus, generally evolved from a one actor/one goal, maximization model to multiple actors/multiple goals, 'satisficer' models of behavior.

So what are these goals? The types of long-term objectives commonly used by organizations are numerous. Shetty (1979), in an examination of 193 companies from four industrial groups; chemical and drugs, packaging materials, electrical and electronics, and food processing, provides fourteen goals which made up the vast majority of those used by his sample of firms. These are provided in the following table, ordered in terms of their frequency of use (with profitability being the most common goal found among these firms).

Research investigating relationships between long-term objectives of organizations and specific strategies of firms is scarce. In fact, according to Bourgeois (1985), investigations concerned with the 'content' of strategy in firms has largely replaced an earlier emphasis, in the policy area, on the content of goal sets in organizations. Bourgeois' work, noted earlier, took exception to this trend, investigating relationships between the number of goals and goal consensus, perceived uncertainty of the environment and economic performance of the firm. However, this author was unable to find any research which looked for direct relationships between certain goals and specific strategies.

TABLE 2-I
Common Company Goals
(Shetty, 1979)

-
1. Profitability
 2. Growth
 3. Market share
 4. Social responsibility
 5. Employee welfare
 6. Product quality and service
 7. Research and Development
 8. Diversification
 9. Efficiency
 10. Financial stability
 11. Resource conservation
 12. Management development
 13. Multinational enterprise
 14. Consolidation
-

The external environment. The external environment is the third major area often considered to be important to the formulation of strategy. Obviously, this is a very broad

area, encompassing everything outside of an organization's boundary. Previous writers have generally treated the environment in two ways; (1) describing the environment as an object, in terms of important constituencies (e.g. stockholders, customers, creditors) and areas of concern (e.g. social, economic and technological trends) and (2) describing certain attributes of the environment (e.g. complexity, stability).

In 1958, Dill made the distinction between an organization's task environment and its general environment. The task environment, according to Dill, was composed of customers (distributors and users), suppliers (of materials, labor, equipment, capital and workspace), competitors (for both markets and resources) and regulatory groups (government, unions, interfirm associations). These individuals, groups or institutions either carried out actual transactions with the organization or were in such a position that they could greatly affect those transactions (such as March and Simon's (1958) assertion that many of these groups were major participants in the goal setting process of the firm). The general environment broadly encompasses everything else outside of the organization, often categorized in terms of the political, social, economic and technological environments of the organization (Steiner, Miner and Gray, 1986; Byars, 1987).

Organization theorists have generally focused their attention on two attributes of an organization's

environment. These are: (1) its complexity or heterogeneity, referring to the number and diversity of external factors facing the organization, and (2) its volatility, or the degree of change exhibited by variables affecting the organization (Bourgeois, 1980). These attributes have been tested and found to be significantly related to certain structural aspects of organizations (e.g. Lawrence and Lorsch, 1967, Duncan, 1972).

The influence of major stakeholders on strategy formulation is a relatively uncharted area in strategic management research. There seems to be some confusion between the importance of the customer (or consumer) and the importance of capital suppliers (most notably stockholders) in the formulation of strategic decisions. This confusion comes from the long held assumption that "managers make decisions to maximize the wealth of their shareholders" (Copeland and Weston, 1983, p.21), and the belief upheld in the strategic management field that defining an organization's 'business' can best be set in terms of the need being satisfied by the organization for its customers (Drucker, 1974). Are these two beliefs opposing views or are they complementary (the organization maximizes shareholder wealth by defining its business as meeting a specific need for its customers)? More importantly, is the importance of these stakeholder groups always the same or does it fluctuate under different circumstances and then cause variations in the organization's overall strategy?

Research on the relationship between the influence of

major stakeholder groups and the strategy formulated is scarce. However, in a related investigation Stearns, Hoffman and Heide (1987) found that interorganizational relationships were important contributors to company performance. Their findings suggested that both the number and complexity of interorganizational relationships firms had with various resource holders were important moderators of company performance.

As already noted, the use of environmental uncertainty as a variable in organizational studies has predominantly come out of the organization behavior and organization theory areas. However, it has become much more popular in the business policy/strategic management area in recent years. At first, organization theorists (e.g. Thompson, 1967) proposed that organizations take actions to reduce environmental uncertainty. Pfeffer and Salancik's (1978) 'resource dependence perspective' on organization action seems to be grounded under this assumption. Porter (1980) suggested that organizations build 'defensible' positions which suggests an environment that is predictable and/or controllable, thus lacking uncertainty. More recently, this underlying assumption has come under attack. Jauch and Kraft (1986) suggested that some organizations actually seek to create uncertain environments.

That certain strategies seem to exist under different environmental conditions is fairly apparent. Keats and Hitt (1988) found that higher levels of environmental instability

were positively associated with lower levels of diversification. Also, they noted that environmental instability and diversification were, both, positively related to performance.

Miller (1988), in a study of undiversified firms and generic strategies found that a strategy of innovative differentiation was most likely to be pursued in an uncertain environment. Alternatively, low-cost production strategies were found to be most common in stable and predictable environments. In earlier work Miller (1987) had found that strategies of complex product innovation (a type of differentiation strategy) and breadth-innovation (large market focus with emphasis on innovation) were positively associated with dynamic environments. Conservative cost control strategies were most common in stable environments and marketing differentiation (differentiation based on marketing activities such as promotion/advertising) was found to coincide with hostile environments. Finally, the breadth strategies (opposite of Porter's focus strategy) in general, were found in heterogeneous environments.

Surprisingly, research on the relationships between strategy and dimensions of environmental uncertainty is a relatively recent phenomena, even though organization theorists have been interested in this link for years. Miller's research may change this. From his findings, Miller concluded that "the environmental variables considered in organization theory research (uncertainty, hostility) may, at times, have stronger relationships with strategy than

have some of the industry-wide parameters of the industrial economists (1988, pg.304).

The internal environment. According to Bracker (1980), the common thread among definitions of business strategy is that an environmental analysis is used to determine the proper use of resources to achieve the organization's goals. In fact, the Greek word "stratego" means to "plan the destruction of one's enemies through effective use of resources" (Bracker, p.219). In addition, Hofer and Schendel (1978) note that an important component of any organization's strategy is the effective deployment of resources to build a distinctive competence within the organization, to give it a competitive edge over other organizations.

What is implied is that effective organizations: 1) have adequate resources, and 2) use these resources effectively (to build distinctive competences). Resources are vital to the continual survival and growth of all organizations. Pfeffer and Salancik (1978) have suggested that organization action can best be viewed from a resource dependence perspective. In other words, organizations take actions directed toward their environments to reduce their dependence on those that control certain vital resources.

Research investigating relationships between the resources of a company with strategies formulated is scarce. One of the few related investigations looked at certain financial criteria such as working capital, retained

earnings and total sales (among others) to predict bankruptcy (Altman, 1971, Argenti, 1976). Their results were surprisingly strong. However, bankruptcy is generally not considered a strategic alternative. Instead, it is generally considered as a measure of the failure of strategic management in a firm. Empirical investigations of specific resources such as executive talent, manpower, plant and equipment or even financial resources and their effect on strategic choice is scarce. What is more commonly studied are the distinctive competencies built up from the appropriate use of these resources.

According to Selznick (1949, 1952, 1957), a distinctive competence represents those activities in which a firm, or one of its units, does better relative to the competition. Snow and Hrebiniak (1980) suggested that functional areas (e.g. marketing, production, finance, R&D) can become distinctive competencies. Results of their investigation showed significant relationships between the strengths of certain functional areas, the line-of-business competitive strategy and performance. Hitt, Ireland and Palia (1982) found similar relationships between corporate-wide strategies and corporate distinctive competencies (those competencies which go beyond specific business units). In fact, there is a growing sentiment among researchers and practitioners alike that managers of diversified corporations must develop synergy between their business units (Yavitz and Newman, 1982, Porter, 1987). One way of

building that synergy is through the transfer of corporate-wide distinctive competencies among the organization's various units (Bower, 1982).

In an empirical investigation of corporate distinctive competencies with corporate strategy, Hitt and Ireland (1985) found that organizations implementing a stability strategy emphasized marketing activities. Surprisingly, production activities were not considered as important for the success of this strategy. Firms implementing an internal growth strategy were found to have a positive relationship between financial activities and performance. Completely unexpected was the finding that there was a negative relationship between engineering and R&D activities with performance in these firms. Production activities were found to be most important in those firms following an external growth strategy.

It is surprising that with the overwhelming agreement between scholars in the strategic management area on the importance of resources and 'distinctive competencies' to strategy selection that more work in this area has not been attempted. Perhaps the Hitt and Ireland study will trigger further investigations in this important area.

Summary of contingent relationships to strategy formulation. Interest in the variables which influence the strategy formulation process has continued for years, following the popularity of the strategic planning and, then, the strategic management process. Yet, there is still

much to do in this area. Investigations of links between such key areas as the organization's mission and objectives, organizational resources available and the CEO's general philosophy with specific strategies are all but non-existent. Although some work has been done to determine links between important functions in the organization (its distinctive competencies) and functional backgrounds of the CEO, much is left to do, especially considering the multi-dimensionality of strategy and the lack of a consensus agreement on appropriate generic competitive strategies. The environment has generally received the most attention thus far. However, the link between the influence of major stakeholders and strategy remains unclear.

Even the results of work that has been done in the past in this area remains questionable. In most cases researchers did not determine the timing of the strategy choice. Organizations which had recently changed strategies were compared with organizations which had followed the same general strategy for years in the search for major determinants of strategy. The major assumption these researchers seem to follow is that organizations pick strategies which through their effective implementation, keep the same contingent relationships which existed at the time of selection. This is a major assumption with little evidence to indicate that it is true.

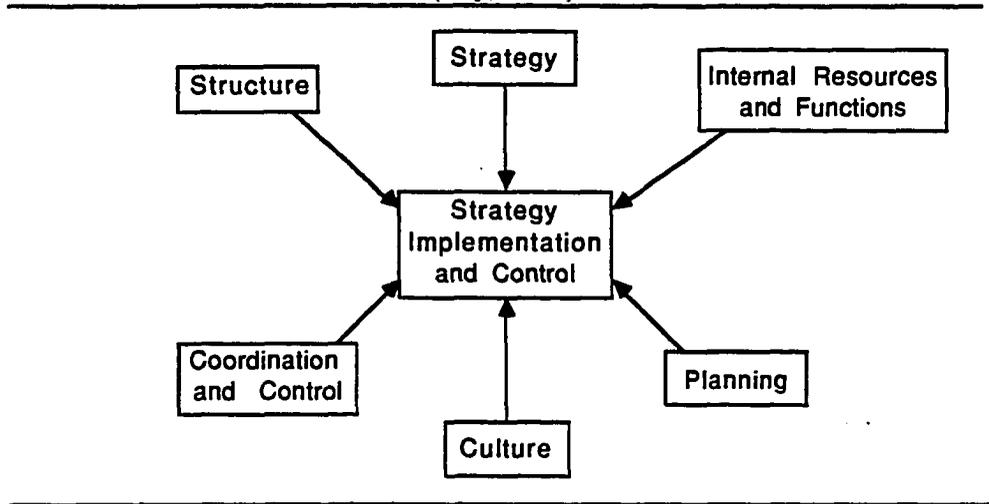
Strategy Implementation and Control: Major Areas of Concern

Major areas to consider in the implementation and control of specific strategies have not been well developed. Unlike the strategy formulation phase, there is less agreement between writers on the subject as to what should be included. However, there does seem to be a general consensus that implementation goes beyond the formulation of performance targets and action plans throughout the various departments and positions in the organization.

From the writings of Peters and Waterman (1982), Andrews (1987), and Harrison (1985), six major areas are identified as important categories of variables to consider in successfully implementing strategy. The following sections will describe each of the major categories of variables included in the model of strategy implementation and control provided on the following page. Also, specific variables which have been investigated from these areas are discussed.

Strategy. The first major area to be considered in the implementation and control phase of this study is the strategy which the organization has adopted. Generally, strategy will be defined first, through the domain direction of the firm and then through the dominant competitive strategy used by the firm. This is in agreement with current knowledge of the 'content' of strategy, discussed earlier. Further clarification of specific strategic types to be used in this study will be made in Chapter 3.

Figure 2-J
Contributing Factors Affecting Successful Implementation and Control
(Hay, 1988)



Structure. The second major area to be included under the strategy implementation phase will be the actual structure of the organization. Galbraith and Kazanjian define organization structure as "the segmentation of work into roles such as production, finance, marketing, and so on; the recombining of roles into departments or divisions around functions, products, regions or markets; and the distribution of power across this role structure."

(Galbraith and Kazanjian, 1986, p.6)

Many organizational theorists (Burns and Stalker, 1961; Duncan, 1973; Lawrence and Lorsch, 1967; Thompson, 1967) have argued that environmental uncertainty; defined as change or unpredictability of environmental elements such as technology, customers or competition, can have a major impact on the structures which organizations adopt. However, the empirical evidence has not strongly confirmed this

argument (Miller, 1988; Miller and Droge, 1986). One reason for this lack of significance may be due to the mediating effect of business strategy between environmental uncertainty and structure (Miller and Friesen, 1984).

The relationship between strategy and structure has been discussed and investigated extensively over the past thirty years. Chandler (1962), in his classic study, showed how changes in strategy often required alterations in the organization's structure. This should not be surprising in that the organization's structure must respond to the particular control requirements and coordinative problems created by the strategy of the firm (Nelson and Winter, 1982). Early investigations, however, concentrated on relationships to various 'growth' strategies.

In Chandler's study, strategy was generally limited to the degree of diversification of operations of an organization and structural change concentrated on the creation of business divisions (often from an original emphasis on functional departments). Following Chandler's lead, Rumelt (1974) showed how the match between strategy and structure influences performance but, again, the emphasis was on diversification and divisionalization.

Galbraith and Kazanjian (1986), in summarizing the research and discussions which followed Chandler's work developed a 'dominate growth path for U.S. firms' which concentrated on the match between certain directional or growth strategies and the ensuing structure adopted by the organization. This growth path starts from the inception of

a business with a 'simple' structure. Often, only two layers exist in the organization, the owner/manager and the workers. Through a strategy of 'size growth' where increases in sales are sought within the organization's current market and/or with current products, the organization adopts a 'simple functional' structure which emphasizes a further division of labor, an increased number of employees and the introduction of middle level managers to help with supervision and other managerial functions. A strategy of 'vertical integration' brings about a 'centralized functional' structure with specialists grouped into major departments such as marketing and manufacturing. Also, staff personnel become more prominent. Control over decision-making, however, is still highly centralized at the top of the organization. A strategy of 'related diversification' leads to a 'multidivisional' structure where the organization is divided into divisions assigned to particular products and/or markets. This organization is less centralized with much of the decision-making power delegated to the division heads, the 'experts' for their particular product/market areas. Finally, a strategy of international expansion would lead to a 'global international' structure where the organization was often divided into large geographical divisions, each representing major areas of the world.

Appropriate structures for 'no growth' firms have not been so widely investigated. According to Galbraith and

Kazanjian, a firm could stop anywhere along its "growth path". Presumably, the appropriate structure would then be the one associated with its last past strategy. The possibility of organizations 'back-tracking' through their 'growth' path using reduction strategies was not elaborated upon.

Relationships between certain organizational structures and various competitive strategies have only recently been suggested. Miller (1986) argued that organizations with 'simple' structures (dominating chief executive, informal coordination through direct supervision, low-degree of bureaucratization, and primitive information systems) would most likely be pursuing focused or 'niche' strategies or marketing differentiated strategies (as opposed to innovative differentiated strategies). Organizations with machine bureaucracy structures (rigid structure emphasizing division of labor and specialization of tasks, centralized, a well-developed technostructure) would most likely be following cost leadership strategies or marketing differentiation strategies. Here, efficiency and profitability would be emphasized rather than flexibility. Organizations with organic structures (decentralized, horizontal communications, little standardization) are most likely to be following an innovative differentiation strategy which requires problem-solving within generally more uncertain environments. Finally, Miller suggests that organizations with a divisional structure will most likely be following a diversification strategy (as noted by

Chandler (1962)).

Mintzberg (1979), argued that the 'divisionalized form' often drove the organization to become bureaucratic and formalized. The corporate headquarters was often found to standardize procedures and methods wherever possible to improve control over the divisions (Chandler, 1962). According to Miller, this loss of flexibility may rule out strategies of innovative differentiation, however, market differentiation and low-cost leadership may be quite successful.

Few empirical investigations have been attempted to relate various competitive strategies with different structural types. White (1986) investigated relationships between functional coordination and autonomy in decision-making with two competitive strategies; differentiation and low-cost leadership. His results indicated a strong relationship between low autonomy (more control and influence by the corporate office), low-cost leadership strategies and ROI. Also, those business units studied which shared certain major functions with other business units were found to have significantly higher returns than those where major functions were self-contained. For business units operating with differentiation strategies, those units where all major functional areas were self-contained reported significantly higher sales growth. Thus, low-cost strategies seem to cause organizations to adopt structures with characteristics closer to the bureaucratic centralized

functional structure for best results. High performing organizations competing with differentiation strategies which are not diverse will also adopt these structures. However, diverse organizations which compete with differentiation strategies within business units will most likely adopt divisionalized structures for best results.

Although the relationship between strategy and structure has been generally accepted, much of the literature in this area has been descriptive, backed by personal observation or experience rather than empirical investigation.

Coordination and control. The third area to be considered is the coordination and control of activities performed by the organization. This is closely related to structural characteristics of firms and is often included in broader definitions of organizational structure.

Coordination was described in Chapter 1 as the 'glue' which holds the organization together. One of management's major functions is to coordinate the work of the various subunits within the organization to achieve greater efficiency and effectiveness. Coordination takes place by way of such activities as communication (or what Mintzberg (1979) refers to as 'mutual adjustment'), supervision, and the acceptance of certain rules, regulations and policies as standards of behavior in the organization. These activities may be informal (informal communication, peer pressure to conform to certain behaviors, the acceptance of past

precedents or certain social values as guides to behavior) or they may be administratively controlled through the setting of formal lines of communication, the use of integrators, integrating managers, task forces and/or standing committees to force communication between units, direct supervision of behaviors throughout the management hierarchy, the development of formal standards of behavior through rules, regulations and policies, and the implementation of certain systems to operate within the organization, such as various planning and control systems (strategic planning, MBO, budgeting, etc.).

Control is defined as the ability of the organization to make the behaviors of individuals within it predictable. Thus, control is an important element in the effective coordination of activities within the organization, for without the ability to predict the behaviors (and actions) of individuals effective coordination becomes nearly impossible, and certainly inefficient. Because coordination and control in organizations are so closely intertwined they are often considered synonymous. In fact, the mechanisms used to coordinate activities in organizations are generally the same mechanisms used to control behaviors. Thus, the concentration in this section will be on coordination of activities, keeping in mind that the two terms are highly related.

Much of the contingency research in this area originated with a concentration on relationships between environmental uncertainty and coordination and control in

organizations. One of the most popular contingency models was suggested by Burns and Stalker (1961). They introduced 'mechanistic' and 'organic' systems of management as being at two ends of a continuum. The appropriate system to be used was determined from the general stability of conditions in and around the organization, where a more mechanistic system was seen as more conducive to stable conditions and an organic system more appropriate in unstable situations. Burns and Stalker suggested the following general characteristics of mechanistic and organic systems.

TABLE 2-K
Characteristics of Mechanistic and Organic Systems
(Burns & Stalker, 1986)

Mechanistic Systems

- 1) Specialized differentiation of functional tasks,
- 2) Concern within individual tasks on the task itself, rather than the enterprise as a whole,
- 3) A well developed hierarchy of authority,
- 4) Extensive use of standardization,
- 5) A high degree of centralization of decision-making,
- 6) Vertical rather than horizontal communication,
- 7) Extensive use of direct supervision,
- 8) Insistence on loyalty,

Organic Systems

- 1) Concern centered on the common task of the concern, as a whole,
 - 2) Attention on the "overall" situation (beyond task borders),
 - 3) Adjustment and redefinition of tasks through interaction,
 - 4) The shedding of responsibility as a limited field of rights, obligations and methods,
 - 5) The spread of commitment to the total concern,
 - 6) Control based on "the good of the company",
 - 7) Decentralization of decision-making,
 - 8) Horizontal communication flows,
-

Lawrence and Lorsch (1967), in a study of firms from three different industries, found that environmental uncertainty required organizations to have greater differentiation between units in the organization. This, in turn, caused a need for greater efforts toward integration (or more use of coordinating devices) in those organizations. Duncan (1973) found a similar relationship in comparing levels of uncertainty between units in an organization.

Galbraith (1974) suggested that the general design of organizations could be viewed from an information processing perspective and that the need to process information was tightly correlated with the firm's environmental uncertainty. According to Galbraith, "the greater the task uncertainty, the greater the amount of information that must be processed among decision-makers during task execution in order to achieve a given level of performance." (p.505) Galbraith believed that the emphasis placed on different coordinating devices would change with greater uncertainty. At low levels of uncertainty, organizations could rely on coordination by rules and programs. As uncertainty increased, participants faced situations for which there were no rules. At this point, the hierarchy was employed on an exception basis where non-routine problems rose in the hierarchy to that point where a global perspective existed for all affected subunits. With even greater uncertainty coordination would increasingly take place through the specification of outputs, goals or targets. Thus, instead of

specifying individual behaviors, or relying on the hierarchy to solve problems, the organization would increasingly set targets for participants and then let the participants set their own behaviors for goal accomplishment. With even greater uncertainty the organization, according to Galbraith, had several alternatives. These included:

- 1) the creation of slack resources (extend completion dates, higher inventory levels, higher budgeted resources to units, etc.)
- 2) the creation of self-contained tasks (the creation of product divisions),
- 3) investment in vertical information systems (more frequent replanning, computerization, formal MIS systems), and
- 4) the creation of lateral linkages (direct contact, liaison roles, task forces, teams integrating roles, managerial linking roles and matrix organization).

Galbraith also suggested a fifth possibility; taking action to gain control of that aspect of the environment which was most uncertain (vertical integration, horizontal integration).

Although these past studies of the relationship between environmental uncertainty and organizational coordination and control are insightful, more rigorous empirical investigations have failed to confirm that this is, indeed, a strong relationship (Miller, 1988; Miller and Droge, 1986; Mintzberg, 1979). One possible reason for this may be due to the mediating effect of strategy on appropriate coordination and control in organizations (Miller and Friesen, 1984). Mintzberg (1979) takes a slightly different perspective viewing coordination in relationship to the complexity of

the organization. If organizational complexity is due, at least in part, to the past strategies of firms than Mintzberg's view comes closer to depicting a relationship between strategy and structure. Mintzberg isolates five coordinating mechanisms found in most organizations. The first is referred to as mutual adjustment which achieves coordination through the simple process of informal communication. The second is direct supervision which coordinates activities by having one individual take responsibility for the work of others. The next three are standardization mechanisms which coordinate activities by formalizing certain criteria prior to the intended behavior. These coordinating mechanisms include the standardization of work processes, the standardization of output and the standardization of skills.

According to Mintzberg, these coordinating mechanisms follow a rough continuum in relationship to organizational complexity starting with mutual adjustment for the least complex organizations, to direct supervision for more complex organizations and then to one or a combination of the standardization mechanisms. Finally, as organizations become even more complex, they revert back to a dependence on mutual adjustment as the key coordinating mechanism. It should be noted that, according to Mintzberg, as organizations become more complex, the major emphasis changes in regards to the coordinating mechanism used. However, complex organizations will often make use of all

coordinating mechanisms at one time.

Also, Mintzberg suggests a sixth mechanism, which he refers to as socialization or the standardization of norms which achieves coordination by imposing similar value systems on all individuals in the organization. This is in agreement with the increasing attention given to corporate culture and its effect on the ultimate performance of organizations.

Although Mintzberg does not look directly at the relationship between strategy and coordination and control, he does give some insight if one can differentiate between past strategies which increased the complexity of organizations and those which do not. For instance, a strategy of domain enlargement would cause greater complexity and thus require the use of coordinating mechanisms at the end of his continuum, mutual adjustment or some mix of the standardization mechanisms.

In fact, Mintzberg goes to some length in describing those coordinating mechanisms most emphasized for certain ideal structures. For instance organizations with simple structures would emphasize mutual adjustment or direct supervision as the major coordination mechanism. Organizations with centralized functional structures (Mintzberg's 'machine bureaucracy') would emphasize the standardization of work, those with divisionalized structures would concentrate on the standardization of outputs in coordinating activities between divisions and those with adhocracy structures (e.g. matrix structure)

would revert back to mutual adjustment.

Miller (1986) went to some length in proposing links between competitive strategies and certain coordinating mechanisms. He suggested that organizations competing with 'niche' strategies or marketing differentiated strategies would have little need for sophisticated integrative or 'liaison' devices (e.g. integrators, task forces, standing committees, etc.). Also, there would be little use of rules and regulations (a low degree of bureaucratization) and information systems would be very primitive.

Those with cost leadership or, perhaps, marketing differentiation strategies would be found to have machine bureaucracy structures (centralized functional structures). These firms would make extensive use out of formal rules, programs and procedures for coordination and have sophisticated information systems (with an emphasis on reporting costs and outputs rather than market information).

Organizations with innovative differentiation strategies, according to Miller, would most likely have organic structures or what Mintzberg refers to as adhocracy. These organizations are highly decentralized, and emphasize informal communication through the use of various integrating devices. Bureaucratic rules and regulations would not be common due to quickly changing situations. Highly sophisticated information systems are used to keep track of external environmental conditions.

Miller also suggested that organizations with

conglomeration or diversification strategies most commonly will be found to have divisionalized structures. Mintzberg (1979) believes that the use of standardization of outputs would be the major emphasis in coordinating activities between divisions. Information systems will tend to be very sophisticated, given the diversity of markets in which the organization competes (Miller, 1988). Also, these organizations may have a tendency to become bureaucratic with the extensive use of rules and regulations formed by corporate headquarters to gain additional control over the divisions (Channon, 1973; Chandler, 1962).

Unfortunately, there have been few studies which have investigated relationships directly between strategy and coordination and control. Those cited earlier in the section on organizational structure did provide some insights in this area.

Miller, et al (1988) found that organizations which relied heavily on product innovation were found to have more organic and decentralized organization structures than those which competed along other fronts such as low-cost leadership or market differentiation.

White (1986) found that organizations with pure differentiation strategies had superior growth rates when coordination was tight among key functional areas of the organization. Alternatively, ROI was found to be higher when organizations competing with low-cost leadership strategies shared certain functions between major units (divisions).

Miller (1988) investigated the relationship between

competitive strategies and bureaucratic vs. organic uncertainty reduction, differentiation and integration devices used in organizations. Bureaucratic uncertainty reduction devices could generally be described as an emphasis on the use of formal rules and regulations while organic uncertainty devices were generally based on communication between participants. Bureaucratic differentiation devices included use of profit or cost centers and number of staff departments, while organic differentiation devices included the delegation of authority for strategic decisions, organizational differentiation and the influence of technocrats. Bureaucratic integration devices included use of formal cost controls, financial controls, etc, long-range planning and computerization. Organic integration devices included the use of task forces and standing committees, frequent communication, both horizontally and vertically in the organization, and the diversity of points of view in decision-making.

Miller found that organizations with marketing differentiation strategies used more bureaucratic uncertainty reduction, differentiation or integration devices. Organizations with complex product innovation and breadth-innovation strategies were found to have more organic uncertainty reduction, differentiation or integration devices. Organizations with conservative cost control strategies were found to be negatively correlated with many organic devices and positively correlated with

bureaucratic uncertainty reduction and integration devices. Generally, firms had either bureaucratic or organic devices but not both. Firms with marketing differentiated strategies were the exception. These firms were found to have both, perhaps due to the need for flexible marketing (organic) and bureaucratic production/operations.

Finally, Hitt and Ireland (1985), in a study of firms following a retrenchment strategy found a negative relationship between organizations making extensive use of computer systems to provide information for decision-making with performance.

As can be seen from the above examples, empirical evidence of links between coordination and control and performance within specific strategies is becoming more common. One drawback is the many different coordinating mechanisms which can be used and the actual measurement of their use in organizations. Also the use of specific types of coordinating mechanisms may vary between levels in the organization or between different subunits (Mintzberg, 1979). However, the increasing activity in this area suggests the importance of coordination and control to the successful implementation of strategy and with more investigations, it is hoped that clearer guidelines can be developed for practicing managers.

Resources and functions. Next, the resources and major functional areas of the firm will be considered. As Galbraith (1974) has suggested, one action an organization

can take in dealing with excessive environmental uncertainty is the 'creation of slack resources'. Wernerfelt and Karnani (1987) suggested that organizations facing environmental uncertainty faced a trade-off between acting early or waiting until the uncertainty was reduced, and also, a trade-off between focusing resources in one direction or focusing resources in several directions. In other words, organizations faced with environmental uncertainty must decide how flexible they should strive to be.

Jauch and Kraft (1986) propose that some strategies do, in fact, lead to greater environmental uncertainty. Thus, having an abundance of resources within the implementation and control phases of strategic management may be important to organizational effectiveness in terms of the flexibility offered. As was noted earlier, Miller, et al (1988) found that strategies of product innovation were directly related to greater environmental uncertainty. Also, Miller (1988) found that organizations with innovative differentiation and market differentiation strategies operated in environments that were more dynamic and unpredictable. Thus, flexibility through greater resources available or through strengths in many different functional areas may be important for success within these strategies. Also, organizations with cost leadership strategies were negatively correlated with unpredictable and dynamic environments, however these relationships were not statistically significant. It may be that organizations with low-cost production strategies can be less flexible with fewer resources on hand, and/or

resources directed toward limited functional areas, yet be highly successful. Only further research will provide more insight into this relationship.

The importance of various functions within different strategies has, also, not been well developed, especially in terms of recent generic strategy schema. However, relationships between stages of the product life cycle and the importance of various functional areas within the organization have been addressed (Doyle, 1976; Hofer, 1977; Kotler, 1980; Pearce and Robinson, 1988). According to Pearce and Robinson, the functional emphasis within the introductory stage of the product life cycle should be research and development and a focus on penetrating the market. In the growth stage marketing and sales are the keys with a focus on increasing market share and customer loyalty. By the mature stage the emphasis should be on production/operations with a focus on increasing efficiency. Finally, by the decline stage, the emphasis is placed on finance with a focus on maximizing investment recovery. A well balanced diversified company with divisions spread out among all phases of the product life cycle would need strengths in all areas.

Miller (1986) suggests various functional activities for a number of different generic strategies. Firms operating with 'niche' strategies, according to Miller, should emphasize a marketing focus on quality, service and convenience. Those firms with low cost leadership strategies

should emphasize low price and efficiency in production. Firms with Innovative differentiation strategies should emphasize new products and high quality in marketing, flexibility in production/operations and R&D. Finally, those with conglomeration strategies should emphasize corporate image and high degrees of vertical integration.

Hitt and Ireland's investigation of relationships between corporate distinctive competencies, strategy, industry and performance does provide some additional insights into the importance of certain functional areas for certain strategies. They found that organizations with 'stability' strategies emphasized marketing activities such as improving distribution networks and developing effective policies for product additions and deletions. Although some production activities, such as improving plant layout, workflow and work environment were found to be related to high performance for firms with this strategy, production/operations, in general, was not. Organizations with internal growth strategies were found to emphasize financial activities to yield higher performance. Surprisingly, a negative relationship was found for these firms between an emphasis on engineering and R&D activities with performance. Those manufacturing firms investigated which had strategies of growth through external acquisitions were found to emphasize production operation activities such as increased computerization and decentralization of production control systems. Also, results showed a need for maintaining a good, overall corporate image.

Firms with retrenchment strategies were found to have a negative relationship between emphasizing personnel activities such as union relations and employee relations with high performance.

Some evidence of a relationship between major functional competencies and various competitive strategies does exist. However, links between these functional competencies and directional strategies are generally missing. Relationships between resources available to the organization and performance within certain strategic types can only be proposed through the assumption that certain strategies create different levels of environmental uncertainty. Further investigation is required to provide greater insights into these relationships.

Planning. The fifth variable included in this stage of the analysis is planning. Some authors (e.g. Mintzberg, 1979) have included planning in discussions of coordination in organizations. Because it is believed that the role of planning in organizations goes beyond coordination of activities and yet its importance within this area is significant, planning will be discussed separately in this review.

The evidence concerning the relationship between planning and performance has been mixed. Some have found significant differences between firms that engaged in formal strategic planning and those that didn't (Ansoff, et al, 1970, Gershefski, 1970, Thune and House, 1970, Herold, 1972,

Karger and Malik, 1975), while others have found no relationship or a negative relationship (Fulmer and Rue, 1973, Grinyer and Norburn, 1975, Kudla, 1980, Leontiades and Tezel, 1980). Possible reasons given for this inconsistency are cited by Greenley (1986) as:

- 1) a weakness in past investigations in not identifying other variables which may affect this relationship,
- 2) subjectivity in regards to the definition of terms,
- 3) bias in methodological rigour,
- 4) lack of commonality of parameters across the studies, and
- 5) wide variations in the reporting of the significance of statistical results.

Pearce, Robbins and Robinson (1987) have identified three major 'waves' of research effort into the investigation of the planning-performance relationship. The first wave, taking place in the early 1970s, generally looked for and found positive relationships between performance of firms and planning formality in organizations. The traditional research methodology used at this time was to compare planners to nonplanners in relationship to firm performance over time. The second wave, starting in the mid 1970s saw further discrimination between planning 'types'. Fulmer and Rue (1974) attempted to discriminate between primary, pro forma, program-predictive and impoverished planners (however, they were unable to find any statistically discernible differences between the first three levels). Kudla (1980) experimented with non-planner, incomplete planner and complete planner schemes but with

inconsequential results.

The results of these studies have led to a third wave of investigations which depict the multidimensional aspects of planning systems in organizations. Frederickson and Mitchell (1984) and Frederickson (1984) focused on the comprehensiveness of the planning system. This was found to be positively related to performance in an industry with a stable environment and negatively related to performance in an industry with an unstable environment.

Ramanujam, Venkatraman and Camillus (1986) identified seven dimensions of planning systems; five having to do with the design of the system and two dealing with the organizational context in which the system operated. The five design characteristics included system capability, use of techniques, attention to internal (organizational) facets, attention to external (environmental) facets, and functional coverage. The two dimensions of the organizational context included the resources provided for planning and resistance to planning. Also, three effectiveness measures were used, the fulfillment of key planning objectives, a financial performance measure and a measure of satisfaction with the planning system.

Ramanujam, et al, found that both resources provided for planning and resistance to planning were key discriminators for satisfaction as well as objective fulfillment. Resources provided ranked at the top for relative competitive performance. Of the design elements

tested, system capability proved to be the most powerful discriminator for satisfaction and objective fulfillment. Attention to external facets was an important discriminator for relative performance but not for objective fulfillment. Finally, functional coverage was found to be important for both objective fulfillment and relative performance.

Many of the investigations on the impact of planning on performance of the firm have not differentiated between strategic planning and other formal or informal planning systems used by organizations. In fact, truly 'strategic' planning has been found to take place in relatively few firms (Steiner, 1983, Welch, 1984, Rhyne, 1985). Rhyne (1981) developed a continuum of planning systems based on their 'openness' and the length of the planning horizon. Five points along this continuum were identified. Starting from the least 'open' and shortest time horizon, these points included short-term forecasting, budgeting, annual planning, long-range planning and strategic planning. In his 1986 study, Rhyne found that, in general, performance, measured by relative 10-year total return to investors was significantly related to his planning classification with strategic planners outperforming all other types.

There has been little research, to date, comparing the effectiveness of planning systems within different grand strategy alternatives. Pearce, Robbins and Robinson (1987) investigated the impact of grand strategy and planning formality on performance using as their strategies; stability, internal growth, external acquisition growth and

retrenchment. Results of their investigation of the relationship between strategic planning formality and performance were significant for all measures of performance used; return on assets, return on sales, sales growth and overall performance. The investigation between grand strategies and planning formality showed no significant differences. Thus, the grand strategies of firms appear to be unassociated with their degree of strategic planning formality. Finally, the interaction effects of grand strategy and planning formality on performance were found to be insignificant suggesting that strategic planning formality is beneficial to organizations across the realm of grand strategies investigated.

Also, Hitt and Ireland (1985), in a study of organizations with retrenchment strategies found that there was a negative relationship between the following activities and performance;

- 1) developing and communicating corporate mission, objectives and strategy, and
- 2) developing a corporate strategic planning system.

There has been little research, to date, which has specifically investigated the relationship between strategic planning and implementation and control of strategic alternatives with performance. The Pearce, et al, (1987) study comes close but no consideration was made for the timing of the implementation of the grand strategies used by the firms in the study. Thus, it is not known whether the

strategies were just recently formulated or whether they had been in effect for a number of years, giving the planning system a chance to have an effect on performance within the constraints of that strategy.

Dutton and Duncan (1987) argue that strategy implementation should be enhanced by a formal strategic planning system through the identification of key strategic issues. Furthermore the identification of the strategic issue 'array' facilitates or constrains the political and informational flows which must take place during times of organizational change. Unfortunately, an empirical test of this argument is left for others.

Another popular planning and management system used by organizations is management-by-objectives (MBO). In 1954, Peter Drucker introduced the concept of MBO in his book, The Practice of Management. The basic difference between MBO and a typical top-down goal setting process in organizations is that it specifically attempts to include the participation of each individual in the formulation of his/her objectives for the coming time period. One of its most endearing traits is that it theoretically can be used in any type of organization. As Seyna (1986) notes "I have seen success and know from others that it has been beneficial in all kinds of organizations in both the public and private sectors and in all kinds of cultures." (pg. 116)

However, the success of MBO has been varied. Early in its history it was seen as a panacea for solving management's problems. When it didn't solve all of these

problems, critics began complaining. In 1972, Hoare wrote "If I were asked to name the one modern management technique in common usage which has caused the most harm to businesses involved, I would unhesitatingly answer Management by Objectives." (pg. 238) Additionally, Ford (1979) claimed "In the light of what appear to be inherent conceptual problems, MBO has generally not succeeded; devoting more effort to it to make it better is probably a waste of time." (pg. 50) Critics, in general, complained about "paperwork factories, wasted time and regimentation", (Seyna, 1986). Yet others have claimed major successes with the implementation of MBO, (Lea, 1977, McGinty, 1981, May, 1979, Calhoun, 1977, Seyna, 1982).

Although results of studies investigating the relationship between the use of MBO and performance have been mixed, it continues to be one of the most popular management systems in existence today. Yet, even with this continued popularity, research and interest in this management system seems to have decreased. Surprisingly little research has been attempted to investigate the likelihood that the success of MBO may be contingent upon the strategies of firms.

Organization culture. The last major area thought to be important to the effective implementation and control of strategy is organization culture. This is in agreement with Arogyaswamy and Byles who suggest that "Organizational culture has perhaps been focused upon increasingly because

of its possible importance in the environment-strategy-structure-performance link" (1987, p. 247). However, its use in research studies has been handicapped by its being viewed as a "vague and omnibus entity" (Bates, 1984, p. 43).

According to Shrivastava and Guth (1985) organizational culture can be viewed at three different levels within the organization. These levels include the material objects level (where culture is manifested in the form of concrete physical objects or social events), the behavioral norms level (where culture is found within the implicit guidelines, or norms, for social interaction), and the assumptions level (where cultures are manifested as shared values and beliefs).

However, most researchers seem to agree that shared values, or an organization's value system are a key element in the definition of culture (Wiener, 1988). A value is generally described as "an enduring belief that a specific mode of conduct or end-state of existence is personally or socially preferable to an opposite or converse mode of conduct or end-state of existence." (Rokeach, 1973, pg.5) In this definition values are viewed as forms of beliefs, and two major sources of these values are social expectations and the philosophy or value system of top management. These values then become internalized normative beliefs or guides to action for individuals in the organization. In other words, these shared value systems become implicit guides to 'the way we do things around here'.

Value systems have been discussed and evaluated in a number of different ways. Peters and Waterman (1982) through their 'eight guides to excellence', Ouchi (1981) with Theory Z management characteristics and Deal and Kennedy (1982) with 'strong culture', all seem to advocate a 'one best culture' perspective. Others, such as Shrivasta and Guth (1985) have suggested a contingency perspective where cultural and strategic 'fits' must take place. Additionally, several authors have suggested the existence of subcultures within organizations (Van Maanen and Barley, 1984, Saffold, 1988).

Several dimensions of culture, and, more specifically, value systems, have been proposed. Ackerman (1985), Deal and Kennedy (1982) and Sethia and Von Glinow (1985) analyzed organizational culture using variables such as decision-making style, organizational structure, leadership style and reward system. Deal and Kennedy, defining a 'strong culture' as one which was cohesive and tight-knit, suggested that weak and strong cultures both have a powerful influence on organizational behavior, but in strong cultures "everyone knows the goals of the organization, and they are working for them" (1982, pg.4). Thus, in a strong culture the goals of management and employees are aligned while in a weak culture members' goals are counter to management's or simply not aligned with the goals of the organization as a whole.

However, shared values were not considered in these studies. Wiener (1988) suggested that the content focus of organizational values and the source and anchoring of these

values should be studied in future investigations of organizational culture. Also, Saffold (1988) suggested that measures of cultural dispersion and cultural potency should be considered.

Studies investigating the relationship between culture, strategy and performance are scarce. Dennison (1984) claimed that corporations in which cultural values favor participation generate a return on investment almost twice as great as corporations that lack participative values. Camerer and Vepsalainen (1988) argued that corporate culture could lead to improved economic efficiency by reducing the costs of formal written contracts between individuals in the organization. Their view holds that well developed shared value systems control and coordinate behaviors and activities without the costs of formal contracts. This is in agreement with Mintzberg (1979) who suggests that shared values are becoming an increasingly important coordinating mechanism in organizations.

The relationship between culture and strategy is not clear. Weick (1985) asserted that strategy and culture were essentially synonymous and must be aligned with the environment. Green (1988) saw strategy as emerging from culture even though strategy had some power to change it. Scholz (1987) saw corporate culture as a possible solution to the problem of building strategic fit in organizations. Strategic fit was defined as "the situation in which all the internal and external elements relevant for a company are in

line with each other and with the corporate strategy"

(pg.78). This strategic fit was created by;

- 1) providing direct information about the necessary behavior in a particular situation,
- 2) providing implicit norms, and
- 3) providing a supply of cases for analogies.

Shrivastava and Guth (1985) went so far as to suggest a contingency approach toward the strategy/culture relationship. Using the Miles and Snow (1978) typology of strategies, they suggested that at the assumption level of corporate culture a prospector strategy required an entrepreneurial culture, an analyzer strategy required an anticipatory culture and a defender strategy required a bureaucratic culture.

Although corporate culture continues to be of great interest to researchers and practitioners alike, it also continues to be a construct that defies definition and, thus, measurement. For this reason its impact on performance overall, or within specific strategic types, remains largely uncharted.

Summary of variables affecting the successful implementation of strategy. Research on the effective implementation of strategy is of a relatively recent origin. Most of what is known, at this time, has been surmised from knowledge of the interaction of organizations with their environments from organization theory literature or from the more descriptive literature on the link between strategy and

structure suggested by Chandler (1962) and others.

However, with the development of generic strategies from the 'content' of strategy research stream this area appears to have a bright and productive future in strategic management circles. Insights are already being provided on links between major areas considered to be important to the successful implementation of strategy such as the appropriate structure configuration, coordination and control and major distinctive competencies in terms of various functional activities within the organization. Other areas, such as planning, resource availability, and culture have yet to make major breakthroughs as far as their importance to the implementation and success of particular strategies.

As was the case in the strategy formulation phase of this discussion, past empirical research findings are open to question. Generally, researchers have not differentiated between those firms which have recently changed strategies and those which have maintained one general strategy for a number of years. Thus, even the little research that has been done to this point may be misleading, suggesting implementation characteristics that seem to be effective when in fact they may have been in place due to a past strategy, rather than a recently adopted one.

Measurement of Performance in Strategic Management Research

In this study performance will be viewed as a subset of the broader concept of organizational effectiveness, in agreement with Venkatraman and Ramanujam (1986). Although the importance of the performance concept is widely recognized (e.g. Campbell, 1977; Chakravarthy, 1986; Goodman and Pennings, 1977; Steers, 1975; Venkatraman and Ramanujam, 1986) it continues to be a highly debated topic. In fact, there appears to be so little hope of reaching any agreement on basic terminology and definitions that some have expressed the view that researchers should spend their energies on more fruitful endeavors (Kanter and Brinkerhoff, 1981).

Unfortunately, in the strategic management field the option to move away from defining and measuring performance is not viable. At the heart of strategic management is the desire to improve the performance of organizations. As Schendel and Hofer (1979) suggest, performance is the time test of any strategy.

So how should one measure performance? Kirchoff (1977) points out that in the business policy/strategic management field effectiveness is often defined as "measurement of organization performance relative to goals" (p. 352). However, measuring effectiveness in terms of the organization's ability to reach its chosen goals brings with it a number of difficulties.

First of all, goals are often used as motivational factors, acting as an incentive for certain behavior.

Although this is not necessarily a problem it may lead to a tendency to establish unrealistic standards, in Etzioni's terms "Olympic heights of the goal" (1964, p. 259), which are not really meant to be reached. This suggests that a distinction must be made between those goals that are set in an attempt to motivate and direct the behavior of organizational participants and those used to appraise the organization's performance.

Secondly, organizational goals are affected by the environment. Starbuck (1965) has suggested that in many cases goals are not set internally but are imposed on the organization by environmental forces. Thus, long-term organizational objectives may never be reached. Environmental changes may cause the organization to adjust or change goals prior to the end of their original time frame.

Finally, organizations have multiple goals (Simon, 1964). Assigning appropriate weights to each goal in assessing organizational effectiveness becomes a major research problem as the perceived priority and importance, within priority rankings, of all goals change through time and across organizations.

Thus, alternatives to the actual goals of organizations have generally been used. According to Venkatraman and Ramanujam (1986), the most common approaches can be grouped into two categories; financial performance indicators and operational or business performance indicators.

The use of financial performance indicators is widespread in current strategic management research. This may be due to its availability through numerous secondary data sources. Also, these financial indicators are generally consistent with current knowledge of common goals in organizations such as the goals of profitability and growth. Common indicators in this category include sales growth, ROI, ROS (return on sales), ROE, and earnings per share. In addition to these, there has been a popular move toward using 'market' or value-based' measures such as the market-to-book ratio of common stock prices or stock-market returns. Lubatkin and Shrieves (1986) have even suggested the use of the capital asset pricing model (CAPM) in assessing firm performance.

One major criticism against the use of financial indicators has been their implied emphasis on the stockholder as the primary stakeholder in firms. As stock ownership in firms becomes more disperse this implication becomes more difficult to accept. Certainly, there are other important stakeholders which deserve some attention such as customers, employees, other managers, creditors and major suppliers. Other difficulties with the use of financial criteria were summarized by Chakravarthy as follows:

- 1) the scope for accounting manipulation,
- 2) undervaluation of assets,
- 3) distortions due to depreciation policies, inventory valuation and treatment of certain revenue and expenditure items,
- 4) differences in methods of consolidating accounts, and

5) differences due to a lack of standardization in international accounting conventions.

(Chakravarthy, 1986, pg.443)

Operational indicators have also been commonly used, alone and in combination with financial indicators. Variables used include market-share, new product introduction, product quality, marketing effectiveness, manufacturing value-added, and other measures of technological efficiency. In moving to operational indicators, researchers seem to be shifting the emphasis toward factors which may lead to greater financial performance. Market-share, for instance, is widely believed to be a determinant of profitability (Buzzell, Gale and Sultan, 1975). Yet, using these measures alone suggests that these are ends in and of themselves, which seems to be a rather narrow focus given the latitude generally available organizations, in the strategies they may adopt.

By combining financial and operational approaches, researchers begin to close the gap between measuring performance and measuring organizational effectiveness. Yet Venkatraman and Ramanujam (1985) caution that combining indicators into one composite dimension may be misleading because each indicator may represent separate dimensions. In other words, researchers using composite performance measures must assume a standard for excellence arbitrarily, given the multidimensional nature of the construct.

Some empirical investigations have been undertaken to determine the validity of using certain performance

criteria. Woo and Willard (1983) factor-analyzed fourteen common financial and operating indicators of performance and isolated four factors which they named profitability, relative market position, change in profitability and cash flow, and growth in sales and market share. The profitability factor was found to have the highest factor magnitude. The primary variables that loaded on this factor included ROI, ROS, and Cash Flow to Investment (with the first and third being highly correlated. This led Woo and Willard to conclude that ROI and ROS, when complemented with other measures were essential to the comprehensive representation of performance.

Chakravarthy (1986) empirically tested several common measures of performance on their ability to discriminate between excellent and not-so-excellent firms in the computer industry. Excellent firms were chosen based on their mention in Peters and Waterman's (1982) selection of 'excellent' U.S. firms and Fortune magazine's survey of corporate reputations. Chakravarthy found that profitability measures such as ROE, ROTC (return on total capital), and ROS could not consistently discriminate between the excellent and nonexcellent firms in his sample.

Also, Chakravarthy found that the market-to-book ratio, which has become popular as an indicator of the perceived ability of the firm to return to its stockholders an amount in excess of their expected returns (Rappaport, 1981), was a poor discriminator between excellent and nonexcellent firms.

However, although the excellent firms did not always have the highest market-to-book ratios, they did consistently have ratios that were above the industry averages while the nonexcellent firms were often found to have ratios below the industry average in the years covered by the investigation.

Finally, a multi-factor bankruptcy model (Altman, 1971; Argenti, 1976) was tested to determine its discriminating power between excellent and nonexcellent firms. Chakravarthy found impressive results, with only one of the excellent firms not meeting the test. However, Chakravarthy cautioned that "the linear discriminant function Z is more of an empirical artifact than a performance vector anchored in theory. An excellent firm must not merely focus on short-term outputs to avoid bankruptcy, but it must also ensure its long-term survival (1986, pg.447).

Thus, researchers in the strategic management area are left with a dilemma. At the heart of strategic management is the improvement in organizational effectiveness. Yet organizational effectiveness is multi-dimensional. Performance measures used to assess whether or not organizations are indeed effective are numerous, but each has its own limitations. In general, the researcher may choose single, one dimensional performance indicators at the risk of leaving out important dimensions of the construct. On the otherhand, researchers can choose composite measures made up of multiple indicators at the risk of combining numerous dimensions of the construct into one overall dimension. With this choice, the researcher is forced to

choose an arbitrary standard of high performance that cannot generally be rooted in theory. The best possible advice may be to choose that measure of performance which best addresses the research question and to, then, accept the limitations of that choice.

The Search for Determinants of Organization Effectiveness

Using Secondary, Objective Data

One of the difficulties in furthering the progress of research in the strategic management area has been the availability of data. Generally, the information required has been gleaned from top executive officers of companies through mail questionnaires and/or personal interviews. Because of the very 'personal' nature of the information required, top executive officers are often reluctant to participate in surveys of this nature. In addition, as interest in the strategic management field has grown, so has the research activity. Top managers are inundated with questionnaires, phone calls or personal appointments made by struggling researchers on the quest for knowledge.

With recent breakthroughs in the information processing field, there is an increasing abundance of secondary information on many of the publicly-held firms in the business world. These data sources have been put to great use in areas such as finance, economics and accounting. However, because of their quantitative, financial nature, their use in the strategic management area has been limited (except as a source for performance measures). This has been

unfortunate because these data sources offer researchers access to information on a large number of companies over a number of years.

One reason for the lack of use of these data sources has been the ongoing controversy in the management area between the importance of perceived vs. objective criteria on organizational decision-making processes. In the 1960s, many writers suggested that change and unpredictability in the objective environment of organizations would require structural adaptation to achieve a desired level of performance (e.g. Burns and Stalker, 1961; Chandler, 1962; Emery and Trist, 1965). However, by the 1970s, the major emphasis was moving toward characteristics of top management's perceived environment (both internal and external to the organization) as major factors influencing organization action. Starbuck suggested that organizations "elect their environments from ranges of alternatives, then they subjectively perceive the environments they inhabit." (1976, pg. 1069) Thus, the perceived environment was all important in the decision-making process. Along the same lines, Downey, Hellriegel and Slocum (1975, 1977) emphasized the roles of perception, psychological states and cognitive processes of decision-makers as influential factors in both the decision-maker's assessment of environmental uncertainty and his/her reaction to it. Lawrence and Lorsch (1967), in investigating the relationship between environmental uncertainty and integration and differentiation within

organizations, relied on perceptual measures of uncertainty, yet treated their results as if objective measures had been used. Others (e.g. Duncan, 1972; Van de Ven, Delbecq and Koenig, 1976) have ignored the objective environment completely, while relying on the perceptions of the decision-maker as a mediating link between objective environmental uncertainty, decisions and performance. More recently, Jauch and Kraft (1986) have suggested that objective environmental characteristics are important contributors to the perceived environment of top managers and that both should be considered in models of decision-making in organizations.

But how close are measures of the perceived environments of strategists to real, objective measures of organizational environments? Tosi, Aldag, and Storey (1973) found no significant correlations between their measures of objective volatility and the Lawrence and Lorsch (1967) subjective measures of uncertainty. However, Snyder and Glueck (1982) found positive correlations between the subjective measures of industry analysts and Tosi, et al.'s objective measures of volatility.

If the investigation for determinants of effectiveness between the organization, its environment, its strategy and performance is successful using perceived measures from top managers, it may then be possible to determine correlations between these measures and objective measures taken from secondary data sources. It should be noted that objective financial criteria that can be obtained from secondary

sources on individual firms are not exclusively environmental. Generally, this financial data will contain elements of both the organization and its environment. In other words, the financial data often reflect the interaction of the organization with its environment. As such, it may be possible to predict perceived conditions of the organization and its environment through these data items which reflect, not the objective environment as a whole, but the objective environment that the organization has seen.

With some success in this venture, it may be possible to open the door for future researchers in the strategic management area in the use of these secondary data sources. These data sources not only offer researchers information on a large number of organizations but also provide this information over a number of years. With the importance of timing to strategic considerations, longitudinal studies may become highly important to future breakthroughs in the strategic management area.

Chapter Summary

It is felt that this study is a necessary step in furthering research in the strategic management area, along with combining the rich descriptive research of the strategic management field with the more empirically based research often found in other areas such as institutional economics and organization theory. Researchers have spent a considerable amount of time and energy investigating the

relationships between the organization, its environment, its strategy and performance (although seldom all at the same time). Within the strategic management area two major research streams are evident, one striving to depict the 'content' of strategies found in organizations while the other concentrates on the 'process' of managing strategically.

Few, to date, have thought to combine the advances that have been made in the 'content' of strategy with the 'process' of strategic management in searching for possible relationships between the organization, its environment, its strategy and performance.

In doing so, the timing of strategic changes becomes an integral factor in the search. An organization, as an open system, is caught in a continuous interaction process with its environment. Major characteristics of its strategy are sometimes adjusted or changed to fit new situations. Once changes in strategy are made, there is generally a need to make organizational adjustments to effectively implement and control strategy. Only after these adjustments take place is it feasible to search for possible relationships with the financial performance of the organization.

Thus, it is necessary to divide our search for organization effectiveness into two phases. These are;

- 1) the search for relationships between the organization and its environment with the strategy it chooses (at the time of the strategic change), and
- 2) the search for organizational attributes which have an effect on the successful implementation and control of

certain strategies (but only after such a period of time in which the organization can make the necessary adjustments and those adjustments, in turn, have time to affect the overall performance of the firm).

From this investigation it is hoped that strategic management can take one step forward from its current status as a 'way of thinking' about the management of organizations to a 'guide to action' for future managers in picking appropriate strategies given certain internal and external environmental conditions and then in making the appropriate adjustments in the organization to effectively implement and control that strategy.

Finally, investigating the use of secondary data in the determination of appropriate strategies may help future research by providing access to a large number of companies over several years.

CHAPTER 3

Formulation of the Research Design

This is a comprehensive study of the determinants of organizational effectiveness. In the preceding chapter it was shown how past frameworks of organizational effectiveness have centered around contingent relationships between the organization, its environment and its strategy, with performance. Recently, there has been a major effort to include all four areas at one time in frameworks of organizational effectiveness. Although this more encompassing research design is seen as a major improvement over past studies, it may also be leading to confusing and, perhaps, misleading results. The reason for this is that current researchers seldom take into consideration the timing of the strategic change. As a result, their results reflect conditions of organizations which have recently changed strategies as well as organizations which have competed with the same 'generic' strategy for a number of years.

Also, the evolution of the strategic management process was described. This evolutionary process has led to a fairly comprehensive management system which, theoretically, should lead to greater organizational effectiveness. Current knowledge of the strategic management process suggests a number of major areas to consider in determining an appropriate strategy, and then implementing that strategy. Also, it depicts a realistic 'set' of contingent

relationships between the organization, its environment, its strategy and performance. An off-shoot of the progress being made in the development of the strategic management process was the determination of 'generic' strategies which generally described the strategies of most firms. These generic strategies increased the possibility of including strategic variables in developing frameworks of organizational effectiveness.

The research design for this study will be based on a model which combines the four major variables of past effectiveness studies with the insights provided by the strategic management process. Through this merger, it is hoped that a greater understanding of determinants of organizational effectiveness will emerge.

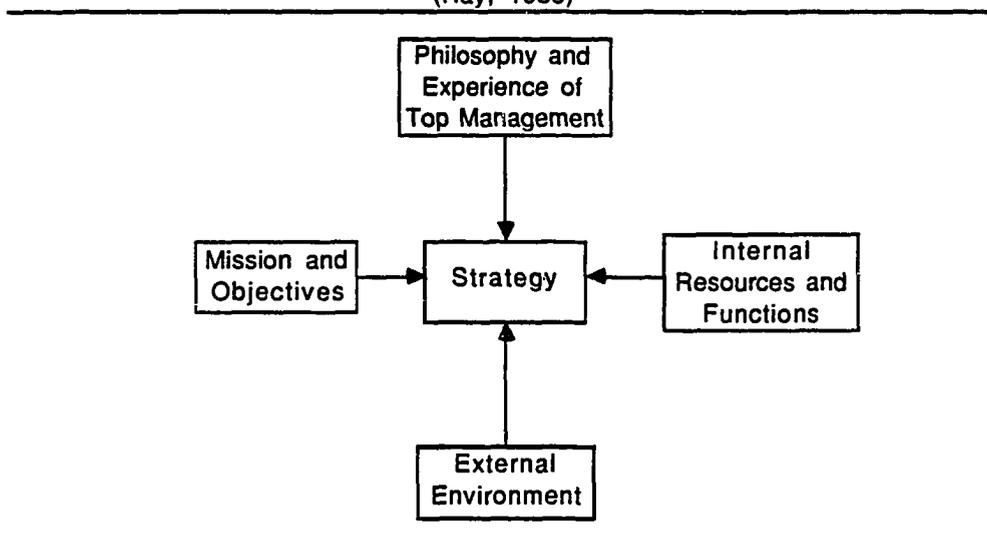
Formulating the Model

Within the strategic management process, two major phases can be identified; the formulation of strategy and the implementation of that strategy. The two phases reflect the evolutionary progress of the strategic management process from a planning process in which a strategic plan was formulated, to a more comprehensive management system which added the active implementation and control of that plan to the process. At the same time, the separation of strategy formulation from the actual implementation and control of that plan suggests the importance of timing in studies of effectiveness in organizations. Once a strategy has been formulated it takes the organization time to adjust

before its performance with that strategy can be determined. Finally, the separation of strategy formulation from its actual implementation and control serves notice that there are, at least, two general relationships which must be investigated, in the search for determinants of organization effectiveness. These two general relationships include those associated with the determination of particular organization strategies and, then, those associated with performance given a particular strategy.

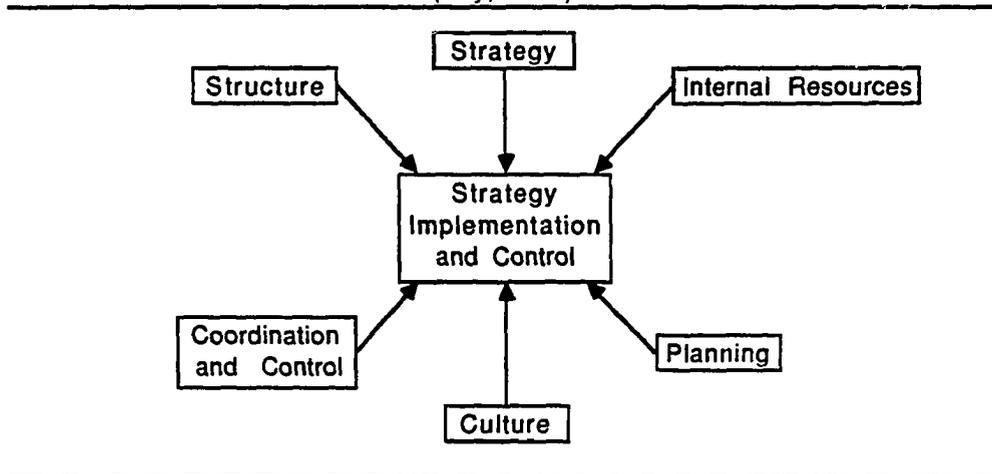
From the review section of the strategic management process, four major areas were identified which are believed to contribute to the formulation of strategy. These areas include the environment, the organization's major resources and functions, the top management of the organization, and the mission and goals of the organization. These major areas are depicted in the following chart.

Figure 3-A
Proposed Areas Affecting Strategy Formulation
(Hay, 1988)



From the review section of the strategic management process in Chapter 2, at least six major categories of variables are identified which seem to contribute to effective implementation of strategies within firms. These major categories of variables are provided in the following model.

Figure 3-B
Major Areas Affecting Successful Implementation and Control
(Hay, 1988)



Yet strategy formulation and strategy implementation cannot be completely separated. In fact, contingency based research in the strategic management area has generally held that they are inseparable and that contingent relationships may be identified by combining strategy formulation and implementation variables in the same study, without considering the timing of the strategic change. While this assumption may hold for adjustments in strategy it may be unrealistic for major strategic alterations.

Ginsberg and Venkatraman (1985) proposed a model of

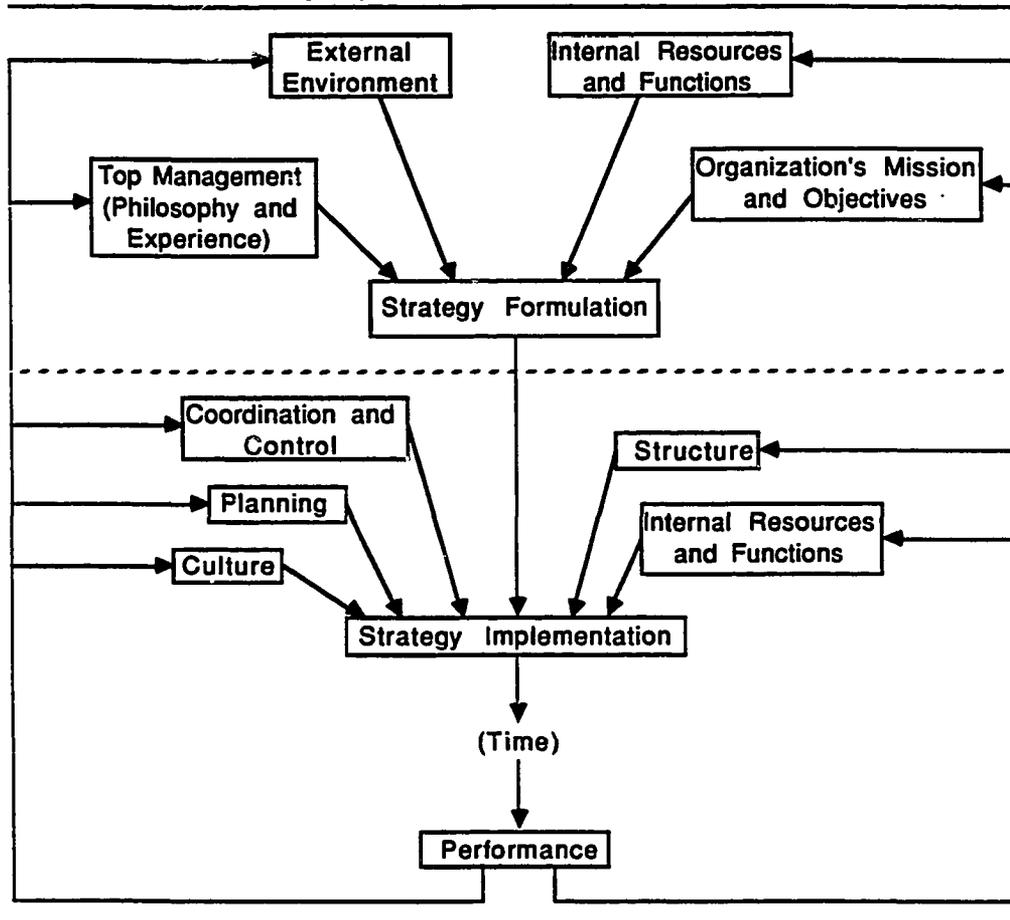
contingent relationships between the organization, its environment, its strategy and performance, which delineated between the formulation of strategy and the implementation of that strategy. This model suggests that strategy formulation involves contingent relationships between environmental variables, organizational variables, and past performance, with strategy. Strategy implementation then involves contingent relationships between the strategy selected and organizational variables with firm performance.

By combining the models of strategy formulation and implementation provided above with Ginsberg and Venkatraman's model of contingent relationships, and giving consideration to the timing of the strategic change, a model of organizational effectiveness can be formulated which provides greater specificity and additional insight into the process. This model is shown on the following page.

From this model it can be seen that the search for effective strategy formulation involves the investigation of contingent relationships between the organization, its environment, top management, and the organization's mission and objectives, with strategy. Effective strategy implementation involves a consideration of the strategy, with organizational variables consisting of structure, coordination and control, culture, planning, and resources and functions. Through time, appropriate organizational variables will positively affect the performance of the organization. This performance then affects the resources,

goals, and environment of the firm (and may have an affect on the organization's mission and top management, as well). This, in turn, affects the strategy formulation phase and the process continues.

Figure 3-C
A Contingency Model of Organizational Effectiveness



The Search For Determinants of Organizational
Effectiveness: A Three Phase Study

The search for determinants of organizational effectiveness will take place in three phases. Phase I will center on those internal and external environmental conditions that influence the strategy chosen (the strategy formulation phase). In this phase the assumption will be made that the majority of organizations make correct strategic decisions. In other words, the majority of firms in the sample will be assumed to have made strategic choices that enhance their position, given their current organizational and environmental conditions.

Phase II will then concentrate on the search for relationships between strategy and organizational conditions which exist during the implementation phase of the process with overall performance. In this phase, only those organizations which have proceeded with the same strategy over a number of years will be included.

Finally, Phase III will involve the search for suitable surrogate measures of those variables, from Phase I of the study (strategy formulation), that are found to be important determinants of strategy. This search will attempt to 'match' hard, quantitative data from a secondary data source (the Industrial Compustat tapes) with the perceptual measures of variables obtained from a mail questionnaire sent to the President and/or CEO of select companies. If sufficient surrogate measures can be found within the secondary data, it may be possible for outsiders

(competitors, students and other interested parties) to assess the strategic effectiveness of organizations in reference to their chosen strategies. It may even be possible to suggest more appropriate strategies for certain companies given only secondary, quantitative information.

In the next two sections of this chapter, specific variables within the major areas specified will be identified which will be investigated for significant relationships with strategy, both at the formulation stage and, also, at the implementation and control stage.

Phase I: Strategy Formulation

In this section of the chapter, each of the major areas of consideration in the effective formulation of strategy will be further specified. First, however, it must be understood that because this is a cross-sectional study, effectiveness of organizations, in regards to the match between certain organizational and/or environmental variables with strategy can only be assumed. Successful adaptation of the organization (an important measure of effectiveness) will be assumed when that organization has similar characteristics (internally or externally) to other organizations which adopted the same strategy.

Specifying strategy. The first major area of consideration in the formulation of strategy is choosing the 'generic' strategies to be investigated. As was noted in Chapter 2, two major dimensions of strategy have been

identified. These were 'domain direction' and 'competitive strategy'.

The domain direction strategy involves the choice of domain in which the organization chooses to operate. Examples include various growth strategies (size growth, vertical integration, market expansion, related and unrelated diversification) as well as non-growth strategies (e.g. maintaining position, harvesting, retrenchment, divestiture). Because there are so many possibilities a more general classification scheme is required.

If the strategies are grouped together in terms of their effect on the domain of the organization, where domain is defined as the product/market/activity arenas in which the organization is competing, then four categories satisfactorily characterize all of the above strategies. The domain enlargement strategy would include the strategies of vertical integration, product diversification (both related and unrelated), market expansion and international expansion. The domain enhancement strategy would include the strategies of market share enlargement within current markets and, also, strategies centered around decreasing costs while maintaining current market shares for the company's products. Also, retrenchment or harvest strategies could be included as long as these strategies did not have an impact on the general product/market/activity arena of the organization. The domain reduction strategy will then include strategies centered around the elimination of certain activities, markets or products from the firm's

operations. Finally, those companies which do not seem to have one dominant domain direction strategy will be grouped together to form a fourth strategy; domain restructuring.

Another common classification scheme for organization strategy is based on the competitive emphasis used by the organization to produce and market its product. As already noted in Chapter 2, Porter (1980) suggested that there were three competitive strategies possible for any single line-of-business firm or division. These are:

- 1) low-cost leadership - where the emphasis lies in gaining a competitive edge through lower cost operations,
- 2) product differentiation - where the emphasis lies in differentiating the product "package" (including service) from that of other competitors, and
- 3) market focus - where the emphasis lies in focusing on particular markets or market segments for a competitive edge.

Although these competitive strategies have been described as line-of-business specific, they may also be used corporate-wide, forming a distinctive competence for the entire organization. In fact, references to a consistent competitive strategy often can be found in mission statements, such as in the acknowledgement of the importance of customer service, product quality or efficient operations.

Porter believed that organizations which concentrated on one of his competitive strategies within a particular product-market area would be more likely to succeed over others which tried to compete using combinations of the three strategies. Although this may very well be true, it is

likely that many organizations continue to compete, even in one product-market area, with combination strategies. Also, firms which compete within multiple product-market areas may have different competitive strategies for each. Thus, to effectively assess the competitive strategy of a firm, it is necessary to determine the 'scope' of that strategy (Is it corporate-wide or does it change for each product-market area in which the organization competes?). Also, it is necessary to determine if, in fact, a firm's competitive strategy is some combination of Porter's three strategies, where no one strategy is stressed above the others. Thus, two additional alternatives will be added to Porter's three choices. The following may then be used to determine an organization's competitive strategy:

- 1) low-cost leadership,
- 2) product differentiation,
- 3) market-focused,
- 4) combination (where no one competitive strategy is stressed over the others, and
- 5) multiple competitive strategies (directed at specific product/market areas within a firm's domain of operations).

Top management. Much of the responsibility for the final strategic decision is thought to be in the hands of top management. One important characteristic of top management which has been found to influence firm performance is the functional experience of the CEO (Norburn and Birley, 1988; Hambrick and D'Aveni, 1985). In the

strategic management area, the concentration has been on the philosophy of top management in relationship to the strategy formulation process. One of the more common constructs used to determine 'philosophy' is the level of conservatism of the CEO.

Philosophy (level of conservatism) will be measured in terms of the CEO's personal feelings toward aggression, risk, growth of the firm, willingness to innovate, and use of leverage. Past experience will be divided into functional areas such as production/operations, marketing, or finance.

It is believed that managers with more liberal philosophies (defined here as aggressive, less risk averse, more willing to innovate and more willing to make use of leverage in the ongoing operation of the organization) will be more likely to be found in organizations with domain enlargement strategies, rather than the, seemingly safer strategies of domain enhancement or even domain reduction. In terms of competitive strategies, more liberal managers may be found to be more common in organizations with product differentiation strategies. These strategies could be viewed as having the greatest risk, for that aspect of the product package which is differentiated must offset the additional cost of differentiating the product in the first place. Also, the value of that aspect of the product package as viewed by the customer, may decline as other companies introduce similar differentiated products or as societal customs change. Thus, the manager of a company using product differentiation must be more willing to take risks and also

to innovate to remain effective.

As far as the backgrounds of the CEOs are concerned, three relationships seem possible. First, managers with low-cost production strategies may be found to have predominantly production/operations backgrounds. This type of strategy requires more of a production orientation with marketing almost relegated to 'sales' as the emphasis tends to center on production of a standardized product in a continuous flow. On the other hand, managers with marketing backgrounds may be found to be more common in organizations which choose a market-focus strategy. Because marketing is the manager's 'strength', the manager chooses this strategy over the other alternatives. Finally, managers of organizations with domain reduction strategies may be found to have backgrounds in production/operations or accounting, given the results of the Hambrick and D'Aveni (1985) study of bankrupt organizations.

Mission and objectives. The second major area included in the formulation stage of strategy includes the firm's mission and long-term objectives. An organization's mission defies categorization due to its very general nature. What will be used are Tuzzolino and Armandi's (1981) organizational needs which include (from the lowest level need to the highest) physiological, safety, affiliative, esteem and self-actualization needs. These organizational needs will be used as a general measure of the direction of the firm, as a measure of one aspect of an organization's

mission.

Two major relationships are suggested between the organization's need and its strategy. First, organizations with domain reduction strategies will report significantly more often that lower order needs (physiological or safety) are of primary importance. Domain reduction can be viewed as an organization's way of retreating from certain products, markets or activities. It is proposed that organizations will only 'retreat' when their survival or safety is threatened. Second, organizations with domain enlargement strategies will report significantly more often that higher level needs (affiliative, esteem or self-actualization) are their primary concerns. The same logic is being followed as above for domain reduction strategies. The majority of firms will 'advance' from a strong position, thus, their lower level needs will be primarily satisfied.

Also included in this category are the organization's long-term objectives. The long-term objectives of an organization specify the ends toward which the organization strives and go hand-in-hand with the mission statement. Where the mission statement gives a broad description of where the organization is going, the objectives suggest targets to be reached in accomplishing the mission. Shetty (1979), in an examination of 193 companies from four industrial groups; chemical and drugs, packaging materials, electrical and electronics, and food processing, provides fourteen goals which made up the vast majority of those used

by his sample of firms. These are provided in the table below.

TABLE 3-D
Common Company Goals
(Shetty, 1979)

-
1. Profitability
 2. Growth
 3. Market share
 4. Social responsibility
 5. Employee welfare
 6. Product quality and service
 7. Research and Development
 8. Diversification
 9. Efficiency
 10. Financial stability
 11. Resource conservation
 12. Management development
 13. Multinational enterprise
 14. Consolidation
-

These goals will be used to investigate possible relationships with the two dimensions of strategy to be analyzed in this study; domain direction and the firm's competitive strategy. The following is a list of possible relationships which may be found.

Domain direction:

- 1) Domain reduction - financial stability, resource conservation
- 2) Domain enhancement - market share, efficiency
- 3) Domain enlargement - growth, diversification, multinational enterprise
- 4) Domain restructuring - none

Competitive strategies:

- 1) Low-cost leadership - efficiency, financial stability, resource conservation

For the most part these relationships are self-explanatory. Notice, however, that the majority of proposed relationships center around the various domain direction strategies. This is due to the past emphasis on objective goals for organizations. It is much easier to pick measurable targets based on 'growth' than on how the organization is going to compete. Also, market-focused strategies and product differentiation strategies may both be based on product quality and service or dependent on research, thus canceling out these two particular goals as possible discriminating variables in the formulation of either of these strategies. Low-cost leadership stands apart from the other 'ideal' competitive strategies with its emphasis on production efficiency and because of this some possible discriminating goals can be proposed.

The external environment. The external environment is the third major area which will be considered in the strategy formulation phase of the study. From the review in Chapter 2, three major criteria emerge as important factors in the formulation of strategy. These can be grouped into the following categories; the influence of major stakeholders of the organization, the uncertainty of an organization's environment due to the environment's general volatility, and the uncertainty of the environment in relationship to its complexity or heterogeneity. Each of these major criteria will be considered in this study.

Stakeholder influence will be determined by measuring the general influence of key resource holders of the organization (including most members of Dill's "task" environment). Key resource holders will include stockholders and creditors, customers, employees and suppliers of major materials. Although it could be argued, and rightfully so, that employees and stockholders are within the boundary of the organization, they will be treated as if outside the organization in this analysis. Whether treated inside or outside the organization, few would disagree that both groups are key 'stakeholders' of the organization with at least some ability to influence major decisions.

It is proposed that in all but two of the strategy alternatives to be investigated the customers/consumer group will be found to dominate influence over strategic decisions. This belief stems from the obvious dependence of the organization on this group for needed resources on a continual basis and a general inability of organizations to exert controls on this transaction process. The two situations where this will not be found to be the case are in organizations with domain reduction strategies, and possibly, in organizations with low-cost leadership strategies. When an organization decides to reduce its total domain, it is believed that capital suppliers will be considered to be the dominant stakeholder group significantly more often than in organizations with other domain direction strategies. Again, the belief is held that organizations do not like to 'retreat' and in most cases

will have to be pressured by outside parties (the stockholders and creditors) to do so. Second, organizations with low-cost competitive strategies will be found to more likely report that capital suppliers have greater influence. This influence is believed to be earned by the capital suppliers from the customers almost by default. By deciding on a low-cost competitive strategy the organization reduces the impact of the market on its strategic decisions. Its major focus is on efficiency and cost reduction, and only secondarily on the satisfaction of customers. The ties between the capital suppliers and the CEO are considered to be the most direct compared to other major stakeholder groups, therefore, capital suppliers become the major influencers when the influence by customers is reduced.

The complexity/heterogeneity component of an organization's environment will be determined through its degree of vertical integration (a measure of the technological complexity, not only of the organization, but also of the organization's environment) and the diversity of the organization's products and markets. Vertical integration will be developed by determining the types of activities which are currently performed in the organization. Product diversity will be determined through the number of products and product lines produced in the organization. Market diversity will be determined along two dimensions; 1) the importance to total sales of the organization's international market and, 2) the degree of

segmentation which exists in the organization's current markets.

In general, most theorists have suggested that the greater the complexity/diversity component of the organization's environment, the greater is its overall environmental uncertainty. Three relationships are proposed between the complexity/diversity component of the organization and its environment with strategy. First, organizations with product differentiation strategies will be found to have, in general, greater degrees of vertical integration. The speed with which product changes may need to be undertaken requires that an organization control many of the activities required to change raw materials into a finished good and then distribute that good to its customers. Also, organizations with domain enhancement strategies will, in general, be less diversified than organizations with other domain direction strategies. The belief here is that once organizations become diversified they are more likely to reshuffle their portfolio of businesses than to stop and concentrate on current holdings. Finally, organizations with market focused strategies will be found to have the most overall diversity (in both the product and market dimensions). It should be remembered that the concentration in this study will be on larger firms. Thus, any firm which uses a market-focus approach will generally have numerous market segments within its operations. Each market target may require a somewhat different product, leading to greater diversity of both

types.

Another component of environmental uncertainty is the general volatility of the organization's operating and general environment. This will be assessed through the perceptions of the CEO/President toward the volatility of the organization's economic, political, social, technological and competitive environments.

A number of relationships may be found between the volatility of an organization's environment and its chosen domain direction strategy. It is believed that organizations with domain enlargement strategies will be found to have extreme measures of environmental volatility. In other words, some of these organizations will be enlarging their domains to reduce the affect of volatility on current operations. Others will choose to enlarge their domains due to the stability of the environment of current operations. Management in these companies will be looking for new battles to fight, new areas in which they can use their talents. Organizations with domain enhancement strategies will then be found to have medium levels of volatility, enough to keep management busy but not so much that future performance expectations are weakened. Organizations with domain reduction strategies may be found to have excessive levels of environmental volatility. These firms will reduce their operations to gain greater control over their environments.

Also, a relationship may exist between environmental

volatility and the competitive strategy chosen by a firm. Although there has been past research findings which lend insights into this contingent relationship, these findings have generally been based exclusively on single line-of-business firms. Because this study will involve single line-of-business and diversified firms, care must be taken in reliance on these past results.

Organizations with low-cost leadership strategies may be found to have the lowest levels of environmental volatility compared to organizations with other competitive strategies. With the emphasis on production efficiency, these organizations can ill afford high levels of environmental volatility affecting day-to-day operations. This is in agreement with Miller (1987, 1988) in studies of undiversified firms and should also be true of diversified firms which compete on a corporate-wide low-cost production basis.

Organizations which compete with product differentiation strategies will be found to have high levels of overall environmental uncertainty. Although Miller (1987, 1988) differentiated between innovative differentiation strategies and marketing differentiated strategies, both were found to have contingent relationships with high environmental uncertainty.

The internal environment. Lastly, an internal environmental analysis of the organization is needed to fulfill the four major determinants of the strategy

formulation phase of the study. Within the internal environment, two major criteria emerge as possible factors affecting the strategy chosen. These include the available resources of the organization and the relative skill with which major functional areas or activities are carried out in the organization (a search for major strengths in the organization).

The study will assess the company's financial, manpower and management resources to determine if there is a relationship with strategy. It is believed that organizations with domain enlargement strategies will generally be found to have the greatest overall resources, while organizations with domain reduction strategies will be found to have the least. Organizations with multiple competitive strategies will be found to have the greatest managerial resources due to the need for greater managerial talents for this strategy. On the other hand, organizations with low-cost production strategies may be found to have the least managerial resources, stressing alternatives to active management such as various standardization procedures (work processes, output, skills). Finally, organizations with product differentiation strategies may be found to have the greatest manpower resources, given the added requirements of instilling additional value into the product and the need to make frequent changes.

The search for major competencies will be performed by determining the strength of major functions within the organization such as marketing, production/operations,

finance, personnel and research. Three possible relationships are proposed. First, organizations with market-focused strategies will be found to have greater strengths in marketing as success with this strategy would seem to indicate. Second, organizations with low-cost production strategies will have the greatest strengths in production operations, as again, success with this strategy would seem to indicate. Finally, organizations with domain enlargement strategies will be found to have the greatest overall strength in all functional activities being investigated. This proposal is again based on the belief that most organizations will advance from a strong position on all fronts. Additionally, organizations competing with domain enhancement strategies will be found to have strong marketing skills in agreement with Hitt and Ireland (1985).

Summary of the strategy formulation phase of the research design. These four broad categories and the variables included in each will be tested to determine which variables have a significant relationship with the strategy that an organization adopts. Only those organizations which have recently changed their strategy will be included in this investigation.

Table 3-E summarizes those variables which will be measured in each of these four major areas.

TABLE 3-E
Proposed Variables Affecting Strategy Formulation

Category	Major Factors	Individual Variables
Philosophy of top managemet	- liberal/ conservative	feelings toward a. risk b. growth c. leverage d. aggression e. innovation
Mission and Objectives	- CEO background - organizational need - objectives	functional specialty higher vs. lower (from Table 3-D)
Internal resources and functions	- resources - functions (strength of)	a. financial b. manpower c. management a. marketing b. production/ operations c. finance d. personnel e. R&D

Figure 3-E (continued)

Category	Major Factors	Individual Variables
External environment	- complexity/ diversity	a. product diversity b. market diversity c. operational complexity
	- volatility	a. business conditions b. social envir. c. economic envir. d. political envir. e. technological environment f. competition
	- stakeholder influence	a. customers/consumers b. capital suppliers c. suppliers of materials d. employees

Strategy Implementation and Control: Formulation of the Model

Variables to be considered in the second stage of the analysis to determine appropriate actions or mechanisms to use in the implementation and control of various strategies are considered in the following paragraphs.

Strategy. The first major area to be considered in the implementation and control phase of this study is the strategy which the organization has adopted. As in Phase I, strategy will be defined first, through the domain direction of the firm (enlargement, enhancement, reduction, restructuring) and then through the dominant competitive strategy used by the firm (low-cost leadership, product differentiation, market-focused, combination and multiple competitive strategies (changes with specific product-market area)). These strategies will be treated as 'fixed' variables and high and low performers will be compared in each strategic group.

In general, it is proposed that organizations with domain enlargement strategies and multiple competitive strategies will be found to have the most organic systems within upper management levels of the organization. Organizations with domain reduction strategies and low-cost leadership strategies will be found to have more characteristics of a mechanistic system of management. Organizations with domain enhancement, market-focused and product differentiation strategies will have 'mixed' systems

of management, with characteristics of both organic and mechanistic systems. It must be remembered that organic and mechanistic systems were presented as two ends of a continuum, therefore, it is unlikely that any strategy will be found to require all aspects of one or the other. The following sections will discuss the other major areas included in this phase of the analysis and describe in more detail the relationships which are proposed to lead to higher performance.

Structure. The second major area to be included in this phase will be the actual structure of the organization. In this study, Galbraith and Kazanjian's definition of organization structure will be followed. In this definition 'structure' refers to the segmentation of work into roles and the recombining of these roles into departments and/or divisions. Thus, the structural characteristic to be examined in this study will be the basic structural configuration used by the organization such as functional departmentalization, product divisions, market divisions or some combination of the above.

In general, high performing organizations most likely to be using a functional structure are seen as those employing a low-cost leadership competitive strategy. Because low-cost production leadership requires an expertise in the technology of production over and above most competitors, it is believed that this competitive strategy will work best in undiversified firms where the majority of

resources can be spent on achieving this expertise. The lack of diversification, and the need for high levels of coordination and control for greatest efficiency of operations makes the functional structure the primary candidate for this strategy.

Another possibility may be found to be organizations with domain enhancement strategies where the continued emphasis on current operations may lead to an emphasis on increasing efficiency, which will, in turn, lead to the need for a functional structure. However, the possibility exists that diversified firms (either by product or market) will also choose a domain enhancement strategy and diversity is believed to have a stronger relationship to overall structure than the current domain direction strategy. Generally, organizations with domain enlargement strategies will be found to have some form of divisionalized structure (product or market) as these forms would seem to make the addition of domains easier (Chandler, 1962).

Coordination and control. The second variable to be considered in this stage of the proposed study will be the coordination and control of activities performed by the organization. Three major dimensions of coordination and control will be considered in this study. First, the type of coordination and control mechanisms used by the organization within upper management levels will be determined. Second, the potential for coordination and control at upper managerial levels will be evaluated. Third, the perceived

importance of coordination and control between major work units in the organization will be considered. These are described in the following paragraphs.

Galbraith (1974) suggested that the emphasis placed on different types of coordination and control mechanisms would change with the level of task uncertainty in the organization's operations. At low levels, the organization would make use of rules and programs. As uncertainty increased more emphasis would be placed on the hierarchy of management to resolve problems. With further uncertainty, organizations would emphasize the specification of outputs, goals or targets.

Mintzberg (1979) suggested that the type of coordination emphasized would be related to the complexity of the organization's operations (a common dimension of uncertainty). Organizations with little complexity would emphasize mutual adjustment or informal communication. With greater complexity, more use would be made of direct supervision from the management hierarchy. As complexity increased, an emphasis would be placed on one of three standardization mechanisms; standardization of work processes, standardization of work output or standardization of skills. Finally, with even greater complexity, the organization would, of necessity, revert back to mutual adjustment as its primary coordination mechanism. Mintzberg also suggests a sixth coordination 'type' which is referred to as standardization of norms or what is more commonly

known as the use of shared values in coordinating activities.

Mintzberg's coordination 'types' will be used to assess relationships between strategy, coordination and performance. However, because mutual adjustment will be considered indirectly in the determination of organizational culture, it will not be included in this category. It should be noted that the primary concern in this study will be the coordination types used at upper levels in the organization.

According to Mintzberg, organizations with divisionalized structures would most likely use standardization of output as the coordinating mechanism between major divisions, leaving the actual behaviors or actions to be taken up to individual divisions. However, this may not be true of organizations with corporate-wide differentiation or low-cost strategies which may need higher levels of coordination between divisions. What is suggested is that high-performing organizations with domain enlargement strategies, market-focused strategies and no corporate-wide competitive strategies use standardization of output to a greater degree than their lower performing counterparts. These organizations are seen as those being most likely to have divisionalized structures and also having the greatest uncertainty within the strategic actions of their various parts and, thus, require a more organic approach to coordination and control.

High-performing organizations with domain enhancement and low-cost production strategies are most likely to make

greater use of all types of standardization mechanisms, a reflection of a more mechanistic system of management and more stable conditions.

High-performing organizations with product differentiation strategies will be found to emphasize shared values. However, other coordinating mechanisms used will depend on that organization's level of diversity and type of structure. Highly diversified organizations with divisionalized structures will make use of output standards, while less diversified firms with functional structures will make more use of the standardization of tasks to increase efficiency.

High-performing organizations with domain reduction strategies may be found to have a greater emphasis placed on direct supervision, as managers try to come to grips with excessive environmental uncertainty but are required to exert control over current operations.

Galbraith (1974) suggested that organizations with high levels of uncertainty could decide to deal with that uncertainty by decreasing the need for decisions made at higher levels (through the creation of slack resources or the creation of self-contained tasks) or by increasing the information processing ability at higher levels (through investment in vertical information systems or the creation of lateral linkages). The possibility of doing both would also seem to exist.

This leads to two other aspects of coordination and

control which need to be analyzed. These two dimensions include the potential for coordination and control and the perceived need for coordination between major units in the organization.

The potential for coordination and control within the organization will be considered by determining whether or not the organization uses a computerized, corporate-wide management information system (under the belief that without timely information the potential for effective coordination and control decreases). Also, the potential for greater coordination will be determined through the degree to which strategic decisions are delegated to others in the organization. Use of a corporate-wide management information system will be found to be beneficial under all strategies except for domain reduction and possibly market focused strategies. In agreement with Hitt and Ireland's (1985) study of firms with retrenchment strategies, use of computerized information systems may be found to detract from performance in organizations following domain reduction strategies. Also, Miller (1986) suggested that organizations following 'niche' strategies would have little need for sophisticated information processing capabilities. It will be assumed that this is also the case when organizations compete with numerous 'niche' strategies. No delegation of strategic authority will be found to affect performance under low-cost leadership, domain reduction and possibly domain enhancement strategies. These strategies require high levels of coordination; low-cost leadership and domain

enhancement to increase efficiency and domain reduction to compete in a hostile environment.

Finally, a third aspect of coordination to be considered concerns the CEO's perception of the need for coordination among major units in the organization. Conglomerates, made up of highly diverse divisions or strategic business units, may not feel the need for high degrees of coordination between units while less diverse firms may feel that coordination and control is paramount to their success. Whether this has an effect on the organization's actual performance has yet to be investigated.

What is proposed is that organizations with low-cost leadership and product differentiation strategies will feel most inclined to report that coordination is vital to success. Companies with other strategies will not be so hard pressed to instill coordination among major units.

Resources and functions. Next, the resources and functions of the firm will be considered. Variables considered under resources will be the same as those considered in the first phase; financial, manpower and management. The evaluation of manpower and management resources will be used to measure the company's success in staffing the organization with individuals able to perform the required tasks and its ability to recruit or develop management talent. The financial resources will be combined with measures of the organization's manpower and management

resources as a general measure of the effectiveness and flexibility of the organization.

This is one category that does not seem to fit easily into a description of ideal management systems. Although seemingly important to the successful implementation and control of particular strategies, it does not reflect a 'way of managing' the organization. Thus, Burns and Stalker (1961) did not emphasize 'resources available' in their description of organic vs. mechanistic systems. However, since a major thrust of their work seems to be to differentiate between efficiency driven systems (mechanistic) vs. flexible systems of management (organic), high levels of resources available would seem to fit best with flexibility or organic systems of management. Thus, it is proposed that organizations which require organic systems of management also require higher levels of available resources.

Management resources will be found to be important determinants of performance in organizations with domain enlargement strategies, market-focused strategies and in organizations with multiple competitive strategies. These organizations will have the most difficult time centralizing strategic decision-making and, thus, must depend on qualified mid-level managers to make important decisions. Also, organizations with domain enlargement strategies may be found to require high manpower resources to successfully implement and control their new ventures.

The functional strengths to be considered include

marketing, production/operations, finance, personnel, and research and development. Organizations with domain enhancement strategies will be found to have higher performance when marketing is seen as a major strength, in agreement with Hitt and Ireland (1985). Those firms with ongoing domain enlargement strategies will be found to have the greatest overall strengths. Companies with low-cost production strategies will suggest that production/operations is a major strength, those with a market focused strategy will be found to have high marketing strengths and those with product differentiation strategies will be found to have high overall strengths.

Degree of vertical integration will also be investigated to determine if there is a relationship with performance within these various strategies. Degree of vertical integration will be evaluated in the same way as in Phase I. Because the results of past research on the link between vertical integration and performance has been relatively inconclusive, no proposed relationships will be made.

Use of planning. The fifth major area included in this stage of the analysis is planning. Although the development of a formal plan is an important coordinating mechanism used by organizations to guide decisions and unify the direction of the organization, it is considered important enough to make up one major category in this stage of the analysis.

This important managerial function will be analyzed by

determining: 1) whether or not the organization has a formal strategic plan, 2) whether or not all lower level managers execute actions and make decisions based on a formal plan, and 3) whether the organization uses a company-wide MBO (management-by-objectives) system. These variables will be combined to determine the general use of planning in the organization.

In general, planning will be considered as important to the success of all strategic alternatives included in this analysis.

Organization culture. The last major area to be included in this stage of the analysis is organization culture. Because of its all encompassing nature, only the behavioral level of organizational culture will be considered within this category (although 'shared values', from the assumptions level is considered within the coordination and control category as one of six types of coordination used in organizations). The four behavioral aspects to be considered in this study include; communication flows within the organization, the loyalty expected of lower level managers, leadership style of the top manager, and the degree to which top management considers the opinions of others in the organization.

A general index of organizational culture will be formed from these four variables which will range from mechanistic to organic, with a mechanistic culture reflecting high levels of vertical communication, high

levels of loyalty, a task-oriented leadership style and little reliance on the opinions of others in the organization in making major decisions (centralization of the decision-making process). Organic cultures will be defined as being on the opposite end of this continuum.

Use of these measures of culture suggest that successful organizations with domain enlargement strategies, market-focused strategies and multiple competitive strategies are the ones most likely to report having more organic cultures. Successful organizations with low-cost production strategies and, perhaps, domain enhancement strategies are the ones most likely to report having more mechanistic cultures.

Summary of the strategy implementation and control phase of the research design. Table 3-F summarizes those variables which will be considered within each of the major areas included in this second phase of the analysis.

Measurement of Performance

Because of the disparities between multivariate approaches to measures of effectiveness and the difficulties encountered with the use of goal attainment as an effectiveness measure, the limitations of a univariate approach to measuring performance will be accepted for the second phase of this study (finding determinants of effectiveness in the implementation and control of specific strategies). As long as the limitations of a univariate approach are known its measurement of performance across

TABLE 3-F
Proposed Variables Affecting Organization Performance

Major Area	Specific Variables
Coordination and Control	<ul style="list-style-type: none"> - types of coordination mechanisms <ul style="list-style-type: none"> direct supervision std. of process, output, skills shared values - potential for coordination <ul style="list-style-type: none"> delegation of strategic authority use of a computerized management information system - degree of coordination
Structure	<ul style="list-style-type: none"> - use of functional departments - use of product/market divisions
Internal Resources and functions	<ul style="list-style-type: none"> - financial, manpower, management - marketing, prod/oper., R&D, finance, personnel

TABLE 3-F (continued)

Major Area	Specific Variables
Planning	<ul style="list-style-type: none"> - development of a formal strategic plan - extent to which lower level managers execute activities and make decisions based on a plan - use of MBO
Culture	<ul style="list-style-type: none"> - communication flows - loyalty and commitment - leadership style - opinions considered

organizations still contributes to our understanding, at least within that one aspect or dimension of effectiveness being considered.

The criterion that will be used is return on investment (ROI) which has been widely used both in research and in American industry as a measure of organizational performance (Weston and Brigham, p. 152). The use of ROI stems from the Du Pont System of financial analysis which brings together the profit margin with the turnover of investment as shown in the following formula:

$$\text{Profit/Sales} \times \text{Sales/Investment} = \text{ROI}$$

Information for determining the return on investment of each firm in the sample will be obtained from the 1988 Industrial Compustat tapes, published by Standard & Poor's Compustat Services, Inc. Profits will be considered as profit after taxes but with interest payments added back. This is done because creditors are also considered investors in this analysis. Therefore, the productivity of the assets of an organization should reflect returns for both classes of investors; creditors and stockholders (Weston and Brigham, p. 145). Total investment will be considered to equal the value of the total assets in the firm as reported in Standard and Poor's Industrial Compustat tapes.

The Search for Determinants of Organization Effectiveness
Using Secondary, Objective Data

If the investigation for determinants of effectiveness between the organization, its environment, its strategy and performance is successful, it will be possible for 'insiders', with intimate knowledge of the organization and its surroundings to assess the organization's strategic posture and the current mechanisms used by the organization in implementing and controlling their strategies. However, it may be possible to open the door for outsiders (such as competitors, students and other researchers) to assess the overall strategic posture of a firm and/or to predict the timing and direction of possible strategic changes.

In order to accomplish this, it is necessary to determine appropriate surrogate measures of those variables found to be important to the formulation of strategy (from Phase I of the study) through secondary data sources. Once Phase I is completed, such an attempt will be made using Standard and Poor's Industrial Compustat Tapes as the secondary source. These tapes include 130 data items per company over a number of years. Because not all the variables to be included in Phase I of the study will be found to be major variables in the formulation of specific strategies, no attempt will be made, at this time to predict surrogates of all variables. However, the following table provides a guide for relationships which may be investigated.

TABLE 3-G
A Guide to the Search for Objective Surrogate Measures
of Important Strategy Formulation Variables

Dependent Variable	Objective Surrogate Measures
Philosophy and Experience of Top Management	Leverage position Marketing Expenditures Growth Liquidity position
Organizational Need and Objectives	Volatility of transactions Profitability Size Growth/Non-growth Liquidity
Internal Resources	Liquidity Leverage position Profitability Expenses (R&D, labor, marketing and administrative) Size
External Environment	Volatility of transactions Growth Resource Outlays (R&D, Dividends, Labor, Marketing, Acquisitions, Size Leverage Position

Chapter Summary

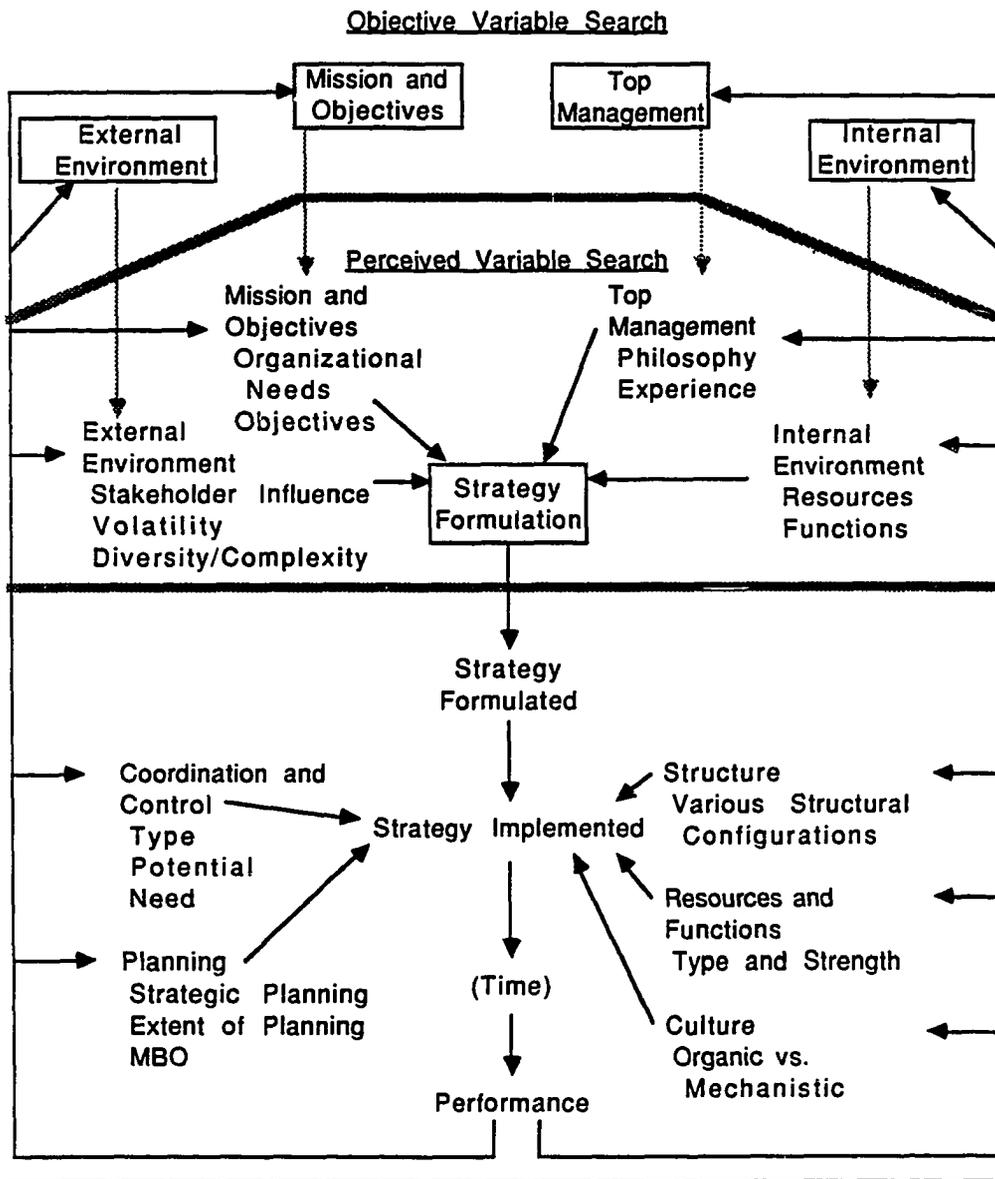
In this chapter, a model was developed that depicts the relationships between characteristics of the organization, its environment, its strategy and performance. This model separates the search for major variables affecting the ultimate performance of organizations between those involved with the formulation of specific strategies and those involved with the actual implementation and control of the

strategic choice.

The research design for this study will be divided into three phases. First, a search will be made for variables which have a major influence on the strategic choice. Broad categories of variables were identified from knowledge of the strategic management process and proposed relationships were developed based on past contingency research in this field. Second, a search will be undertaken to determine major variables affecting the successful implementation and control of certain 'generic' strategies. Again, a set of 'broad' categories of variables were developed from current knowledge of the implementation and control phase of the strategic management process. Proposed relationships were identified based on the conclusions of various organization theorists as well as past contingency research in this area. Finally, a third phase of the study will involve the use of secondary, objective data to determine surrogate measures of variables found to be important to the formulation of certain generic strategies. This phase of the study is seen as an important step in opening the door to future researchers in the strategic management area to the increasingly abundant secondary data sources available on today's business organizations.

The model on the following page summarizes those relationships which will be investigated in this study.

Figure 3-H
The Search for Determinants of Organizational Effectiveness



It is hoped that through this study greater insights will be obtained on what makes organizations effective. With continuing progress in this area it may be possible to take strategic management one step further along its evolutionary

path, from a way of thinking about the management of organizations to an actual guide to action for practicing managers faced with the difficult task of directing increasingly complex organizations through their sometimes volatile and often highly competitive environments.

CHAPTER 4

Research Methodology

This chapter of the dissertation describes the research methodology which will be used for this study. More specifically, it will explain the selection and nature of the universe of the study and the method of data collection. Then, for each of the three phases of the analysis, the following will be provided:

- 1) the basic propositions to be investigated,
- 2) the measurement of variables to be analyzed, and
- 3) a description of the statistical techniques to be used.

Selection and Nature of the Universe

The universe for this study consists of firms listed in the 1986 edition of the Industrial Compustat Tapes provided by Standard and Poor's Compustat Services, Inc. The Industrial Compustat tapes include several thousand companies located primarily in the U.S. and Canada. These are generally the largest and most significant companies within these two countries. These files are continually updated and companies which are acquired, go bankrupt or liquidate, or go private so that they no longer file with the S.E.C., are deleted.

The companies to be used will be taken from the following 'inner' Industrial Compustat files:

- 1) the primary industrial file which includes approximately 800 companies in the S&P 400, some companies in the S&P 40 Utilities Index, the S&P 20 Transportation Index and the S&P 40 Financial Index, plus companies of greatest interest, primarily companies on the New York Stock Exchange,

- 2) the supplementary industrial file which contains approximately 800 companies which are followed on the major exchanges but may have a lesser degree of investor interest,
- 3) the tertiary industrial file which includes approximately 800 companies listed on the New York and American Stock Exchanges plus some nonindustrial companies from the following industries; banks, utilities, life insurance, railroads, property and liability, and real estate investment trusts,
- 4) the full-coverage file which consists of approximately 4,000 companies filing 10-k's with the Securities and Exchange Commission, listed with NASDAQ trading over-the-counter, major industrials traded on regional exchanges, and/or wholly-owned subsidiaries trading preferred stock or debt.
- 5) the Canadian file which contains approximately 225 of the major Canadian industrial companies.

This comprises the universe of firms to be used in this analysis. As can be seen, this universe consists of a fairly comprehensive number of the major firms in the U.S. and Canada with participants representing several different industries.

Data Collection

Data will be collected from two sources, a mail questionnaire and the Industrial Compustat tapes. A mail questionnaire (provided in Appendix A) will be sent to a random sample of 1250 firms from the above universe. These questionnaires will be addressed to the current chief executive officer with a letter of introduction and a plea for their participation. Secondly, select information from those responding to the questionnaire will be obtained from the financial information provided by the Industrial Compustat tapes. This information will be used to search for

surrogate measures of variables found to be of significance in the formulation of particular organizational strategies. Also, certain financial criteria will be used to determine ROI for each firm as an indication of current performance.

It should be noted that Standard & Poor's Compustat Services, Inc. "continually updates its information on various companies and collects all data in accordance with standardized definitions which follow with the opinions of the Financial Accounting Standards Board" (Industrial Compustat, 1986, pg.3). This enhances the comparability of items across firms and through time.

Research Methodology of Phase I

The following paragraphs will describe the purpose of this first phase of the analysis. Because this is an exploratory study no hypotheses are provided. However, a fairly lengthy list of propositions are suggested for each characteristic of strategy to be investigated in this phase of the analysis. Also, measurement of variables to be included in this phase are discussed. Finally, the general statistical techniques to be used in this phase of the analysis are provided.

Basic Propositions

The purpose of this phase of the analysis is to determine if differences exist across organizations between certain internal and external organizational characteristics and characteristics of their organizational strategy. In

other words, this phase of the analysis is concerned with investigating possible relationships between external environment and organizational conditions with the strategy selected by the organization.

The basic propositions to be investigated are shown in the following table.

TABLE 4-A
Propositions for Phase I:
Determinants of Strategy Formulation

1. Philosophy and Experience of Top Management

P(1.a) Managers, in general, will perceive themselves as being significantly more liberal in organizations with domain enlargement strategies.

P(1.b) Managers, in general, will be found to perceive themselves as being significantly more liberal in organizations with product differentiation strategies.

P(1.c) Managers in organizations with market-focused strategies will, in general, report having backgrounds in marketing significantly more often than managers in organizations with other competitive strategies.

P(1.d) Managers in organizations with low-cost leadership strategies will report having backgrounds in production/operations significantly more often than managers with other competitive strategies.

P(1.e) Managers in organizations with reduction strategies may be found to have backgrounds in accounting or production/operations significantly more often than managers of organizations with other domain direction strategies.

2. Mission and Objectives

P(2.a) Managers with domain reduction strategies will report significantly more often that fulfilling low-level organizational needs are most important.

P(2.b) Managers with domain enlargement strategies will report significantly more often that higher level organizational needs are most important.

TABLE 4-A (continued)

P(2.c-d) Organizations with domain reduction strategies will report that financial stability and resource conservation are important more often than other firms.

P(2.e-f) Organizations with domain enhancement strategies will report more often that market share and efficiency are most important.

P(2.g-i) Organizations with domain enlargement strategies will report most often that growth, diversification, and multinational enterprise are most important.

P(2.j-1) Organizations with low-cost production strategies will report more often that efficiency, financial stability and resource conservation are most important.

3. External environment

P(3.a) Organizations with domain reduction strategies will report more often that capital suppliers have the greatest overall influence in making strategic decisions.

P(3.b) Organizations with low-cost competitive strategies will report more often that capital suppliers have the greatest overall influence in the making of strategic decisions.

P(3.c) Organizations with product differentiation strategies will be found to have the greatest degree of vertical integration.

P(3.d) Organizations with domain enhancement strategies will be found to be less diversified (by product and market) than other organizations.

P(3.e) Organizations with market-focused strategies will be found to have the greatest diversity (by product and/or market).

P(3.f) Organizations with low-cost leadership strategies will have the lowest, overall environmental volatility.

P(3.g) Organizations with product differentiation strategies will be found to have the highest levels of environmental volatility.

P(3.h) Organizations with domain enlargement strategies will be found to have extreme levels of environmental volatility.

TABLE 4-A (continued)

P(3.i) Organizations with domain enhancement strategies will be found to have predominantly medium levels of overall environmental volatility.

4. Internal Resources and Functions

P(4.a) Managers in organizations with domain reduction strategies will report having significantly lower levels of resources, in general, than other organizations.

P(4.b) Organizations with domain enlargement strategies will report having significantly greater overall resources than other organizations.

P(4.c) Organizations with multiple competitive strategies will be found to have the greatest managerial resources.

P(4.d) Organizations with low-cost leadership strategies will be found to have the lowest levels of managerial resources.

P(4.e) Organizations with product differentiation strategies will be found to have the greatest levels of manpower resources.

P(4.f) Organizations with market-focused strategies will report having significantly greater strengths in marketing than organizations with different competitive strategies.

P(4.g) Organizations with low-cost leadership strategies will report having the greatest strengths in production/operations.

P(4.h) Organizations with domain enlargement strategies will report having the greatest cumulative strengths in all functional areas.

P(4.i) Organizations with domain enhancement strategies will report having the greatest strength in marketing.

The Measurement of Variables to be Analyzed

The variables to be analyzed in this phase of the study are provided in the following table.

TABLE 4-B
Strategy and Proposed Variables Affecting Strategic Choice

General Category	Main Index	Individual Variables
Strategy	Domain Direction	Domain enlargement Domain enhancement Domain reduction Domain restructuring
	Competitive strategy	Low-cost production Product differentiation Market focused Multiple competitive strategies Combination
Philosophy and Experience of Top Management	Philosophy	feelings toward: a. aggression b. risk c. innovation d. growth e. leverage
	Experience	Business background
Mission and Objectives	Organizational need	higher vs. lower

TABLE 4-B (continued)

General Category	Main Index	Individual Variables
	Objectives	from list (Table 2-I)
Internal Resources and Functions	Internal Resources	Financial Managerial Manpower
	Functions	Marketing Production Finance Personnel Research
External Environment	Complexity/ diversity	Product diversity Market diversity Degree of vertical integration
	Volatility	Economic envir. Political envir. Social trends Technological change Competition Overall business climate

TABLE 4-B (continued)

General Category	Main Index	Individual Variables
	Stakeholder influence	Customers Stockholders and creditors Key suppliers Employees

The measurement of strategy. As was discussed earlier, two aspects of organizational strategy will be assessed in this analysis, domain direction and competitive strategy. Each will be measured using similar formats. First, participants will be asked to choose between the individual strategy variables shown in Table I (under "Strategy"), that strategy alternative which most closely matches their current strategy. Secondly, the participants will be asked how important each individual strategy alternative is to their overall strategy. A Likert 7-point scale will be provided for the participants in answering this question.

Measuring the philosophy and experience of top management. The philosophy of top management will be determined by asking participants a series of questions pertaining to their aggressiveness and feelings toward risk, innovation, the importance of company growth and use of financial leverage. Participants will be provided a Likert 7-point scale for the determination of their response. Each of these individual variables will be tested to determine if a significant relationship exists with specific strategies. Then, the variables will be combined into a general index (liberal vs. conservative) and again examined.

The experience of top management will be assessed by asking the participants to choose between multiple responses that one which most closely describes their business background (i.e., marketing, production, finance, general business).

Measuring the mission and objectives. The aspect of the organization's mission to be determined in this analysis is the organization need which is to be fulfilled. Participants will be asked to pick no more than three needs which most closely corresponds to their current situation.

The organization's current objectives will be determined by providing participants with fourteen commonly used objectives and asking them to choose no more than three objectives which they feel are of greatest importance to their organization. Each objective will be examined independently for a possible relationship to the chosen strategy.

Measuring internal resources and functions. The internal resources of the organization will be assessed by asking participants how strong their financial, manpower and management resources are at the current time. A Likert 7-point scale will be provided for the determination of an appropriate response. Each type of organization resource will be tested individually with strategy and then combined into one index (by adding individual responses) for a general measure of the overall resources of the organization.

The strength of major functions within the organization will be assessed by asking respondents to assess the performance of individual functions (marketing, production, finance, personnel, and research). Participants will be provided a Likert 7-point scale ranging from low to high

performance for the determination of their response. Each of these will then be tested independently with strategy in investigating possible relationships. Also, a general index of the strength of all functions will be formed through the summation of all responses in this category (functions of the organization).

Measuring the external environment. The external environment will be assessed through the determination of the complexity/diversity and volatility of the organization's environment and the influence of major stakeholders of the organization.

The complexity/diversity dimension will be determined by asking each participant to provide the total number of products and product lines their organization produces (for a measure of product diversity). Also, a measure of the importance of international sales will be made by asking participants to assess the importance of international sales to the total sales of the company. The participating organizations will also be asked to provide a general measure of the segmentation of current, major markets in which they compete. Participants will be provided a 7-point scale for responses regarding the segmentation of major markets.

Participants will then be asked a series of questions to determine the degree of vertical integration which currently exists in the organization. A 7-point scale will be provided to guide responses. Operational complexity

(degree of vertical integration) will be used as a general index, along with the individual variables, in investigating possible significant relationships with strategy.

Volatility will be determined by asking respondents to assess the volatility of various aspects of their organization's environment including the economic, political, technological, social and competitive environments. A 7-point scale will be provided for the determination of responses. Also, a general volatility index will be formed through the combination of the scores from individual responses to be tested for possible significant relationships with strategy.

Stakeholder influence will be assessed by asking respondents to indicate the importance of various stakeholder groups (stockholders/owners and creditors, customers and consumers, key suppliers, employees) in their ability to influence current strategic decisions. Again, a 7-point scale will be provided to guide responses. The investigation of possible links with strategy will be made with individual groups and with an index formed through the summation of the scaled responses.

Statistical Technique to be Used

After careful consideration of the nature of the problem and the purpose of this phase of the analysis, two general statistical techniques will be used to determine possible relationships between the organization, its environment and its chosen strategy. These two statistical

techniques include chi-square analysis and discriminant analysis.

Chi-square analysis will be used to provide a general description of those organizational and environmental variables which are determined to be significantly associated with specific strategies. According to Green and Tull (1978) the chi-square test of independence is used to determine if the association between variables in a cross-tabulation are statistically significant. In this statistical technique a chi-square statistic is determined from the following formula:

$$X^2 = \sum \left(\frac{(f - F)^2}{F} \right)$$

where X = the chi-square statistic,
f = the observed frequency of occurrence of the variables in the cross-tabulation, and
F = the theoretical frequency of occurrence if the variables being examined are independent.

For this investigation, the null hypothesis can generally be defined as follows:

H(o): The variables to be examined are independent of one another.

Using degrees of freedom determined by the following equation:

$$df = (R-1)(C-1)$$

where df = degrees of freedom,
R = rows in the cross-tabulation, and
C = columns in the cross tabulation,

and a significance level of 0.10, the null hypothesis will be either rejected or accepted on the basis of the computed value of the chi-square statistic.

Although chi-square analysis will determine, in

general, the organizational and environmental variables which are significantly associated with an organization's strategy, it is not effective in considering a number of variables and their combined effect on strategic choice. For this, discriminant analysis will be used.

Discriminant analysis is a statistical technique used to classify an observation into one of several a priori groupings dependent upon the observation's individual characteristics. It is a special form of multiple regression analysis used primarily to classify and/or make predictions in problems where the dependent variable (strategy) appears in qualitative form (i.e., domain enlargement, domain enhancement, domain reduction or low-cost production, differentiation, market focused) and independent variables appear in quantitative form. Multiple discriminant analysis attempts to derive linear combinations of the independent variables which best discriminates between groups. This technique has the advantage of considering an entire profile of characteristics common to the relevant firms, rather than considering each independent variable one at a time.

There are four major objectives of discriminant analysis. These objectives include; a) finding linear composites of the predictor variables that enable the analyst to separate the groups by maximizing among-groups relative to within-groups variation, b) establishing procedures for assigning new individuals, whose profiles but not group identity are known, to one of the groups, c) testing whether significant differences exist between the

mean predictor-variable profiles of the groups, and d) determining which variables account most for intergroup differences in mean profiles (Green and Tull, 1978).

Discriminant analysis creates a discriminant function in the form of:

$$Z = aX(1) + bX(2) + cX(3)$$

where: Z is the dependent variable,

X(1),X(2),X(3) are the independent variables,

and a,b,c are the discriminant weights assigned to each independent variable.

In this phase, each strategy (i.e., domain enlargement, domain enhancement, etc.) will be investigated separately as dependent variables and discriminant functions will be formed to determine which, if any, of the independent variables included in the analysis are most significant in predicting the selection of the strategy under consideration.

From these analyses it should be possible to show the significance of each independent variable to the formation of specific strategies along with the total predictive power of the discriminant functions.

Research Methodology of Phase II

The following paragraphs will describe the purpose of this second stage of the investigation. Also, some basic propositions are provided which suggest a possible direction for expected results of the analysis. Measurement of variables included in this phase of the analysis are also

discussed. In addition, the general statistical techniques to be used in investigating the suggested propositions will be introduced.

Basic Propositions

The purpose of this phase of the analysis is to determine if there are significant differences between high and low performing firms in their implementation and control of various strategies. In other words, this phase of the analysis is concerned with investigating possible strategy-internal environment-performance links that may exist at the implementation and control phases of the strategic management process.

The following basic propositions are provided as possible relationships which may be uncovered from this investigation.

TABLE 4-C
Propositions for Phase II: Determinants of Organization
Performance

Domain Direction Strategies

1. Domain enlargement

High performers will report:

- P(1.a) greater decentralization
 - P(1.b) greater use of shared values and beliefs
 - P(1.c) greater use of standardization of outputs
 - P(1.d) greater use of MIS
 - P(1.e) less need for overall coordination
 - P(1.f) use of divisionalized structures
 - P(1.g) greater managerial resources
 - P(1.h) greater manpower resources
 - P(1.i) higher overall resources
 - P(1.j) greater use of planning
 - H(1.k) a more organic culture
-

TABLE 4-C (continued)

2. Domain enhancement

High performers will report:

- P(2.a) greater degrees of overall standardization
- P(2.b) greater use of direct supervision
- P(2.c) greater use of MIS
- P(2.d) use of a functional structure
- P(2.e) higher overall resources
- P(2.f) greater use of planning
- P(2.g) more mechanistic culture

3. Domain reduction

High performers will report:

- P(3.a) greater use of overall standardization
- P(3.b) greater use of direct supervision
- P(3.c) greater centralization
- P(3.d) less use of MIS
- P(3.e) use of divisionalized structures
- P(3.f) greater overall resources
- P(3.g) less use of planning

4. Domain restructuring

High performers will report:

- P(4.a) greater use of MIS
- P(4.b) use of a divisionalized structure
- P(4.c) greater overall resources
- P(4.d) greater use of planning

Competitive strategies

5. Low-cost leadership

High performers will report:

- P(5.a) greater use of overall standardization
 - P(5.b) greater use of direct supervision
 - P(5.c) greater centralization
 - P(5.b) greater use of MIS
 - P(5.d) greater need for coordination
 - P(5.e) use of a functional structure
 - P(5.f) higher levels of manpower resources
 - P(5.g) greater overall resources
 - P(5.h) greater strength in prod/oper.
 - P(5.i) greater use of planning
 - P(5.j) a more mechanistic culture
-

TABLE 4-C (continued)

6. Product differentiation

High performers will report:

- P(6.a) greater use of a computerized MIS
- P(6.b) greater need for coordination
- P(6.c) greater overall resources
- P(6.d) greater cumulative strengths in all functional areas
- P(6.e) greater use of planning

7. Market-focused

High performers will report:

- P(7.a) greater decentralization
- P(7.b) greater use of shared values
- P(7.c) greater use of standardization of output
- P(7.d) less use of MIS
- P(7.e) less overall need for coordination
- P(7.f) use of divisionalized structures
- P(7.g) greater managerial resources
- P(7.h) higher overall resources
- P(7.i) greater strength in marketing
- P(7.j) greater use of planning
- P(7.k) more organic cultures

8. Multiple Competitive Strategies

High performers will report:

- P(8.a) greater decentralization
- P(8.b) greater use of shared values
- P(8.c) greater use of standardization of outputs
- P(8.d) greater use of MIS
- P(8.e) less need for coordination
- P(8.f) greater use of divisionalization
- P(8.g) greater overall resources
- P(8.h) greater strength in finance
- P(8.i) greater use of planning
- P(8.j) more organic cultures

9. Combination corporate-wide competitive strategy

High performers will report:

- P(9.a) greater use of MIS
 - P(9.b) greater overall resources
 - P(9.c) greater use of planning
-

The Measurement of Variables to be Analyzed

The variables to be analyzed in this phase of the analysis are provided in Table 4-D on the following pages. Further description of the method of measurement for specific variables is provided in the following sections.

The measurement of performance. The performance of those firms to be included in this study will be measured using return on investment as the sole criterion. Return on investment will be determined from information obtained from the Industrial Compustat files. The following formula will be used in determining ROI:

$$\text{ROI} = (\text{profit before taxes} + \text{interest payments}) / \text{total assets}$$
Return on investment for each firm will be determined by averaging ROI over the past two years to estimate long-term performance within that specific strategy.

Measurement of coordination and control. Coordination and control will be measured in three ways. First, the possibility of coordinating and controlling activities and events within the organization will be determined by asking participants:

- 1) if the organization uses a computerized management information system which encompasses the entire organization, and
- 2) if strategic authority is passed from the CEO to others in the organization.

These two variables will be tested independently for possible relationships with performance.

TABLE 4-D
Performance and Proposed Variables Affecting Performance

Major Category	Individual Variables	Measurement
Dependent Variable:		
Performance	Return on investment(ROI)	actual
Independent variables:		
Coordination and Control	Delegation of strategic authority	Y(1) or N(0)
	Use of MIS	Y(1) or N(0)
	Use of these coordinating mechanisms:	
	a. shared values and beliefs	scaled
	b. standardization of tasks	scaled
	c. standardization of output	scaled
	d. standardization of skills	scaled
	e. direct supervision	scaled
	Percieved importance of effective coordination	scaled

TABLE 4-D (continued)

Major Category	Individual Variables	Measurement
Structure	Functional departments	Y(1) or N(0)
	Product divisions	Y(1) or N(0)
	Market divisions	Y(1) or N(0)
	Combination	Y(1) or N(0)
Independent Variables:		
Internal Resources and Functions	Financial	scaled
	Manpower	scaled
	Management	scaled
	Marketing	scaled
	Prod/oper.	scaled
	Finance	scaled
	Personnel	scaled
R&D	scaled	
Planning	Development of formal strategic plan	Y(1) or N(0)
	Use of MBO system	Y(1) or N(0)
	Development of tactical plans	Y(1) or N(0)

TABLE 4-D (continued)

Major Category	Individual Variables	Measurement
Culture	Communication flows	scaled
	Loyalty and commitment	scaled
	Leadership style	scaled
	Opinions of others considered	scaled
Fixed variable:		
Strategy	Domain direction:	
	enlargement	Y(1) or N(0)
	enhancement	Y(1) or N(0)
	reduction	Y(1) or N(0)
	restructuring	Y(1) or N(0)
	Competitive strategy:	
	product differentiation	Y(1) or N(0)
	low-cost production	Y(1) or N(0)
	market focused	Y(1) or N(0)
	multiple competitive strategies	Y(1) or N(0)
	combination	Y(1) or N(0)

Second, the type of coordination and control devices used at upper levels in the organization will be determined by asking respondents to judge the importance of specific devices in coordinating activities between major units in the organization. The coordinating mechanisms to be investigated include the use of shared values and beliefs, standardization of output (including the use of goals), standardization of work processes, standardization of skills and direct supervision. A 7-point scale will be provided to guide the respondents' answers.

Finally, participants will be asked to estimate the importance of coordination between major units of the organization. Again, a 7-point scale will be provided for the determination of appropriate responses.

Measuring organization structure. Organization structure will be determined by asking the participants to choose between a number of alternatives that structure which most closely resembles their organization. Alternatives include functional departments, product divisions, and market divisions. Also, space will be provided on the survey instrument for a description of the organization's structure if none of the alternatives provided adequately describe that organization. In the analysis, each choice will be treated as an independent classification variable (coded as if the response is "Yes" or "No" for each alternative).

Measuring resources and functions. The resources and

functional strengths of the organization will be determined in the same manner as described previously for Phase I. Three resource bases will be measured; financial, manpower and management, as well as five functional areas; marketing, production/operations, finance, personnel and R&D. A 7-point scale will be provided to guide responses. Also, the degree of vertical integration will be assessed as it was in Phase I. An index will be formed by summing the responses from the survey instrument for each of these major factors; resources available, functional strengths and degree of vertical integration.

Measuring the use of planning. Measuring the use of planning will be carried out by asking three questions. First, participants will be asked if a formal strategic planning system is used in their organization. Second, participants will be asked if management by objectives is used as a managerial system across the organization. Finally, participants will be asked if lower level managers are expected to develop tactical plans based on an overall organizational plan. Each of these questions will be designed for "Yes" or "No" responses. Each variable (use of strategic planning, MBO, tactical plans) will be treated as independent classification variables and also combined into an overall index by summing the responses (Y=1, N=0).

Measuring organization culture. Organization culture will be determined from four behavioral characteristics of the organization and its CEO. First, participants will be

asked to describe communication flows at upper levels of the organization. A 7-point scale will be provided ranging from "between major units" to "within major units". Second, the participant will be asked to describe the level of loyalty and commitment expected of lower level managers in the organization. A 7-point scale will be provided to guide responses. Third, the CEO's leadership style will be measured using a 7-point scale ranging from task-oriented(1) to people-oriented(7). Finally, the degree to which the CEO relies on the opinions of others in the organization in making major decisions will be determined. Participants will be provided a 7-point scale for their response. Each of these questions will be treated as individual, independent variables in the analysis. A general index will be formed by summing the individual responses. This index will be used to describe the overall organization culture which will range from mechanistic to organic cultures. A mechanistic culture will be used to describe those organizations with CEOs which expect high levels of loyalty from lower level managers, more 'task-oriented' CEOs, communication primarily within major work groups and little use for the opinions of others by the CEO in making major decisions. An organic culture will be described as having just the opposite characteristics.

Measuring strategy. Strategy will be measured in the same way as described in the first phase. However, in this phase of the analysis, strategy will be considered a 'fixed'

variable. Subsamples of the participating organizations will be formed around specific strategic types (domain enlargement, domain enhancement, domain reduction, domain restructuring, or product differentiation, low-cost leadership, market-focused, combination or multiple competitive strategy). Only those organizations with prolonged use of one of these strategies (three or more years) will be included in this phase of the analysis.

Statistical Techniques to be Used

Phase II of this analysis will follow the same statistical procedures as Phase I. In other words, both chi-square analysis and discriminant analysis will be used. The chi-square test of independence will be used to determine the significance of the association between the internal organizational variables described above and organizational performance within specific strategies. Scaled responses will be divided into high, medium and low categories with the medium category centered around the mean of all responses and the boundaries of the high and low categories set at one-half of one standard deviation from the mean. The organizations will be divided into high and low performers based on the mean performance of all organizations within the subsample being investigated (i.e., all organizations with extended use of a domain enlargement strategy). From this investigation it will be possible to determine those variables which are important to organizational performance given certain strategies.

Discriminant analysis will then be used to investigate the influence of a number of variables on organizational performance (high vs. low performers). In this phase of the analysis, each subsample (made up of firms which have continued with prolonged use of one aspect of domain direction or competitive strategy) will be divided into high and low performing firms using the mean two-year average ROI within each subsample as the dividing line. Tests will be run on each subsample to determine the total predictive power of the independent variables on performance. Also, the extent of the influence of each variable on performance will be evaluated to determine which variables are most important in their effect on performance.

Research Methodology of Phase III

The following paragraphs will describe the purpose and basic proposition of the third and last phase of this analysis. The variables to be investigated in this phase of the analysis include all those presented in the first phase of this study (strategy formulation). Therefore, measurement of those variables will not be restated. However, additional variables, taken from the Industrial Compustat Tapes will be described. Finally, the general statistical techniques which will be used in this phase will also be described.

Primary Proposition

The purpose of this phase of the analysis is to determine if appropriate surrogate measures of those

independent variables found to be significant in the formulation of strategy (from Phase I of this study) can be found from select data obtained from the Industrial Compustat tapes. If possible, these surrogate measures could then be used to predict the strategic posture of organizations without 'insider' information. The ability to predict changes in another organization's strategy using publicly available information could help to improve the competitive success of a firm, serve as a 'check' against an organization's current strategy (does the strategy 'fit' its current situation?), and finally, act as a guide to students who, in working on published cases, are not always given the insider information necessary to make an appropriate strategic choice.

Also, this investigation may make secondary 'financial' sources of information more useful to researchers in this area.

To fulfill the purpose of this phase of the analysis, it is necessary to investigate each independent variable found to be significant in the formulation of strategy from Phase I of the analysis. Therefore, a number of investigations must be made, one for each variable found to be significant. The basic proposition to be investigated in this phase of the analysis is:

P(1): Significant relationships will be found between significant perceptual variables affecting strategic choice and select criteria taken from the secondary data source, the Industrial Compustat tapes.

The Measurement of Variables to be Analyzed

The variables to be analyzed in this phase of the study are summarized below. Only those variables found to be of significance to the formulation of strategy, from Phase I of the study, will ultimately be tested. Only the major factors are included in the table below. Suggested criteria to be tested are also provided, although these lists may be altered depending on the specific variables to be analyzed.

TABLE 4-E
Proposed Surrogate Measures of Strategy Formulation
Factors

Dependent Variable (Major Factors)	Proposed Criteria to be Used as Independent Variables
Philosophy	<ol style="list-style-type: none">1. Average sales growth2. Average asset growth3. Sales volatility4. Expenditures on R&D5. Total debt/total assets6. Times interest earned7. Current ratio
Experience	<ol style="list-style-type: none">1. Sales growth2. Return on assets3. Order backlog/sales4. Receivables/sales5. Advertising expense/sales6. Total inventory/sales
Organizational need	<ol style="list-style-type: none">1. Return on investment2. Sales volatility3. Total sales4. Total assets5. # of employees6. Current ratio7. Earnings per share8. Acquisitions/sales9. Discontinued operations/ sales

TABLE 4-E (continued)

Dependent Variable (Major Factors)	Proposed Criteria to be Used as Independent Variables
Objectives	(same as above for "Organizational need")
Internal resources	<ol style="list-style-type: none"> 1. ROI 2. Current ratio 3. Working capital/sales 4. Total debt/total assets 5. Sales/net profits 6. # of employees 7. Labor and related expenses/sales 8. Selling, general and administrative expenses/sales
Functions	<ol style="list-style-type: none"> 1. Sales growth 2. Sales volatility 3. Adver. expense/sales 4. Net profit/sales 5. Inventory/sales 6. ROI 7. Non-oper. inc./sales 8. Labor and related expenses/sales 9. R&D expenditures/sales
Complexity/diversity	<ol style="list-style-type: none"> 1. # of SEC industries 2. Return on sales
Volatility	<ol style="list-style-type: none"> 1. Sales volatility 2. Inventory volatility 3. R&D expenditures/sales 4. Cash dividends/sales 5. Current ratio 6. Backorders/sales 7. % change in share price

TABLE 4-E (continued)

Dependent Variable (Major Factors)	Proposed Criteria to be Used as Independent Variables
Stakeholder influence	<ol style="list-style-type: none"> 1. Net profit/sales 2. Sales growth 3. Sales volatility 4. % change in share price 5. Common shares outstanding/sales 6. Cash dividends/sales 7. Times interest earned 8. Debt due in one year/ sales 9. Cost of goods sold less labor 10. Raw materials inventory/ sales 11. Labor and related expenses/sales 12. # of employees/sales

The criteria to be used as independent variables will be obtained from the 1988 edition of the Industrial Compustat tapes, which includes financial information from the 1987 fiscal year. When necessary, the criteria will be standardized across firms using total sales as the standardization criteria. Total sales was chosen over total assets due to the bias associated with the use of total assets toward the type of technology used (capital vs. labor intensive technologies).

In general, yearly summaries will be used in selecting the criteria to be analysed in this phase of the study. However, volatility measures will be determined from the standard deviation of select criteria over the past five years. Also, average growth of certain items will be

determined over a three year period.

In general, the financial criteria which will be examined will be divided into high, medium and low categories with the medium category centered around the mean of that item across all participating organizations. The boundaries of the high and low categories will be equal to one-half of one standard deviation from the mean.

Those variables from the survey instrument which are derived from scaled responses will be divided into high, medium and low categories using the same criteria. Means will be determined from all participating organizations and boundaries for the medium category will be set at one-half of one standard deviation from the mean.

Statistical Technique to be Used

The chi-square test of independence will be used to determine if there is sufficient evidence of a relationship between the financial criteria selected from the secondary data source and the variable being examined from the survey instrument. Each variable from Phase 1 of the study, found to be significant to the formulation of strategy, will be examined for possible significant relationships with select financial criteria from the secondary data source. Then, discriminant analysis will be used with the financial surrogates determined above to predict strategy formulation in those firms which have most recently changed their strategies.

Summary

In summary, two major statistical techniques will be used in the analysis. Chi-square analysis will be used to describe general relationships between the dependent and independent variables within each phase, on a one-to-one basis. Then, discriminant analysis will be used to determine the influence of combinations of variables on the dependent variable.

In Phase I, chi-square analysis will be used to determine those variables which are significantly associated with a particular strategy. Discriminant analysis will then be used to determine which variables significantly discriminate between the strategies used by firms. In this phase, each strategy will be tested individually.

In Phase II, chi-square analysis will be used to determine those internal organizational variables which are associated with performance given a particular strategy. Then, discriminant analysis will be used to determine those variables which significantly discriminate between high and low performing firms. In this phase, strategy will be treated as a fixed variable. Only those firms that have reported extended uses of specific strategies (three or more years) will be used in this phase of the study.

In Phase III, chi-square analysis will be used to determine if surrogate measures of those variables found to be significant in discriminating between strategies (from Phase I) can be found from a secondary data source. All 'surrogates' found from the chi-square analysis will then be

used as independent variables in a discriminant analysis of strategy formulation.

From the analyses of Phases I, II, and III it will then be possible to give general descriptions of environmental and organizational conditions which are associated with the strategy chosen, plus, give a general description of those internal organizational characteristics which are associated with performance given a particular strategy. Also, it will be possible to state which variables, from Phase I, found to be significant to the formulation of certain strategies, have surrogate measures from secondary data sources. Finally, using these surrogate measures it will be possible to state the predictive power of these financial surrogates on the strategy chosen.

CHAPTER 5

A Description of the Participating Firms

In this chapter a brief description of the firms participating in the study is provided. Basic statistics are displayed on items from returned questionnaires, as well as select data obtained from Industrial Compustat (1988).

Questionnaires were sent to approximately 1250 firms randomly selected from Compustat's Primary, Secondary, Tertiary, Full and Canadian files. Addresses for these firms were obtained from two sources; the Million Dollar Directory (1986) and the Register of Corporations (1986).

Two-hundred and fifty firms were chosen to participate in a preliminary pilot study as a partial check on the validity and reliability of the questionnaire. From the returns of this pilot study and discussions with the CEO's of a number of these firms it was decided that only minor alterations were necessary for the finalized questionnaire.

Questionnaires were then sent to one thousand firms in the fall of 1988 and a second mailout was sent to nonrespondents during the late fall and early winter of 1988 and 1989. One hundred and sixty-one firms chose to respond for a return rate of approximately 13%. Of these firms, it was found that five had been deleted from the Compustat listing for the 1988 edition. Because no financial data could be obtained for these firms, they were not included in the analysis.

The one-hundred and fifty-six firms which made up the

final list of participants were highly varied in terms of their size and the types of businesses that they represented. The mean dollar value of assets in the firms represented in the sample during the fiscal year 1988 was \$3,142,323,000 with a maximum of \$87,421,875,000 and a minimum of \$82,000. In terms of sales for these firms during the 1988 fiscal year, the mean was \$2,284,654,000 with a minimum of \$0.0* and a maximum of \$101,781,000,000. Using the Industrial Compustat Industry Identification Code these firms occupied 103 industries with no more than six being represented in one industry.

From the results of the mail survey instrument, these firms were also found to be widely dispersed, both in terms of their strategies and their perceived situations. The strategies of these firms were determined in two ways. First, the respondents were asked to indicate the domain direction and competitive strategy which most closely described their current strategy. The respondents were provided a list of four domain direction strategies and five competitive strategies from which to choose. Secondly, the respondents were asked to indicate how important different domain direction and competitive strategies were to their overall strategy. A seven point scale was provided for responses with a '7' indicating high importance. The results

* Standard and Poor's continues to list a company in its files for 27 months after bankruptcy proceedings have begun, as long as the company continues to hold debt and continues to report to the SEC.

of these items are shown in the following table for the 156 participating firms.

TABLE 5-A
Strategy Characteristics of the Participating Firms

Strategy	Frequency	
Primary Domain Direction Strategy		
Domain Enhancement	76	
Domain Enlargement	47	
Domain Restructuring	28	
Domain Reduction	5	
Primary Competitive Strategy		
Product/Service Differentiation	57	
Combination	40	
Market-focused	37	
Low-cost Production	12	
Changes with Product/Market Area	10	
	<u>Mean</u>	<u>Std. Dev.</u>
Importance to Total Strategy		
Domain Direction Strategies		
Domain Enhancement	5.82	1.38
Domain Enlargement	5.07	1.81
Domain Reduction	3.74	1.79
Competitive Strategies		
Focus on Target Markets	5.31	1.63
Product/Service Differentiation	5.16	1.78
Low-cost Production	4.62	1.89
Adjusting Competitive Strategies to Specific Product/Market Areas	4.41	2.50

Respondents were also asked to indicate the length of time their primary domain direction and competitive strategies had been in place in their organizations. The following table shows the distribution of strategy 'life-spans' (in years) for those firms participating in this study.

TABLE 5-B
Life-Spans of Domain Direction and Competitive Strategies

Strategy	Life-Span (years)			
	(0-2)	(3-5)	(6-10)	(>10)
Domain Direction				
Domain Enhancement	30	24	13	9
Domain Enlargement	14	17	8	8
Domain Restructuring	6	11	4	7
Domain Reduction	1	2	1	1
Total	51	54	26	25
Competitive Strategies				
Differentiation	6	19	11	21
Combination	2	15	9	14
Market-focused	7	7	10	15
Low-cost Production	3	3	3	3
Changes with Product/Market	1	2	5	2
Total	19	46	38	53

Five items were used in the questionnaire instrument to develop the philosophy factor. These items and their means and standard deviations are provided below.

TABLE 5-C
Statistical Summary of the 'Philosophy' Factor

Variable	Mean	Std. Dev.
Philosophy:		
Growth as important to success	5.59	1.49
Aggressiveness	5.39	1.27
Innovativeness	5.02	1.32
Feelings toward risk	4.78	1.41
Use of financial leverage as important to success	4.47	1.77
Cumulative Philosophy Index	25.24	5.29

The background of the CEO was determined by asking the respondent to indicate, from a number of choices, what most closely described his/her past professional background. The following table provides the results of this item on the survey instrument.

TABLE 5-D
CEO Background

Variable	Frequency
CEO Background:	
General Business	39
Marketing	33
Finance/accounting	29
Production/operations	28
Other	19

The following two tables provide the results of those items used to determine the mission and objectives for these firms. The mission was determined through the identification of those organizational needs which best matched the organization's current situation. The frequency of responses for the various needs provided in the questionnaire are provided in Table 5-E.

TABLE 5-E
Organizational Needs

Variable	Frequency
Organizational Need:	
Survival (emphasis on profits)	99
Lowering business risk	57
Greater esteem	51
Greater self-actualization	34
Affiliation with others	32
Other	14

The objectives of these firms were obtained by providing, in the questionnaire instrument, fourteen possible objectives from which the respondents were to choose those three which were considered most important to their organization. These objectives and their frequency of choice are provided in the following table.

TABLE 5-F
Major Objectives

Variable	Frequency
Objectives:	
1) profitability	120
2) product quality and service	77
3) growth	69
4) financial stability	36
5) market share	32
6) efficiency	25
7) research and development	22
8) management development	18
9) diversification	13
10) employee welfare	11
11) multinational enterprise	8
12) resource conservation	6
13) consolidation	3
14) social responsibility	2
15) other	2

The category 'external environment' contained numerous items which were grouped into four major factors; environmental volatility, diversity, complexity and stakeholder influence. The first to be presented is the volatility of different aspects of the organizations' general environments. The following table displays a summary of the perceptual measures of environmental volatility obtained from the respondents. As can be seen, several aspects of the general environments of these organizations were considered. (A seven-point scale was used on these items with '7' representing a high degree of volatility.)

TABLE 5-G
Environmental Volatility

Variable	Mean	Std. Deviation
Environmental volatility:		
Competition	5.58	1.38
Technological change	4.85	1.79
Economic environment	4.69	1.73
Overall business climate	4.51	1.47
Social trends	3.36	1.67
Political environment	2.73	1.09
Volatility Index	25.72	4.63

Another major factor considered was the complexity of the environment of the organization. This was determined through a number of questions dealing with the organization's control over various activities, or in other words, its degree of vertical integration. Respondents were provided a seven-point scale for responses with '7'

representing a high degree of control over the activity. The mean and standard deviation for responses to each of these items are provided in the following table.

TABLE 5-I
Environmental Complexity

Variable	Mean	Std. Dev.
Degree of Integration		
Control of:		
1) major raw materials	2.66	2.02
2) major fuels	2.10	2.03
3) product R&D	4.24	2.28
Backward integration Index (1+2+3)	9.00	4.49
4) market research	4.62	1.90
5) distribution	4.37	2.34
6) retailing	3.58	2.51
Forward Integration Index (4+5+6)	12.56	5.01
Vertical Integration Index (1+2+3+4+5+6)	21.56	7.74

Another environmental factor considered was diversity. Four items were included on the questionnaire in considering the diversity of an organization's environment. These were the number of different products produced by the organization, the number of product lines produced, the extent of a firm's sales which came from international markets, and the degree of segmentation of the major markets in which the organization competed. The following is a general description of what was reported by the respondents for each of these items.

TABLE 5-H
Environmental Diversity

		Diversity					
		<u>Products Produced</u>					
Number of firms	-	(0) 66	(1-5) 23	(6-20) 19	(21-100) 20	(101-) 29	
		<u>Product-lines Produced</u>					
Number of firms	-	(0) 63	(1-5) 44	(6-20) 31	(21-100) 11	(101-) 7	
		<u>Int'l Sales/ Total Sales (%)</u>					
Number of firms	-	(0) 47	(1-5) 46	(6-20) 30	(21-50) 27	(51-) 6	
		<u>Segmentation of Markets</u>					
		not segmented	medium			highly segmented	
Number of firms	-	(1) 4	(2) 11	(3) 13	(4) 36	(5) 46	(6) 24
		(7) 18 (mean = 4.54, std. dev. = 1.64)					

The last factor considered in analyzing the environments of these organizations was the influence of major stakeholder groups on the decisions made by the CEO. Two types of questions were used in assessing this factor. First, the CEO was asked to choose the one group which, in general, influenced their decision-making the most. Secondly, the CEOs were asked to describe the extent to which the different stakeholder groups were able to influence the decisions made by the CEO. A seven-point scale was provided in the questionnaire for responses with a '7' representing a high degree of influence over decisions made by the CEO. The results of these items are shown in the following table.

TABLE 5-J
The Influence of Various Stakeholder Groups

Variable	Frequency	
Primary Stakeholder Group		
Customers and consumers	99	
Stockholders and creditors	33	
Employees	13	
Other	9	
Key suppliers	0	
Stakeholder Group Influence	<u>Mean</u>	<u>Std. Dev.</u>
Stockholders and creditors	5.85	1.58
Employees	4.50	1.61
Customers and consumers	4.13	1.77
Key suppliers	3.09	1.79
Influence Index	17.58	4.42

The resources and functional strengths of these firms were assessed through scaled responses to questions

pertaining to the strength of three major resources of the organization and five major functional areas. A response of '7' indicated a high strength in that resource or functional area. The table below provides the results of these two factors.

TABLE 5-K
Resources and Functional Strengths

Variable	Mean	Std. Dev.
Resources		
Managerial	5.27	1.31
Financial	5.24	1.84
Manpower	4.85	1.40
Resource Index	15.37	3.62
Functional Areas		
Production/operations	5.15	1.38
Finance	4.94	1.54
Marketing	4.47	1.37
Personnel	4.37	1.51
Research	3.51	1.86
Functional Performance Index	22.43	5.10

Under 'coordination and control' three factors were considered; the extent to which various coordinating mechanisms were used in coordinating activities between primary units in the organization, the potential for coordination between units and the perceived need for coordination between major units in the organization. The extent of use of various coordinating mechanisms was determined through scaled responses to questions pertaining to the use of various types of coordination, with a '7' indicating a high degree of use for that mechanism. The potential for coordination was evaluated by determining if

1) the organization had a computerized MIS program and 2) if the CEO delegated strategic decision-making authority to others in the organization. The 'need' for coordination between units was determined through scaled responses to that question with a '7' indicating a high need for such coordination. The following table provides the results of these items from the one-hundred and fifty-six participating firms.

TABLE 5-L
Coordination and Control

Variable	Mean	Std. Dev.
Use of Coordinating Mechanisms		
1) Shared values and beliefs	4.96	1.92
2) Direct supervision	4.36	1.82
3) Std. of output	3.97	1.90
4) Std. of tasks	3.58	1.79
5) Std. of skills	3.57	1.80
Standardization Index (3+4+5)	11.13	4.86
Coordination Index (1+2+3+4+5)	20.46	7.11
Potential for coordination	<u>(Y)</u>	<u>Frequency</u> <u>(N)</u>
Existence of computerized MIS	34	107
Delegation of strategic decision-making authority	90	58
Need for coordination	<u>Mean</u> 5.62	<u>Std. Dev.</u> 1.53

The structure of the participating organizations was determined by providing a list of generic structural configurations from which the respondents could pick that one which most closely matched their organization. The

results of this item are provided below.

TABLE 5-M
Structural Configuration

Variable	Frequency
Organization Structure	
1) Functional Departments	85
2) Product(service) Divisions	37
3) Market Divisions	24
4) Other	7
Divisionalization (Use of (2) or (3))	61

Three items were used to determine the extent to which planning was used in the organization. The first item asked whether or not the organization made use of a corporate-wide strategic planning system. The second item was concerned with whether or not the organization used management-by-objectives as a management system. The third item asked the CEO to reveal whether or not lower level managers were expected to formulate tactical plans based on a corporate-wide plan. These three items were also combined to form a 'planning index' by summing the responses to these three questions (with yes = 1, no = 0). The results of these questions are presented below.

TABLE 5-N
Planning

Variable	(Yes=1)	Frequency	(No=0)
Planning:			
Use of a strategic planning system	47		107
Use of MBO	34		107
Use of tactical plans	19		135
	Mean		Std. Dev.
Planning Index	0.86		0.94

Four items were used to assess the organizational culture of these firms. These were concerned with determining the style of top management, the CEO's expectations of loyalty from lower level managers, the CEO's reliance on the opinions of others in making decisions, and communication flows at the top of the organization. The style of top management was determined from a scaled response to a question concerned with the management style of the CEO. For this item a '1' represented a task-oriented style of management and a '7' represented a people-oriented style. Expectations of loyalty from lower level managers were also assessed through scaled responses to a question concerned with the CEO's expectations concerning this behavior. A response of '7' indicated that the CEO had strong expectations of loyalty from his/her subordinates. A scaled response was also used to determine the extent to which the CEO relied on the opinions of others in making decisions. A '7' indicated a high level of reliance on

others. Finally, a scaled response was used to determine communication flows at the top of the organization. The CEO was asked to indicate how communication flowed within upper management levels in their organization. In this case a '7' indicated that communication primarily flowed within major units of the organization, while a response of '1' indicated that communication flows were generally between major units. A cultural index was also obtained by combining these four items. However, the responses to the questions pertaining to expectations of loyalty and to communication flows were reversed (e.g. a '1' became a '7') so that the cumulative score would indicate a more mechanistic (low total score) or organic (high total score) culture. The results of these measures are provided below.

TABLE 5-0
Organizational Culture

Variable	Mean	Std. Dev.
Culture		
Loyalty expected	5.60	1.58
Reliance on others	5.24	1.37
Management style	4.60	1.49
Communication flows	4.29	1.98
Culture Index	15.47	2.67

Performance measures were obtained from Industrial Compustat (1988). Performance was determined using the average return on investment for these firms over the years 1987 and 1988. The mean average return on investment for the 156 firms included in this study was found to be 0.0600 or

6%.

Several other items were used from the secondary data source in carrying out this study. Summary statistics will not be provided on the rest of these items, at this time. However, in presenting the results of Phase III of this study a brief description of the distribution of these items among the 156 participating firms is provided.

Summary

The characteristics of these firms varied widely. They represented several different industries, varied in size and profitability and also, in the strategies they had adopted and the life-span of those strategies. Some dispersion was found among all the items considered in this study, including those thought to be important to the formulation of specific strategies and those thought to influence performance during the implementation and control of those strategies. It is now time to investigate possible contingent relationships among these variables as they relate to organization strategy and performance.

In Chapter 6 the results of the investigation of contingent relationships which exist during the strategy formulation process are presented. This chapter suggests the existence of various contingent relationships between recently adopted strategies and characteristics of the CEOs (in terms of their general philosophy and background), the mission (or more specifically the organizational need) and objectives of the organization, the environment of the

organization (in terms of its volatility, diversity, complexity and stakeholder influence), and finally the internal resources and functions of the organization.

In Chapter 7, the results of the investigation for contingent relationships which exist during the implementation and control of strategy are presented. In this phase, performance becomes the dependent variable, while the independent variables focus on coordination in the organization, structure, the use of planning, the strengths of an organization's resources and functions and the culture of the organization.

Finally, in Chapter 8, the results of the investigation for adequate surrogate measures (from Industrial Compustat) of those variables found to be important to strategy formulation are presented.

CHAPTER 6

Presentation of Results: Phase I

In this chapter the results of the search for determinants of the formulation of various organization strategies are presented. Results from Phase I of the study are displayed showing characteristics of organizations which have recently changed their strategies. Each of the primary strategies discussed earlier is analysed separately using two statistical techniques. First, a chi-square analysis between firms having recently adopted the strategy under consideration and other firms with recently adopted strategies was undertaken to determine what characteristics of the organization and its environment were significant. Then, a discriminant analysis was performed to investigate all variables found to be significant from the chi-square analysis, to study multiple variable affects on the strategy under consideration. The variables considered in this phase of the investigation came from the following four major areas:

- 1) the philosophy and background of the CEO,
- 2) the mission and objectives of the organization,
- 3) the organization's external environment, and
- 4) the organization's resources and functions.

Phase I is divided into two major sections. In the first section significant characteristics of those firms which had recently changed their domain direction strategy are presented. Next, the characteristics of organizations

which had recently adopted new competitive strategies are displayed.

Domain Direction Strategies

Fifty-one firms reported that they had changed their domain direction strategy within the last two years. Other than the fact that they had changed their domain direction strategy were there other attributes which separated these firms from their counterparts with long-lived domain direction strategies? The results of a chi-square analysis on these two sets of firms are provided in the following table.

TABLE 6-A
Significant Variables Found in the Comparison of
Firms With Recently Adopted Domain Direction
Strategies and Firms with Long-lived Domain Direction
Strategies Using the Chi-square Test of Independence
($p < 0.10$)

Variable	Probability
Strategic Importance of: Domain Enlargement	.091
Philosophy and Background Views leverage as important	.061
Mission and Objectives Objectives 'Resource conservation'	.082
'Diversification'	.089
'Product quality and service'	.035
External Environment Environmental volatility Economic environment (medium, outliers)	.098

As can be seen from the table above, only a limited number of variables were found to be significant between those firms which had recently changed their domain direction strategy and those which had long-lived domain direction strategies. A brief description of these relationships is provided in the following paragraphs.

Only one strategy variable was found to be significant between these two groups of firms. Organizations which had recently changed their domain direction strategy were more likely to indicate that the importance of domain enlargement to their overall domain direction strategy was low. In fact, nearly one-half of these firms fell in the low category for this item while only 25% of the firms with long-lived competitive strategies responded that the importance of domain enlargement was low.

Within the philosophy factor one variable was found to be significant. The CEOs of firms with recently changed domain direction strategies were likely to view leverage as important to the success of the organization more strongly than the CEOs of firms with prolonged domain direction strategies.

Three objectives were found to be significant between these two groups of firms. Firms with recently changed domain direction strategies were more likely to suggest that diversification was a primary objective for their organizations. At the same time these firms were also much less likely to pick resource conservation or product quality

and service as primary objectives.

Only one variable was found to be significant in relationship to the environments of these organizations. Firms which had recently changed their domain direction strategy reported medium scores on economic volatility more often than their counterparts with prolonged domain direction strategies.

The following table presents the distribution of those firms which had recently changed their domain direction strategy in terms of the specific strategy chosen.

TABLE 6-B
The Distribution of Firms Which Have Recently Changed
Domain Direction Strategies

Domain Direction Strategy	Number of Firms
Domain Enhancement	30 (58.8%)
Domain Enlargement	14 (27.5%)
Domain Restructuring	6 (11.8%)
Domain Reduction	1 (2.0%)

As can be seen from the table, domain enhancement and domain enlargement were the two dominant domain direction strategies chosen by these firms. Only one firm suggested that reducing activities, products or markets was their primary strategic concern. Surprisingly, only six of the fifty-one firms suggested an even distribution of importance between two or more domain direction strategies.

The Domain Enlargement Strategy

The domain enlargement strategy included those firms which saw as their primary emphasis the implementation of new types of activities to be performed, the production of new products (or services) and/or competing in new markets. Table 6-C shows how firms with domain enlargement as the primary strategy chosen were related to other firms with recently adopted domain direction strategies, in terms of their overall strategies.

TABLE 6-C
Strategies Which Were Significantly Related to Domain
Enlargement Using the Chi-square Test of Independence
($p < 0.10$)

Strategic Factor	Significance
Importance of:	
Domain Enlargement	.002
Low-cost Production	.100
Primary Competitive Strategy:	
Market-focused	.015

Firms which reported that their primary domain direction strategy was domain enlargement reported significantly higher scores on the importance of domain enlargement to their overall strategy. Additionally, these firms were found to be significantly related to the competitive strategy of low-cost production. Firms with domain enlargement strategies were found to emphasize low-cost production less than their counterparts with other domain direction strategies. Finally, these firms were much

more likely to indicate that their primary competitive strategy was market-focused. In fact, the majority of firms (8 of 14) selected this as their primary competitive strategy while only 22% of the firms with other recently adopted domain direction strategies indicated that market-focus was their primary competitive strategy.

Chi-square analysis of the formulation of the domain enlargement strategy. The next table presents the results of the chi-square analysis of individual variables between firms which had recently adopted a domain enlargement strategy and other firms with recently adopted domain direction strategies.

TABLE 6-D
Variables Found to Be Significant to Domain Enlargement
Using the Chi-square Test of Independence ($p < 0.10$)

Variable	Probability	
Philosophy		
Aggressiveness	.039	(50)*
Willing to take risks	.024	
Views 'Growth' as important	.016	(33)
Views leverage as important	.089	
Philosophy (Cumulative score)	.017	(33)
Mission and Objectives		
Objectives		
Growth	.071	
Efficiency	.021	
External Environment		
Diversity		
Int'l Sales	.068	(62)
Market segmentation	.067	(33)
Number of products	.024	(62)
Number of product lines	.006	(33)

* () - indicates the percentage of cells which had expected counts less than 5

TABLE 6-D (continued)

Variable	Probability
Stakeholder influence	
Stockholders and creditors	.010 (33)
Internal resources and functions	
Strength of functions (Cumulative score)	.059 (33)

* () - indicates the percentage of cells which had expected counts less than 5

Of the five variables used to assess the general philosophy of the CEO only one, the CEO's willingness to try something 'new' or their 'innovativeness' was not found to be significant. The distribution of responses indicated that CEOs of organizations with domain enlargement strategies consistently perceived themselves as being more liberal than their counterparts who had chosen other domain direction strategies. More specifically, the CEOs of organizations with domain enlargement strategies perceived themselves as being more aggressive, more willing to take on risks, and more likely to view 'growth' of the firm and leverage of the firm as vital elements to overall success. Furthermore, the cumulative score of the five items used to investigate the philosophy factor was also found to be significant, indicating that these CEOs, in total, were more liberal than their counterparts in other firms.

No significant relationships were found between domain enlargement and the five organizational needs of survival, safety, affiliative, esteem and self-actualization. Not

surprisingly, 'growth' as an objective was found to be significantly related to the domain enlargement strategy. Efficiency, as an objective was also found to be significantly related to the domain enlargement strategy. Efficiency was selected by 11 of the fifty-one firms which had recently changed their domain direction strategy but was not selected by any firms which had chosen domain enlargement as their primary strategy.

The variables used to assess environmental volatility were not found to be significantly related to the domain enlargement strategy in terms of both general perceived levels of volatility (in comparison to other firms) or in terms of 'outliers' (where the high, medium and low categories were collapsed into two categories; medium and outliers).

All four variables used to investigate the diversity of the organization's environment were found to be significantly related to the domain enlargement strategy. Firms which had recently chosen this strategy were, in general, more heavily involved in international sales, had less segmented markets and more products and product lines.

In investigating the perceived influence of various stakeholder groups it was found that the influence of stockholders and creditors was significant. The CEOs of firms with domain enlargement strategies were more likely to report lower levels of perceived influence by these groups.

No aspect of environmental complexity (vertical integration) was found to be significantly related to the

domain enlargement strategy.

None of the variables used for assessing the resources of the organization were found to be significant, nor were the individual strengths of various functional areas. However, the cumulative score for all functional strengths was found to have a significant relationship. Firms with domain enlargement strategies were more likely to report higher than average strengths, in total, than their counterparts in other organizations.

Discriminant analysis of the formulation of the domain enlargement strategy. Forward stepwise discriminant analysis was used to determine which of the thirteen variables found to be significant through the chi-square analysis were most influential in discriminating between those firms which had recently adopted a domain enlargement strategy and other firms with recently adopted domain direction strategies. Using a significance level of .1500 as the limitation on entering the variable to the model, only four variables were accepted into the discriminant function. These variables and a summary of their statistical significance are provided on the following page.

The F statistic obtained from the use of these four variables indicated a significance level of 0.0001. The average squared canonical correlation indicated that these variables explained 49.87% of the variance between these groups of firms.

TABLE 6-E
Summary of Stepwise Discriminant Analysis on Domain Enlargement

Variable	Symbol	Partial R**2	F Statistic	Prob > F	Ave. Sq. Canonical Correlation
Philosophy Cumulative Index	X(1)	0.2280	13.883	0.0005	0.1788
Stakeholder Influence Stockholders and Creditors	X(2)	0.1788	10.450	0.0022	0.3660
Functional Strengths Cumulative Index	X(3)	0.1415	7.579	0.0084	0.4557
Objectives Efficiency	X(4)	0.0789	3.855	0.0558	0.4987

The functions created by these variables were:

Domain Enlargement

$$\text{Strategy} = -10.13 + 4.00X(1) + 1.29X(2) + 3.92X(3) + 0.69X(4)$$

Other Domain Direction

$$\text{Strategies} = -8.35 + 2.23X(1) + 3.55X(2) + 2.32X(3) + 2.71X(4)$$

Using these functions, the ability to predict those firms which had recently changed to a domain enlargement strategy was 85.71% (2 of the 14 firms were found to more closely fit the function for 'other' strategies). On the other hand, in predicting which firms would choose some 'other' domain strategy, the function was able to predict 83.78 of the cases (31 of 37). In total, the success rate for placing all firms in their appropriate classification was 84.3%.

The Domain Enhancement Strategy

Firms with a domain enhancement strategy had decided in the last two years to improve their competitive position within current operations. These companies include those striving to increase market share, lower costs and/or improve their profitability without entering or leaving markets, products or activities. Table 6-F shows how firms with recently adopted domain enhancement strategies were related to other strategic variables within that group of firms which had recently changed their domain direction.

TABLE 6-F
 Significant Strategy Variables Related to the Domain
 Enhancement Strategy (p < 0.10)

Strategic Variable	Significance
Importance of:	
Domain enlargement	.007 (33)*
Market focused	.020 (33)
Primary competitive strategy:	
Market focused	.036

* () - indicates the percentage of cells which had expected counts less than 5

These firms were found to have a significant relationship with the competitive strategy of focusing on target markets. Fewer firms with domain enhancement strategies picked this competitive strategy or viewed it as being an important component of their competitive strategy. Not surprisingly, a significant relationship was also found to exist between firms with domain enhancement strategies and the importance of domain enlargement to the overall domain direction strategy of these firms. Firms with recently adopted domain enhancement strategies reported overwhelmingly that domain enlargement was of less importance than in other firms with recently adopted domain direction strategies.

Chi-square analysis of the formulation of the domain enhancement strategy. The next table presents the results of the chi-square analysis of individual variables and their relationships with firms having recently adopted the domain enhancement strategy vs. all other firms which have changed

domain direction strategies in the last two years.

TABLE 6-G
Variables Found to be Significant to Domain Enhancement
Using the Chi-square Test of Independence ($p < 0.10$)

Variable	Probability
Philosophy	
Views 'growth' as important	.023
Mission and Objectives	
Product quality and service	.097
Employee welfare	.013 (50)
External Environment	
Environmental volatility	
Economic volatility	
High-medium-low	.008
Medium-outliers	.011
Stakeholder Influence	
Stockholders and creditors	.016
Customers and consumers	.091
Internal Resources and Functions	
Strength of functions (Cumulative score)	.055 (33)

* () - indicates the percentage of cells which had expected counts less than 5

A significant relationship was found between the philosophy variable which considered the CEO's perceived feeling toward the importance of firm growth to a company's success. The CEOs of firms with domain enhancement strategies were much less likely to perceive 'growth of the firm' as an important ingredient toward company success.

A significant relationship was found between the objectives 'product quality and service' and 'employee welfare'. Firms with domain enhancement strategies were

found to use product quality and service as an objective more often than firms with other domain direction strategies. These same firms were less likely to view employee welfare as a primary objective.

The economic volatility environment variable was found to be significantly related to the domain enhancement strategy using two different measures. First, using 'high', 'medium', and 'low' categories built around the mean of the scaled responses of all participants, the firms with domain enhancement strategies were, in general, more likely to be found in the high volatility category. When the categories were collapsed to medium or outliers (where 'outliers' included those firms with high or low levels of volatility) a significant relationship also existed. Firms with domain enhancement strategies were much more likely to fall in the outlier category.

Two significant relationships were found in the stakeholder influence factor. From the chi-square tests it was evident that the CEOs of firms with domain enhancement strategies were more likely to perceive high levels of influence from the stockholder and creditor group. These CEOs were also more likely to perceive lower levels of influence from customers and consumers.

The cumulative score of the strengths of all functional areas was also found to have a significant relationship. Firms with domain enhancement strategies were more likely to report lower levels of total strengths from all functional areas.

Discriminant analysis of the formulation of the domain enhancement strategy. Forward stepwise discriminant analysis determined that the following variables were significant in discriminating between those firms with recently adopted domain enhancement strategies and those which had recently adopted some other domain direction strategy. These variables are provided in the order in which they were adopted into the function (forward stepwise discriminant analysis adopts variables in their order of discriminating power with the first variable adopted being the strongest discriminator.)

The results of this analysis indicated a significance level of 0.0001. From the average squared canonical correlation it was determined that these variables were able to predict 61.84% of the variance in the two classifications under investigation; domain enhancement vs. other domain direction strategies.

The functions formed by these variables are presented below.

Domain enhancement

$$\text{strategy} = -26.97 + 3.31X(1) + 5.52X(2) + 3.16X(3) + 12.09X(4) + 3.73X(5) + 5.94X(6) + 1.89X(7)$$

Other domain direction

$$\text{strategies} = -37.44 + 5.67X(1) + 10.23X(2) + 1.95X(3) + 15.53X(4) + 2.16X(5) + 7.29X(6) + 3.23X(7)$$

TABLE 6-H
 Summary of Stepwise Discriminant Analysis on Domain
 Enhancement

Variable	Symbol	Partial R**2	F Statistic	Prob > F	Ave. Sq. Canonical Correlation
Stakeholder Influence Stockholders and Creditors	X(1)	0.1824	10.708	0.0020	0.1824
Philosophy 'Growth' as important	X(2)	0.1930	11.240	0.0016	0.3402
Objectives Employee welfare	X(3)	0.1462	7.875	0.0073	0.4366
Environment Volatility Economic (outliers)	X(4)	0.1852	10.230	0.0025	0.5410
Functional Strengths Cumulative Index	X(5)	0.0597	2.793	0.1017	0.5684
Stakeholder Influence Customers and Consumers	X(6)	0.0698	3.225	0.0796	0.5984
Environment Volatility Economic (low,med,high)	X(7)	0.0496	2.192	0.1462	0.6184

Using these functions, 28 of the 30 firms which indicated that they had a short-lived domain enhancement strategy were successfully categorized. At the same time, 18 of the 20 firms with other short-lived domain direction strategies were so categorized. This led to a total success rate for all firms of 92.0%.

The Domain Reduction Strategy

Because only one firm reported that it had recently adopted a domain reduction strategy, no analysis was undertaken. It will be left up to another investigation to determine those variables which are significant to this important domain direction strategy.

The Domain Restructuring Strategy

This domain direction strategy is actually a 'catch-all' for firms which view two or all three of the other possible domain direction strategies as being of equal importance to their overall strategy. Table 6-I indicates how firms which chose domain restructuring as their primary domain direction strategy were related to other strategy variables within that group of firms which had recently adopted new domain direction strategies.

Firms with recently adopted domain restructuring strategies were found to have a significant relationship with the importance of domain enlargement to their overall domain direction strategy. These firms were more likely to report medium levels of importance to this domain direction

strategy than firms which chose other strategies. Also, firms with recently adopted domain restructuring strategies were more likely to have competitive strategies which changed for each of their specific product/market areas.

TABLE 6-I
Significant Strategy Variables Related to Domain Restructuring Using the Chi-square Test of Independence ($p < 0.10$)

Strategy Variable	Significance
Importance of: Domain enlargement	.023 (50)
Primary competitive strategy: Changes with Product/Market	.087 (50)

* () - indicates the percentage of cells which had expected counts less than 5

Chi-square analysis of the formulation of the domain restructuring strategy. The results of the chi-square analysis between firms with recently adopted domain restructuring strategies and firms with other recently adopted domain direction strategies are provided in Table 6-J.

Because there were only six firms reporting recently adopted domain restructuring strategies any results from the chi-square analysis must be viewed as suspect due to the low expected counts in the cells. Keeping this in mind, the results do prove to be interesting.

TABLE 6-J
 Variables Found to be Significant to the Domain
 Restructuring Strategy Using the Chi-Square Test
 of Independence (p < 0.10)

Variable	Probability
Mission and Objectives	
Organizational Need	
Self-actualization	.022 (50)
Objectives	
Employee welfare	.013 (50)
Market share	.071 (50)
External Environment	
Environmental Volatility	
Economic volatility	
High-medium-low	.061 (50)
Medium-outliers	.018 (50)
Total Environment Index	
Medium-outliers	.087 (50)
Complexity	
Forward Integration Index	.067 (50)
Stakeholder Influence	
Customers and consumers	.075 (50)

* () - indicates the percentage of cells which had expected counts less than 5

Self-actualization as an organization need was found to be significantly related to the domain restructuring strategy. In fact, four of the six firms with this strategy chose self-actualization as one of their basic needs. The objectives of employee welfare and market share were also significantly related to this strategy. Both were more likely to be chosen under this strategy.

In terms of the external environment it was found that the economic volatility variable was significantly related to the recent adoption of the domain restructuring strategy. Firms with this strategy were all found to fall into the

medium ranges of economic volatility.

These firms were also found to have a significant relationship with the forward integration index which included variables concerned with an organization's control of such activities as marketing research, the distribution of products to the buyers and the retailing of their products to consumers. Firms with domain restructuring strategies were found to be less integrated than other organizations which had recently changed their domain direction strategy.

Stakeholder influence groups also provided significant results. The CEOs of firms with domain restructuring strategies were found to perceive the influence of customers and consumers as higher than their counterparts in firms with other domain direction strategies.

Discriminant analysis of the formulation of the domain restructuring strategy. The results of the forward stepwise discriminant analysis are presented in Table 6-K. Again, the variables selected for inclusion in the model are presented in their order of selection.

The model formed by these five variables was found to be significant at the 0.0001 level. The average squared canonical correlation indicates that these variables were able to explain 55.70% of the variance between those firms with recently adopted domain restructuring strategies and those firms which had recently adopted some other domain direction strategy.

TABLE 6-K
 Summary of Stepwise Discriminant Analysis on
 the Domain Restructuring Strategy

Variable	Symbol	Partial R**2	F Statistic	Prob > F	Ave. Sq. Canonical Correlation
Objective Employee welfare	X(1)	0.1189	6.478	0.0142	0.1189
Environment Volatility Economic (outliers)	X(2)	0.1383	7.544	0.0085	0.2408
Complexity Forward Integration (Index)	X(3)	0.1419	7.605	0.0083	0.3485
Stakeholder Influence Customers and Consumers	X(4)	0.2539	15.310	0.0003	0.5139
Organization Need Self-actualization	X(5)	0.0888	4.286	0.0443	0.5570

The functions obtained from these variables were found to be:

Domain restructuring

$$\text{strategy} = -31.40 + 5.40X(1) + 16.90X(2) - 3.25X(3) + 9.69X(5) + 6.16(5)$$

Other domain direction

$$\text{strategies} = -14.67 + 1.59X(2) + 10.15X(3) + 0.32X(3) + 6.04X(5) + 2.98X(5)$$

These functions were able to successfully categorize all six of those firms with a short-lived domain restructuring strategy. However, four of the firms with other short-lived domain direction strategies were miscategorized. In total, these functions led to the appropriate classification of 46 of the 50 firms considered in this part of the analysis, for a success rate of 92.0%.

Summary of Phase I: Domain Direction Strategies

The results of the investigation of variables affecting (or affected by) the formulation of specific domain direction strategies are restated in Table 6-L.

The domain enlargement strategy was found to have significant relationships with variables from all four major areas generally considered to be important in formulating strategy. Two factors which stand out from the chi-square analysis are the philosophy of the CEO and the diversity of the external environment. Five of the six variables making up the philosophy factor were found to be significant (including the philosophy index) while all four of the diversity variables were significant. In general, the CEOs

TABLE 6-L
Summary of Those Variables Found to be Significant to
the Adoption of Various Domain Direction Strategies

Variable	Domain Direction Strategy		
	<u>Enlargement</u>	<u>Enhancement</u>	<u>Restructure</u>
Philosophy			
Aggressiveness	.039		
Risk-taking	.024		
Views 'growth' as important	.016	.023	
Views leverage as important	.089		
Philosophy Index	.017		
Mission and Objectives			
Organization Need Self-actualization			.022
Objectives			
Growth	.071		
Efficiency	.021		
Product quality and service		.097	
Employee welfare		.013	.013
Market share			.071

TABLE 6-L (continued)

Variable	Domain Direction Strategy		
	<u>Enlargement</u>	<u>Enhancement</u>	<u>Restructure</u>
External Environment			
Environmental volatility			
Economic volatility			
High-medium-low		.008	.061
Medium-outliers		.011	.018
Volatility Index			
Medium-outliers			.087
Diversity			
Products	.024		
Product lines	.006		
Int'l sales	.068		
Market segmentation	.067		
Complexity			
Forward Integration			
Index			.067
Stakeholder Influence			
Stockholders/creditors	.010	.016	
Customers/consumers		.091	.075
Internal Resources and Functions			
Strength of functions			
Function Index	.059	.055	

* (Obtained from Tables 6-D,G,J)

of these firms were more liberal and the organizations competed in more diverse environments. The discriminant model for these firms also included variables from all four major areas under investigation concerning the formulation of strategy. The philosophy index was found to be the major discriminator of all variables considered. The significance of this model was found to be at the 0.0001 level while approximately 50% of the variance between strategic classifications was explained.

The domain enhancement strategy also was found to be significantly related to all four major areas under consideration. However, no factors stood out from the chi-square analysis as being of major importance. In the discriminant analysis, all four areas were again represented with an environmental variable (the influence of stockholders and creditors) as the best discriminator. The model obtained from the discriminant analysis was found to be significant at the 0.0001 level while it explained approximately 62% of the variance in strategic classifications.

The results of the domain restructuring strategy are suspect due to the low number of firms which had recently adopted this domain strategy. Variables from only two of the four major areas generally considered in strategy formulation were found to be significant. Three variables representing the mission and objectives of the organization and five variables representing aspects of the environment

of the firm were found to be significant from the chi-square analysis. The objective, employee welfare, was found to be the best discriminator of the five variables included in the discriminant model. Again, this model was found to be significant at the 0.0001 level while it explained approximately 56% of the variance in strategy classifications.

There were no variables which were found to be significant to all three domain direction strategies analyzed in this study.

Competitive Strategies

It is now time to look at those firms which had recently adopted a new competitive strategy. Before investigating individual competitive strategy alternatives, a chi-square analysis was performed between firms with recently adopted competitive strategies and others which had continued with the same competitive strategy for more than two years. Table 6-N presents the results of this analysis.

Seven variables were significant between those firms with recently adopted competitive strategies and those firms with long-lived competitive strategies. These variables included four that were concerned with characteristics of the CEO, one dealing with the objective of financial stability and the last two concerned with the resources of the organization. No strategy variables were found to be significant between these two groups of firms.

TABLE 6-M
Variables Found to be Significant in the Comparison of
Those Firms Which Have Recently Changed Their Competitive
Strategy and Those with Long-lived Competitive
Strategies Using the Chi-square Test of Independence
(p < 0.10)

Variable	Probability
Philosophy and Background	
Philosophy	
Growth is important	.065
Total Index	.060
Background	
Accounting	.037 (25) *
Marketing	.071
Mission and Objectives	
Objectives	
Financial stability	.036 (25)
Internal resources and functions	
Resources	
Financial	.001
Total	.000

* () - percentage of cells having expected counts less than 5

The four variables concerned with characteristics of the CEO included two dealing with the CEO's philosophy and two directed at the CEO's general background and experience. The CEOs of firms with recently adopted competitive strategies were evenly distributed in their perceptions of growth of the firm as important to the success of their organizations. CEOs of firms with long-lived competitive strategies responded as a group more strongly that growth was important. In terms of the philosophy index, the CEOs of firms with recently adopted competitive strategies were more likely to fall into the conservative category or have lower

total scores than their counterparts in firms with prolonged competitive strategies. In terms of the CEOs' general backgrounds, it was found that the CEOs of firms with new competitive strategies were less likely to have either marketing or accounting backgrounds.

The one objective which was found to be significant between these two groups of firms was financial stability. Firms with recently adopted competitive strategies were more likely to list financial stability as one of their primary objectives. In fact, eight of the 19 firms in this category considered this to be one of their major objectives.

The two resource variables which were found to be significant included financial resources and the resource index. Firms with recently adopted competitive strategies were much more likely to indicate low financial resources. Fifteen of the nineteen firms fell into this category while the firms with prolonged competitive strategies were relatively evenly distributed between the high, medium and low categories for this variable. The same relationship held for the resource index, with the vast majority of firms with recently adopted competitive strategies falling into the low category.

It is now time to take a closer look at individual competitive strategy alternatives within that group of firms which had recently adopted new competitive strategies. Only nineteen of the 156 firms participating in this study reported that they had initiated a new competitive strategy in the past two years. The following table presents the

distribution of these firms in terms of the competitive strategy chosen.

TABLE 6-N
Distribution of Firms Which Have Recently Changed
Competitive Strategy

Competitive Strategy	Number of Firms
A. Market Focused	7 (36.8%)
B. Product/Service Differentiation	6 (31.6%)
C. Low-cost Production	3 (15.8%)
D. Combination	2 (10.5%)
E. Changes with Specific Product/Markets	1 (5.3%)

Because of the few firms which fit the specifications for this phase of the study only a limited analysis could be undertaken. This analysis consisted of investigations concerning those firms which reported adopting a differentiation strategy and those adopting a market-focus strategy in the past two years.

The Differentiation Competitive Strategy

Six of the nineteen firms which had recently adopted a new competitive strategy reported adopting a differentiation strategy in the last two years. The differentiation strategy was defined as an emphasis on differentiating the firm's product/s and/or services from those of their competitors. Only one strategy variable was found to be significant in relationship to the primary competitive strategy of

product/service differentiation. This variable is shown in the following table.

TABLE 6-0
Strategy Variables Found to be Significant to the
Adoption of a Differentiation Competitive Strategy
Using the Chi-square Test of Independence (p < 0.10)

Strategy Variable	Significance
Importance of: Low-cost production	.015 (100)

* () - indicates the percentage of cells which had expected counts less than 5

Firms which had recently adopted product/service differentiation as their primary competitive strategy were found to more likely indicate that low-cost production was of medium importance to their overall competitive strategy. Firms which had recently chosen some other competitive strategy were more likely to fall into the high or low categories for this item.

Chi-square analysis of the formulation of the product/service differentiation strategy. The next table presents the results of the chi-square analysis between firms which adopted the differentiation strategy and firms which adopted one of the other competitive strategy alternatives over the past two years.

TABLE 6-P
 Variables Found to be Significant to the
 Differentiation Competitive Strategy Using the Chi-
 square Test of Independence ($p < 0.10$)

Variable	Probability
External Environment	
Social trends (medium, outliers)	.069 (50)
Total environment (high, medium, low)	.088 (83)
Internal resources and functions	
Production/operations	.077 (83)

* () - indicates the percentage of cells which had expected counts less than 5

Only three variables were found to be significant in comparing those firms which had recently changed their competitive strategy to product/service differentiation to those firms which had changed to some other competitive strategy. Two of these variables had to do with the perceived volatility of the organization's environment. Those firms with short-lived differentiation strategies were more likely to report that social trends affecting their organization were either highly volatile or were relatively stable (low levels of volatility). Only one of the six firms with recently adopted differentiation competitive strategies indicated a medium volatility level for this aspect of the environment. The total environmental volatility index was also found to be significant. Firms which had recently changed to a differentiation strategy were more likely to

score high on the volatility index. Three of these firms fell into the high category for this index while only one of the other thirteen firms was so categorized.

The other variable which was found to be significant was the strength of the production/operations function in these organizations. Those firms which had recently changed to a differentiation strategy generally indicated a lower strength in production/operations than their counterparts with other competitive strategies. In fact, none of the firms with differentiation strategies indicated a high level of performance for this function while seven of the thirteen other firms under consideration provided such a response.

Discriminant analysis of the formulation of the product/service differentiation strategy. Only two of these three variables met the constraints for inclusion in the discriminant function. Table 6-Q provides these two variables in their order of acceptance.

The discriminant model formed by these two variables was found to be significant at the 0.0330 level. The average squared canonical correlation indicates that 34.71% of the variance between the two classifications under consideration (differentiation vs. other competitive strategies) was explained.

The functions formed by these two variables were:

Differentiation strategy = $-6.62 + 3.88X(1) + 5.81X(2)$

Other competitive
strategies = $-13.12 + 5.53X(1) + 8.08X(2)$

TABLE 6-Q
Summary of Stepwise Discriminant Analysis on the
Differentiation Competitive Strategy

Variable	Symbol	Partial R**2	F Statistic	Prob > F	Ave. Sq. Canonical Correlation
Functional Strengths					
Production/ Operations	X(1)	0.2010	4.277	0.0542	0.2010
Environment Volatility					
Social trends (med,outliers)	X(2)	0.1829	3.581	0.0767	0.3471

Using these functions 5 of the 6 firms with short-lived differentiation strategies were successfully categorized. Only nine of the thirteen firms with other short-lived competitive strategies were categorized appropriately, however. Thus, 14 of the 19 firms considered were matched to their appropriate strategy classification for a success rate of 73.7%.

Market-focus Competitive Strategy

Seven firms were found to have recently adopted market-focus competitive strategies. A market-focus strategy was defined as a major emphasis on specific target markets. Where the differentiation strategy focused on separating one firm's products from those of its competitors, the market-focus strategy emphasizes the customer or consumer group with a firm's operations designed to meet the specific needs of those groups. Table 6-R indicates how firms which had recently chosen market-focus as their competitive strategy were related to other strategy variables in that group of firms which had recently adopted new competitive strategies.

Firms with recently adopted market-focused strategies were significantly related to a number of strategy variables. However, market-focus as a primary strategy was not found to be significantly related to the importance of focusing on specific markets to the overall competitive strategy of the firm. What was found was that these firms were much more likely to suggest that low-cost production was of low importance to their overall competitive strategy.

Also, firms which had recently chosen market-focus as their competitive strategy were more likely to indicate that domain enhancement was of low importance to their overall domain direction strategy. Along the same lines, these firms were found to more likely choose domain enlargement as their primary strategy and less likely to choose domain enhancement.

TABLE 6-R
Strategy Variables Found to be Significant to Firms
with Recently Adopted Market-focus Competitive
Strategies Using the Chi-square Test of Independence
($p < 0.10$)

Strategy Variable	Significance
Importance of:	
Low-cost production	.002 (100)
Domain enhancement	.066 (83)
Primary Domain Direction Strategy	
Domain enhancement	.048 (50)
Domain enlargement	.020 (50)

* () - indicates the percentage of cells which had expected counts less than 5

Chi-square analysis of the formulation of the market-focused strategy. Table 6-S indicates the results of the chi-square analysis on strategy formulation variables between those firms which recently adopted the market-focus strategy and those firms which had recently adopted some other competitive strategy.

TABLE 6-S
 Variables Found to be Significant to the Adoption of the
 Market-Focus Competitive Strategy Using the Chi-square
 Test of Independence (p < 0.10)

Variable	Probability
Philosophy and Experience	
Experience	
Marketing	.050 (50)*
External Environment	
Environmental Volatility	
Competition (medium, outliers)	.011 (50)
Stakeholder influence	
Stockholders and Creditors	.028 (83)
Influence (cumulative)	.029 (83)
Resources and Functions	
Functional Strength	
Strength of R&D	.061 (100)
Strength of Functions (total)	.012 (83)

* () - indicates the percentage of cells which had expected counts less than 5

Six variables were found to be significant in comparing those firms which had recently changed their competitive strategy to market-focused with firms which had changed to some other competitive strategy. One of these was concerned with characteristics of the CEO, three dealt with the environment of the organization, and the last two considered major functional areas of the firm.

The first significant variable was concerned with the past experience or background of the CEO. Firms which had recently adopted a market-focus strategy were more likely to have CEOs with marketing backgrounds. Two of the seven CEOs in these firms had such backgrounds while none of the CEOs

of other companies which had recently changed their competitive strategy indicated past marketing experience.

Three of these variables were concerned with the external environment of the organization. First, firms which had recently changed to a market-focus strategy were more likely to perceive their competitive environments as either highly volatile or as fairly stable. Only one of the seven firms fell into the medium category for this variable. Of the other firms with new competitive strategies, nine of twelve were categorized as having medium levels of volatility. The next two variables dealt with stakeholder influence. Firms with recently adopted market-focus strategies were more likely to indicate lower levels of influence by stockholders and creditors and also score lower on the influence index, in general. In fact, none of the seven firms with market-focus strategies were categorized as having high levels of influence from stockholders and creditors or for the total influence index. Seven of the other twelve firms reported high levels of influence from stockholders and creditors and three fell into the high influence category for the index.

The final two variables found to be significant had to do with the strength of functional areas in the organization. Firms with recently adopted market-focus strategies were found to more likely indicate low to medium levels of strength in research and development. No firms in this group saw this area as having high strength. Of the other twelve firms, four indicated a high level of

performance for this functional area. The functional strength index, made up of the cumulative score for strength of all functional areas considered in this study, indicated just the opposite relationship. Firms with market-focus strategies were more likely to indicate medium to high levels of strength in all areas while other firms generally fell into the low category for this variable.

Discriminant analysis of the market-focused strategy.

The forward stepwise discriminant analysis performed on these firms accepted three of the six variables found to be significant in the chi-square analysis. These variables are presented in Table 6-T.

The results of the analysis were found to be significant at the 0.0011 level. The average squared canonical correlation indicated that 69.59% of the variance between the two classifications under investigation (market focus vs. other competitive strategies) was explained. The functions obtained from these two variables were found to be:

$$\text{Market-focused strategy} = -8.75 + 8.10X(1) - 0.12X(2) + 5.27X(3)$$

$$\begin{array}{l} \text{Other competitive} \\ \text{strategies} = -22.66 + 13.88X(1) - 6.10X(2) + 8.41X(3) \end{array}$$

These functions led to the successful categorization of all the firms under investigation in this phase of the analysis.

TABLE 6-T
Summary of Stepwise Discriminant Analysis on the
Market-Focus Competitive Strategy

Variable	Symbol	Partial R**2	F Statistic	Prob > F	Ave. Sq. Canonical Correlation
Environment Volatility Competition (outliers)	X(1)	0.4198	10.855	0.0049	0.4198
Experience of CEO Marketing	X(2)	0.3078	6.226	0.0257	0.5984
Stakeholder Influence Stockholders and Creditors	X(3)	0.2428	4.169	0.0620	0.6959

Summary of Phase I: Competitive Strategies

The strategy formulation variables found to be significant to those firms which have recently adopted new competitive strategies are provided in the following table.

TABLE 6-U
Summary of Variables Found to be Significant to the
Recent Adoption of Specific Competitive Strategies

Variables	Competitive Strategy	
Philosophy and Experience	Differentiation	Market-focus
Experience		
Marketing		.050
External Environment		
Volatility		
Social trends (medium, outliers)	.069	
Competition (medium, outliers)		.011
Total environment (high, medium, low)	.088	
Stakeholder Influence		
Stockholders/creditors		.028
Influence Index		.029
Internal resources and functions		
Functions:		
R&D		.061
Production/operations	.077	
Function Index		.012

(Obtained from Tables 6-P,S)

The search for determinants of competitive strategy formulation was handicapped by the few firms which had actually changed their competitive strategy in the last two years. Only two of the five competitive strategy options were investigated and even these had expected cell counts of less than five in a number of the chi-square tests

performed, which decreases the validity of the results of this phase of the analysis.

From the table above it can be seen that two of the four major areas generally considered important to strategy formulation were represented in the analysis of the product/service differentiation strategy while three areas were important to the market-focus competitive strategy.

For the differentiation strategy only three variables were found to be significant. These included two concerned with environmental volatility and one concerned with the strength of the production/ operations function of the organization. The discriminant analysis indicated that the strength of production/operations was the best discriminator of these variables. The discriminant model was only found to be significant at the 0.0330 level while approximately 35% of the variance in strategy classifications was explained.

For the market-focused strategy, six variables were found to be significant from the chi-square analysis. One considered the past experience of the CEO, three were concerned with aspects of the organization's external environment while two dealt with the strength of various functional areas in the organization. The discriminant analysis indicated that the volatility of the competition (using medium, outlier categories) was the best discriminator of those variables considered. The model formed from the discriminant analysis was found to be significant at the 0.0011 level while approximately 70% of

the variance in strategy classifications was explained.

No variables were found to be significant for both competitive strategy classifications studied in this phase of the investigation.

Summary of Phase I: Strategy Formulation

The search for determinants of the formulation of various generic strategies was handicapped by the number of firms which had recently changed their strategies. This was especially true of the competitive strategies where only the differentiation and market-focus strategies could be analyzed. Domain reduction was the only domain direction strategy which could not be investigated.

The results of this phase supports the inclusion of all four major areas generally considered important to the formulation of strategy. However, philosophy of the CEO, which played a major role in the formulation of the domain enlargement and domain enhancement strategies was not represented by significant variables in the other strategies investigated. Past functional experience was only found to be significant to the market-focus strategy.

The models formed by the discriminant analyses were generally strong, ranging from an explanatory power of 35% for the differentiation strategy to 70% for the market-focused strategy.

CHAPTER 7

Presentation of Results: Phase II

In Chapter 7 our attention turns to those variables which influence the performance of firms after they have chosen a strategy. However, time must pass for the organization to adjust to the new strategy. Therefore, in Phase II only those firms which reported that their strategy had been in place for more than two years were included in the analysis.

As in Chapter 6, Chapter 7 is divided into two major sections. The first section reports the findings from those firms which operated under one domain direction strategy for more than two years. An analysis was first made of those variables found to be related to performance within all firms with prolonged domain direction strategies. Then, an analysis was made on variables which were related to performance for firms with specific domain direction strategies.

The second section reports the results of the analysis on those firms which have proceeded under one competitive strategy alternative for more than two years. Again, variables were sought which affected performance in all firms with long-lived competitive strategies and then, the analysis centered on the search for significant relationships with performance within specific competitive strategy groups. Results of the chi-square analysis and discriminant analysis are provided for each competitive

strategy alternative.

Strategy Implementation and Control:

Domain Direction Strategies

There were 105 firms which reported that they had made use of one domain direction strategy for more than two years. Were there any variables which were related to performance among these firms without taking into consideration the strategy option chosen? Table 7-A reports the results of a chi-square analysis comparing the high and low performers within those firms that had made extended use of one domain direction strategy for more than two years.

In terms of strategy, two variables were found to be important; the importance of differentiation to the competitive strategy of the firm, and the importance of domain enhancement to the overall domain direction of the firm. High performers in this group were more likely to report that both differentiating their product/service and domain enhancement were of greater importance to their overall strategy.

A number of significant relationships were found between high and low performers in testing those variables used in Phase I of this study. Two characteristics of the CEO's philosophy were found to be significant, the CEO's feelings toward risk and the CEO's perceived innovativeness. The CEO's of high performing firms viewed themselves as generally less willing to take risks. Along the same lines, they were also less willing to innovate. High performers

were also much more likely to have objectives concerned with research and development and growth. In terms of the environment, economic volatility was found to be significant along two measures. In looking at high, medium and low categories of volatility, high performers were more likely to report low or medium levels of volatility. In investigating medium and outlier categories of economic environmental volatility, the high performers were more likely to fall into the medium category. The influence of major suppliers of materials was also found to be significant. High performers were surprisingly more likely to report high levels of influence from this stakeholder group. Not surprisingly, high performers were also found to report generally higher levels of financial resources.

From the implementation variables considered in Phase II (other than 'resources and functions') only three significant relationships were found without specifying the strategy option chosen. High performers were more likely to make greater use of direct supervision, with a higher percentage reporting medium to high use of this coordinating mechanism. In terms of planning, two surprising results were found. High performers were less likely to make use of management-by-objectives and were less likely to expect lower level managers to formulate tactical plans based on a corporate-wide plan.

TABLE 7-A
 Significant Relationships Between High and Low
 Performers in Firms That Have Made Extended Use Of
 A Domain Direction Strategy Using the Chi-square
 Test of Independence (p < 0.10)

Variable	Probability
Strategic	
Importance of:	
Differentiation	.031
Enhancement	.007
Philosophy and Background of CEO	
Philosophy	
Risk-seeker	.059
Innovativeness	.000
Mission and Objectives	
Objectives	
Growth	.046
Research and Development	.070
External Environment	
Environmental Volatility	
Economic (medium, outliers)	.026
(low, medium, high)	.077
Stakeholder Influence	
Suppliers of Materials	.047
Resources and Functional Strengths	
Resources	
Financial	.006
Coordination and Control	
Use of:	
Direct Supervision	.022
Planning	
Use of:	
Tactical planning	.052
MBO	.049

Characteristics of Firms with Specific Domain Direction Strategies

It is now time to take a closer look at the specific domain direction strategies. The following table shows the distribution of firms with long-lived domain direction strategies according to the domain strategy chosen and performance within that strategic alternative.

Domain enhancement was the most frequently chosen domain direction strategy alternative within those firms with long-lived domain direction strategies while domain reduction was the least. Only four firms reported that domain reduction had been their principal strategic direction for more than two years. In terms of performance, the domain enhancement and domain restructuring alternatives were generally evenly divided between high and low performers. None of the firms reporting extended use of domain reduction were found to be in the high performance group. Additionally, only 36% of those firms reporting extended use of the domain enlargement strategy were found in the high performance group.

In the following sections each specific domain direction strategy was analyzed. For each alternative strategy two chi-square analyses were made. First, those firms which made extended use of one domain direction strategy were compared to other firms with long-lived domain direction strategies. This analysis was performed to indicate how firms with specific strategies differed from their counterparts. All variables were considered in this

TABLE 7-B
Frequency of High and Low Performers Within Different
Directional Strategy Alternatives

Performance	Domain Enlargement	Domain Direction Domain Enhancement	Strategy: Domain Reduction	Domain Restructure
High Performers	12	22	0	10
Low Performers	21	24	4	12
Total	(33)	(46)	(4)	(22)

comparison. Then, an analysis was made on high and low performers within each strategic group using the implementation variables discussed in Chapter 4. Finally, a discriminant analysis was performed using those variables found to be significant between high and low performers within each strategic group.

Table 7-C identifies those variables which were found to be significant to specific long-lived domain direction strategies. Firms within each strategic group were compared with all others having long-lived domain direction strategies in this analysis.

The results presented in this table will be discussed in the following sections along with the analysis of high and low performing firms with specific domain direction strategies.

TABLE 7-C
Significant Relationships Found Between Domain
Direction Strategy Alternatives Using the Chi-square
Test of Independence (p < 0.10)

Variable	Domain Direction Strategy:			
	Enlargement	Enhancement	Reduction	Restructure
Strategic				
Importance of:				
Market-focus	.008	.038	-	-
Differentiation	.037	-	-	-
Domain enlargement	.009	.001	-	-
Domain enhancement	.067	-	-	-
Domain reduction	.024	.023	-	.012
Primary				
Differentiation	-	-	-	.002
Low-cost	-	.064	-	-
Combination	-	.019	-	.001
Philosophy and Experience				
Philosophy				
Aggressiveness	.039	.000	-	-
Risk-seeker	-	.079	-	-
Philosophy Index	-	-	-	.096

() - indicates the percentage of cells with expected counts less than 5

TABLE 7-C (continued)

Variable	Domain Direction Strategy:			
	Enlargement	Enhancement	Reduction	Restructure
Experience				
Accounting	.018	.001	-	-
General Business	-	.012	-	.008
Mission and Objectives				
Organizational Need				
Survival	-	-	-	.033
Self-actualization	.079	-	-	-
Objectives				
Profitability	-	.083	-	-
Management Development	.092 (25)	-	-	-
Research and Development	.020	.028	-	-
Multinational				
enterprise	-	.043 (50)	-	.028 (50)
Consolidation	-	-	.000 (75)	-
Financial stability	-	-	.007 (50)	-
Resource Conservation	-	-	.090 (50)	-
External Environment				
Volatility				
Economic(low,med,high)	-	.065	-	-
Competition(low,med,high)	-	.053	-	-

() - indicates the percentage of cells with expected counts less than 5

TABLE 7-C (continued)

Variable	Domain Direction Strategy:			
	Enlargement	Enhancement	Reduction	Restructure
Diversity				
Products	-	.003	-	.013
Product lines	-	.010	-	.020
Int'l sales	-	.013	-	.000
Market segmentation	-	-	-	.092
Complexity (Control of)				
Distribution to buyers	.075	.034	-	-
R&D	-	.093	-	.030
Stakeholder Influence				
Stockholders/Creditors	.047	-	-	.041
Customers/Consumers	-	-	-	.065
Influence Index	-	-	-	.060
Resources and Functional Strengths				
Resources				
Financial	.074	-	-	.097
Managerial	-	.033	-	-
Manpower	.089	-	-	-
Resources (total)	.053	-	-	-

() - indicates the percentage of cells with expected counts less than 5

TABLE 7-C (continued)

Variable	Domain Direction Strategy:			
	Enlargement	Enhancement	Reduction	Restructure
Functional Strengths				
Personnel	.002	-	-	-
Production/operations	.074	-	-	-
Finance	.050	-	-	-
Functions (total)	.079	-	.038 (50)	-
Coordination and Control				
Type				
Std. of output	-	-	-	.093
Std. Index	-	.095	.072 (50)	-
Structure				
Market divisions	-	-	-	.040 (50)
Planning				
Strategic Planning	.085	-	.021 (50)	-
Tactical planning	-	-	.015 (50)	-
MBO	-	-	-	.014
Planning Index	-	-	.010 (50)	.037
Culture				
Reliance on others	.063	-	-	-
Communication	-	-	-	.034

() - indicates the percentage of cells with expected counts less than 5

Domain Enlargement Strategy

There were 33 firms reporting that they had been using a domain enlargement strategy for more than two years. As has already been noted, the high and low performers were not evenly distributed with only 36% (12) fitting the high performance category.

A number of significant relationships were found to exist between those firms which had been using a domain enlargement strategy and other firms which had been using one domain direction strategy over a number of years. From a competitive strategy perspective firms which reported that domain enlargement was their primary domain direction strategy were more likely to report medium to high levels of importance to both the market-focused and differentiation dimensions of their overall competitive strategy. These firms also reported significantly more often that domain enlargement was an important dimension of their domain direction strategy while domain enhancement and domain reduction were less important.

The CEOs of firms with domain enlargement strategies considered themselves to have medium to high levels of aggressiveness more often than CEOs of other firms with long-lived domain direction strategies. Also, fewer of the CEOs of firms with domain enlargement strategies had backgrounds in accounting.

The organizational needs and objectives of firms with domain enlargement strategies also seemed to differ from

other organizations. These firms were less likely to indicate that self-actualization was an important organizational need to be fulfilled and also less likely to pick management development as one of their primary objectives. However these firms were found to select research and development as an objective more often than firms with other domain direction strategies.

From an environmental perspective, two significant relationships were found. Firms with domain enlargement strategies were more likely to report high levels of control over the distribution of their product/service to buyers. Also, the CEOs of these firms were more likely to report lower levels of influence from the stockholders and creditors stakeholder group.

The resources and functions of these firms showed a number of significant results. From a resource perspective, CEOs of firms with domain enlargement strategies reported either high or low levels of manpower resources more frequently than their counterparts with other domain direction strategies. Financial resources and total resources were generally perceived to be lower in firms with domain direction strategies. In considering the functional strengths of these firms, the CEOs of firms with domain enlargement strategies perceived the performance of their personnel, production/operations and finance areas as generally lower than their counterparts with other domain direction strategies. However, in terms of the total performance of all functional areas considered in this

study, the CEOs of domain enlargement strategies were more likely to claim medium levels of performance while firms with other domain direction strategies were generally found in the high or low category.

Only two other implementation variables were significant between firms with long-lived domain enlargement strategies and firms with extended use of some other domain direction strategy. Firms with domain enlargement strategies were more likely to make use of strategic planning. However, the CEOs of these firms also were more likely to report lower levels of reliance on others in making major decisions.

Next, a chi-square analysis was performed comparing high and low performing firms with long-lived domain enlargement strategies. Only implementation variables were considered in this investigation. Table 7-D reports the results of this analysis.

Within the factor 'coordination', three significant relationships were found. Each of these had to do with the type of coordinating mechanisms used at the top of the organization. First, the high performers were much more likely to report medium levels of use of direct supervision, with only one high performing firm reporting low use and another reporting high use of this coordinating mechanism. Low performers were evenly split between these three categories. This same relationship was also found with the use of standardization of skills, with high performers

reporting medium levels most frequently. However, the low performers were not so evenly split between the three categories with the majority suggesting high use of this coordinating mechanism. The use of shared values as a coordinating mechanism was found to be just the opposite for high performing firms. For this coordinating mechanism the high performers were evenly split between the high and low use categories. No high performers were found in the medium use category for the use of shared values. Of the low performers, the majority suggested high use of shared values as a coordinating mechanism.

TABLE 7-D
 Significant Implementation Variables Within Groups: A Comparison of High vs. Low Performers with Prolonged Domain Enlargement Strategies Using the Chi-square Test of Independence ($p < 0.10$)

Variable	Probability
Coordination and Control	
Direct Supervision	.044 (50)
Std. of Skills	.066 (50)
Shared values	.085 (50)
Resources and Functions	
Functions	
Finance	.033 (33)

() - indicates the percentage of cells having expected counts less than 5

The performance of the finance function in these organizations was also found to be significant. High performers were more likely to report medium levels of performance from their finance function. On the other hand,

low performers were found to report either high or low levels of performance from this area with greater frequency than the high performers.

A forward stepwise discriminant analysis was performed on these four variables in relationship to their performance classifications. Only one variable met the constraints for inclusion in the discriminant function. This variable is provided in Table 7-E.

The F statistic obtained from this analysis was found to be significant at the 0.0555 level. The average squared canonical correlation indicated that 18.89% of the variance in performance was explained by this variable.

Using this variable the functions obtained were:

$$\text{High performance} = -5.37 + 7.16X(1)$$

$$\text{Low performance} = -3.44 + 5.73X(1)$$

These functions led to the successful categorization of 4 of the 8 high performers with long-lived domain enlargement strategies and 12 of the 15 low performers. In total, 16 of 23 firms were successfully categorized in terms of their performance level for a success rate of 69.6%.

TABLE 7-E
 Summary of Stepwise Discriminate Analysis on the
 Implementation of a Domain Enlargement Strategy

Variable	Symbol	Partial R**2	F Statistic	Prob > F	Ave. Sq. Canonical Correlation
Functional Strengths Finance	X(1)	0.1889	4.192	0.0555	0.1889

Domain Enhancement Strategy

The next domain direction strategy to be analysed was domain enhancement. This strategy was defined as those firms which had, as their major emphasis, the improvement of their competitive position within their current domain of operations. Forty-six firms fit into this category with 22 high performers and 24 low performers.

As a check on the reliability of the respondents, those CEOs which chose domain enhancement as their primary strategy were also asked to show how important the other domain direction alternatives were to their organizations. A significant relationship was not found between those that chose domain enhancement as their primary strategy and the importance of maintaining or improving current operations to their overall domain direction strategy. This, however, may be because all firms feel that maintaining or improving current operations is vital to their success. What was found was that firms which picked domain enhancement as their primary strategy were also more likely to report low or medium levels of importance for domain enlargement and/or domain reduction to their overall domain direction strategy.

From a competitive strategy perspective, firms with long-lived domain enhancement strategies were found to more often report low levels of importance to the market-focused strategy. Additionally, these firms were more likely to suggest that low-cost leadership was their competitive strategy and were much less likely to suggest that they had a combination competitive strategy.

The CEOs of firms with long-lived domain enhancement strategies were found to have more conservative philosophies. These CEOs were more likely to see themselves as less aggressive and more risk adverse than their counterparts in other organizations with long-lived domain direction strategies. These CEOs were also more likely to have accounting backgrounds and were much less likely to have general business backgrounds.

Organizational needs and primary objectives of firms with domain enhancement strategies were also found to be significant in some cases. Companies with long-lived domain enhancement strategies were more likely to report that the organizational need for survival or profitability was a major concern. Also, these firms were less likely to have objectives concerned with research and development or multinational enterprise.

A number of variables were found to be significant within the external environment of these organizations. Within the environmental volatility factor, both the competitive environment and the economic environment were found to be significant when the categories of high, medium and low were used. Firms with long-lived domain enhancement strategies were more likely to report high levels of competitive and economic volatility. These firms were also found to be less diverse in terms of the number of products produced, the number of product lines produced and the extent of international operations (measured by the

percentage of international sales to total sales). Finally, these firms were more likely to report low levels of control over product research and development and the distribution of their products to buyers.

Under 'resources and functional area performance', only one significant variable was found. Firms with long-lived domain enhancement strategies were more likely to report medium to high levels of managerial resources than other firms with long-lived domain direction strategies.

Finally, under 'coordination and control', these firms were found to use either low or high levels of total standardization (the cumulative score of the three standardization mechanisms; standardization of work, output and skills) while their counterparts were much more likely to fall into the medium category for this variable.

Table 7-F shows the results of the chi-square analysis on those variables thought to affect the performance of the implementation and control of strategy for firms with long-lived domain enhancement strategies.

Four variables were significant between high and low performing firms with long-lived domain enhancement strategies. Three of these four variables had to do with the perceived performance of functional areas within the firm. The high performers were much more likely to report low levels of performance from their finance and marketing functions. Along the same lines, the high performers were also much more likely to fit the low performance category for the performance of all functional areas (with 19 of 22

firms clustered in this cell).

TABLE 7-F
 Significant Implementation Variables Within Groups:
 High vs. Low Performers with Domain Enhancement
 Strategies Using the Chi-square Test of Independence
 ($p < 0.10$)

Variables	Probability
Resources and Functions	
Finance	.094 (75)
Marketing	.029 (33)
Total	.099 (66)
Culture	
Management style	.038 (33)

() - indicates the percentage of cells having expected counts less than 5

Management style was also found to be significant across these groups. The CEOs of high performers were more likely to report a more task-oriented management style while the CEOs of low performers were more likely to report a people-oriented style of management.

Only two of these four variables met the constraints for inclusion in the discriminant function ($p > .15$). These variables are presented in Table 7-G in their order of acceptance. (The first variable accepted has the greatest discriminating power.)

Using these two variables, the F statistic formed was found to be significant at the 0.0159 level. The average squared canonical correlation indicates that 38.55% of the

TABLE 7-G
Summary of Stepwise Discriminant Analysis on the
Implementation of a Domain Enhancement Strategy

Variable	Symbol	Partial R**2	F Statistic	Prob > F	Ave. Sq. Canonical Correlation
Functional Strengths Cumulative Index	X(1)	0.2085	4.741	0.0430	0.2085
Culture Management style	X(2)	0.2236	4.895	0.0409	0.3855

variance between high and low performers was predicted from the discriminant function.

Using these two variables, the following functions were obtained:

$$\text{High performance} = -9.10 + 4.57X(1) + 6.87X(2)$$

$$\text{Low Performance} = -15.12 + 6.05X(1) + 8.75X(2)$$

These functions led to the successful categorization of 17 of the 21 high performers with a long-lived domain enhancement strategy and 18 of the 24 low performing firms. In total, these two variables led to the successful categorization of 35 of the 45 firms for a success rate of 77.8%.

Domain Reduction Strategy

The next domain direction strategy to be investigated is the domain reduction strategy. This strategy is defined as the reduction of the overall domain of operations of the firm which would include the removal of certain activities, products or markets from current operations. Unfortunately, only four firms reported that their primary domain direction for more than the last two years was domain reduction. Because of the low number of firms, any results are suspect. However, a chi-square analysis was made between these firms and other firms with long-lived domain direction strategies simply to provide a better understanding of the characteristics of firms with this strategy.

Several objectives were found to be significant between firms with domain reduction strategies and firms with other

long-lived domain direction strategies. Firms with long-lived domain reduction strategies were more likely have the objectives of consolidation, financial stability and resource conservation.

These firms were also more likely to fit the high category of total functional performance with two of the four firms in this category. Of the firms with other long-lived domain direction strategies, only 9.9% were in the high category while 69.3% were found to be in the low category for this index.

Two of the four firms also scored high on the total standardization index while only 12 of the 101 firms with other long-lived domain direction strategies (11.9%) fit this category.

Many of the planning variables were also found to be significance. These firms were more likely to require the development of tactical plans from a corporate-wide plan, they were more likely to have a strategic planning system in place, and they were more likely to fit the high category of the total planning index.

Because of the small number of firms with long-lived domain reduction strategies, and because all of these firms fit the low performance category (in terms of average return on investment) no further analysis was made on this important (but infrequent) domain direction strategy.

Domain Restructuring Strategy

Domain restructuring was defined as a 'catch-all' for those firms which did not emphasize one of the domain direction strategies already discussed; domain enlargement, domain enhancement or domain reduction. Thus, this strategy encompasses all firms which had some combination of these three domain direction strategies with no one strategy considered to be the most important. Twenty-two firms fit this category with ten firms determined to be high performers and twelve firms found to be in the low performance category.

Because this was considered a 'catch-all' category rather than a pure domain direction strategy, it was surprising that so many variables were found to be significant between this domain direction strategic group and other firms with long-lived domain direction strategies. Part of the reason for this may be due to the strong relationships found with other strategies considered in this study. Firms with long-lived domain restructuring strategies were found to more likely consider domain reduction as being of high importance to their overall domain direction. From a competitive strategy perspective, it was found that firms with long-lived domain restructuring strategies were also much more likely to suggest that a combination competitive strategy was their primary focus and were less likely to be following a differentiation competitive strategy.

The CEOs of these firms were found to be, in general,

more liberal scoring in the high to medium categories of the philosophy index. However, no item within this index was found to be significant. These CEOs were also much more likely to have general business backgrounds than their counterparts in firms with other long-lived domain direction strategies.

Although almost one-half of these firms reported that survival (profitability) was a major organizational need to be fulfilled, this was much lower than firms with other long-lived domain direction strategies. Additionally, these firms were more likely to indicate that multi-national enterprise was a primary objective.

Within the external environment, all of the variables concerned with diversity were found to be significant. These firms were more likely to report highly segmented markets, and higher numbers of products and product lines. They were also, in general, more involved with international markets. Under the complexity factor these firms were found to more likely report a high degree of control over product research and development. Finally, in considering the influence of major stakeholders of the firm, companies with long-lived domain restructuring strategies were more likely to consider the influence of stockholders and creditors and customers and consumers as high (no firms in this strategic group reported a low degree of influence from the customer/consumer stakeholder group). The total influence by stakeholders, which was determined from the cumulative score of the influence from all stakeholder groups, was also found

to be significant. CEOs of firms with long-lived domain restructuring strategies were more likely to fit into the medium category for this index.

Under resources and functions, these firms were found to be much more likely to perceive their financial resources as high, with only two of the twenty-two firms found in the low category.

The importance of standardization of output was found to be medium for these firms while their counterparts were more likely to fall into the high or low categories.

Structural configuration was also found to be significant with a higher frequency of firms with domain restructuring strategies using market divisions.

Two significant relationships were found to be related to planning. First, firms with domain restructuring strategies were most likely not to be using management-by-objectives as a system of management. Additionally, these firms were more often in the low category of the total planning index, suggesting little use for current planning methods.

Finally, these firms were more likely to concentrate communication flows at upper levels of the organization across major work units rather than within major units.

Table 7-H presents the results of the chi-square analysis between high and low performance firms with long-lived domain restructuring strategies.

TABLE 7-H
Significant Implementation Variables Within Groups: A
Comparison of High vs. Low Performers with Domain
Restructuring Strategies Using the Chi-square Test of
Independence (p < 0.10)

Variable	Probability
Coordination and Control	
Need for effective coordination	.053 (66)
Potential for coordination	
Delegation of strategic authority	.097 (50)
Resources and Functions	
Resources	
Manpower	.089 (100)
Managerial	.053 (66)
Functions	
Finance	.099 (100)
Culture	
Loyalty expected	.088 (66)
Management style	.078 (66)
Total	.040 (66)

() - indicates the number of cells having expected counts less than 5

A number of variables were found to be significant between the high and low performing firms with long-lived domain restructuring strategies. When asked how important they felt effective coordination was between major work units in their organization, the CEOs of high performing firms were more likely to respond with low importance. Of the twelve low performers, all of their responses fit into the high or medium category for this variable. In assessing the potential for coordination, the CEOs were asked if they

delegated the authority to make strategic decisions to others in their organization. The CEOs of the high performing firms were much more likely to delegate strategic authority while only one of the twelve low performing firms indicated that this was true.

Three significant relationships were found concerning the resources available to the firm and the perceived strength of the firm's various functional areas. The CEOs of high performing firms were more likely to suggest low manpower strength and medium to low managerial strength. However, these same high performing firms also indicated higher strength in their finance function than their lower performing counterparts.

Three significant variables were also found in relationship to the culture of the organization. The high performing firms were more likely to give medium responses when asked to indicate the extent to which they expected loyalty from lower-level managers. Their lower performing counterparts were more likely to indicate a high expectation of loyalty. The CEOs of high performing firms were also more likely to indicate that they had a people-oriented management style while ten of the twelve low performing firms provided medium answers, indicating something between a people-oriented and task-oriented style of management. Finally, the cultural index was also found to be significantly related to performance. The high performing firms were more likely to have either highly organic cultures (fitting the high category for this index) or

highly mechanistic cultures (fitting the low category for this index). Ten of the twelve low performing firms were 'stuck in the middle' or in the medium category for this index.

Only two of these eight variables met the constraints for inclusion in the discriminant analysis of high and low performance in firms with prolonged use of domain restructuring strategies. These variables are presented in Table 7-I in the order in which they were accepted.

The F statistic indicated that the results of this analysis were significant at the 0.0179 level. The average squared canonical correlation indicated that 80.00% of the variance in performance was obtained from these two variables. The first variable alone was able to explain 60.00% of the variance between these two performance levels.

Using these two variables the functions for the two classifications; high and low performance, were as follows:

$$\text{High performance} = -16.00 + 20.0X(1) - 4.00X(2)$$

$$\text{Low performance} = -6.40 + 4.00X(1) + 4.00X(2)$$

These functions led to the successful categorization of all high performing and low performing firms with long-lived domain restructuring strategies.

TABLE 7-I
 Summary of Stepwise Discriminant Analysis on the
 Implementation of a Domain Restructuring
 Strategy

Variable	Symbol	Partial R**2	F Statistic	Prob > F	Ave. Sq. Canonical Correlation
Functional Strengths Finance	X(1)	0.6000	9.000	0.0240	0.6000
Culture Loyalty expected	X(2)	0.5000	5.000	0.0756	0.8000

Summary of Phase II: Domain Direction Strategies

Implementation variables found to be significant in affecting performance levels for the specific domain direction strategies are reprinted in Table 7-J.

From the table above it can be seen that three of the five major areas thought to be important to strategy implementation are represented with variables having significant relationships between high and low performance levels for these three domain direction strategies. The two areas not represented are organization structure and planning.

For the domain enlargement strategy, four variables were found to be significant from the chi-square analysis. Three of these had to do with the type of coordination mechanisms the organizations used for their major work units. The other dealt with the strength of the finance function in the organization. Of these four variables, only one, the strength of the finance function, met the constraints for inclusion in the discriminant model. This model was found to have a significance level of .0555 while approximately 19% of the variance in performance levels was explained.

For the domain enhancement strategy, four variables were also found to be significant between performance levels. Three of these dealt with the strength of functional areas while one was concerned with the management style used in the organization. Of these four variables, two met the

TABLE 7-J
A Summary of Significant Implementation Variables
Affecting Performance Levels For Domain Direction
Strategies (from Tables 7-D,F,H)

Variable	Domain Direction Strategy:		
	Enlargement	Enhancement	Restructure
Coordination and Control			
Type:			
Direct Supervision	.044		
Std. of Skills	.066		
Shared values	.085		
Potential:			
Delegation			.097
Need for coordination			.053
Resources and Functions			
Resources			
Manpower			.089
Managerial			.053
Functions			
Finance	.033	.094	.099
Marketing		.029	
Index		.099	
Culture			
Loyalty expected			.088
Management Style		.038	.078
Index			.040

constraints for inclusion in the discriminant model. These included the functional index and management style. The functional index was found to be the best discriminator of the two variables. The model, as a whole, was found to be significant at the 0.0159 level while approximately 40% of the variance in performance levels was explained.

Eight variables were found to be significant between performance levels for those firms with prolonged domain restructuring strategies. These included two concerned with coordination and control, three concerned with the resources and functional strengths of the firm and three within the organization culture factor. Of these eight variables, only two met the constraints for inclusion in the discriminant model. These included the strength of the finance function and the expectation of loyalty from lower level managers. The strength of the finance function was found to be the best discriminator of these two variables. The model, as a whole, was found to be significant at the 0.0179 level while explaining 80% of the variance in performance levels.

Not only was the strength of the finance function found to be significant for all three of these investigations but it was also determined to be the best discriminator in two of the three strategic groups analyzed. The third group had as the best discriminator, the cumulative strength of all functional areas.

Strategy Implementation and Control:

Competitive Strategies

In this section an investigation of those variables which affected the performance of firms under different competitive strategies was undertaken. As with the directional strategy alternatives, each competitive strategy was investigated individually, first using chi-square analysis on individual implementation variables and then using discriminant analysis with those variables found to be significant from the chi-square analysis. Only those firms which indicated that their competitive strategy had remained the same for more than two years were considered in this part of the investigation.

Characteristics of Those Firms Having Long-lived Competitive Strategies

Before proceeding with the investigation of individual competitive strategies, a chi-square analysis was undertaken to determine those variables which showed a significant relationship to performance in firms with long-lived competitive strategies without treating strategy as a fixed variable. The following table indicates those variables which were found to be significant in the comparison of high and low performing firms with long-lived competitive strategies.

TABLE 7-K
 Significant Variables Affecting Performance in Firms
 with Long-lived Competitive Strategies Using the Chi-
 square Test of Independence ($p < 0.10$)

Variables	Probability
Strategy	
Competitive	
Importance of Differentiation	.066
Focus on target markets	.017
Directional	
Importance of enhancement	.042
Philosophy and Experience	
Philosophy	
Innovative	.000
External Environment	
Complexity	
Degree of:	
Forward Integration	.029
Total integration	.052
Stakeholder Influence	
Total index	.044
Resources and Functional Strengths	
Resources	
Financial	.001
Coordination and Control	
Direct Supervision	.074
Shared values and beliefs	.049
Structure	
Other	.020 (50)

() - indicates the percentage of cells having expected counts less than 5

Three strategies were found to influence the performance of firms with long-lived competitive strategies. When asked how important each of the competitive strategy alternatives were to the overall competitive strategy of the firm, high performers were more likely to indicate that

product/service differentiation was highly important. Also, those firms which chose the market-focus competitive strategy were much more likely to be low performers. In terms of domain direction, high performers were more likely to indicate that improving the competitive position of the firm in current operations was highly important (domain enhancement), while low performers were more likely to indicate a lower level of importance for this domain direction strategy.

Only one variable was found to be significant within the area concerned with the CEO's philosophy and background. The CEOs of firms which were classified as high performers were much more likely to indicate that they were not highly innovative while the CEOs of lower performing firms indicated a high degree of innovativeness.

In the external environment, complexity (measured in terms of the degree of vertical integration) and stakeholder influence were found to be significant between high and low performing firms. High performing firms were more likely to score high on the forward vertical integration index which included responses to questions concerning the organization's control over marketing research, the distribution of the product to buyers and the retailing of the products to consumers (a high score indicated a high degree of control over these activities). The total vertical integration index, which also included items concerned with the organization's control over sources of major raw

materials, sources of major fuels and product research and development, was also found to be significant. Although the majority of firms were placed in the low category for this index, high performing firms were more likely to indicate a high level of total vertical integration than their lower performing counterparts. Finally, the total stakeholder index, which was made up of the cumulative responses of questions concerned with the influence of major stakeholder groups, indicated that high performers were less likely to indicate medium levels of overall influence. In other words, the high performers were generally placed in the low or high category, with only one of the 58 high performing firms listed in the medium category. It should also be noted that the vast majority of firms with long-lived competitive strategies were placed in the low category for this index.

Under resources and functions only one variable was found to be significant. High performing firms were much more likely to indicate a medium to high level of financial resources while lower performing firms were found more often in the low category for this variable.

Under coordination and control, two variables were found to be significant, both concerned with the type of coordination used in the organization. High performing firms were more likely to give a medium response to the importance of direct supervision as a coordinating mechanism, while lower performing firms were more evenly distributed between the three categories. High performing firms were also found to more likely claim that the use of shared values was

highly important as a coordinating mechanism. Low performers were more evenly distributed between all three categories.

Finally, structure was found to be significant between high and low performing firms with long-lived competitive strategies. Although only seven firms of the 137 included in this part of the analysis indicated that some other structure was used rather than the options given on the questionnaire (functional structure, product divisions, market divisions), all of these firms were found to be low performers.

Table 7-L indicates the distribution of high and low performing firms within each competitive strategy option for firms which have kept the same competitive strategy for more than two years.

As can be seen from the table the most frequently used competitive strategies for firms with long-lived competitive strategies were product/service differentiation with 51 firms, combination (no one competitive strategy alternative was of primary importance) with 38 firms and market-focused with 30 firms. The low-cost production strategy had the highest percentage of high performers with 66% although only nine firms chose this option as their primary competitive focus. The competitive strategy which included the lowest percentage of high performers was the market-focused strategy where only 7 of the thirty firms (23%) were considered high performers.

TABLE 7-L
Frequency of High and Low Performers Within Different
Competitive Strategy Alternatives

Strategic Alternatives	Performance	
	<u>High</u>	<u>Low</u>
Differentiation	23	28
Low-cost production	6	3
Market Focused	7	23
Combination	18	20
Changes with product/market	4	5

As with the domain direction strategies, all variables were considered in assessing how firms with one particular competitive strategy differed from other firms with long-lived competitive strategies. Those variables which were found to be significant to particular competitive strategy alternatives are shown in the following table. Each competitive strategy group was compared to all others with long-lived competitive strategies in the determination of these results.

The results of this analysis are described in the following sections along with an analysis of high and low performing firms within each strategic group.

a

TABLE 7-M
Significant Relationships Across Competitive Strategy
Types Using the Chi-square Test of Independence
(p < 0.10)

Variables	Diff.	Competitive Strategies:			Changes w/ P/M area
		Low-cost	Market-focus	Comb.	
Strategic Importance of:					
Differentiation	-	-	-	-	.077 (50)
Low-cost prod.	-	.011 (50)	-	-	-
Market-focus	-	-	.000	-	.080 (50)
Domain enhancement	.039	.037 (50)	.019	.035	.058 (50)
Primary					
Enhancement	-	.059 (50)	-	.055	-
Restructuring	.004	-	-	.003	-
Philosophy and Experience					
Philosophy					
Aggressiveness	-	-	-	.039	-
Risk-seeker	-	-	-	-	.074 (50)
Innovative	-	.086 (50)	.026	-	.018 (50)

() - indicates the percentage of cells with expected counts less than 5

TABLE 7-M (continued)

Variables	Competitive Strategies:				Changes w/ P/M area
	Diff.	Low- cost	Market- focus	Comb.	
Experience					
Marketing	-	-	-	.100	.093 (25)
General Business	-	.080 (25)	-	.031	-
Mission and Objectives					
Organizational Need					
Survival	-	.033	-	-	-
Objectives					
Profitability	-	.018 (25)	-	-	.087 (25)
Growth	-	-	.066	-	-
Employee welfare	-	-	.100 (25)	.007 (25)	-
Efficiency	-	.012 (25)	-	-	-
Product quality and service	.013	-	.002	-	-
Consolidation	-	-	-	-	.058 (50)
External Environment					
Volatility					
Social trends					
(low, med, high)	-	-	.058	-	-
(med, outliers)	-	-	.086	-	-

() - indicates the percentage of cells with expected counts less than 5

TABLE 7-M (continued)

Variables	Diff.	Competitive Strategies:			Changes w/ P/M area
		Low- cost	Market- focus	Comb.	
Political					
(low, med, high)	-	.096 (50)	-	-	-
(med, outlyer)	.073	.047 (50)	-	-	.085 (50)
Competition					
(med, outlyer)	.069	-	-	-	-
Volatility Index					
(low, med, high)	.099	-	-	-	.096 (50)
Diversity					
Products	-	.041 (25)	-	-	-
Int'l sales	.030	.030 (25)	-	.025	-
Market segmentation	-	.013 (50)	.066	-	-
Complexity (Control of)					
Major fuels	-	.004 (33)	-	-	-
Retailing	-	-	-	.029	-
Market research	-	-	.040	-	-
Stakeholder Influence					
Customers/Consumers	-	-	-	-	.045 (25)
Employees	.027 (25)	.061 (33)	-	.055 (25)	-
Suppliers	-	.061 (50)	-	-	.061 (50)
Influence Index	-	.019 (33)	-	.046	.076 (50)

() - indicates the percentage of cells with expected counts less than 5

TABLE 7-M (continued)

Variables	Diff.	Competitive Strategies:			Changes w/ P/M area
		Low- cost	Market- focus	Comb.	
Resources and Functional Strengths					
Resources					
Managerial	-	.080(50)	-	-	-
Functional Strengths					
Finance	-	.068(50)	-	-	-
Coordination and Control					
Type					
Shared values and beliefs	-	-	.081	-	-
Direct Supervision	-	-	.026	-	-
Potential					
Delegation	-	.009(25)	-	-	-
Planning					
MBO	-	-	-	-	.097(25)
Culture					
Loyalty expected	-	.052(50)	-	.056	-
Reliance on others	.071	-	-	-	-

() - indicates the percentage of cells with expected counts less than 5

Product/service Differentiation

Only two strategies were significant between firms with long-lived product/service differentiation strategies and other firms with long-lived competitive strategies, both concerned with the domain direction of the firm. Firms with product/service differentiation strategies were more likely to suggest that improving their competitive position within current operations (domain enhancement) was of low importance. Also, firms with differentiation strategies were much less likely to suggest that they had a domain restructuring strategy.

No variables concerned with the philosophy or past experience of the CEO were significant in comparing firms with product/ service differentiation strategies with those which had some other long-lived competitive strategy.

One objective was significant in this comparison. Firms with differentiation strategies were much more likely to suggest that an objective concerned with product quality and service was of primary importance.

A number of variables were significant within the external environment of these firms. Firms with differentiation strategies were more likely to provide medium responses concerning the volatility of the political environments they faced but were found to most often provide high or low rather than medium responses for the competitive environments in which they operated. The total volatility index was also significantly related to the differentiation

strategy. Firms with this strategy were more likely to indicate high levels of total environmental volatility, although the most frequent responses for all firms with long-lived competitive strategies fell in the low category. In terms of the international markets for these firms, those having differentiation strategies were more likely to have a lower percentage of total sales coming from outside the country. Under stakeholder influence, firms with differentiation strategies were more likely to indicate that employees were the stakeholder group with the most influence on decision-making.

Finally, within the organization culture factor, the CEOs of firms with differentiation strategies indicated more frequently that they did not rely heavily on the opinions of others in making major decisions.

Table 7-N presents the results of the chi-square analysis on high and low performing firms with long-lived product/service differentiation strategies. Only implementation variables were considered in this investigation.

Only two variables were significant between high and low performers in firms with long-lived product/service differentiation strategies. Both of these variables dealt with the use of standardization mechanisms in the overall coordination of the organization. The high performing firms were less likely to indicate that standardization of skills was an important coordinating mechanism for their organization. Additionally, the high performers were also

less likely to indicate that standardization of any type was highly important. The standardization index, made up of the cumulative score of items concerned with the importance of the three standardization mechanisms (process, output and skills) showed that none of the high performing firms fell into the high category while six (21%) of the low performing firms fell into this category.

TABLE 7-N
 Significant Implementation Variables Within Groups: A Comparison of High and Low Performers with Long-lived Differentiation Strategies Using the Chi-square Test of Independence ($p < 0.10$)

Variables	Probability
Coordination and Control	
Standardization of skills	.011 (33)
Standardization (total)	.055 (66)

() - indicates the percentage of cells having expected counts less than 5

Only the use of standardization of skills as a coordinating mechanism was found to meet the constraints for inclusion into the discriminant analysis at the $p=.15$ level of significance.

The F statistic was found to be significant at the 0.0335 level. The average squared canonical correlation indicated that only 9.45% of the variance between performance groups was explained by this variable.

TABLE 7-0
 Summary of Stepwise Discriminant Analysis on the
 Implementation of a Differentiation Competitive
 Strategy

Variable	Symbol	Partial R**2	F Statistic	Prob > F	Ave. Sq. Canonical Correlation
Coordination Std. of Skills	X(1)	0.0945	4.803	0.0335	0.0945

Using this variable, the following functions were obtained:

$$\text{High performance} = -4.16 + 4.26X(1)$$

$$\text{Low performance} = -6.20 + 5.20X(1)$$

These functions were able to successfully categorize 19 of the 22 high performing firms with long-lived differentiation competitive strategies. However, the ability of this function to successfully categorize the low-performers was not nearly so accurate. Only 14 of the 26 low performing firms fell closest to the function for this category. In total, the variable 'standardization of skills' was able to successfully discriminate between high and low performance in 33 of the 48 cases for a success rate of 68.8%.

Low-Cost Production

Three strategies were found to be significant between those firms with low-cost production strategies and those with other long-lived competitive strategies. As was expected, firms which chose low-cost production as their primary competitive strategy also were more likely to indicate that low-cost production was of high importance to their overall competitive strategy. In terms of domain direction strategies, the enhancement strategy was found to be significant in two ways. Firms with low-cost production strategies were more likely to indicate that improving their competitive position within current operations was a major part of their overall domain direction strategy. Also, these

firms were more likely to suggest that improving their competitive position in current operations was their primary domain direction strategy.

In terms of the philosophy and experience of the CEO, two variables were found to be significant. The CEOs of firms with low-cost production strategies were more likely to consider themselves as being less innovative than other CEOs. Also, none of these CEOs reported having a general business background while 26% of the CEOs of firms with other long-lived competitive strategies indicated having this background.

Three variables were found to be significant in terms of the organizations' major needs and objectives. In terms of the organizational need to be fulfilled, firms with low-cost strategies were less likely to report that survival, or an emphasis on profitability was a primary need for the organization. Two objectives were also found to be significant. Firms with long-lived low-cost production strategies were less likely to report that profitability was a primary objective but, interestingly enough, were more likely to report that efficiency was a primary objective.

Numerous environmental variables were found to be significant to the low-cost strategy alternative. To begin with, these firms were more likely to provide responses indicating a high level of political environmental volatility. Also, three of the four diversity variables were found to be significant. Firms with low-cost production

strategies suggested that they had less segmented markets, fewer international sales and fewer products than their counterparts with other long-lived competitive strategies. Under complexity, these firms were also found to have higher control of major fuels used in their production processes. Stakeholder influence provided three significant relationships. Firms with low-cost strategies were found to suggest more frequently that suppliers of key materials and employees had high levels of influence in the decision-making process. The total stakeholder influence index, made up of responses to all items concerned with the influence of major stakeholder groups indicated that 4 of the nine firms with low-cost strategies fell into the high category (strong influence from all groups). Only 12% of the firms with other long-lived competitive strategies fell into this category.

Under resources and functions, two variables were found to be significant. Firms with low-cost strategies were less likely to report low managerial resources but were much more likely to report that the performance of the finance function in their organization was weak.

Under coordination and control, the CEOs of firms with low-cost strategies were more likely to indicate that they did not delegate authority to make strategic decisions to others in their organization.

One variable was found to be significant within the organization culture factor. The CEOs of firms with low-cost strategies were less likely to agree strongly that loyalty was expected of lower-level managers.

Table 7-P provides the results of a chi-square analysis of high and low performing firms with long-lived low-cost production competitive strategies. Again, only implementation variables were considered in this analysis.

TABLE 7-P
 Significant Implementation Variables Within Groups:
 A Comparison of High and Low Performers with Low-cost
 Production Strategies Using the Chi-square Test of
 Independence ($p < 0.10$)

Variable	Probability
Coordination and Control	
Standardization of output	.076 (100)
Standardization (total)	.060 (100)
Structure	
Market divisions	.023 (100)
Resources and Functions	
Functions	
Performance	
Research	.091 (100)
Total	.023 (100)
Degree of Integration	
Backward Integration	.003 (100)
Total	.058 (100)
Culture	
Reliance on others	.072 (100)

() - indicates the percentage of cells having expected counts less than 5

Two coordination variables were found to be significant between high and low performers with long-lived low-cost production strategies. High performing firms were more likely to suggest that standardization of output was less important as a coordinating mechanism in their

organizations. Additionally, these same high performers were more likely to suggest that standardization of all types were less important as coordinating mechanisms than their lower performing counterparts.

In terms of the organizations' structures, one variable was found to be significant. High performing firms were less likely to use market divisions in the structuring of their organizations. None of the six high performing firms used market divisions as their primary structuring device while two of the three low performing firms with low-cost strategies indicated the use of market divisions.

Two variables were found to be significant in terms of the resources and functions of these organizations. High performing firms with low-cost strategies were more likely to report that their research function was medium to strong while low performers reported weak performance in research. However, all high performers fell into the low category of the total performance index for all major functions while two of the three low performers were found in the medium category.

The degree of integration was also found to be significant. All six of the high performers fell into the high category of the backward integration index which included items concerned with the firm's control over major raw materials, fuels and product research and development. In other words, the high performers indicated a high degree of control over these items. The low performers all fell into the low category for this index. Under the index for

total integration, which added items concerned with the firm's control over marketing research, distribution and retailing, the high performers were again much more likely to indicate a high degree of control.

Within the organization culture factor, one variable was significant. The CEO's of high performing firms were much more likely to indicate that they relied heavily on the opinions of others in making major decisions while the low performers were more likely to fall into the medium category for this response.

Four of these eight variables met the constraints for inclusion in the discriminant analysis. These variables are provided in Table 7-Q in the order in which they were accepted into the model.

The results of the analysis using these four variables were found to be significant at the 0.0000 level. The average squared canonical correlation indicated that 100.00% of the variance in performance levels was explained by these four variables.

These four variables led to the following functions:

$$\begin{aligned} \text{High performance} = & -20.40 + 12.00X(1) + 0.00X(2) + \\ & 12.00X(3) + 0.00X(4) \end{aligned}$$

$$\begin{aligned} \text{Low performance} = & -38.00 + 12.00X(1) - 3.00X(2) + \\ & 27.00X(3) + 3.00X(4) \end{aligned}$$

These functions led to the successful categorization of all firms with long-lived low-cost production competitive strategies.

TABLE 7-Q
 Summary of Stepwise Discriminant Analysis on the
 Implementation of a Low-cost Production Competitive
 Strategy

Variable	Symbol	Partial R**2	F Statistic	Prob > F	Ave. Sq. Canonical Correlation
Functional Strengths R&D	X(1)	0.5833	7.000	0.0457	0.5833
Culture Reliance on others	X(2)	0.4909	3.857	0.1210	0.7879
Functional Strengths Cumulative Index	X(3)	0.7105	7.364	0.0729	0.9386
Structure Market Divisions	X(4)	1.0000	.	0.0	1.0000

Market-Focused Strategy

Two strategies were found to be significant between firms with long-lived market-focused strategies and firms with other long-lived competitive strategies. Firms which indicated that market-focus was their primary competitive strategy were also more likely to suggest that market-focus was an important part of their overall competitive strategy. Under domain direction strategies, firms which indicated that market-focus was their primary competitive strategy were less likely to indicate that improving their competitive position in their current domain of operations was an important part of their overall domain direction strategy.

In terms of the philosophy and background of the CEO one variable was found to be significant. The CEOs of firms with market-focused strategies were more likely to indicate a willingness to try something 'new'. In other words, these CEOs generally saw themselves as being more innovative than their counterparts in firms with other long-lived competitive strategies.

Three objectives were found to be significant between those firms with market-focused strategies and others with long-lived competitive strategies. Firms with market-focused strategies indicated that they were less likely to have objectives related to product quality and service or employee welfare but were more likely to have an objective related to growth of the firm.

In terms of the external environment, four variables were found to be significant. Two of these had to do with the volatility of social trends that affected the organization. Firms with long-lived market-focus strategies were much more likely to indicate a low degree of environmental volatility in relationship to social trends that affected their domain of operations. Additionally, these firms also were more likely to provide responses which fell into either the high or low categories for this variable.

Under environmental diversity, firms with market-focused strategies were more likely to suggest that their markets were highly segmented or at least had average levels of segmentation. Only two of the firms with long-lived market-focused strategies indicated that their markets had low degrees of segmentation while 23 of the firms with other competitive strategies fell into the low category.

Finally, under environmental complexity, firms with market-focused strategies were much more likely to indicate a high degree of control over marketing research.

Two coordination mechanisms were found to be significantly related to firms with long-lived market-focused strategies. These firms were less likely to indicate that shared values and beliefs were important coordinating mechanisms in their firms. Firms with market-focused strategies also were more likely to indicate that direct supervision was a major coordinating mechanism.

The following table provides the results of a chi-

square analysis between high and low performers with long-lived market-focused strategies. Only implementation variables were considered in this analysis.

TABLE 7-R
Significant Implementation Variables Within Groups: A Comparison of High and Low Performers with Market-Focused Strategies Using the Chi-square Test of Independence ($p < 0.10$)

Variables	Probability
Coordination and Control	
Standardization of output	.091 (66)
Resources and Functions	
Resources	
Financial	.056 (66)
Functions	
Performance	
Marketing	.066 (83)
Culture	
Communication	.044 (66)

() - indicates the percentage of cells having expected counts less than 5

Only four variables were found to be significant between high and low performers with long-lived market-focused strategies. One of these dealt with the importance of various coordinating mechanisms used in the organization. High performing firms were much more likely to indicate that standardization of output was very important as a coordinating mechanism in their organization. In fact, all of the high performers fell into the high category for this response. Although the majority of the low performers also

fell into this category, they were more evenly divided between all three categories (high, medium and low).

Under resources and functions of these organizations two variables were found to be significant. The high performers were more likely to indicate strong financial resources. However, the high performing firms with market-focused strategies were also more likely to indicate that the performance of their marketing function was low. In fact, 50% of the high performers fell into the low category for this variable while only two of the 22 low performing firms considered their marketing performance to be poor.

Finally, within the organization culture factor, one variable was found to be significant. The high performers were much more likely to suggest that communication in their organization was evenly distributed between vertical and horizontal dimensions of their organization structure. The low performing firms were more likely to indicate that communication was generally within major units of their organization (e.g. market divisions).

Only one of these four variables met the constraints for inclusion in the discriminant analysis of high and low performers with prolonged market-focused strategies. This variable is presented in Table 7-S.

Using this variable, the results of the analysis were found to be significant at the 0.1022 level. The average squared canonical correlation indicated that 12.79% of the variance between performance levels could be predicted from this function.

TABLE 7-5
 Summary of Stepwise Discriminant Analysis on the
 Implementation of a Market-focused Competitive
 Strategy

Variable	Symbol	Partial R**2	F Statistic	Prob > F	Ave. Sq. Canonical Correlation
Coordination Std. of output	X(1)	0.1279	2.934	0.1022	0.1279

This variable, the use of standardization of outputs, led to the following two equations:

$$\text{High performance} = -7.89 + 5.26X(1)$$

$$\text{Low performance} = -4.05 + 3.77X(2)$$

Using this variable alone, all four of the high performers were successfully categorized. However 8 of the 20 low performing firms actually fell closer to the high performing function. Thus, 16 of the 24 firms with long-lived market-focused strategies were successfully matched to their performance level, leading to a success rate of 66.7%.

Combination Competitive Strategy

Three strategies were found to be significant between those firms with long-lived combination competitive strategies and firms with other long-lived competitive strategies. All of these had to do with the domain direction of the firm. Two of the strategy variables suggest a relationship with enhancing the current position of the firm in its current domain of operations. Firms with long-lived combination competitive strategies were more likely to indicate that improving the current competitive position of the firm was not their primary strategy. Along the same lines, these firms were also less likely to suggest that improving their competitive position was of high importance to their overall strategy. Also, firms with combination competitive strategies were more likely to indicate that they had a domain restructuring or 'combination' domain direction strategy.

In terms of the philosophy and background of the CEO, three variables were found to be significant. The CEOs of firms with combination competitive strategies were more likely to indicate that they were highly aggressive. Also, these CEOs were found to more likely have general business backgrounds and were less likely to have marketing backgrounds.

Only one objective was found to be significant between these two groups of firms. Firms with long-lived combination competitive strategies were more likely to have objectives related to employee welfare. Six of the firms with long-lived combination strategies indicated that they had such an objective while only three of the other 99 firms suggested that this was a major objective for their firm.

In the external environment four variables were significant. However, none of these variables were concerned with the environmental volatility factor. In terms of environmental diversity, firms with combination competitive strategies reported higher levels of international sales, in general, than other firms with long-lived competitive strategies. Under environmental complexity, firms with long-lived competitive strategies were more likely to indicate that they had a high degree of control over the retailing of their product to the ultimate consumers. Finally, under stakeholder influence, two variables were found to be of significance. Firms with long-lived competitive strategies were less likely to indicate that employees were the group that influenced the CEO's decision-making the most. In fact,

none of the firms with a combination competitive strategy indicated that this was true. However, these firms were also more likely to fall into the medium to high category for the overall stakeholder influence index. In other words, their cumulative scores on the influence of all stakeholder groups was generally higher than their counterparts with other long-lived domain direction strategies.

Within the organization culture factor one variable was significant. Firms with combination competitive strategies were much more likely to provide 'high' responses to the item suggesting that loyalty was expected of lower level managers. In other words, the managers of these firms were more likely to agree strongly with this statement.

Table 7-T provides the results of the chi-square analysis on high vs. low performers with long-lived combination competitive strategies. Only implementation and control variables were included in this phase of the analysis.

A number of variables were found to be significant between high and low performers with long-lived combination strategies. In terms of the coordination and control of these organizations, two coordination mechanisms were found to be significant. High performers were much more likely to provide medium responses when asked of the importance of direct supervision as a coordinating mechanism in their firm, while the majority of the low performers fell in the high or very important category for this item. Also, when

asked of the importance of shared values and beliefs as a coordinating mechanism, the high performers were much more likely to indicate that this was very important. In fact, 81% of the high performers fell into the high category for this item while only 26% of the low performers provided such a response.

TABLE 7-T
 Significant Implementation Variables Within Groups: A
 Comparison of High and Low Performers with Combination
 Competitive Strategies Using the Chi-square Test of
 Independence ($p < 0.10$)

Variables	Probability
Coordination and Control	
Direct Supervision	.048 (33)
Shared values	.004 (50)
Resources and Functions	
Resources	
Financial	.036
Functions	
Marketing	.082 (66)
Planning	
Use of MBO	.071
Total	.022 (33)
Culture	
Management style	.093 (66)

() - indicates the percentage of cells having expected counts less than 5

Under the resources and functions of these organizations, two variables were significant. The high performing firms perceived their financial resources to be generally greater than their lower performing counterparts.

Also, these same high performing firms were less likely to indicate that the performance of their marketing function was strong. Only one of the high performing firms gave such a response while seven of the low performing firms fell into the 'high' category for this item.

Within the planning area, two variables were found to be significant. The high performing firms were less likely to indicate that their organization made use of management-by-objectives. Also, these same high performing firms scored lower on the overall planning index which combined items concerned with the use of strategic planning, tactical plans and MBO. In other words, the high performing firms were less likely to use any of these planning devices.

Finally, under organization culture, one variable was found to be of significance. The CEOs of high performing firms with long-lived competitive strategies were more likely to indicate that they had a more people-oriented management style, while their counterparts in lower performing firms were more likely to provide responses indicating a task-oriented style of management.

Three of these seven variables met the constraints for inclusion into the discriminant analysis. These variables are provided in Table 7-U in their order of acceptance into the model.

TABLE 7-U
 Summary of Stepwise Discriminant Analysis on the
 Implementation of a Combination Competitive
 Strategy

Variable	Symbol	Partial R**2	F Statistic	Prob > F	Ave. Sq. Canonical Correlation
Coordination Shared values and beliefs	X(1)	0.2564	9.310	0.0051	0.2564
Culture Management style	X(2)	0.2530	8.807	0.0064	0.4446
Functional Strengths Marketing	X(3)	0.1007	2.799	0.1068	0.5005

The results of this analysis were found to be significant at the 0.0005 level. The average squared canonical correlation indicates that 50.05% of the variance in performance levels was predicted from this function.

These three variables led to the following two functions:

$$\text{High performers} = -23.81 + 7.53X(1) + 9.01X(2) + 3.60X(3)$$

$$\text{Low performers} = -16.55 + 5.18X(1) + 6.65X(2) + 5.07X(3)$$

These functions were able to successfully categorize 12 of the 14 high performing firms with long-lived combination strategies. Also, 15 of the 18 low performing firms in this group were successfully categorized. In total, 27 of the 32 firms with long-lived combination competitive strategies were successfully categorized by their performance, for a success rate of 84.4%.

Changes with Product/Market Area

The next section provides the results of the analysis of those firms which indicated that their competitive strategy was matched to the various product/market areas in which the firm competed. In other words, these firms had no one overall competitive strategy, but, rather matched the competitive strategy to the various domains in which they competed. An implied characteristic of these firms was that they had more than one product/market area in which they competed.

Three strategies were found to be significant between firms which matched their competitive strategies to

particular product/ market areas and other firms with long-lived competitive strategies. These firms were more likely to report that product differentiation and focusing on target markets were of low to medium importance in their overall competitive strategy. Also, these firms either suggested that improving their competitive position within current domains was very important (four of the nine fell into the 'high' category), or that this was of low importance (the other five fell into this category). For firms with other long-lived competitive strategies responses were generally evenly distributed between categories.

In terms of the philosophy and background of the CEO, three variables were significant. The CEOs of firms which matched their competitive strategy to particular product/market areas perceived themselves as either being risk adverse or as being risk-seekers. None of the CEOs of these firms provided medium responses for this item. These CEOs also indicated that they were not very innovative. Also, none of these CEOs indicated that they had marketing backgrounds while 24% of the CEOs of other firms with long-lived competitive strategies suggested that this was their primary background before becoming the CEO of their organization.

Two objectives were found to be significant between these two groups of firms. All of the firms which matched their competitive strategy to particular product/market areas suggested that profitability was a primary objective

of their organization while 75% of the other firms indicated that this was one of their objectives. Also, these firms were more likely to indicate that consolidation was a primary objective.

Under the external environment, five variables were significant. Firms which matched their competitive strategies to product/market areas were more likely to give responses of high or low levels of political environmental volatility. However, these firms were also more likely to score low on the total environmental volatility index. In terms of stakeholder influence, three variables were significant. Firms which matched their competitive strategy to product/market areas were more likely to indicate that suppliers of materials were of low importance in their ability to influence major decisions. Also, customers and consumers, as a group, were less likely to be picked as major influencers of decisions. However, these firms also scored generally higher on the total stakeholder influence index, suggesting that all stakeholders, together, were influencing decisions more than in other firms with long-lived competitive strategies.

Finally, the use of management-by-objectives was significant. Firms which matched their competitive strategy to product/market areas were far more likely to be using MBO on a corporate-wide basis. Six of the nine firms with this strategy were using MBO while only 38% of the other firms reported using this management system.

The next table indicates the results of the chi-square

analysis between high and low performers with competitive strategies that changed with the various product/market areas in which the firm competed. Only implementation and control variables were used in this analysis.

TABLE 7-V
Significant Implementation Variables Within Groups: A Comparison of High and Low Performers with Multiple Competitive Strategies Using the Chi-square Test of Independence ($p < 0.10$)

Variables	Probability
Structure	
Functional departments	.058 (100)
Market divisions	.018 (100)
Divisionalization	.016 (100)
Resources and Functions	
Resources	
Total	.084 (100)
Degree of Integration	
Forward Integration	.051 (100)
Planning	
Use of Strategic Planning	.058 (100)
Total	.031 (100)
Culture	
Loyalty expected	.031 (100)

() - indicates the percentage of cells having expected counts less than 5

Eight variables were significant between the high and low performing firms in organizations which changed their competitive strategy to match them with particular product/market areas. Three of these variables dealt with the structure of the organization. All of the high

performing firms reported using some type of divisionalization (either product or market divisions) while three of the lower performing firms were making use of functional departments as their primary organization structure. Of the high performers, three of the four were using market divisions while none of the low performers reported using market divisions in dividing up their organization into work units.

Under resources and functions of these organizations, one variable was found to be significant. The high performing firms were more likely to score high on the total resource index, which combined the responses of questions directed toward the strength of financial, managerial and manpower resources available to the organization. However, it should be noted that two of the four high performing firms fell into the low category for this index while the majority of low performers ended up in the medium category.

In terms of complexity or the degree of vertical integration found in these firms, it was found that the high performers were also more likely to be more forward integrated. In other words, they scored generally higher than the low performers in their control over the activities of market research, distribution and retailing.

Under planning activities performed in these organizations, two variables were significant. The high performing firms were much less likely to be making use of strategic planning. In fact, none of the high performing firms indicated that they had a strategic planning system in

place while three of the five low performing firms were making use of this planning system. Along the same lines, the high performers were also more likely to score lower on the total planning index with all of them falling into the low to medium categories. At the same time, four of the five low performers in this group scored high on this index, indicating greater use of strategic planning, tactical plans and MBO.

Finally, within the organization culture factor, the CEOs of the high performing firms were more likely to agree strongly that they expected loyalty from their lower level managers. Three of the four high performers fell into the high category for this variable while none of the low performers indicated that they felt this to be true.

Four of these eight variables met the constraints for inclusion in the forward stepwise discriminant analysis. These variables are presented in Table 7-W in the order in which they were accepted into the model.

The results of this analysis were found to be significant at the 0.0000 level. The average squared canonical correlation indicates that 100.00% of the variance between high and low performers was explained by this discriminant function. In fact, the first variable alone, divisionalization, explained 64.00% of this variance.

TABLE 7-W
Summary of Stepwise Discriminant Analysis on the
Implementation of a Competitive Strategy Which
Changes With Specific Product/Market Areas

Variable	Symbol	Partial R**2	F Statistic	Prob > F	Ave. Sq. Canonical Correlation
Structure					
Divisionalization					
Index	X(1)	0.6400	12.444	0.0096	0.6400
Market divisions	X(2)	0.3750	3.600	0.1066	0.7750
Planning					
Planning Index	X(3)	0.4000	3.333	0.1275	0.8650
Strategic planning	X(4)	1.0000	.	0.0	1.0000

These variables led to the following functions:

$$\begin{aligned} \text{High performance} = & -9.63 + 14.00X(1) + 7.00X(2) + 0.00X(3) \\ & + 7.00X(4) \end{aligned}$$

$$\begin{aligned} \text{Low performance} = & -2.80 + 7.00X(1) + 0.00X(2) + 0.00X(3) + \\ & + 7.00X(4) \end{aligned}$$

These variables led to the successful categorization of all the high performing firms with long-lived competitive strategies which changed to meet specific product/market demands. Four of the five low performing firms were also successfully categorized. In all, eight of the nine firms fell into their appropriate categories for an 88.9% success rate.

Summary of Phase II: Competitive Strategies

Table 7-X presents those variables which were found to be significant between high and low performing firms in each of the competitive strategy groups considered in this study.

All major areas thought to affect performance in the implementation of strategy are represented with specific variables found to be significant between performance levels in firms with long-lived competitive strategies. However, in no case was each area represented within one of the five competitive strategies considered.

Only two variables were significant between performance levels of firms with long-lived differentiation strategies. Both of these variables were concerned with coordination and control of major work units, including standardization of skills and the standardization index. Only one of these

TABLE 7-X
A Summary of Significant Implementation Variables For
Firms with Long-lived Competitive Strategies: High vs.
Low Performers (from Tables 7-N,P,R,T,V)

Variable	Diff.	Competitive Strategy:			Changes w/ P/M area
		Low- cost	Market- focus	Comb.	
Coordination and Control					
Type:					
Shared values	-	-	-	.004	-
Direct supervision	-	-	-	.048	-
Std of output	-	.076	.091	-	-
Std of skills	.011	-	-	-	-
Std. Index	.055	.060	-	-	-
Structure					
Functional departments	-	-	-	-	.058
Market divisions	-	.023	-	-	.018
Division Index	-	-	-	-	.016
Resources and Functions					
Resources					
Financial	-	-	.056	.036	-
Index	-	-	-	-	.084

TABLE 7-X (continued)

Variable	Diff.	Competitive Strategy:			Changes w/ P/M area
		Low- cost	Market- focus	Comb.	
Functions					
Performance:					
Marketing	-	-	.066	.082	-
Research	-	.091	-	-	-
Index	-	.023	-	-	-
Degree of Int.:					
Backward Int.	-	.003	-	-	-
Forward Int.	-	-	-	-	.051
Integration	-	-	-	-	-
Index	-	.058	-	-	-
Planning					
Strategic					
planning	-	-	-	-	.058
MBO	-	-	-	.071	-
Index	-	-	-	.022	.031
Culture					
Reliance on other	-	.072	-	-	-
Communication flows	-	-	.044	-	-
Management style	-	-	-	.093	-
Loyalty expected	-	-	-	-	.031

variables, standardization of skills, met the constraints for inclusion in the discriminant model. This model was found to have a significance level of 0.0335 and explained approximately 9% of the variance in performance levels.

Eight variables were significant between performance levels for firms with long-lived low-cost production strategies. These included two concerned with coordination and control, one structural variable, four concerned with the various functions of the organization and one included in the organization culture factor. Of these eight variables, four met the constraints for inclusion in the discriminant function. The strength of the organization's research and development function was the leading discriminator for performance. The model, as a whole, was significant at the 0.0000 level and was able to explain 100% of the variance between performance classifications.

Four variables were significant between performance levels in firms with long-lived market-focus strategies. These included the use of standardization of output as a coordination mechanism, the strength of the firm's financial resources, the strength of the marketing function and communication flows at upper levels of the organization. Only one variable, the use of standardization of output, was included in the discriminant model. This model was significant at the 0.1022 level while explaining approximately 13% of the variance in performance.

Seven variables were significant between performance levels for firms with long-lived combination competitive

strategies. These included two concerned with coordination and control, two dealing with the strength of the firm's resources and functions, two planning variables and one variable in the organization culture factor. Three of these variables met the constraints for inclusion in the discriminant model. These variables were the use of shared values as a coordination mechanism, the strength of the marketing function and the style of management. The use of shared values was the best discriminator of those variables considered. The model as a whole was significant at the 0.0005 level while explaining approximately 50% of the variance in performance classifications.

Eight variables were significant between high and low performing firms with competitive strategies that changed for specific product market areas. These included three structural variables, two concerned with the resources and functions of the organizations, two planning variables and one variable in the organization culture factor. Of these eight variables, four met the constraints for inclusion in the discriminant function. Two of these variables dealt with the structure of the organization including the use of market divisions and the divisionalization index. The other two were concerned with the use of planning in the organization. The divisionalization index was the best discriminator of those variables considered. The model as a whole was found to be significant at the 0.0000 level while explaining 100% of the variance in performance levels.

It should be emphasized that the significance levels of the discriminant models developed for these various competitive strategies were highly diverse. Two of the models (for low-cost production and changing for product/market area) were found to have levels of significance at the 0.0000 level and were able to explain 100% of the variance in performance classifications. The discriminant model for firms with combination strategies also had a high level of significance at 0.0005. However, the models obtained for the product/service differentiation and market-focused strategies were not nearly as significant and their explanatory power was in the 9-13% range.

Summary of Phase II: Strategy Implementation

The results of Phase II support the inclusion of all five major areas thought to be important to the successful implementation of strategy. However, for the domain direction strategies, planning and structure failed to be represented by significant variables.

The results also suggest the importance of studying strategy implementation for specific strategies. Few variables were significant for more than two of the eight strategies considered.

The models formed by the discriminant analyses varied widely in their ability to explain the variance between performance levels. Explanatory power for these models ranged from 9% for the differentiation strategy to 100% for the low-cost production and multiple competitive strategies.

CHAPTER 8

Presentation of Results: Phase III

In Phase III an attempt was made to find surrogate measures of those variables found to be significant to the formulation of various strategies from Phase I of this study. In Phase I, mail questionnaire data was used to determine those variables from the major categories; philosophy and background of the CEO, mission and objectives of the organization, external environment and internal resources and functions of the organization, which were significant to the chosen strategy of the firm, at or near the time in which that strategy was adopted. These variables were investigated to determine if there were 'surrogate' measures within a secondary data source. The source used was Industrial Compustat (1988).

Chi-square analysis was used to determine if significant relationships existed between the perceptual variables (from the questionnaire) and items from Industrial Compustat. The classification scheme used for the perceptual variables was similar to that used in Phase I for those variables which were measured using a Likert 7-point scale. The financial data used in this phase of the study were generally collapsed into three categories; low, medium and high, with the boundaries between categories set at one-half the standard deviation of the item, above and below the mean of that item.

For example, total sales was used as a possible

surrogate for perceptual variables within the major factor, environmental diversity. The mean level of sales for all 156 participating firms was obtained along with the standard deviation of the mean for this data item. The firms were classified as medium in terms of total sales if their sales in 1988 fell within the range from one-half the standard deviation below the mean to one-half the standard deviation above the mean. Firms which were classified as 'low' had sales which were less than the mean of total sales for these firms minus one-half of the standard deviation, while those which were classified as 'high' had sales which were higher than the mean plus one-half the standard deviation.

The exception to this classification scheme was made where the perceptual variables were classified as 'medium' or 'outliers', as was the case for some of the environmental volatility variables which were found to be significant. In this case, the classification scheme used for the secondary variables under investigation collapsed the low and high categories into one, leaving two categories; medium and outliers.

Three types of information from the secondary source were investigated in this phase of the study. In many cases the magnitude of a particular item (such as total sales or research and development expenditures) or combination of items (as would be the case for the current ratio) were tested to determine if a significant relationship existed with the perceptual variables from Phase I. In these cases, the magnitude was assessed from the 1988 fiscal year

for those firms in the study. Also, growth of particular items were tested for significance (e.g. sales, assets, profits). Growth was determined from the average growth rate of these firms over a three-year period ending with the 1988 fiscal year. Finally, the volatility of select items were investigated for significant relationships with the variables from Phase I. A measure of volatility was obtained using the standard deviation of a particular item over the past five years. Examples of items where volatility was tested for significance included profits, sales and inventory.

The results of this investigation are displayed in Table 8-A.

As can be seen from the table, significant relationships were found for all but two of the perceptual variables found to be significant in Phase I of this study. These variables included the major objective of product quality and service and the stakeholder influence index. At least one surrogate variable was found for each of the other perceptual variables under consideration and in many cases several surrogate variables were obtained.

The discriminant analyses performed in Phase I of this study between the perceptual variables and various domain direction and competitive strategies were repeated using these surrogates of the perceptual variables from the mail questionnaire. The following sections present the results of this analysis.

TABLE 8-A
 Significant Relationships Found Between the Perceptual
 Variables of Importance From Phase I and Secondary Data
 Items Using the Chi-square Test of Independence
 (p < 0.10)

Perceptual Variables	Surrogate Variables	Significance (p < 0.10)	Mean	Std. Dev.
<u>Philosophy and Experience</u>				
Philosophy Aggressiveness	Ave. Asset Growth	.086	.109	.234
Risk-taking	Backorders/Sales	.084	.391	.448
Growth as Important	R&D Expend./Sales	.066	.045	.051
Leverage as Important	R&D Expend./Sales	.072	.045	.051
	Current Ratio	.028	2.616	2.548
Philosophy Index	R&D Expenditures	.076	99.02*	533.94

* - millions of dollars

** - thousands

TABLE 8-A (continued)

Perceptual Variables	Surrogate Variables	Significance (p < 0.10)	Mean	Std. Dev.
Experience Marketing Background				
	R&D Expenditures*	.029	99.02	533.94
	R&D Expenditures/ Sales	.004	.045	.051
	Current Ratio	.055	2.616	2.548
	Times Interest Earned	.003	6.20	9.61
<u>Mission and Objectives</u>				
Organization Need				
Self-actualization				
	Return on Investment	.032	.073	.144
	Total Assets	.000	831.2*	1718.5
	Total Sales	.062	725.7*	1326.1
	Earnings/Share	.051	1.39	2.82
Objectives				
Growth				
	Selling and Admin. Expense	.090	44.03*	111.15
	R&D Expenditures	.074	99.02*	553.94
	R&D Expend./Sales	.083	.045	.051

* - millions of dollars

** - thousands

TABLE 8-A (continued)

Perceptual Variables	Surrogate Variables	Significance (p < 0.10)	Mean	Std. Dev.
Efficiency	Current Ratio	.082	2.616	2.548
	Acquisitions/Sales Discontinued	.049	.019	.049
	Operations/Sales	.063	.014	.122
Product Quality and Service	(none)			
Employee Welfare	Return on Investment	.013	.073	.144
	Average ROI (2 yrs)	.001	.060	.109
Market Share	Backorders/Sales	.046	.391	.448
<u>External Environment</u>				
Volatility Economic (low,med,high)	Average ROI (2 yrs)	.065	.060	.109
	Return on Investment	.085	.073	.114
	Sales Volatility	.011	125.81	292.27
	Total Inventory Volatility	.030	28.09	94.42

* - millions of dollars

** - thousands

TABLE 8-A (continued)

Perceptual Variables	Surrogate Variables	Significance (p < 0.10)	Mean	Std. Dev.
(med,outliers)	Total Sales	.057	725.71*	1326.09
	Profit Volatility	.004	4.14	10.58
	Selling and Admin. Expense	.070	44.03*	111.15
Social Trends				
(med,outliers)	R&D Expend./Sales	.024	.045	.051
	Current Ratio	.078	2.616	2.548
	R&D Expenditures	.013	99.02*	533.94
	Inventory Volatility	.012	28.09	94.42
	Inventory/Sales	.018	.169	.154
	Interest Expense/Sales	.001	.073	.122
Competition				
(med,outliers)	Total Sales	.050	725.71*	1326.09
	Earnings/Share	.097	1.39	2.82
Volatility Index				
(low,med,high)	Sales Volatility	.071	125.81	292.27
	Inventory Volatility	.063	28.09	94.42

* - millions of dollars

** - thousands

TABLE 8-A (continued)

Perceptual Variables	Surrogate Variables	Significance (p < 0.10)	Mean	Std. Dev.
(med,outliers)	Profit Volatility	.024	4.14	10.58
	Interest Expense/ Sales	.090	.073	.122
Diversity				
Int'l Sales	Inventory/Sales	.042	.169	.154
	Return on Assets	.001	.073	.144
	Advertising Expense	.048	38.99*	186.97
	Profit Margin	.019	-.012	.433
	R&D Expenditures	.000	99.02*	533.94
	R&D Expend./Sales	.000	.045	.051
	Interest Expense/ Sales	.025	.073	.122
	Acquisitions/Sales	.054	.019	.049
	Inventory Volatility	.030	28.09	94.42
	Total Assets	.071	831.21*	1718.47
	Times Interest Earned	.013	6.20	9.61
	Cash Dividends/Sales	.000	.023	.052
Market Segment.	R&D Expenditures	.077	99.02*	533.94

* - millions of dollars

** - thousands

TABLE 8-A (continued)

Perceptual Variables	Surrogate Variables	Significance (p < 0.10)	Mean	Std. Dev.	
# of Products	Cash Dividends/ Sales	.047	.023	.052	
	Inventory Volatility	.003	28.09	94.42	
	Current Ratio	.017	2.62	2.55	
	Advertising Expense	.005	38.99*	186.97	
	Acquisitions/Sales	.049	.019	.049	
	Profit Margin	.034	-.012	.434	
	R&D Expenditures	.001	99.02*	533.94	
	R&D Expend./Sales	.000	.045	.051	
	Profit Volatility	.075	4.14	10.58	
	Inventory/Sales	.000	.169	.154	
	Return on Assets	.050	.073	.144	
	Pension Fund/ # of Employees	.004	.371	3.986	
	# of Product Lines	Ave. Asset Growth	.083	.109	.234
		Sales Volatility	.059	125.81	292.27
Selling and Admin. Expense		.026	44.03*	111.15	

* - millions of dollars

** - thousands

TABLE 8-A (continued)

Perceptual Variables	Surrogate Variables	Significance (p < 0.10)	Mean	Std. Dev.
Complexity				
Forward Integration				
Index	Total Sales	.095	725.71*	1326.09
	Pension Fund/ Employees	.055	.371	3.986
Stakeholder Influence				
Stockholders and				
Creditors	Total Sales	.004	725.71*	1326.09
	Total Assets	.027	831.21*	1718.47
	Cash Dividends/ Sales	.034	.023	.052
	# of Employees	.036	18.36**	85.43
	Int. Expense/Sales	.000	.073	.122
	Times Int. Earned	.000	6.20	9.61
	Sales Volatility	.014	125.81	292.27
Customers and				
Consumers	Asset Growth	.082	.109	.234
	Sales Growth	.023	.153	.420
	# of Employees	.013	18.36**	85.43

* - millions of dollars

** - thousands

TABLE 8-A (continued)

Perceptual Variables	Surrogate Variables	Significance (p < 0.10)	Mean	Std. Dev.
Influence Index (none)				
<u>Internal Resources and Functions</u>				
<u>Functional Strengths</u>				
Prod/Operations	Earnings/Share	.058	1.39	2.82
	Times Int. Earned	.081	6.20	9.61
	Pension Fund/			
	Employees	.067	.371	3.986
R&D	R&D Expenditures	.075	99.02*	533.94
	R&D Expend./Sales	.002	.045	.051
Functional Index	R&D Expenditures	.046	99.02*	533.94

* - millions of dollars

** - thousands

Domain Direction Strategies

As in Phase I, only three of the four domain direction strategies considered in this study could be analyzed. Because only one firm indicated that they had recently adopted a domain reduction strategy within the last two years, no analysis could be made of those variables which seemed to influence the adoption of this specific domain direction strategy. The results of the discriminant analysis between the other three specific domain direction strategies are provided in the following sections.

Domain Enlargement

Thirteen variables were found to be significant in the chi-square analysis between firms with recently adopted domain enlargement strategies and firms with other recently adopted domain direction strategies. These variables came from all major areas thought to be important to the formulation of strategy.

Five of the significant variables were concerned with the philosophy of the CEO. These included measures of the CEO's aggressiveness, willingness to take risks, views on the growth of the firm, views on the use of financial leverage and the philosophy index.

Two of the significant variables dealt with the long-term objectives of these firms. These objectives included 'growth' and 'efficiency'.

Five variables were concerned with assessing the external environment of these firms. Four of these dealt

with the diversity of these organizations and their environments including the importance of international sales to total sales, the degree of segmentation in major markets of the organizations, the number of products produced and the number of product lines produced. The other environmental variable was concerned with the influence of stockholders and creditors on the CEO's decision-making.

The last significant variable was the functional strength index which was the cumulative score of the strengths of all functional areas considered in this study.

Surrogate measures of these variables (from Table 8-A) were used in a forward stepwise discriminant analysis between firms with recently adopted domain enlargement strategies and firms with other recently adopted domain direction strategies. Only one surrogate variable met the constraint for inclusion in the discriminant function ($p < 0.15$). This variable, along with summary statistics of the discriminant function, is provided in Table 8-B.

The F statistic obtained from the use of profit volatility as a discriminating variable indicated a significance level of 0.0545. The average squared canonical correlation indicated that this discriminant function was able to explain 6.9% of the variance between strategy classifications (domain enlargement vs. other domain direction strategies).

TABLE 8-B
Summary Statistics of the Discriminant Analysis
Between Firms with Recently Adopted Domain Enlargement
Strategies and Others with Recently Adopted Domain
Direction Strategies

Surrogate Variable	Symbol	Partial R**2	F Statistic	Prob. > F	Ave. Sq. Canonical Corr.
Profit Volatility	X(1)	0.0693	3.870	0.0545	0.0693

The functions formed by this variable were:

Domain enlargement = $-4.57 + 5.12X(1)$

Other domain direction
strategies = $-2.91 + 4.09X(1)$

Using these functions, the ability to predict those firms which had recently adopted a domain enlargement strategy was 64.3% (5 of the 14 firms which had recently adopted domain enlargement strategies were misclassified). At the same time, only 24 of the 40 firms which adopted some other domain direction strategy were appropriately classified for a 60.0% success rate. Altogether, the success rate for placing all firms in their appropriate classification was 61.1%.

Domain Enhancement

From Phase I, eight variables were found to be significant between firms with recently adopted domain enhancement strategies and firms with other recently adopted domain direction strategies. These eight variables came from all major areas thought to be important to the formulation of strategy.

Only one variable was found to be significant concerning the philosophy and background of the CEO. This variable assessed the CEO's feelings toward the importance of growth of the firm.

Two long-term objectives were significant. These included objectives concerned with product quality and service and employee welfare.

In assessing the external environment, four variables

were significant. These included two measures of economic volatility (high, medium and low categories and medium, outlier categories). Also, the influence of stockholders and creditors as a group and customers and consumers as another group were significant.

Finally, the cumulative strength of all functional areas considered in this study (the functional strength index) was found to be significant.

As has already been noted, no surrogate variables were found for the long-term objective concerned with product quality and service. Using the surrogates for the other significant variables from Phase I (from Table 8-A) the discriminant analysis between those firms with recently adopted domain enhancement strategies and other firms with recently adopted domain direction strategies was repeated. Table 8-C presents the results of this analysis.

The F statistic obtained from the use of these variables indicated a significance level of 0.0045. The average squared canonical correlation indicated that this discriminant function was able to explain 26.1% of the variance between strategy classifications (domain enhancement vs. other domain direction strategies).

The functions formed with these variables were:

$$\begin{aligned} \text{Domain enhancement} = & -12.65 + 0.45X(1) + 3.59X(2) + \\ & 1.63X(3) + 7.90X(4) \end{aligned}$$

$$\begin{aligned} \text{Other domain direction} \\ \text{strategies} = & -12.08 + 2.15X(1) + 1.83X(2) + \\ & 3.14X(3) + 6.56X(4) \end{aligned}$$

TABLE 8-C
 Summary Statistics of the Discriminant Analysis
 Between Firms with Recently Adopted Domain Enhancement
 Strategies and Others with Recently Adopted Domain
 Direction Strategies

Surrogate Variable	Symbol	Partial R**2	F Statistic	Prob. > F	Ave. Sq. Canonical Corr.
Earnings/Share	X(1)	0.0545	3.000	0.0892	0.0545
Cash					
dividends/Sales	X(2)	0.1052	5.993	0.0178	0.1540
R&D Expense	X(3)	0.0734	3.959	0.0521	0.2160
Sales					
Volatility	X(4)	0.0573	2.978	0.0907	0.2610

Using these functions the ability to predict those firms which had recently adopted a domain enhancement strategy was 76.7% (7 of the 30 firms which had recently adopted domain enhancement strategies were misclassified). At the same time, 16 of the 24 firms which adopted some other domain direction strategy were appropriately classified for a 66.7% success rate. Altogether, the success rate for placing all firms in their appropriate classification was 72.2%.

Domain Restructuring

Eight variables were found to be significant in Phase I between those firms which had recently adopted a domain restructuring strategy and other firms with recently adopted domain direction strategies using the chi-square test of independence. These variables came from two major areas; the mission and objectives of the firm and the firm's external environment.

Three variables were significant concerning the firm's mission and long-term objectives. These included the organizational need of self-actualization and objectives which dealt with employee welfare and market share.

In the external environment five variables were significant. Two measures of economic volatility (high, medium and low categories and medium, outlier categories) and the medium, outlier measure of the total environmental volatility index were significant. Also, the forward integration index, made up of measures of the firm's control

of marketing research, distribution and retailing, was found to be significant. Finally, the influence of customers and consumers, as a group, was significant for these firms.

Using the surrogates for these variables from Table 8-A, a discriminant analysis was performed between firms with recently adopted domain restructuring strategies and other firms with recently adopted domain direction strategies. The results of this analysis are presented in Table 8-D.

The F statistic obtained from the use of these variables indicated a significance level of 0.0407 for the discriminant function. The average squared canonical correlation indicated that this discriminant function was able to explain 11.8% of the variance between strategy classifications (domain restructuring vs. other domain direction strategies).

The functions formed with these variables were:

$$\text{Domain restructuring} = -4.64 + 3.67X(1) + 0.81X(2)$$

$$\begin{array}{l} \text{Other domain direction} \\ \text{strategies} \end{array} = -3.01 + 1.27X(1) + 2.56X(2)$$

Using these functions, the ability to predict those firms which had recently adopted a domain restructuring strategy was 66.7% (4 of the 6 firms which had recently adopted domain restructuring strategies were appropriately classified). At the same time, 41 of the 48 firms which adopted some other domain direction strategy were appropriately classified for an 85.4% success rate. Altogether, the success rate for placing all firms in their appropriate classification was 83.3%.

TABLE 8-D
Summary Statistics of the Discriminant Analysis
Between Firms with Recently Adopted Domain
Restructuring Strategies and Others with Recently
Adopted Domain Direction Strategies

Surrogate Variable	Symbol	Partial R**2	F Statistic	Prob. > F	Ave. Sq. Canonical Corr.
Asset Growth	X(1)	0.0681	3.799	0.0567	0.0681
Sales Growth	X(2)	0.0535	2.885	0.0955	0.1180

Competitive Strategies

As in Phase I, only two of the five competitive strategies could be analyzed using surrogate variables from Industrial Compustat due to the low number of firms which indicated that they had recently adopted certain competitive strategies. The two competitive strategies which were analyzed included product/service differentiation and market-focused. The results of the discriminant analyses of these two competitive strategies are provided in the following sections.

Product/service Differentiation

Only three variables were found to be significant in Phase I between those firms with recently adopted differentiation strategies and other firms with recently adopted competitive strategies using the chi-square test of independence. These variables came from two major areas; the external environment and the internal resources and functions of the organizations. The environmental variables included the volatility of social trends (using medium, outlier categories) and the total environmental volatility index (using high, medium and low categories). Also, the strength of the production/operations function in the organization was found to be significant.

Using the surrogates for these variables from Table 8-A a discriminant analysis was performed between firms with recently adopted differentiation strategies and others with recently adopted competitive strategies. Table 8-E presents

the results of this analysis.

The F statistic obtained from the use of these variables indicated a significance level of 0.0018. The average squared canonical correlation indicated that this discriminant function was able to explain 93.9% of the variance between strategy classifications (differentiation vs. other competitive strategies).

The functions formed with these variables were:

$$\begin{array}{l} \text{Differentiation} \\ \text{strategy} \end{array} = -7.19 + 4.89X(1) + 6.04X(2) + 1.84X(3)$$

$$\begin{array}{l} \text{Other competitive} \\ \text{strategies} \end{array} = -11.08 + 7.81X(1) + 6.98X(2) + 0.95X(3)$$

Using these functions, the ability to predict those firms which had recently adopted a product/service differentiation strategy was 100.0% (all 6 firms which had recently adopted differentiation strategies were appropriately classified). At the same time, 8 of the 13 firms which adopted some other competitive strategy were appropriately classified for a 61.5% success rate. Altogether, the success rate for placing all firms in their appropriate classification was 73.7%.

TABLE 8-E
Summary Statistics of the Discriminant Analysis
Between Firms with Recently Adopted Differentiation
Strategies and Others with Recently Adopted
Competitive Strategies

Surrogate Variable	Symbol	Partial R**2	F Statistic	Prob. > F	Ave. Sq. Canonical Corr.
Earnings/Share	X(1)	0.5714	9.333	0.0185	0.5714
Current Ratio	X(2)	0.7500	18.000	0.0054	0.8929
R&D Exp./Sales	X(3)	0.4324	3.810	0.1084	0.9392

Market-focus Competitive Strategy

Six variables were found to be significant in Phase I between those firms with recently adopted market-focus strategies and other firms with recently adopted competitive strategies using the chi-square test of independence. These variables came from three major areas; the philosophy and background of the CEO, the external environment, and the internal resources and functions of the organization.

In terms of the philosophy and background of the CEO, one variable was significant. This variable was concerned with whether the CEO's past experience was primarily in marketing.

Three variables concerned with assessing the environment of the organization were significant. These included the volatility of the competitive environment (medium and outlier categories), the influence of stockholders and creditors and the stakeholder influence index.

Within the major area concerned with assessing the resources and functional strengths of the organization, two variables concerned with assessing functional strengths were found to be significant. These included the strength of the research and development function and the functional strength index.

As noted earlier, no surrogate variables were obtained for the stakeholder influence index. Using surrogate variables in place of the other perceptual variables from Table 8-A, a discriminant analysis was attempted between

those firms with recently adopted market-focus strategies and other firms with recently adopted competitive strategies. However, no surrogate variables met the constraint for inclusion into the discriminant function ($p < 0.15$). Thus, no further analysis could be made.

Summary

The results of the third phase of this investigation were mixed. Surrogate measures of those perceptual variables (from the mail questionnaire) found to be significant to specific strategies at or near the time of adoption in Phase I were found with two exceptions. No surrogate variables were obtained for the long-term objective concerned with product quality and service or for the stakeholder influence index. In many cases, numerous surrogate variables were obtained for individual perceptual variables.

The discriminant functions obtained from the use of these surrogate variables in place of the perceptual variables used in Phase I were generally less successful in predicting the chosen strategy. This was true for all of the domain direction strategies analyzed. For the two competitive strategies analyzed, the surrogate variables used for firms with recently adopted product/service differentiation strategies were quite successful in predicting the strategy chosen, even more so than the perceptual variables from the mail questionnaire. However, the surrogate variables used for firms with recently adopted market-focus strategies failed to meet the constraints for

inclusion into the discriminant function for this strategy.
Thus, no further analysis could be made.

CHAPTER 9

Discussion of Results: Domain Direction Strategies

In this chapter the results of Phases I, II, and III of the study are discussed in terms of the domain direction strategies considered in this investigation. The chapter begins with a general discussion of firms with domain direction strategies. This includes a look at those variables found to be significant between firms with recently adopted domain direction strategies from those with long-lived domain direction strategies. Then, the discussion turns to those variables which were found to be significant between high and low performers in firms with long-lived domain direction strategies.

The next portion of the chapter is concerned with specific domain direction strategies. A discussion of the results found from Phases I, II, and III of the search for determinants of strategy and performance is provided for each domain direction strategy considered in this investigation. A final model is presented, when possible, displaying those variables which were found to be significant discriminators in the three phases analyzed.

General Discussion: Domain Direction Strategies

Of the 156 firms participating in this study, 51 indicated that they had adopted a new domain direction strategy within the past two years. This left 105 firms which had continued with the same domain direction strategy for the past two years. What significant characteristics set

these two groups of firms apart? What variables affected performance within those firms with long-lived domain direction strategies? The following two sections address these questions.

Characteristics of Organizations with Recently Adopted and Long-lived Domain Direction Strategies

Several variables were found to be significant between firms with recently adopted domain direction strategies and others with prolonged domain direction strategies. First, the firms with recently adopted domain direction strategies were more likely to indicate that domain enlargement was of low importance to the overall domain direction of the firm. This may be due to the large number of firms which had recently adopted domain enhancement strategies. Approximately 59% of those firms with recently adopted domain direction strategies indicated that enhancement was their primary strategy. Of the 105 firms with long-lived domain direction strategies only 46 firms or 44% indicated that domain enhancement was their primary strategy.

The CEOs of firms with recently adopted domain direction strategies were more likely to agree strongly that financial leverage was an important ingredient to the success of the organization. If the high use of financial leverage is a measure of the liberalism of the CEO's overall philosophy, this result would suggest that to change domain direction strategies, in and of itself, is more likely under a CEO with a liberal philosophy. Alternatively, this finding

may also be linked to the large number of firms which had recently adopted domain enhancement strategies. Under the assumption that concentrating on an organization's current domain is a lower risk strategy than enlarging the firm's domain of operations, one might expect a greater emphasis on financial leverage in firms with this strategy, given its ability to increase profitability.

Three objectives were found to separate firms with short-lived domain direction strategies from firms with long-lived strategies. Those with recently adopted domain direction strategies were more likely to indicate that diversification was a major objective and were less likely to indicate that resource conservation or product quality and service were important objectives for their organizations. Why would this be true? One possible explanation may be that these objectives are related not only to certain strategies but also to the developmental stage of those strategies. Firms with newly adopted domain enlargement strategies may be more likely to view diversification as a major objective, while those with prolonged enlargement strategies may no longer see diversification as a motive but rather a means for the accomplishment of other objectives such as growth, multinational enterprise, or financial stability. At the same time, resource conservation and product quality and service may not be viewed as important in firms with recently adopted domain enlargement strategies but may

increase with importance with this strategy's life.

The economic volatility of firms with recently adopted domain direction strategies was found to be medium more frequently than in firms with long-lived domain direction strategies. Two possible reasons for this come to mind. First, organizations may not want to change their domain direction strategies when the economic environment is perceived as being highly volatile or relatively stable. In volatile environments it may be too risky to change strategies while in stable environments there may be no need for change. Perhaps these two conditions are more likely to lead to continued use of the current domain strategy, whatever that may be. On the other hand, the relationship between economic volatility and domain strategy life-span may be due to the large number of firms with recently adopted domain enhancement strategies. Perhaps medium levels of economic volatility are more likely to bring about the adoption of this strategy.

Characteristics of High and Low Performance Firms with Prolonged Domain Direction Strategies

Within the group of firms with prolonged domain direction strategies there were numerous significant findings comparing high and low performers. Strategically, both the importance of product/service differentiation and the importance of domain enhancement were found to be significant. Both of these strategies were generally more important to high performers within these 105 firms.

The CEOs of high performing firms were also found to view themselves as less willing to take on risks and as less innovative. Thus, the CEOs of the high performing firms were generally more conservative than their counterparts in the lower performing organizations.

It was also found that high performers were more likely to have objectives concerned with research and development and growth. This was surprising given that the CEOs of these firms were generally more conservative than their counterparts in lower performing firms. However, perhaps high performance outweighs conservatism in influencing growth of the firm. Even highly conservative managers might consider growth to be important if the situation was right. Research and development could be important not only in enhancing an organization's current domain of operation's but also opening the doors to new domains.

In terms of the environment, two variables set high and low performers apart. High performers were more likely to report medium levels of economic environmental volatility and also were more likely to indicate high levels of influence from major suppliers. Medium levels of economic volatility may allow these firms to take advantage of opportunities caused by a changing economic environment without causing major disruptions in these organizations' current operations. It should be remembered that medium levels of economic volatility were also consistent with firms which had recently adopted new domain direction strategies. Perhaps high performance combined with medium

economic volatility can more likely lead to a change in an organization's domain direction strategy. The importance of major suppliers in influencing decisions may be a reflection of the increasing scarcity of raw materials in the world. Perhaps high performing firms are more likely to adjust their actions based on communications with this very important stakeholder group.

The financial resources of high performing firms was also perceived to be generally higher than their lower performing counterparts. Given that performance was determined by average ROI, this finding should not be surprising. What would be surprising would be a lack of a relationship between ROI and financial resources.

Finally, the high performers were more likely to indicate greater use of direct supervision and were less likely to be using management-by-objectives or to require lower level managers to formulate tactical plans based on a company-wide plan of action. Thus, direct supervision and a lack of planning aids seems to lead to greater performance in these firms. Perhaps the emphasis on direct supervision reduces the need for these planning aids.

In the following pages the results of the analysis of variables found to be significant to specific domain direction strategies are discussed. In the search for determinants of strategy only three of the four domain direction strategies were analyzed due to the low number of firms indicating that they had recently adopted a domain

reduction strategy. Also, all of the four firms which reported having a domain reduction strategy for more than two years were found to be low performers. Thus, for this domain direction strategy only general comments can be made concerning how these firms (firms with long-lived domain reduction strategies) differed from others with long-lived domain direction strategies. For the other three domain direction strategies, a discussion of determinants of strategy from Phase I is followed by a discussion of surrogates of these determinants from Phase III. Then, the discussion turns to determinants of performance within each of these domain direction strategies.

Domain Enlargement

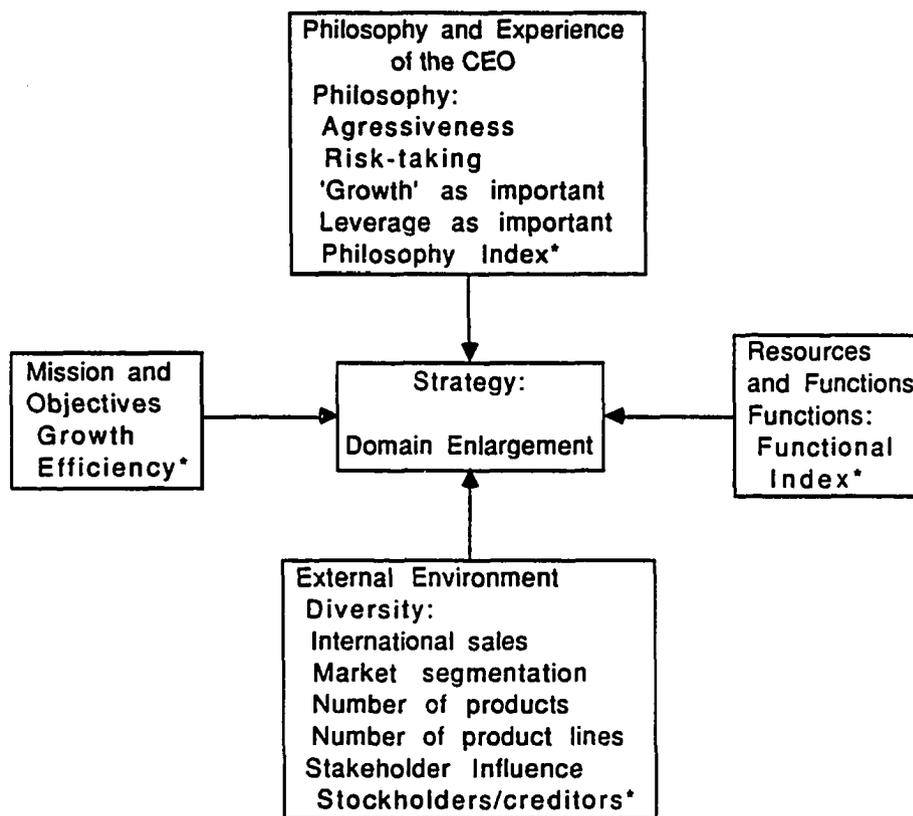
Forty-seven firms indicated that their primary domain direction strategy was domain enlargement. Domain enlargement was defined as a strategy which emphasized new activities to be performed, new products to be produced and/or new markets in which the organization would compete. Of the forty-seven firms, 14 indicated that they had adopted this strategy within the past two years. Also, of the 33 firms which had proceeded with a domain enlargement strategy for more than two years, twelve were high performers (with average ROI greater than 6.0%) while 21 fell into the low performance category.

Strategy Formulation Using Perceptual Variables: Phase I

The following figure presents those variables which were significant to firms with recently adopted domain

enlargement strategies in comparison to other firms with recently adopted domain direction strategies using the perceptual variables obtained from the mail questionnaire.

Figure 9-A
Determinants of Strategy - Domain Enlargement



* - Those variables which met the constraints for inclusion in the discriminant function

Table 9-B provides those propositions developed in Chapter 4 which pertain to the formulation of the domain enlargement strategy.

Of the six variables concerned with determining the general philosophy of the CEO only one, the CEO's willingness to try something new or their 'innovativeness',

was not found to be significantly related to those firms which had recently changed their strategy to domain enlargement. More specifically, the CEOs of organizations with domain enlargement strategies perceived themselves as being more aggressive, more willing to take on risks, and more likely to view growth of the firm and leverage of the firm as vital elements to overall success. Furthermore, the cumulative score of the five variables used to determine the philosophy factor was also found to be significantly related to domain enlargement showing that these CEOs, in total, were more liberal than their counterparts in other firms. These findings are in accordance with proposition P(1.a).

TABLE 9-B
Propositions Pertaining to the Formulation of the
Domain Enlargement Strategy

-
- P(1.a) Managers, in general, will perceive themselves as being significantly more liberal.
- P(2.b) Managers will report significantly more often that higher level organizational needs are most important.
- P(2.g-i) Managers will report most often that growth, diversification, and multinational enterprise are most important.
- P(3.h) Organizations will be found to have 'extreme' levels of environmental volatility.
- P(4.b) Organizations will report having significantly greater overall resources.
- P(4.h) Organizations will report having the greatest cumulative strengths in all functional areas.
-

No significant relationships were found between domain enlargement and the five organizational needs of survival,

safety, affiliative, esteem and self-actualization.

Evidently, lower, as well as higher level needs can lead to the decision by the organization to enlarge its domain.

Domain enlargement may play an important role in satisfying the survival or safety needs of these firms as well as their higher level needs.

'Growth' as an objective was found to be significantly related to the domain enlargement strategy as proposition P(2.g) suggested. However, diversification and multinational enterprise were not found to be significantly related to this strategy. Diversification was, however, found to be more frequently used as an objective in firms with recently adopted domain direction strategies than in firms with long-lived domain direction strategies, suggesting that organizations with other short-lived domain direction strategies are also claiming this as an important objective. Efficiency was also significantly related to the domain enlargement strategy. Efficiency was selected by 11 of the fifty-one firms which had recently changed their strategic direction but was not selected by any firms which had chosen domain enlargement as their strategy. Thus, more efficient operations is generally not a motive for domain enlargement.

The variables used to determine environmental volatility were not found to be significantly related to the domain enlargement strategy in terms of both general perceived levels of volatility (in comparison to other firms) or in terms of 'outliers' (where the high, medium and

low categories were collapsed into two categories; medium and outliers). The economic environmental variable (categorized as high, medium and low) did suggest that a relationship may exist, with CEO's of organizations with domain enlargement strategies reporting lower levels of economic volatility. However, this relationship did not meet the standard set for significance (0.10) for this study. It should be remembered that economic volatility was found to be significant between firms with long-lived and short-lived domain direction strategies. Those with short-lived strategies were more likely to indicate medium levels of economic volatility, the opposite of what was proposed for the domain enlargement choice.

All four variables used to investigate the diversity of the organization's environment were found to be significantly related to the domain enlargement strategy. Firms which had recently chosen this strategy were found to be more heavily involved in international sales, have less segmented markets and, in general, more products and product lines. Although this was not originally proposed it is also not difficult to understand. Firms with recently chosen domain enlargement strategies have characteristics of firms which have had past domain enlargement strategies. Perhaps these firms are starting another cycle of domain enlargement to domain enhancement, first broadening their domain of operations and then, once expanded, stopping to 'enhance' their new domain. That these firms also have less segmented markets is also understandable. Less segmented markets

provide fewer strategic moves within those markets, forcing the organization to make moves outside its current domain.

In investigating the perceived influence of various stakeholder groups it was found that the perceived influence of stockholders and creditors was significantly related to the domain enlargement strategy. The CEOs of firms with domain enlargement strategies were more likely to report lower than average levels of perceived influence by these groups. This is a very interesting finding, suggesting that domain enlargement may be negatively related to the influence of suppliers of capital.

No aspect of vertical integration (or environmental complexity) was found to be significantly related to the domain enlargement strategy.

None of the variables used for assessing the resources of the organization were found to be significantly related to the domain enlargement strategy. Nor was the cumulative score of these variables found to be significant. Although individual functional strengths were not found to be related to domain enlargement, the cumulative score for all functional strengths was found to have a significant relationship. Firms with domain enlargement strategies were more likely to report higher than average strengths, in total, than their counterparts in other organizations. This is in agreement with proposition P(4.h) and provides some justification for the belief that organizations take on strategies of domain enlargement from a position of strength

rather than weakness.

Thus, these results provide support for three of the eight propositions made earlier for firms which had recently changed strategic direction to domain enlargement. Almost overwhelming support was provided to the proposition that the philosophy of the CEOs of these firms would prove to be more liberal. Not surprisingly, growth was often a major objective for these companies. Finally, these companies were found to have greater perceived cumulative strengths in their major functional areas, even though the strengths of any individual functional area failed to show significance.

The discriminant analysis using these significant perceptual variables (from the mail questionnaire) provided four variables which were found to be the best discriminators between firms with domain enlargement strategies and firms with other short-lived domain direction strategies. These four variables represent each of the four major areas generally considered important to strategy formulation. The philosophy index was the best discriminating variable followed by the influence of stockholders and creditors, the functional strength index and efficiency as a major objective. The results of the discriminant analysis were strong, indicating that these four variables explained approximately 50% of the total variance between the strategy classifications considered (domain enlargement vs. other firms with recently adopted domain direction strategies). Additionally, the discriminant function formed by these variables was able to place 84% of

the firms with recently adopted domain direction strategies within their appropriate strategy classification.

Strategy Formulation Using Secondary 'Surrogate' Variables

A number of surrogate variables were found for those perceptual variables found to be significant in the chi-square analysis between firms with recently adopted domain enlargement strategies and other firms with recently adopted domain direction strategies. These secondary surrogate variables are displayed in the following table.

TABLE 9-C
Significant Perceptual Variables and Their Secondary Surrogates from Industrial Compustat

Perceptual Variables	Secondary Surrogates
Aggressiveness	Asset Growth
Willingness to take risks	Backorders/sales Inventory/sales
Views 'growth' as important	R&D Expenditures/sales
Views leverage as important	R&D Expenditures/sales Current ratio
Philosophy Index	R&D Expenditures
Growth as Objective	R&D Expenditures R&D Expenditures/sales Selling and Admin. Expense
Efficiency as Objective	Current ratio Acquisitions/sales Discontinued Oper./sales

TABLE 9-C (continued)

Perceptual Variables	Secondary Surrogates
International Sales	Total assets R&D expenditures Advertising expense Profit margin R&D expenditures/sales Return on assets Total inventory/sales Acquisitions/sales Discontinued oper./sales Interest expense/sales Times interest earned Inventory volatility
Market segmentation # of Products	R&D Expenditures Cash dividends/sales Current ratio Advertising expense R&D expenditures R&D expenditures/sales Profit margin Total inventory/sales Return on assets Pension Fund/employees Acquisitions/sales Inventory volatility Profit volatility
# of Product Lines	Asset growth Sales volatility Selling and admin. expense
Influence of stockholders and creditors	Total sales Total assets # of employees Sales volatility Times interest earned Interest expense/sales Cash dividends/sales
Functional Strength Index	R&D expenditures

A discriminant analysis was performed using these surrogates in place of their perceptual variables. Out of

all the surrogate variables included, only 'profit volatility' met the constraint for inclusion in the discriminant function ($p < 0.15$). The discriminant function formed by this variable had an explanatory power of approximately 7%. This was much lower than the 50% explanatory power of the discriminant function formed by the perceptual variables for this strategy. Obviously, the objective criteria from Industrial Compustat were much less powerful in predicting the adoption of a domain enlargement strategy than were the perceptions of the CEOs in this study.

Strategy Implementation and Control: Domain Enlargement - Phase II

In this section the results of the investigation for the search for determinants of performance in firms with long-lived domain enlargement strategies are discussed. Before discussing those implementation and control variables found to be significant across performance levels within firms with long-lived domain enlargement strategies, it may be enlightening to observe what characteristics of these firms were significant in comparison to other firms with long-lived domain direction strategies.

Five strategy variables were significant between firms with long-lived domain enlargement strategies and other firms with long-lived domain direction strategies. First, as an indication of the reliability of the responses, these firms were found to view domain enlargement as more

important to their overall strategy while domain enhancement and domain reduction were seen as less important. Prolonged use of a domain enlargement strategy was also found to correspond to greater use of the market-focus and differentiation competitive strategies. Perhaps these competitive strategies are more easily transferred to new domains than other competitive strategies such as low-cost production or combination competitive strategies.

Under philosophy and past experience of the CEO, those with prolonged domain enlargement strategies viewed themselves as being more aggressive and were less likely to have accounting backgrounds. Aggressiveness would be expected of CEOs with domain enlargement strategies. What is surprising is that more characteristics of philosophy were not found to be significant as was true in firms with recently adopted domain enlargement strategies. Perhaps extensive use of a domain enlargement strategy has a dampening affect on liberal CEOs causing them to wish for more stable conditions. Since the accounting area is often concerned with the control function in organizations, an accounting background may reflect a more conservative philosophy of management which would not be expected in these organizations.

The organizational need of self-actualization was less likely to be chosen by firms with prolonged domain enlargement strategies as well as the objective 'management development'. Self-actualization was considered the highest level need for organizations to satisfy. Since growth of the

firm has often been considered a sign of a healthy firm, and in fact, has been used as a measure of organizational performance, it is surprising that these 'growth' firms were not better represented regarding this organizational need. Two possible explanations come to mind. First, many organizations may not be growing or enlarging their domains because they are healthy. They may see domain enlargement as a strategy to be pursued because of weaknesses at home or because of threats surrounding their current domain of operations. Under these conditions, one would not expect self-actualization to be an important need but rather, some lower level need. However, results from Phase I indicate that firms adopting a domain enlargement strategy do so, generally, from a position of strength. It is difficult to comprehend why firms with long-lived domain enlargement strategies would continue using this strategy from a position of weakness. Alternatively, perhaps many of these firms have, to some extent, satisfied their need for self-actualization within their current domains and are branching out into new domains to conquer. This would imply that the hierarchy of needs of organizations resembles more a series of stairs as might be found in a tall building where each stairway leads to an additional floor of the building or, in the organization's case, to an enlarged domain. Each stairway (between floors) would reflect the hierarchy of needs within a particular domain or product/market area. In this case, organizations with long-lived domain enlargement

strategies would find themselves beyond the first stairway and on a platform or partway up another series of stairs or hierarchical needs attributed to the new domain. The organization may very well have reached the highest need, self-actualization, within its past domain of operations, but the additional domain of operations may have caused a backtracking to some lower level organizational need.

That management development was not a major objective was also surprising, especially for companies which have proceeded with a domain enlargement strategy for a number of years. This strategy would seem to be a drain on managerial resources. It is possible that long-term domain enlargement strategies come about due to an over-supply of managerial talent, however this was not reflected in the results of Phase I for this domain direction strategy. Another possibility would be that these companies have determined some way of enlarging their domains without draining the management pool of resources for the organization. This may be a reason for the popularity of the differentiation and market-focus competitive strategies. Perhaps these strategies require less managerial talent in their implementation into new domains of operations.

These firms were also more likely to have objectives related to research and development. Research and development can open the doors to new domains through the introduction of new products and through increased knowledge of the various technological processes required to compete in new domains and finally through expertise gained by

marketing research. Furthermore, it may be found that research and development is a key to the success of the differentiation and market-focus strategies which were found to be important competitive strategies within this strategic group.

These firms were found to be further integrated forward, reporting high levels of control of the distribution of their product to buyers. Forward integration brings the organization closer to the ultimate consumer of the products and services of that organization. This shortened communication line may be important in the production of new products or services for the organization's current market, which is one dimension of a domain enlargement strategy. Alternatively, forward integration may be a key to the success of the differentiation and/or market-focused competitive strategies which were found to be important to this group.

Also, firms with prolonged domain enlargement strategies were less likely to indicate that stockholders and creditors were a major influence on decision-making. This was also true of firms with recently adopted domain enlargement strategies. It is generally accepted that these stakeholder groups make their investment decision based on two criteria; the profitability of the investment and the risk associated with that profitability. However, the risk associated with a new domain is much more difficult to determine than the risk associated with an organization's

current operations. Thus, it may be found that in organizations where the influence of stockholders and creditors is high, domain enhancement is the more popular strategic choice.

From a resource perspective, these firms were more likely to claim either high or low levels of manpower resources while financial resources and total resources were generally viewed as lower than their counterparts with other domain direction strategies. Managerial resources were not found to be significant between these two groups of firms. This lack of a relationship lends some support to the conclusion that these firms have found a way to enlarge their domains without a major drain on their managerial pool. However, it does seem possible that the domain enlargement strategy could lead to the depletion of a firm's overall resources. That manpower resources were either low or high could be due to the age of their domain enlargement strategy or to the skill requirements of the new domain. Another factor that could have an effect on this relationship could be the method of domain enlargement, internal or external growth. Firms that enlarge their domains through acquisitions may find themselves with an abundance of manpower, especially when the merged firms are closely related to each other.

In terms of the strengths of functional areas in firms with prolonged domain enlargement strategies, personnel, finance and production/operations were seen as low performing areas. However, in terms of all functions

together (the functional strength index) these firms were most likely to fall into the medium range. This is in contrast to the findings in Phase I, where firms with recently adopted domain enlargement strategies were generally found to have high overall strengths in their functional areas. These organizations could be described as companies in a constant state of change. This change would tend to put additional stress on functions such as personnel, finance and perhaps production/operations. The personnel function would have to continually adjust its policies into new areas, the finance function, operating with scarce financial resources, must continually meet the needs of this growing organization, while production/operations might possibly be producing new products, or old products in new plants or redesigning old products for new markets. A medium level of performance by all functional areas may be as much as one could hope for given this constant state of change. The question is, why do these firms continue with a domain enlargement strategy from a relatively weaker position. Perhaps Rumelt (1974) and Snow (1976) were correct in suggesting that firms continue with past strategies often beyond their useful lives due to emotional attachments of managers in the organization.

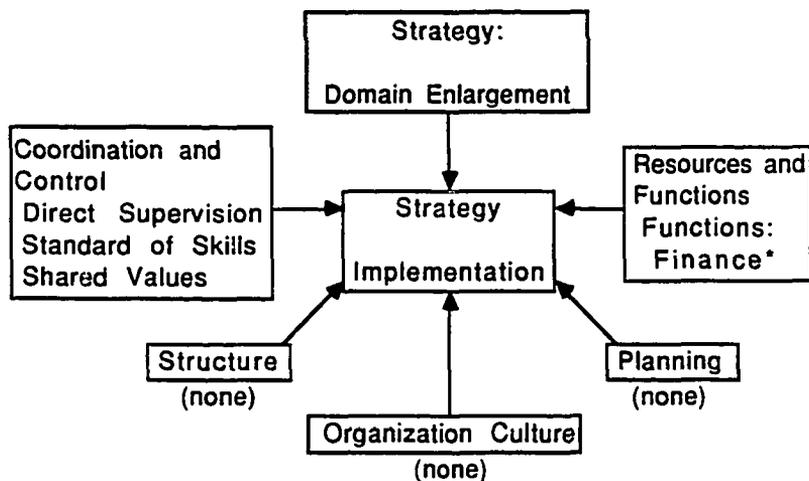
Finally, the CEOs of firms with prolonged domain enlargement strategies were more likely to make use of strategic planning in their organizations but at the same time indicated lower levels of reliance on others in making

major decisions. Thus, strategic planning was common in these organizations but indications are that the formulation of the plan was largely in the hands of the CEO.

Now that the characteristics of firms with prolonged domain enlargement strategies are known, it is time to discuss those variables which were found to be significant between low and high performers in firms with long-lived domain enlargement strategies. There were thirty-three firms which indicated that their primary domain direction strategy was domain enlargement. Of these, twelve firms were found to have a two-year average return on investment which was greater than the mean for all firms in the study. Twenty-one firms were classified as low performers.

The following figure presents the results of the analysis of high and low performers with prolonged domain enlargement strategies.

Figure 9-D
Determinants of Performance - Domain Enlargement



* - Those variables which met the constraints for inclusion in the discriminant function

Only two of the five major areas included in the implementation and control phase of the search for determinants of performance were represented. Those variables used to assess the structure, planning and organizational culture of these organizations failed to show significance. However, the use of three coordination mechanisms and the strength of the finance function were found to be significant in this investigation.

The following table identifies eleven propositions concerned with the performance of firms with prolonged domain enlargement strategies.

TABLE 9-E
Propositions Concerning High Performers with Domain
Enlargement Strategies

High performers will report:

- P(1.a) greater decentralization
 - P(1.b) greater use of shared values and beliefs
 - P(1.c) greater use of standardization of outputs
 - P(1.d) greater use of MIS
 - P(1.e) less need for overall coordination
 - P(1.f) greater use of divisionalized structures
 - P(1.g) greater managerial resources
 - P(1.h) greater manpower resources
 - P(1.i) higher overall resources
 - P(1.j) greater use of planning
 - P(1.k) a more organic culture
-

Delegation of strategic authority, a characteristic of decentralization in organizations, was not found to be significant between high and low performing firms with prolonged domain enlargement strategies. It was noted earlier that the CEOs of firms with this strategy felt, in

general, that they relied less on the opinions of others in making their decisions. This would indicate a greater level of centralization of decision-making in these firms than in firms with other prolonged domain direction strategies.

It was proposed that high performing firms would make greater use of shared values and beliefs and standardization of output due to the greater uncertainty in taking actions to enlarge the organization's domain, and because it was believed that these organizations would more likely have divisionalized structures. However, structural configurations were not found to be significant between high and low performing firms with prolonged domain enlargement strategies or between those with prolonged domain enlargement strategies and other firms with prolonged domain direction strategies. Thus, it should come as no surprise that the use of standardization of output was not significant for these firms, in general, or for high performing firms, in particular.

A significant relationship was found concerning the use of shared values and beliefs as a coordinating mechanism. Their use of shared values, however, was either high or low with no firms providing responses in the medium range. If the use of shared values is a measure of the strength of an organization's culture, as implied by Peters and Waterman (1982), this finding would suggest that both weak and strong cultures may lead to better performance within a domain enlargement strategy.

Also, the use of direct supervision and standardization

of skills were found to be significant with high performers generally falling into the medium range for these variables. Because it was believed that these firms would be found to be more complex and have greater diversity than others, as well as more volatile environments, it was proposed that high performing firms would be more likely to have computerized management information systems, in place. Although companies with prolonged domain enlargement strategies were more likely to have greater control of the distribution of their products to buyers, they did not have significantly different levels of diversity or environmental volatility than firms with other prolonged domain direction strategies. Thus, the use of a computerized, corporate-wide MIS program was not found to be significant either for these firms, in general, or for high performing firms, in particular.

There was also no significant relationship between the need for coordination between major work units for firms with prolonged domain direction strategies or for high performers with this strategy.

It was believed that a prolonged domain enlargement strategy would require high levels of resources, including manpower, managerial and total resources. This too, failed to be supported from the investigation. Manpower resources were found to generally be either high or low while financial resources and total resources were generally lower than in firms with other prolonged domain direction

strategies. No significant relationships were found for these variables between high and low performing firms in this group.

No propositions were made concerning the strength of functional areas and the domain enlargement strategy. However, it was found that high performing firms generally viewed the strength of their finance function as being stronger than in the lower performing firms. This is consistent with Hitt and Ireland (1985) who found a positive relationship between firms with an internal growth strategy, a finance emphasis and performance. It is not difficult to understand how a strong finance function might separate high and low performing firms given the role of this function in acquiring assets and aiding in the flexibility of the firm. As has already been noted, firms with domain enlargement strategies were more likely to perceive the strength of their finance function as generally lower than in other organizations with prolonged domain enlargement strategies.

The use of planning was not found to be significant in comparing high and low performers with prolonged domain enlargement strategies. However, these firms, in total, were more likely to be making use of strategic planning than their counterparts with other prolonged domain direction strategies.

Organizational culture was also not found to be significant in comparing high and low performing firms. The CEO's reliance on others in making major decisions, which was one aspect of culture considered, was found to be

significant in comparing these firms with others having prolonged domain direction strategies. Yet this relationship indicates that the CEOs of domain enlargement firms were less likely to rely heavily on the opinions of others, suggesting a more mechanistic culture.

Only one variable, the strength of the finance function, met the constraints for inclusion in the discriminant function. This variable led to a discriminant function with an explanatory power of approximately 19%. The discriminant function was found to have a significance level of 0.0555.

Summary - The Domain Enlargement Strategy

The following figure displays the results of this investigation in the form of a model representing the determinants of the formulation of the domain enlargement strategy and, then, the determinants of performance of the organization after this strategy has been adopted and implemented.

Three propositions were supported concerning the formulation of the domain enlargement strategy. The CEOs of these firms were generally more liberal, 'growth' was a major objective and the cumulative strengths of the major functions was perceived to be greater than in other firms with recently adopted domain direction strategies. The results of the investigation also indicated that firms with recently adopted domain enlargement strategies:

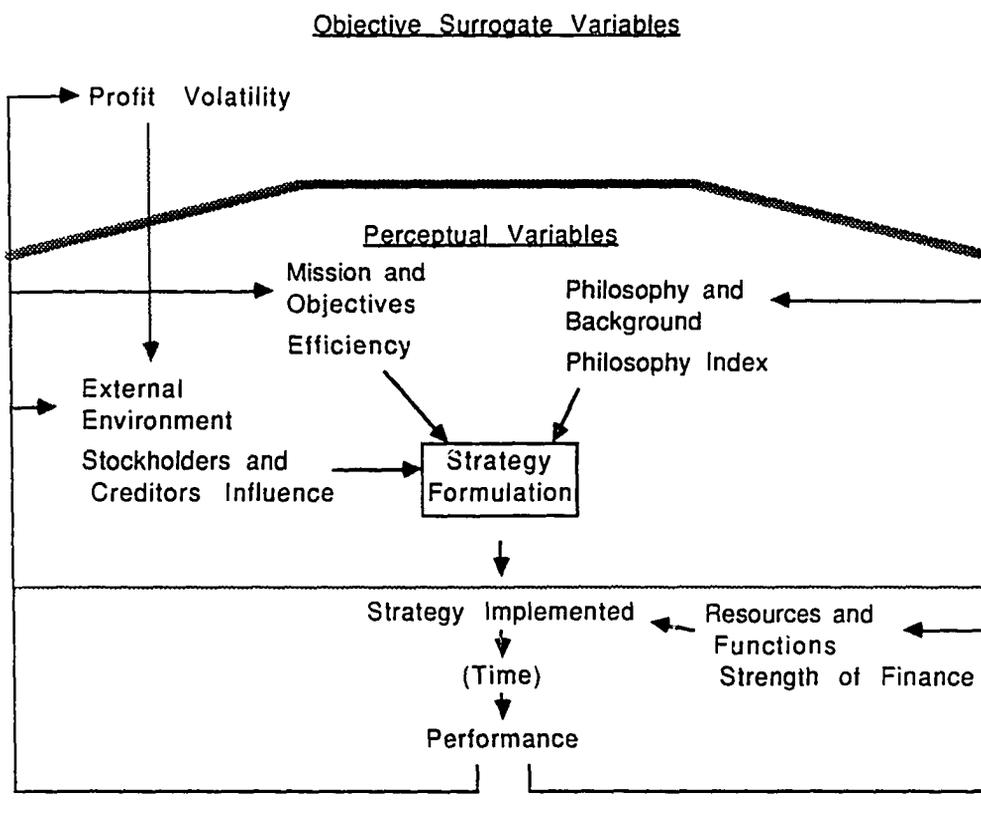
- 1) were not likely to view 'efficiency' as a major

objective,

- 2) were more diverse in terms of products, product lines and international sales,
- 3) had less segmented targets, and
- 4) perceived the influence of stockholders and creditors as low.

Figure 9-F

A Model of the Determinants of the Formulation and Implementation of the Domain Enlargement Strategy (Includes only those variables which met the constraint for inclusion in the discriminant function ($p < 0.15$))



Four variables; the philosophy index, the influence of stockholders and creditors, the functional strength index and efficiency as an objective, were included in the discriminant function. This function was able to explain 50%

of the variance between the strategic groups (firms with recently adopted domain enlargement strategies vs. others with recently adopted domain direction strategies).

The search for secondary surrogates was successful for all of the perceptual variables found to be significant to the adoption of the domain enlargement strategy. However, only one, profit volatility, met the constraint for inclusion in the discriminant function. This function was able to explain approximately 7% of the variance between strategic groups, which was far less than the function formed by the perceptual variables.

None of the propositions concerned with performance within a domain enlargement strategy were supported. What was found was that high performing firms with long-lived domain enlargement strategies:

- 1) used either high or low levels of shared values and beliefs,
- 2) used medium levels of direct supervision and std. of skills, and
- 3) perceived a higher level of strength in finance.

Only the perceived strength of the finance function met the constraints for inclusion in the discriminant function. This function had an explanatory power of approximately 19% in discriminating between performance levels.

Domain Enhancement Strategy

The domain enhancement strategy included those firms which emphasized the improvement of their competitive position within current operations. These companies include

those striving to increase market share, lower costs and/or improve their profitability without entering or leaving markets, products or activities. In total, 76 firms reported that their primary domain direction strategy was domain enhancement. Thirty of these firms indicated that they had adopted this strategy within the past two years. Of the 46 firms which had continued with this strategy for more than two years, 22 were found to be high performers while 24 fell into the low performance category.

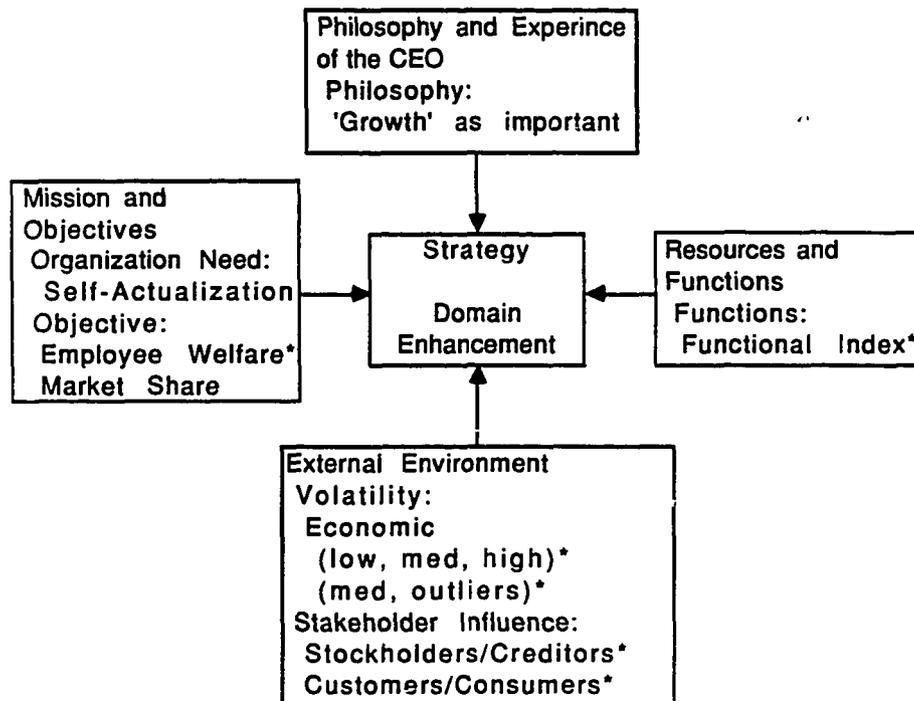
Strategy Formulation Using Perceptual Variables

A number of significant relationships were found between those firms which had recently adopted a domain enhancement strategy and other firms with recently adopted domain direction strategies using the perceptual variables from the mail questionnaire.

In terms of other strategies, firms with domain enhancement strategies were found to have a significant relationship with the competitive strategy of focusing on target markets. Fewer of these firms chose this competitive strategy as their primary competitive strategy or viewed it as being an important component of their overall competitive strategy. Not surprisingly, a significant relationship was also found to exist between firms with domain enhancement strategies and the importance of domain enlargement to their overall strategy. These firms overwhelmingly reported a lower emphasis on domain enlargement as a major component of their overall strategy.

The following figure identifies those strategy formulation variables which were significant between firms with short-lived domain enhancement strategies and firms with other short-lived domain direction strategies.

Figure 9-G
Determinants of Strategy Formulation - Domain Enhancement



* - Those variables which met the constraints for inclusion in the discriminant function

Table 9-H provides those propositions developed in Chapter 4 which pertain to the formulation of the domain enhancement strategic alternative.

TABLE 9-H
Propositions Pertaining to the Formulation of the
Domain Enhancement Strategy

- P(2.e-f) Organizations will report more often that market share and efficiency are most important.
- P(3.d) Organizations will be found to be less diversified (by product and market).
- P(3.i) Organizations will be found to have predominately medium levels of overall environmental volatility.
- P(4.i) Organizations will report having the greatest strength in marketing
-

No propositions were made concerning the philosophy of CEOs in firms with domain enhancement strategies. However, since domain enlargement and domain enhancement were the most frequently adopted strategies in those firms which had adopted a domain direction strategy in the past two years, and domain enlargement was found to be so strongly related to the philosophy of the CEO, it should not be surprising that a significant relationship did exist. The CEOs of firms with domain enhancement strategies were much less likely to perceive 'growth of the firm' as an important ingredient toward company success. It is surprising that more variables concerned with the philosophy of the CEO were not found to be significant for CEOs with short-lived domain enhancement strategies.

Neither 'market share' or 'efficiency' were found to be used significantly more often as objectives for firms with domain enhancement strategies. Because firms with domain enlargement strategies were found to make less use of

efficiency than firms with other directional strategies, this objective must be popular with other domain direction strategies. A significant relationship was found between the objectives of 'product quality and service' and 'employee welfare'. Firms with domain enhancement strategies were found to use product quality and service as an objective much more often than firms with other domain direction strategies. These same firms were less likely to view employee welfare as a primary objective, indicating that employee welfare may be of greater concern with other domain strategy alternatives.

Although a weak relationship may have existed between product diversity and domain enhancement, it was not significant. Firms with domain enhancement strategies did seem to have fewer total products than their counterparts, in agreement with proposition P(3.d). Relationships between the variables concerned with extent of international operations and market segmentation with the domain enhancement strategy were not found.

The economic environment volatility variable was found to be significantly related to the domain enhancement strategy using both the 'high', 'medium', and 'low' categories and the 'medium', 'outlier' categories. The firms with domain enhancement strategies were found to report more often higher than average perceptions of economic volatility. Also, when the categories were collapsed to 'medium' vs. 'outliers' (where 'outliers' included those firms reporting higher or lower perceptions of economic

volatility) a significant relationship also existed. Firms with domain enhancement strategies were much more likely to report other than medium levels of economic volatility. This, in fact, is opposite of what was proposed in proposition P(3.i).

Although no propositions were made concerning the influence of various stakeholder groups, two such relationships were found. Organizations with domain enhancement strategies were significantly related to the influence of stockholders and creditors (as one group) and to customers and consumers (as another group). From the chi-square test it is evident that the CEOs of firms with domain enhancement strategies are more likely to perceive higher than average levels of influence from the stockholder and creditor group, the opposite of what was found for firms with domain enlargement strategies. These CEOs were also more likely to perceive lower than average levels of influence from customers and consumers. Why the influence of customers and consumers would be perceived as being lower in these firms is unclear. Perhaps the greater influence of stockholders and creditors drowns out the importance of this major stakeholder group.

Marketing strength was not found to be significantly related to the domain enhancement strategy. However, the cumulative score of the strengths of all functional areas was found to have a significant relationship. Firms with domain enhancement strategies were more likely to be found in the low category for the functional strength index.

Again, this was opposite of the relationship found for firms with recently adopted domain enlargement strategies.

Thus, none of the propositions made concerned with firms which had recently changed to a domain enhancement strategy were supported. Although a weak relationship was noted between the diversity of products and this strategy, this was not found to be significant at the 0.100 level. Although a significant relationship existed between the economic environmental volatility component and firms with domain enhancement strategies, this relationship was actually opposite of what was proposed. These firms yielded higher than average perceptions of economic volatility plus a greater preponderance of responses outside the medium category.

There were several incidences where the domain enhancement strategy yielded the opposite relationship than what was found for firms with newly adopted domain enlargement strategies. These included the philosophy component concerned with growth of the firm, the influence of stockholders and creditors and the functional strength index.

Seven of the eight variables found to be significant from the chi-square analysis met the constraints for inclusion in the discriminant function. In common with the results of the analysis on the formulation of the domain enlargement strategy, all four major areas thought to affect the formulation of strategies were represented. The best discriminator was found to be the influence of stockholders

and creditors. This was followed by the philosophy variable concerned with 'growth' of the firm, the objective 'employee welfare', economic volatility (medium, outliers), the functional strength index, the influence of customers and consumers and economic volatility (low, medium and high categories).

The strength of the results of the discriminant analysis were strong with a significance level of .0001 and an ability to explain approximately 62% of the variance between strategy classifications (domain enhancement vs. other firms with recently adopted domain direction strategies). Also, the functions obtained were able to successfully categorize 92% of all the firms in this phase of the investigation.

Strategy Formulation Using Secondary 'Surrogate' Variables

Surrogate variables from Industrial Compustat were found for seven of the eight variables found to be significant to the adoption of a domain enhancement strategy. The one exception was for the major objective concerned with product quality and service. These surrogate variables are provided in Table 9-I.

The surrogate variables which met the constraints for inclusion in the discriminant function for this strategy included earnings per share, cash dividends/sales, R&D expenditures and sales volatility.

These variables led to a discriminant function with an

explanatory power of approximately 26%. As with the findings for the adoption of a domain enlargement strategy, this was much lower than when perceptual variables were used. Obviously, the perceptual variables were more powerful in predicting the adoption of this strategy than the objective criteria used from the secondary data source.

TABLE 9-I
Significant Perceptual Variables and Their Secondary
'Surrogates' from Industrial Compustat' (p < 0.100)

Perceptual Variables	Secondary Surrogates
Views 'growth' as important	Asset growth
'Product quality and service' as objective	(none)
'Employee welfare' as objective	Return on assets Ave. ROI (2 years)
Economic volatility (low, medium, high)	Return on assets Ave. ROI (2 years) Sales volatility Inventory volatility
Economic volatility (medium, outliers)	Total sales Sell. and admin. expense Earnings per share Profit volatility
Influence of stockholders and creditors	Total sales Total assets # of employees Times interest earned Interest expense/sales Cash dividends/sales Sales volatility
Influence of customers and consumers	Asset growth Sales growth # of employees
Functional strength index	R&D expenditures

Strategy Implementation and Control - Domain Enhancement

In this section the results of the investigation for the search for determinants of performance in firms with prolonged domain enhancement strategies are discussed. How these firms differed from other firms with prolonged domain direction strategies will be discussed in the following paragraphs.

Five strategic variables were found to be significant in comparing firms with prolonged domain enhancement strategies to others with prolonged domain direction strategies. In terms of domain direction, firms with prolonged domain enhancement strategies were generally more likely to view the importance of domain enlargement and domain reduction as less important than other firms. For the competitive strategy alternatives, these firms generally viewed the importance of a market-focus strategy as low. This supports the earlier finding which indicated that the market-focus competitive strategy was generally more important in firms with a domain enlargement strategy. Additionally, these firms were more likely to indicate that low-cost production was their primary strategy and were less likely to indicate having a combination competitive strategy.

The philosophies of the CEOs of firms with domain enhancement strategies were generally found to be more conservative than their counterparts with other domain direction strategies. More specifically, these CEOs reported

being less aggressive and less willing to take risks. Also, these CEOs were more likely to have accounting backgrounds and less likely to have general business experience. Two of these findings are opposite of those previously discussed in the analysis of the implementation and control of the domain enlargement strategy. There, the CEOs were found to be more aggressive and to not have accounting backgrounds. It is not hard to accept that these CEOs would have more conservative philosophies given that their strategic choice was to improve on the known rather than to search out the unknown.

Firms with prolonged domain enhancement strategies reported more often that survival or profitability was a primary concern. In addition, these firms were less likely to have objectives concerned with research and development or multinational enterprise. Organizations concerned with survival may have little choice but to enhance their competitive positions in current domains, as Hofer (1980) alluded to in his article on turnaround strategies. Research and development was found to be more common in firms with prolonged domain enlargement strategies. Why it would not be so important for companies with domain enhancement strategies remains unclear, unless it is already considered a strength of the firm in terms of the current domain of operations. Alternatively, these organizations may be more interested in improving short-term profitability rather than upgrading their long-term competitive edge through research and development. Multinational enterprise would seem to provide a better fit with the strategies of domain

enlargement or domain restructuring, thus it is not surprising that this was not a major objective for firms with prolonged domain enhancement strategies.

The environment was also found to set these firms apart from others with long-lived domain direction strategies. Those with prolonged domain enhancement strategies were more likely to report high levels of competitive and economic volatility. Perhaps there is little difference between the objective environments of these firms and others with long-lived domain direction strategies, but the conservative philosophies of the CEOs cause them to perceive greater volatility than their counterparts in other organizations. On the other hand, perhaps these organizations do have more volatile competitive and economic environments (in terms of their affect on the organization). It may be that organizations with volatile environments are better suited to CEOs which make decisions and, in general, proceed with caution as a conservative philosophy would seem to indicate. Finally, a volatile environment may inhibit these organizations from domain enlargement, with the conservative CEO hoping for more stable conditions before attempting to enlarge operations.

These companies were also generally less diverse in terms of products produced, product lines, or activity in international markets. This is surprising in that domain enhancement would seem to be a viable strategy no matter how diverse an organization has become. However, a lack of

diversity and high levels of environmental volatility coincides with the results of Keats and Hitt's study (1988).

In terms of complexity of operations, these firms reported less control over product research and development and the distribution of their products to buyers. Research and development was not found to be a primary objective of these firms but was better suited for the domain enlargement strategy. Therefore, it should come as no surprise that these organizations indicated a lack of control over this functional area. Forward integration was found to be important in firms with long-lived domain enlargement strategies. Control of the distribution of the products was one variable which contributed to the forward integration index. Why firms with prolonged domain enhancement strategies would have less control over this activity is certainly not obvious. One possible explanation may be that control over distribution of the product may open the door to additional domain enlargement possibilities such as distribution to new markets or the distribution of new products which would make domain enlargement or even restructuring much more feasible.

The managerial resources of firms with prolonged domain enhancement strategies were considered generally higher than in firms with other prolonged domain direction strategies. By continuing to compete in the current domain of operations, there is no drain on the management pool. At the same time, a concentration on current activities may lead to greater standardization which displaces some of the

pressures on management in regards to supervision.

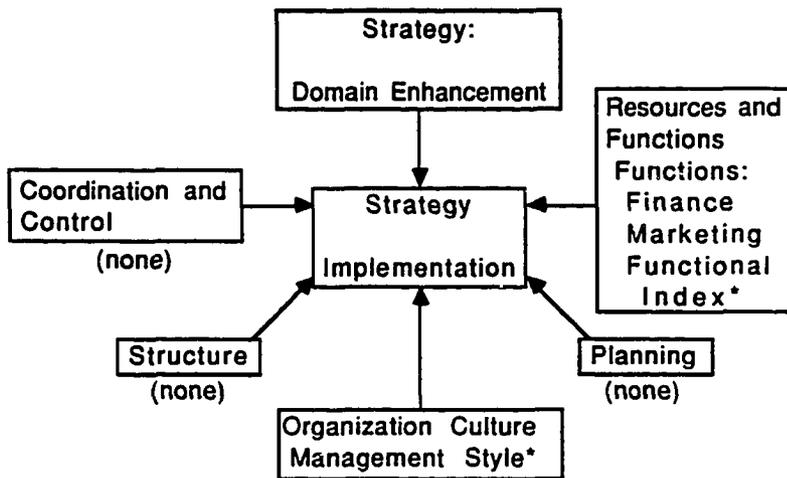
Lastly, these firms were more likely to use either high or low levels of total standardization while their counterparts fell into the medium range for this index. Those with high levels of standardization have just been discussed. Others may continue to use direct supervision but be blessed with high managerial resources due to the expertise and experience gained from continuing to operate in one chosen domain.

Now that the characteristics of these firms have been identified it is time to take a look at significant relationships between high and low performers among those firms with long-lived domain enhancement strategies. Of the 46 firms which reported having domain enhancement as their primary strategy for more than the last two years, 22 were found to be high performers and 24 were classified as low performance firms. The following figure presents the results of the investigation for the search for implementation and control variables which were significant to performance levels for firms with prolonged domain enhancement strategies.

Only two major areas considered in this phase of the investigation were represented by variables found to be significant in comparing high and low performing firms with prolonged domain enhancement strategies. Three of these were concerned with the functional strengths of the organization and one dealt with a characteristic of the organization's

culture. In general, the CEOs of high performing firms viewed the strengths of their finance and marketing functions, as well as all functions together, as low. The management style used in the high performance firms was more likely to be task-oriented while low performers indicated a people-oriented style of management.

Figure 9-J
Determinants of Performance - Domain Enhancement



* - Those variables which met the constraints for inclusion in the discriminant function

The functional strength index and management style (in that order) were accepted into the discriminant function. The function formed was found to have a moderately strong significance level (0.0159) and was able to explain approximately 39% of the variance in performance classifications.

The following table lists those propositions developed in Chapter 4 which pertain to the extended use of a domain enhancement strategy.

TABLE 9-K
Propositions Concerning the Performance of Firms with
Prolonged Domain Enhancement Strategies

High performers will report:

- P(2.a) greater degrees of overall standardization
 - P(2.b) greater use of direct supervision
 - P(2.c) greater use of MIS
 - P(2.d) greater use of a functional structure
 - P(2.e) higher overall resources
 - P(2.f) greater use of planning
 - P(2.g) a more mechanistic culture
-

The use of the three standardization mechanisms; standardization of process, output and skills, was not found to be significant in the comparison of coordination types used by high and low performing firms. However there was a significant relationship found between those firms with prolonged domain enhancement strategies and other firms with long-lived domain direction strategies. Those with prolonged domain enhancement strategies were likely to fall into the high or low categories for this index. They used standardization techniques a great deal or they used them less than most other firms with prolonged domain direction strategies.

The use of direct supervision as a coordinating mechanism was also not found to be significant in the comparison of high and low performing firms with domain enhancement strategies, nor was it significant in comparing firms with this strategy with others having prolonged domain direction strategies. It was significant in the comparison

of high and low performing firms with prolonged domain direction strategies, in general, without specifying the strategy used. Thus, direct supervision as a coordination mechanism is important to performance but not necessarily for those firms with prolonged domain enhancement strategies.

The use of a computerized, corporate-wide MIS program was not found to be significant for these firms even though, as a whole, firms with prolonged domain enhancement strategies reported high levels of both economic and competitive environmental volatility. The general lack of diversity of these firms, in terms of products, product lines and international operations may account for the lack of significance for this variable.

Surprisingly, the use of a functional structure was not found to be significant for either high performing firms in comparison to low performers or for firms with prolonged enhancement strategies in comparison to others with prolonged domain direction strategies. This is surprising due to the general lack of diversity of these organizations. As Chandler (1962) suggested, diversity generally pushed organizations to the divisionalized structure due to the strain it put on the management hierarchy. Lack of diversity would seem to suggest the use of a functional structure but obviously, domain enhancement does not preclude other than functional structures. This may also explain the high or low use of standardization mechanisms for coordination between

major units of these organizations. Those with functional structures may be found to use standardization to a great extent while those using other structures may have to depend on direct supervision or mutual adjustment between divisions.

It was proposed that high performing firms would be found to have higher levels of internal resources than lower performing firms. However, there were no significant findings in relationship to the resources of these organizations. This would be more understandable if it were found that high performing firms took their resources to build distinctive competences in the form of strong functional areas. Although functional strengths were found to be significant between high and low performing firms, the high performing firms were more likely to respond that their functional strengths, in general, were low. More specifically, the finance and marketing functions were seen as weaker in these firms. Either the CEOs of high performing firms with prolonged domain enhancement strategies are extremely critical of the functional strengths of their organizations or functional strengths do not play a key role in the performance of these firms.

The use of planning was not found to be significant between high and low performing firms with long-lived domain enhancement strategies. It was not found to be significant in comparing these firms with others having prolonged domain direction strategies, either. It should be noted that high performers, in general, were less likely to be making use of

planning activities than low performing firms with prolonged domain direction strategies. Perhaps the cost of active planning in organizations is too great to offset the benefits of that planning in firms which continue with prolonged strategies.

Lastly, it was proposed that high performing firms would have more mechanistic cultures. It was found that one characteristic of culture was significant between high and low performers. High performers were more likely to indicate that the CEO practiced a task-oriented style of management while low performers reported people-oriented styles of management. This relationship is what one would expect for a mechanistic culture.

Summary - The Domain Enhancement Strategy

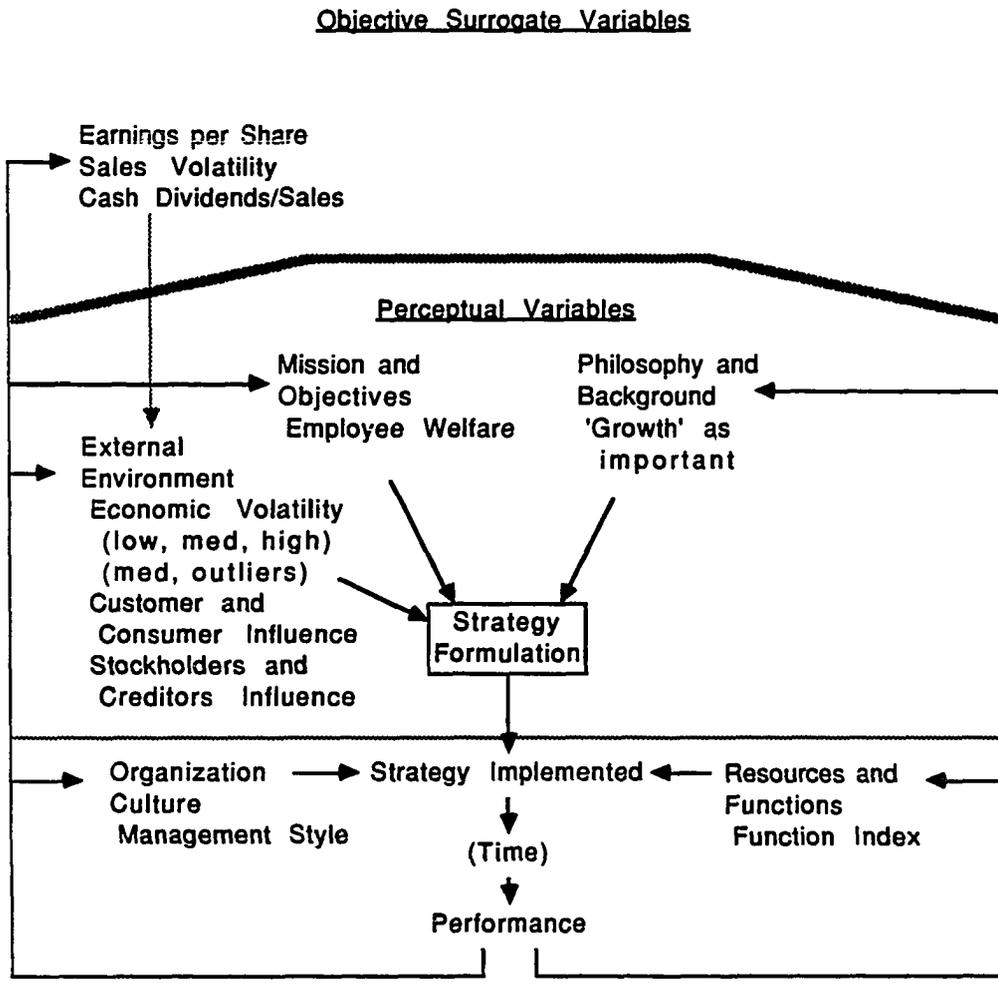
Figure 9-L presents the model of the determinants of the formulation of the domain enhancement strategy and the determinants of performance after this strategy has been implemented.

None of the propositions concerned with the determinants of the formulation of the domain enhancement strategy were supported. What was found was that firms with recently adopted domain enhancement strategies:

- 1) were less likely to view 'growth of the firm' as important,
- 2) were more likely to have objectives concerned with product quality and service,
- 3) were less likely to have objectives concerned with employee welfare,

Figure 9-F

A Model of the Determinants of the Formulation and Implementation of the Domain Enhancement Strategy (includes only those variables which met the constraints inclusion in the discriminant function ($p < 0.15$))



- 4) were more likely to indicate high levels of economic volatility,
- 5) were more likely to fall into the outlier categories for economic volatility,
- 6) were more likely to perceive high levels of influence from stockholders and creditors,
- 7) were more likely to perceive low levels of influence from customers and consumers, and

8) were more likely to score lower on the functional strength index.

Only one of the eight perceptual variables found to be significant to the formulation of the domain enhancement strategy failed to be included in the discriminant function. This variable was the objective 'product quality and service'. The function formed by these seven variables was able to explain approximately 62% of the variance between firms with recently adopted domain enhancement strategies and others with recently adopted domain direction strategies.

The search for surrogate variables from Industrial Compustat was partially successful. No significant relationships could be found for the perceptual variable concerned with the objective 'product quality and service'. The discriminant function formed from the surrogates of the other seven perceptual variables included four variables; earnings per share, cash dividends/sales, R&D expenditures and sales volatility. This function was able to explain approximately 26% of the variance between these two groups of firms, which, again, was far less than when perceptual variables were used.

Only one proposition concerning the successful implementation and control of the domain enhancement strategy was partially supported. High performing firms with long-lived domain enhancement strategies were found to use more task-oriented styles of management. This would indicate a more mechanistic culture in agreement with proposition

P(2.g). Other findings were that high performers:

- 1) reported lower strengths in their marketing function,
- 2) reported lower strengths in their finance function, and
- 3) reported lower total strengths in their functional areas.

Two variables; the functional strength index and management style, met the constraints for inclusion in the discriminant function. This function was able to explain approximately 39% of the variance between high and low performers with long-lived domain enhancement strategies.

Domain Reduction Strategy

Because only one firm reported that it had recently changed domain direction strategies to domain reduction no analysis was made concerning those variables which influenced the adoption of this strategy. It will be left up to another investigation to determine the variables which are significant to this important domain direction strategy.

Strategy Implementation and Control: Domain Reduction

Only four companies indicated that their domain direction strategy for more than the last two years had been domain reduction. Domain reduction was defined as an emphasis on the deletion of certain products, markets or activities from the organization's current domain of operations. Because of the few firms included in this strategic group any results from the analysis are suspect. These firms, however, did show some indications that they stood apart as a group from other firms with long-lived domain direction strategies.

Three primary objectives seemed to set these firms apart. Firms with prolonged domain reduction strategies were more likely to have objectives related to consolidation, financial stability and resource conservation. These objectives describe organizations which are, at least temporarily, 'pulling in the reins' on current activities, intent on greater control of operations.

Surprisingly, two of the four firms fell into the high category for the functional strength index. So, obviously, one-half of these firms believed that their performance in these functional areas was more than adequate. Could it be that these firms simply had products which were reaching the end of their product life cycle? An emphasis on financial stability may be an indication that these firms intend to make growth moves as soon as their 'house' is in order. However, getting their 'house' in order may mean trading off some competence in one or more functional areas for additional resources to increase strategic flexibility.

Two of the four firms also scored high on the total standardization index. Again, this would seem reasonable for companies which had competed with certain products for a number of years, to the point where activities had become more routine and were easily standardized. The use of standardization techniques would also seem reasonable in organizations trying to gain greater control of operations as the major objectives of these organizations imply.

These companies were also found to be heavily active in

planning, scoring high on the total planning index, as well as the use of strategic planning and tactical planning. Organizations which were reaching the end of the line with current products would be concerned with plans for the future. The primary objectives of these firms also indicates a certain desperation for these firms, which might lead to a greater emphasis on planning, especially through its ability to more effectively coordinate the activities of an organization.

Because there were only four firms in this strategic group, and, more importantly, because all of these firms fell into the low performance category, no analysis was possible in comparing high and low performing firms with long-lived domain reduction strategies. However, it is possible to determine if the propositions developed in Chapter 4 were consistent with the general characteristics of these firms in comparison to others with long-lived domain direction strategies. Those propositions are provided in the following table.

TABLE 9-M
Propositions Concerning the Implementation and Control
of Domain Reduction Strategies

High performers will report:

- P(3.a) greater use of overall standardization
 - P(3.b) greater use of direct supervision
 - P(3.c) greater centralization
 - P(3.d) less use of MIS
 - P(3.e) use of divisionalized structures
 - P(3.f) greater overall resources
 - P(3.g) less use of planning
-

The use of standardization mechanisms in coordinating activities between major units of the organization was found to be significant in setting these companies apart from others with prolonged domain direction strategies. As already noted, the use of standardization mechanisms may be more practical in these firms, if these firms have ridden certain products to the later stages of the product life cycle. Also, the use of standardization mechanisms would seem to coincide with those objectives which set these firms apart from others; consolidation, financial stability and resource conservation.

Only one other relationship existed which pertained to the propositions developed in Chapter 4. Planning was found to be significant, but its use was found to be greater in these firms than in others with long-lived domain direction strategies. Perhaps these firms more fully realize that major strategic change was forthcoming and were, therefore, more active in terms of planning. Or, perhaps these organizations use planning as another mechanism for gaining control of operations. In other words, their use of planning was not necessarily to choose a more appropriate overall direction for the organization, but to more effectively coordinate activities within the current direction of the firm.

Summary - Domain Reduction

Although there were very few firms which indicated that their primary domain direction strategy was domain

reduction, it is possible to make the following observations, all of which pertain to firms with long-lived domain reduction strategies;

- 1) these firms were more likely to have objectives concerned with consolidation, financial stability and resource conservation,
- 2) these firms were likely to indicate high total strengths in their functional areas,
- 3) these firms were likely to score high on the total standardization index, and
- 4) these firms were likely to be active in the use of strategic planning and in using tactical plans.

Domain Restructuring - No One Domain Direction
Strategy is of Primary Importance

This strategic alternative acts as a 'catch-all' for those firms which do not have a clear strategic direction. It includes all firms which may emphasize two or all of the three other possible domain direction strategies. In total, 28 firms indicated that their primary domain direction strategy was domain restructuring. Of these, six indicated that they had adopted a domain restructuring strategy within the past two years. Of the 22 firms with long-lived domain restructuring strategies, 10 were found to be high performers while 12 fell into the low performance category.

Strategy Formulation Using Perceptual Variables

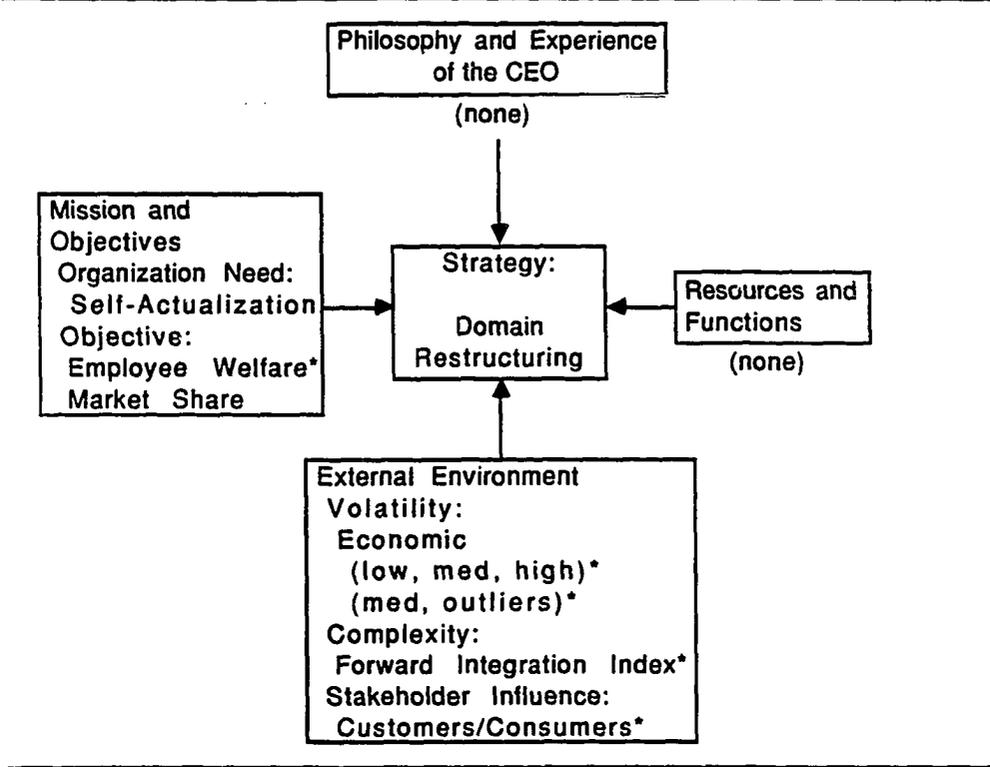
A number of significant relationships were found between firms with recently adopted domain restructuring strategies and other firms with recently adopted domain direction strategies using variables obtained from the mail

questionnaire. Firms with recently adopted domain restructuring strategies were found to have a significant relationship to the importance of domain enlargement to their overall strategy. These firms were more likely to report medium levels of importance to this domain direction strategy than firms which chose other strategic options. In addition, these firms were also more likely to indicate that their competitive strategy changed with specific product/market areas in their domain of operations. This finding implies the existence of multiple product/market domains in many of these firms.

The following figure provides those significant relationships which were found between firms with short-lived domain restructuring strategies and firms with other recently adopted domain direction strategies within the four major areas believed to be important to the formulation of strategy.

Because this domain direction strategy was less clearly defined than the other three options, no propositions were made concerning relationships with specific variables from the four major areas thought to be important to the formulation of strategy. However, as can be seen from the figure, several significant relationships were found representing two of the four major areas.

Figure 9-N
 Determinants of Strategy Formulation - Domain Restructuring



* - Those variables which met the constraints for inclusion in the discriminant function

Self-actualization, as an organization need, was found to be significantly related to the domain restructuring strategy. In fact, four of the six firms with recently adopted domain restructuring strategies chose this as one of their basic needs. Self-actualization was depicted, as in Maslow's hierarchy, as the highest level need to be achieved. This may be an indication that firms with domain restructuring strategies are fairly successful and have, to some extent, satisfied the other 'lower' level needs in the hierarchy.

Employee welfare and market share were both found to be

significantly related to this strategy. Both of these objectives were more likely to be chosen under this strategy. The importance of employee welfare is opposite of what was found for firms with domain enhancement strategies. Perhaps a mixed domain direction strategy creates more stress on employees making this objective more important. Then again, there may be a relationship between this objective and the organizational need of self-actualization. Perhaps employee welfare becomes an objective only after other lower level needs of the organization are largely satisfied. Market share was proposed to be related to the domain strategy of enhancement. Instead, it is found to be significantly related to the domain restructuring strategy. It has already be suggested that many of these organizations may have multiple domains of operations. Use of market share as a major objective may be due to the past popularity of portfolio planning tools such as the BCG matrix which were developed for firms with multiple product/ market areas and stressed the importance of market share as a major determinant of future success.

In terms of the external environment, it was found that the economic volatility variable was significantly related to the domain restructuring strategy. Firms with this strategy were all found to fall into the medium ranges of economic volatility. The existance of multiple markets may cause the CEO to perceive medium levels of volatility rather than high or low levels due to the varying affects of the

economy on different lines-of-business. These firms were also found to be significantly related to the forward integration index which combined scores from variables concerned with control of such activities as marketing research, the distribution of products to the buyers and the retailing of their products to consumers. Firms with domain restructuring strategies were found to be less integrated than other organizations which had recently changed their domain direction strategy. It appears that lack of forward integration may trigger a combined domain 'attack', forcing the organization to concentrate on multiple domain directions at one time.

Stakeholder influence groups also provided significant results. The CEOs of firms with domain restructuring strategies were found to perceive the influence of customers and consumers as higher than their counterparts in firms with other strategic options. This, too, is opposite of the relationship found for firms with domain enhancement strategies. When it is acknowledged that these firms are also less vertically integrated forward (toward the customer/consumer group), it poses an interesting question, does a lack of forward integration cause greater influence on decision-making from the customer/consumer group?

Where the other two domain direction strategies analyzed in this investigation were found to have significant relationships within all four major areas thought to be important to the formulation of strategy, only two were represented for the domain restructuring strategy;

the mission and objectives of the organization and the organization's external environment. Resources and functional strengths and philosophy and background of the CEO failed to show any signs of significance. In three cases, the relationships found for firms with domain restructuring strategies were opposite of those found for domain enhancement strategies. These included the importance of employee welfare as a primary objective, economic volatility and the influence of customers and consumers. No common or opposite relationships were found between the domain enlargement strategy and the domain restructuring strategy.

Five of the eight variables found to be significant from the chi-square analysis met the constraints for inclusion in the discriminant function. The best discriminator was found to be the objective 'employee welfare'. This was followed by economic volatility (medium, outliers), the forward integration index, the influence of customers and consumers, and the organizational need of self-actualization. The results of the discriminant analysis were strong with a significance level of .0001 and an explanatory power of approximately 56%. Using the five variables, 92% of the firms were appropriately classified.

Strategy Formulation Using Secondary Surrogate Variables

Surrogate variables were obtained for all of the perceptual variables which were significant to the formulation of the domain restructuring strategy. These

surrogate variables are provided in Table 9-0.

TABLE 9-0
Perceptual Variables and Their Secondary Surrogates

Perceptual Variables	Secondary Surrogates
Self-actualization	Return on assets Total assets Total sales Earnings per share
'Employee welfare' as objective	Return on assets Ave. ROI (2 years)
'Market share' as objective	Backorders/sales
Economic volatility (low, medium, high)	Ave. ROI (2 years) Return on assets Sales volatility Inventory volatility
Economic volatility (medium, outliers)	Total sales Sell. and admin. expense Earnings per share Profit volatility
Environmental volatility index (medium, outliers)	Interest expense/sales Profit volatility
Forward integration index	Total sales Pension fund/sales
Influence of customers and consumers	Sales growth Asset growth # of employees

Only two surrogate variables, 'asset growth' and 'sales growth', met the constraint for inclusion in the discriminant function ($p < 0.15$).

The function formed from these two variables was found to have an explanatory power of approximately 12%. Again, as with the other two domain direction strategies, this was

much lower than when perceptual variables were used.

Strategy Implementation and Control: Domain Restructuring

Firms with long-lived domain restructuring strategies were found to be significantly related to three other dimensions of strategy. In terms of domain direction, these firms were found to view domain reduction as being of generally greater importance to their overall strategy than other firms. In terms of competitive strategy, these firms were found to favor the combination competitive strategy as their primary focus. Thus, a combination domain direction strategy often is found with a combination competitive strategy. Also, these organizations rarely indicated that their primary competitive focus was product/service differentiation.

The CEOs of firms with long-lived domain restructuring strategies were found to be more liberal than their counterparts (in terms of the philosophy index) and were more likely to have general business backgrounds. A liberal philosophy may correspond to a willingness to undertake many different activities (or strategies) at one time, as this finding would seem to indicate. A general business background may give the CEO the experience and knowledge required in undertaking a domain restructuring strategy as well as a combination competitive strategy.

Under mission and objectives, these firms were set apart from others in two ways. First, they were less likely to indicate that survival (or an emphasis on profitability)

was a primary need and second, they were more likely to indicate that multinational enterprise was a current objective of their firm. These firms may be found to be further along on their developmental path, already somewhat diversified and ready for expansion into international markets.

A number of significant relationships were found between these firms and others with long-lived domain direction strategies in terms of the external environment. Firms with long-lived domain restructuring strategies generally had more products, product lines, greater international sales and highly segmented markets. Thus, these firms are further along in terms of Galbraith and Kazanjian's (1986) primary growth path for U.S. firms. In terms of complexity, these firms indicated a high degree of control over research and development. Research and development was also found to be important for domain enlargement and may correspond to those organizations with a concern for multinational enterprise.

Also, the CEOs of these firms indicated that both the stockholders and creditors and customers and consumer stakeholder groups wielded high degrees of influence over their decision-making. Perhaps these CEOs perceive themselves primarily as a buffer between the organization and major stakeholder groups rather than as a leader and direction-setter for the organization. This could possibly explain the high level of influence of these stakeholder groups as well as the multiple dimensions of both the domain

direction and competitive strategies of these firms. These firms also considered their financial resources to be high, in most cases. Given their high level of diversity and, one would assume, larger size, it would be expected that these organizations would have higher levels of financial resources available to them.

Many of these companies were found to have marketing divisions as their general structural configuration and used medium levels of standardization of output for coordination purposes across primary units. The use of marketing divisions corresponds with high levels of diversity, especially in relationship to market segmentation and international sales. Because product diversity was also found to be high, it is a little surprising that the use of product divisions was not also found to be significant. According to Mintzberg (1979), standardization of output would be consistent with a divisionalized structure, providing some coordination across divisions, yet also providing the flexibility within those divisions in reaching the output standards.

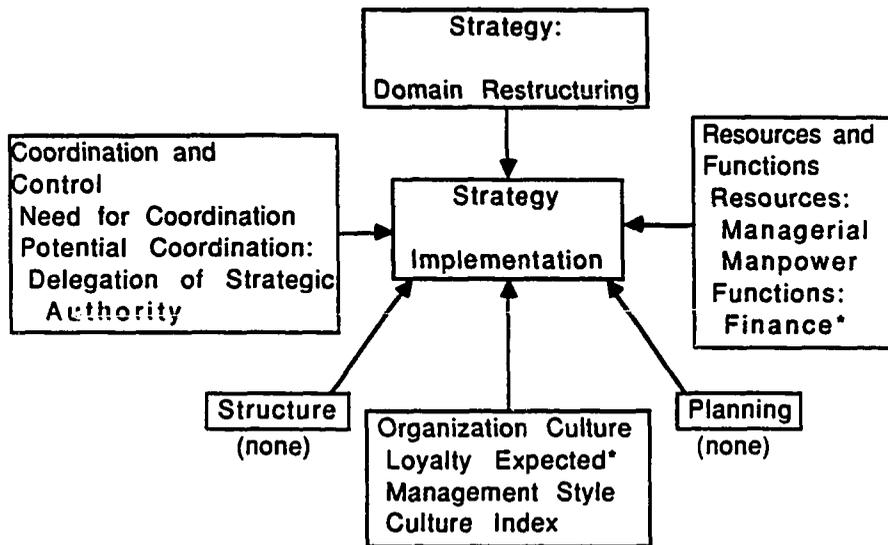
Planning was found to be significant for these firms as well. Management-by-objectives was not popular with these organizations even though it is based on the assignment of output standards. Also, these organizations scored low on the planning index, indicating little use of strategic planning or tactical plans in their operations. Management-by-objectives is a management system used to provide output

standards on all individuals within the organization. The all-encompassing and participatory nature of this management system may simply be too time-consuming for these highly developed organizations. That these organizations scored low on the planning index is also surprising. Perhaps the techniques for planning in such highly diversified organizations are not seen as beneficial at this time. Lack of planning may also correspond to the multi-dimensionality of the strategies of these organizations.

Lastly, communication flows at the top of the organization were found to differ for these firms. Most CEOs indicated that communication across major work units was emphasized in their organization. Increased diversity would make it much more difficult for one brain, the CEO's, to analyze and administer the organization's affairs. Thus, there would be a greater need for communication across units at the top of the organization.

Of the twenty-two firms which indicated having a long-lived domain restructuring strategy, ten were determined to have high performance while the other twelve fell into the low performance category. The following figure presents those significant implementation and control variables which set these two groups apart.

Figure 9-P
Determinants of Performance - Domain Restructuring



* - Those variables which met the constraints for inclusion in the discriminant function

Three of the five major areas thought to be important to the effective implementation and control of strategies were found to be represented by significant relationships. Under coordination and control, both the need for coordination between major units and the potential for coordination were found to be significant. Under resources and functions, the managerial and manpower resources available to the organization and the strength of the finance function were found to be significant. Finally, three variables concerned with the culture of the organization were significant. These included the expectation of loyalty from lower level managers, the management style of the CEO and the overall cultural index.

The discriminant analysis performed on high and low

performers indicated that the strength of the finance function and the expectation of loyalty were the best discriminators between performance levels. The function formed using these two variables was found to be significant at the 0.0179 level and explained approximately 80% of the variance.

Table 9-Q provides those propositions concerned with the performance of firms with long-lived domain restructuring strategies which were presented in Chapter 4.

The use of MIS was not found to be significant between high and low performers in firms with long-lived domain restructuring strategies. The use of MIS was seen as a vehicle for increasing the potential for coordination among the major work units of the organization. Whether a CEO delegated strategic authority to others in the organization was also seen as a measure of the potential for coordination, with the lack of delegation improving the possibility of effective coordination. Delegation of strategic authority was found to be significant with high performers much more likely to delegate this authority to lower level managers. Thus, high performers could be said to have a low potential for coordination among their units. Did they feel that this coordination was important? The need for effective coordination was, in general, lower in high performing firms than in the lower performers. Thus, the high performing firms were more decentralized, in regards to strategic decisions made, and also perceived less of a need for high levels of coordination between units.

TABLE 9-Q
Propositions Concerned With the Performance of Firms
with Long-lived Domain Restructuring Strategies

High performers will report:

- P(4.a) greater use of MIS
 - P(4.b) greater use of a divisionalized structure
 - P(4.c) greater overall resources
 - P(4.d) greater use of planning
-

Use of a divisionalized structure was not found to be significant between high and low performing firms. However, the use of marketing divisions was found to be more frequent in firms with long-lived domain restructuring strategies than in other firms with long-lived domain direction strategies.

It was proposed that high performing firms would have greater resources than their lower performing counterparts. Although two resource variables were found to be significant, the distribution was not what was expected. The managerial and manpower resources of high performing firms were generally perceived to be lower than in low performing firms. Perhaps the CEOs of the high performers were more critical of their managerial and manpower resource pools. Or, perhaps these CEOs more effectively used their management and employees, creating an organization which could perform without high levels of management and manpower resources.

Although no propositions were made concerning the functional strengths of these firms, high performers generally indicated a higher strength for their financial

function than did the lower performers. This would seem to correspond to the high level of financial resources generally found in these firms in comparison to others with long-lived domain direction strategies.

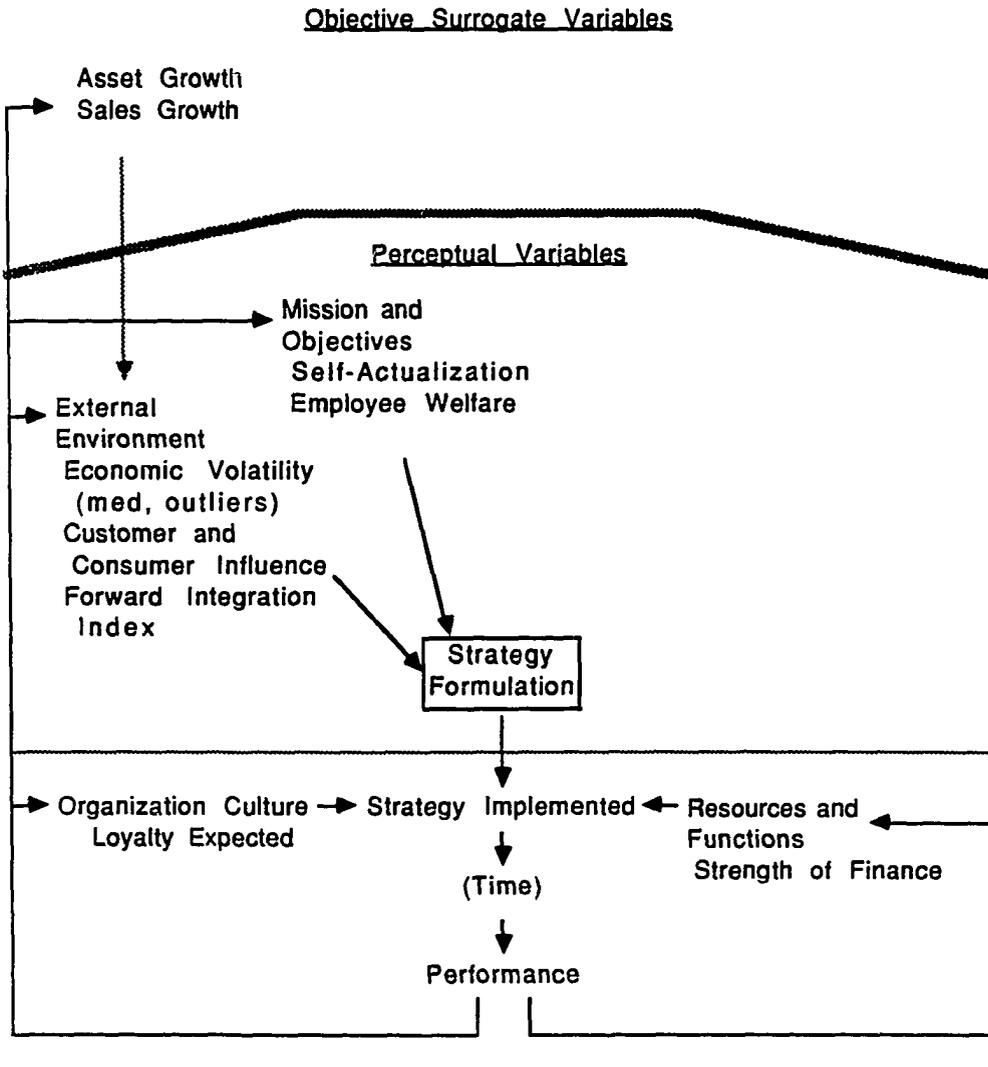
It was proposed that planning would be emphasized more in high performing firms. However, no variable concerned with planning was found to be significant between high and low performers. It should be remembered that firms with long-lived domain restructuring strategies were found to have little use for MBO and also tended to score low on the planning index, in comparison to other firms.

Although no propositions were made concerning the culture of the organization, three relationships were found. High performers generally had lower expectations of loyalty from lower level managers, a people-oriented management style and generally were more likely to fall into the high category for the culture index, indicating a more organic culture. Thus, multidimensional strategies may require more organic organizational cultures for effective implementation and control.

Summary - Domain Restructuring Strategy

The following figure presents the determinants of the formulation and successful implementation of the domain restructuring strategy as indicated by the results of this investigation.

Figure 9-R
A Model of the Determinants of the Formulation and Implementation
of the Domain Restructuring Strategy (Includes only those variables which met
the constraint for inclusion in the discriminant function ($p < 0.15$))



Although no propositions were made concerning the formulation of the domain restructuring strategy, a number of significant relationships were found. These relationships were that firms with recently adopted domain restructuring strategies:

- 1) were more likely to suggest that self-actualization was a primary need,
- 2) were more likely to indicate that employee welfare and market share were primary objectives,
- 3) were likely to perceive medium levels of economic volatility,
- 4) were generally less vertically integrated toward the ultimate consumer, and
- 5) perceived the influence of customers and consumers as greater than other firms.

The discriminant analysis between firms with recently adopted domain restructuring strategies and others with recently adopted domain direction strategies indicated that the objective of 'employee welfare', economic volatility (medium, outlier categories), the forward integration index, the influence of customers and consumers and the organizational need of self-actualization (in that order) were the best discriminators for these strategic groups. The discriminant function formed by these variables was found to explain approximately 56% of the variance between the groups.

Surrogate variables from Industrial Compustat were found for all of the perceptual variables determined to be significant in the formulation of the domain restructuring strategy. The discriminant analysis using these surrogates indicated that asset growth and sales growth were the best surrogates between these strategic groups. The discriminant function formed from these two variables explained approximately 12% of the variance between groups, well below

the results obtained using perceptual variables.

None of the propositions concerned with the successful implementation and control of the domain restructuring strategy were supported. What was found was that high performing firms with domain restructuring strategies:

- 1) were more likely to delegate strategic authority to lower level managers,
- 2) were more likely to indicate that the need for coordination between major units was not as great,
- 3) were likely to indicate low levels of both managerial and manpower resources,
- 4) generally perceived their finance function to be stronger than low performers,
- 5) had lower expectations of loyalty from lower level managers, and
- 6) were more likely to fall into the high or 'organic' category for the organization culture index.

The discriminant analysis performed on high and low performers with long-lived domain restructuring strategies indicated that the strength of the finance function and the expectation of loyalty were the best discriminators between performance levels. The discriminant function formed from these two variables was found to explain approximately 80% of the variance between high and low performers.

Summary of the Search For Determinants of the Formulation and Successful Implementation of Various Domain Direction Strategies

The search for determinants of the formulation of various domain direction strategies was highly successful

for three of the four domain direction strategies considered in this investigation. Because only one firm indicated the adoption of a domain reduction strategy within the past two years, no analysis could be made concerning those variables which seem to lead to this important strategy.

Analysis of the formulation of the domain enlargement strategy indicated that all four major areas thought to be important to the formulation of strategy were, indeed, important. In general, the CEOs of firms with recently adopted domain enlargement strategies were more liberal, these organizations were not likely to have objectives concerned with efficient operations, their environments were generally more diverse except that their markets were generally not highly segmented, they were likely to perceive less influence over decision-making from the stockholder/creditor stakeholder group and the strengths of all major functional areas were generally higher than other firms. The discriminant analysis using these perceptual variables indicated that the philosophy index, the influence of stockholders and creditors, the functional strength index and efficiency as an objective were the best discriminators between strategic groups. The discriminant function formed by these variables explained approximately 50% of the variance between groups.

All four major areas thought to be important to strategy formulation were also represented by significant variables for the formulation of the domain enhancement strategy. It was determined that firms with recently adopted

domain enhancement strategies were less likely to view growth as a major ingredient to success of the firm, were more likely to have objectives concerned with product quality and service but not to select employee welfare as a major objective, were likely to perceive high levels of economic volatility or fall into the outlier category for this variable, perceived high levels of influence from stockholders and creditors but low levels from customers and consumers, and were more likely to indicate lower strengths in all functional areas. The discriminant analysis using these perceptual variables indicated that all of the variables found to be significant from the chi-square tests were major discriminators except the objective 'product quality and service'. The discriminant function formed from these variables explained 92% of the variance between strategic groups.

Only two of the four major areas thought to be important to the formulation of strategy were found to be represented in the search for determinants of the formulation of the domain restructuring strategy. These areas were the environment and the needs and objectives of the organization. More specifically, firms with recently adopted domain restructuring strategies were more likely to indicate that self-actualization was a major need and that employee welfare and market share were major objectives. The economic volatility of the environments of these organizations was generally perceived to be medium while

they were also found to be less integrated forward and perceived greater influence from customers and consumers. In the discriminant analysis, employee welfare as an objective, economic volatility (medium, outlier categories), the forward integration index, the influence of customers and consumers and self-actualization as a need were all found to be major discriminators. The function formed using these variables was found to explain 56% of the variance between strategic groups.

The search for surrogate variables was successful for all but one of the perceptual variables found to be significant to the formulation of domain direction strategies. No secondary surrogates could be found for the objective 'product quality and service' which was significant to the adoption of a domain enhancement strategy. The results of the discriminant analyses performed using these surrogate variables were generally not as strong as when perceptual variables were used. For the domain enlargement strategy, only one surrogate variable, profit volatility, met the constraint for inclusion in the discriminant function. This function explained 7% of the variance between strategic groups. For the domain enhancement strategy; earnings per share, cash dividends per sales, R&D expenditures and sales volatility all met the constraints for inclusion in the discriminant function. This function had an explanatory power of approximately 26%. For the domain restructuring strategy, only two surrogate variables, asset growth and sales growth, met the

constraints for inclusion in the discriminant function. This function was able to explain approximately 12% of the variance between those firms with recently adopted domain restructuring strategies and other firms with recently adopted domain direction strategies.

The search for determinants of the successful implementation and control of various domain direction strategies was generally less successful than the search for determinants of the formulation of strategy, at least in terms of explaining the variance between performance levels for those domain direction strategies considered.

In the analysis of the successful implementation and control of the domain enlargement strategy, coordination and control and the functional strengths of the organization were found to be highly important. High performers were found to use either high or low levels of shared values and beliefs in coordinating activities while they generally fell into the medium category for the use of direct supervision and standardization of skills. Also, the high performers generally reported that their finance function was stronger than in lower performing firms. The discriminant analysis between high and low performing firms with long-lived domain enlargement strategies indicated that the strength of the finance function was the best indicator of performance. In fact, this was the only variable which met the constraint for inclusion in the discriminant function. This function was found to explain 19% of the variance between performance

levels.

The analysis of determinants of the successful implementation and control of the domain enhancement strategy indicated that the functions of the organization and its culture were of major importance. High performing firms were found to more likely indicate lower strengths in finance and marketing and were more likely to fall into the low strength category for the functional strength index. Also, the high performers were more likely to practice a task-oriented style of management, indicating a more mechanistic organizational culture. The functional strength index and management style were the best discriminators between performance levels. The discriminant function formed by these variables was found to explain approximately 39% of the variance between levels.

In the analysis of the successful implementation and control of the domain restructuring strategy, three major areas were found to be important; coordination and control, resources and functional strengths and organization culture. High performing firms with long-lived domain restructuring strategies were more likely to delegate strategic authority to lower level managers, saw less need for coordination between major units, perceived themselves as having lower manpower and managerial resources, viewed the strength of their finance function to be strong, had lower expectations of loyalty, a more people-oriented management style and a generally more organic organization culture. The strength of the finance function and the expectation of loyalty were

found to be the best discriminators between performance levels. These two variables were able to explain 80% of the variance between performance levels.

CHAPTER 10

Discussion of Results: Competitive Strategies

As in Chapter 9, this chapter will discuss the results of Phases I, II, and III of the investigation, but this time the competitive strategies are evaluated. Again, the chapter will begin with a general discussion of the significant relationships found, first, between firms having recently adopted a competitive strategy with others having long-lived competitive strategies. Then, those variables found to be significant in the comparison of high and low performers with long-lived competitive strategies are analyzed.

The remaining portion of the chapter discusses the results of the search for determinants of strategy, the search for surrogate measures of the determinants of strategy (from a secondary data source) and then, the determinants of performance, for each competitive strategy considered in this investigation.

General Discussion: Competitive Strategies

Nineteen of the 156 firms participating in this study reported that they had adopted a new competitive strategy within the past two years. This left 137 firms with long-lived competitive strategies. What variables separated these two groups of firms? What variables seemed to affect performance within those firms with prolonged competitive strategies? These questions will be answered in the following two sections.

Characteristics of Organizations with Recently Adopted and Prolonged Competitive Strategies

Several variables were significant between firms with recently adopted competitive strategies and firms which had continued with one competitive strategy for three or more years. However, there were no strategy variables which were significant between these two groups. In other words, there were no significant relationships between these groups in terms of either their domain direction or competitive strategies. The variables which were significant came from the three major areas; philosophy and background of the CEO, mission and objectives of the organization, and internal resources and functional strengths.

Under the philosophy and background of the CEO, four variables were significant. Firms with recently adopted competitive strategies were more likely to fall into the medium or low categories for the philosophy variable concerned with growth of the firm and for the philosophy index. In other words, the CEOs of firms with newly adopted competitive strategies were more likely to view themselves as more conservative than their counterparts with long-lived competitive strategies. This was opposite of what was indicated for the philosophy of CEOs of firms with newly adopted domain direction strategies.

In terms of the CEOs' backgrounds, firms with recently adopted competitive strategies were less likely to have either accounting or marketing backgrounds. This would indicate that these CEOs have either production/operations,

general business or some other background. Why would this be true? To change the competitive strategy of a firm may require a broad background like general business due to the effects of that change on the entire organization. However, having a general business background was not found to be significantly related to newly adopted competitive strategies. The importance of marketing would seem to be a key for any competitive strategy, so why is it not likely to be a background for these CEOs? Furthermore, why is the philosophy of CEOs with recently adopted competitive strategies more conservative than their counterparts with long-lived competitive strategies? Is making a competitive strategy change a conservative move, or are these simply random relationships, due to the firms in the study rather than a true pictorial of what would be found in all firms? Perhaps a look at other significant relationships will help to answer this question.

The other variables which were significant came from the mission and objectives of these organizations and their resources and functional strengths. 'Financial stability' was found to be a major objective in nearly one-half of those firms with recently adopted competitive strategies. Also, firms with recently adopted competitive strategies were more likely to report lower levels of financial and total resources.

Thus, these firms could generally be described as having low levels of resources, including financial

resources, and were greatly concerned with their future financial stability. One may start to understand how a conservative philosophy might 'fit' these organizational characteristics. A general lack of resources would certainly inhibit a CEO's ability to be adventuresome. The penalty for taking risks under this situation could prove to be fatal - bankruptcy. Also, low resources seem to fit well with the objective of financial stability. If financial resources are low, the stability of those resources becomes of much greater concern.

But why do fewer of these CEOs having marketing or accounting backgrounds? Marketing is perhaps too forward or outward looking to fit these situations. Perhaps having a marketing background goes along with a liberal philosophy. Could the same be true of those CEOs with accounting backgrounds? Do they consider themselves liberal also, or is their degree so specialized that they are not aware of other competitive options? Perhaps the answer lies not in the background of the CEO, but in the CEO's general philosophy. The general philosophy of CEOs in organizations which adopt new competitive strategies may lie somewhere along the continuum from very liberal to very conservative, yet closer to the conservative end. Those having marketing backgrounds may have too liberal a philosophy and choose to change or enlarge their domain of operations rather than change competitive strategies. Those with accounting backgrounds may, in general, have too conservative a philosophy to make the move to either a new domain or a new competitive

strategy within their current domain of operations. Thus, firms managed by CEOs with accounting backgrounds may be most likely to adopt a domain reduction strategy or choose to make no strategic changes. This may be why Hambrick and D'Aveni (1985) found that CEOs of bankrupt organizations often have accounting backgrounds.

The results of this study indicate that organizations with recently adopted competitive strategies have scarce resources, are concerned with financial stability and generally have more conservative CEOs than do firms with long-lived competitive strategies. It is now time to take a closer look at those organizations with prolonged competitive strategies and to discuss those variables which were found to be significant between the high and low performers.

Characteristics of High and Low Performance Firms with Prolonged Competitive Strategies

There were 137 firms which indicated that their competitive strategy had been in place for more than two years. Of these, fifty-one reported having a differentiation strategy, nine indicated a low-cost production strategy, thirty responded that their primary strategy was market-focused, thirty-eight indicated that theirs was a combination competitive strategy and nine indicated that their competitive strategy differed between product/market areas within their organization.

The results of the comparison of high and low

performing firms among those with prolonged competitive strategies yielded a number of significant relationships. From a strategy perspective, high performers generally viewed differentiation as more important and market-focus as less important to their overall strategy. Additionally, domain enhancement was generally considered more important to the high performing firms.

Only one characteristic of the CEO was found to be significant between these two groups. The CEOs of high performing firms were less likely to perceive themselves as being highly innovative.

These results indicate support for the belief that there is a trade-off between growth and profitability, at least in the short-term. A market-focus strategy was found to be more often used in firms with domain enlargement strategies, or in 'growth' firms. Innovation would also seem to be more important in 'growth' firms and would also be a drain on current profitability, even though it may pay off in the long run.

In terms of the environments of these organizations, three significant relationships existed. High performing firms were generally more vertically integrated forward (toward the customer) and were more vertically integrated, in total (backward and forward), than their lower performing counterparts. Thus, vertical integration is found to be an important determinant of performance for firms with long-lived competitive strategies.

In terms of stakeholder influence, it was found that high performers were most likely to fall into the high or low category for total influence of all stakeholder groups considered, while low performing firms were generally found in the medium category. Porter's assertion that organizations develop strategies to build defensible positions may be only partially true, especially if there is a direct relationship between a 'defensible position' in the environment and a lack of influence from various stakeholder groups. High performing organizations may have a choice to either build defensible positions in their environment, or to make adjustments in their organizations which make them more adaptive in their dealings with various stakeholder groups. The possibility exists that mechanistic organization structures may be conducive to Porter's (1980) 'defensible positions' or to Thompson's (1967) 'buffered' organizations and lead to a lack of influence from stakeholder groups, while organic organization structures are better suited to 'offensive positions', a lack of buffering and high influence from stakeholder groups. In any case, high performance does seem to depend on either a high degree of influence from all stakeholder groups or a general lack of influence. Firms in the middle ground for this variable were more likely to be low performers.

Not surprisingly, the high performers also felt that their financial resources were higher than their lower performing counterparts. Since performance, in this study, was measured in terms of profitability, one would suspect

that there would be a direct relationship between performance and level of financial resources in organizations.

In terms of coordinating mechanisms used to coordinate the work of primary units in the organization, two significant relationships were found. High performing firms were more likely to indicate a high use of shared values and beliefs and were also more likely to fall into the medium category for the use of direct supervision. Low performing firms were generally evenly distributed between the high, medium and low categories in terms of their use of direct supervision. Shared values can often be directed at specific competitive strategies such as an emphasis on customer service, product quality or low-cost production. Thus, it should come as no surprise that this coordinating mechanism was important to the high performers. Mintzberg (1979) suggests that direct supervision is the tightest form of coordination in organizations. However, its effectiveness diminishes with increased complexity and diversity of operations. Since a wide variety of organizations exist within this group of firms, it may be concluded that direct supervision at upper levels of most organizations remains important but is generally not the only coordinating mechanism used.

The last significant relationship dealt with the overall structural configuration of the organization. The seven firms which indicated that their structure was other

than functional departments, market divisions or product divisions were all listed as low performing firms. Even though much time and energy has been spent in developing new structural configurations, these innovative structures apparently have not been perfected to the point where they can compete in terms of performance measured by average return on investment.

In the next sections the results of the investigation of those firms with specific long-lived competitive strategies are discussed. Of the nineteen firms which had recently changed competitive strategies, six indicated that their current strategy was product/service differentiation and seven reported having a market-focused strategy. Thus, only a limited analysis could be undertaken in determining those variables which influence the formulation of specific strategies. A more thorough analysis was possible for those variables influencing performance within competitive strategy groups, due to the large number of firms reporting long-lived competitive strategies.

Product/service Differentiation

The differentiation strategy was defined as an emphasis on differentiating the firm's products and/or services from those of their competitors. A total of 57 firms indicated that their primary competitive strategy was product/service differentiation. Of these, 6 indicated that they had adopted a differentiation strategy within the past two years. Of the 51 firms with long-lived competitive strategies, 23 were

found to be high performers while 28 fell into the low performance category.

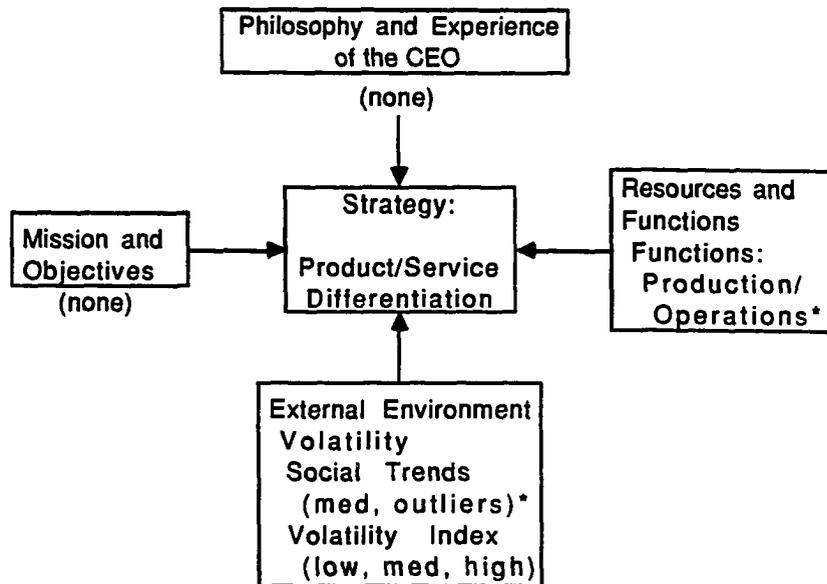
The following sections will discuss the results of Phase I, III and II (in that order) as they apply to the differentiation strategy.

Strategy Formulation Using Perceptual Variables: Phase I

Six of the 19 firms reporting that they had recently adopted a competitive strategy indicated that the differentiation strategy was the one chosen. These firms were found to view the importance of low-cost production to their overall competitive strategy as being of medium importance more often than their counterparts with other newly adopted competitive strategies.

The following figure provides the results of the analysis between firms with recently adopted differentiation strategies and firms having other recently adopted competitive strategies using the perceptual variables obtained from the mail questionnaire.

Figure 10-A
 Determinants of Strategy Formulation - Product/Service Differentiation



* - Those variables which met the constraints for inclusion in the discriminant function

Propositions that were made pertaining to the formulation of a differentiation strategy are provided in the following table.

TABLE 10-B
 Propositions Pertaining to the Formulation of a Differentiation Competitive Strategy

- P(1.b) Managers will perceive themselves as being more liberal.
- P(3.c) Organizations will be found to have higher levels of vertical integration.
- P(3.g) Organizations will be found to have the highest levels of environmental volatility.
- P(4.e) Organizations will be found to have the highest levels of manpower resources.

Although it was proposed that managers of firms with newly adopted differentiation strategies would have more liberal philosophies, no significant relationships were found. It should be remembered that the CEOs of firms with recently adopted competitive strategies had more conservative philosophies, in general, than their counterparts in firms with long-lived competitive strategies. A liberal philosophy must not be of major importance in choosing the differentiation strategy over other competitive strategies.

Also, no significant relationship was found regarding the degree of forward integration which existed in these firms. Evidently, the decision-makers in these organizations do not perceive a need for close communication lines to consumers of their products/services prior to the adoption of a differentiation strategy or, at least, do not perceive this need to be any greater than in firms with other recently adopted competitive strategies.

In terms of environmental volatility, two significant findings existed. Firms with recently adopted differentiation strategies were more likely to indicate low or high levels of volatility in regards to social trends affecting their organization. These firms either saw social trends as highly volatile or relatively stable.

Additionally, these firms were most likely to perceive their total environments as being highly volatile, in agreement with Proposition 3.g. That a relationship should

exist between the differentiation strategy and social trends is certainly understandable. The changing needs of society would seem to enhance the differentiation strategy, as organizations modify their products/services to meet those needs. Thus, a high degree of volatility in terms of the effect of social trends on the organization would be expected in these firms. But why would a low degree of volatility also be reported by some of these firms? Perhaps these firms adopt a differentiation strategy in the hopes of creating new social trends concerning their products or under the expectation that new trends will occur in the future. In a stable environment, the differentiation strategy may be the only alternative to the low-cost production leadership strategy in industries which are not easily segmented.

Manpower resources were not found to be significantly higher in organizations with short-lived differentiation strategies. Also, the strength of production/operations was found to be lower in these firms. The strength of the production/operations function would seem to be all important in instilling the added value or 'uniqueness' into the products which the success of this strategy is dependent upon. Therefore, it is confusing why organizations which have recently adopted a differentiation strategy would report lower strengths in this vital area. One possible explanation is that the differentiated aspects of the product package do not generally come from the production/operations function of the organization but from the

marketing or finance function, through various services offered during the purchase or after the purchase of the product or service. Another possible explanation is that a high strength in production/operations is more necessary in other competitive strategies such as low-cost production leadership, where efficiency of operations would seem to be all important, or in the market-focused strategy, where production/operations may have to adapt more quickly to the social changes of the focused market or possibly even to changes in multiple focused markets.

Only two of the three significant variables from the chi-square analysis met the constraints for inclusion in the discriminant function. The best discriminator was found to be the strength of the production/operations department followed by the environmental volatility component concerned with social trends. The discriminant function was moderately successful with a significance of .0330 and an explanatory power of approximately 35%. Using these two variables, 74% of the firms under investigation were correctly classified.

In summary, only two of the four major areas thought to be important to the formulation of strategy were represented in terms of variables found to be significant to the adoption of a differentiation competitive strategy. These variables were concerned with the volatility of social trends, the volatility index and the strength of the production/operations function of the organization. What was surprising was that low strength in production/operations

was found to be most likely for these firms and was found to be the best discriminator between strategy classifications (firms with differentiation strategies vs. other firms with recently adopted competitive strategies).

Strategy Formulation Using Secondary 'Surrogate' Variables:
Phase III

Surrogate variables were found for all of the perceptual variables which were significant between those firms with recently adopted differentiation competitive strategies and other firms with recently adopted competitive strategies. These secondary surrogate variables are provided in the following table.

TABLE 10-C
Significant Perceptual Variables from Phase I and
Their Secondary 'Surrogates' from Industrial
Compustat ($p < 0.100$)

Perceptual Variables	Secondary Surrogates
Volatility of Social Trends (medium, outliers)	R&D Expenditures R&D Expenditures/Sales Current Ratio Total Inventory Inventory Volatility
Environmental Volatility Index (low, medium, high)	Sales Volatility Inventory Volatility
Production/operation Strength	Earnings per Share Times Interest Earned Pension Fund/Employees

Only three of these surrogate variables met the constraint for inclusion in the discriminant function ($p < 0.15$). These variables included earnings per share, the

current ratio and R&D expense/sales.

The discriminant function formed by these three variables explained approximately 94% of the variance between the strategic groups (those with recently adopted differentiation strategies vs. those with other recently adopted competitive strategies). In fact, earnings per share, alone, explained 57% of the variance between groups. Thus, the objective criteria from the secondary data source was much more powerful in predicting the use of the differentiation strategy than were the perceptual variables used in this study.

Strategy Implementation and Control: Product/Service Differentiation - Phase II

Fifty-one firms indicated that for more than the last two years the primary focus of their competitive strategy had been product/service differentiation. How did these firms differ from their counterparts with other long-lived competitive strategies? First, these firms generally viewed domain enhancement as being of less importance to their overall strategy. Also, these firms were less likely to indicate that their primary domain direction strategy was domain restructuring.

One objective was found to set these firms apart from others with long-lived competitive strategies. Those with differentiation strategies were more likely to indicate that product quality and service was a primary objective. This relationship is certainly understandable given that product

quality and service is generally considered the primary mechanism for differentiating one product from others.

In the environment, a number of significant relationships were found. Firms with prolonged differentiation strategies generally indicated medium levels of political environmental volatility, fell into either the high or low categories in terms of the volatility of the competitive environment, yet generally considered the volatility of their overall environment to be higher than their counterparts. Although it is unclear why the political environment would have medium levels of volatility for this strategy alternative, the relationship with the competitive environment is more easily understood. That a relationship should exist with the competitive environment stems from the description of this competitive strategy. The differentiation strategy implies an emphasis on differentiating one company's products from those of its competitors. Thus, the competitive environment is all important to the success of this strategy. Why the competitive environment would be considered fairly stable or highly volatile is less well understood. However, the explanation may be due to the success of the differentiation strategy and the ability of others to duplicate those characteristics of the differentiated product.

Success for this strategy is dependent on two criteria. First, the organization must build into their products/services some uniqueness which is valued by society. Because this uniqueness is usually more costly to produce, customers

must be willing to pay a premium for the product, above and beyond the added cost of production. Thus, these firms' profitability is more a reflection of profit margin than it is total revenue. When the characteristics of uniqueness are successful, this attracts other organizations, which try to duplicate those characteristics. Ease of duplication gives rise to high competitive environmental volatility. However, if duplication is not possible than an organization sits alone, having created a strategic group within the industry which lacks direct competition. This would explain a fairly stable competitive environment for some firms with a differentiation strategy.

Another possible explanation for a stable competitive environment would be where certain 'unique' characteristics of a product are easily duplicated and become, through time, well accepted by the market. This would lead to a stable competitive environment, but it would also seem to limit the use of the differentiation strategy, since the 'unique' characteristics have now become accepted standards in that industry.

The finding that the overall environmental volatility 'felt' by these firms was generally higher than for other firms was in agreement with Miller (1988) for firms with either product innovation or breadth-innovation strategies and was also the same result found for firms with recently adopted differentiation strategies.

It was also found that firms with prolonged

differentiation strategies were less involved in international markets. It is possible that those characteristics of a product which make it successful in one culture may not be well accepted in other cultures. That is, a corporate-wide differentiation strategy may not be as possible in companies which actively compete in the international markets. Another possibility is that these are generally smaller organizations which are not quite ready to expand overseas. Keats and Hitt (1988) indicated a link between high levels of environmental uncertainty and low levels of product diversification. These results suggest a similar link between environmental uncertainty and market diversity.

In terms of stakeholder influence, these firms were more likely to indicate that employees were the group which influenced decision-making the most (although this was certainly not the most frequent group chosen). Because the overall environment is considered to be highly volatile in these firms and because quality seems to be highly important, the employees must play a key role in determining the success of this competitive strategy alternative, by more easily adapting to the changes in the environment and by creating the added value necessary for this strategy to be successful.

In terms of the organization culture, the CEOs of firms with long-lived differentiation strategies were less likely to indicate a heavy reliance on others in making decisions. One would think that high environmental volatility would

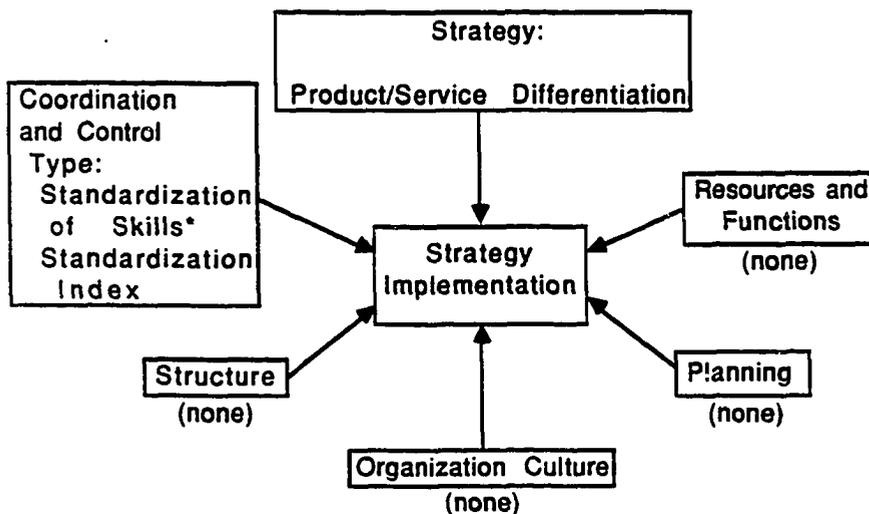
lead to a greater reliance on others in decision-making. However, these are not highly diversified firms (at least in terms of international operations) and it is possible that one individual with the appropriate leadership characteristics could effectively manage these organizations without a strong reliance on others in terms of decision-making. It is possible that the entrepreneurs of the world are more likely to thrive as CEOs of companies with this strategy.

Of the fifty-one firms which indicated that for the past two years their primary competitive strategy was product/service differentiation, twenty-three were found to be high performers and twenty-eight fell into the low performance category. Figure 10-D presents those significant relationships which were found in comparing high and low performing firms with prolonged differentiation strategies.

Only one of the five areas thought to be important to the successful implementation and control of strategy was represented. High performing firms were less likely to indicate that the standardization of skills was an important coordination mechanism and additionally, were less likely to indicate that standardization of all types were important to the firm. This is in agreement with Miller's (1986) description of organizations with innovative differentiation strategies. Due to the high environmental volatility levels found in these firms, one would not expect to find a high use of standardization of any type in coordinating

activities. Standardization, according to Mintzberg (1979) is more effective in stable environments. How can one standardize when some uncertainty exists in the tasks needed to be performed? Also, an entrepreneurial manager would not necessarily welcome standardization, because its use would hamper the flexibility of the organization as a whole.

Figure 10-D
 Determinants of Performance - Product/Service Differentiation



* - Those variables which met the constraints for inclusion in the discriminant function

The use of standardization of skills met the constraints for inclusion in the discriminant function. The discriminant function, with a significance level of 0.0335, was only moderately successful in discriminating between high and low performers. Using only the organization's use of standardization of skills, the discriminant function was found to have an explanatory power of approximately 9% and successfully categorized 69% of the 51 companies included in

this part of the investigation.

Propositions developed earlier for performance under a strategy of product/service differentiation are provided in the next table.

TABLE 10-E
Propositions Concerning High Performers with
Product/service Differentiation Strategies

High performers will report:

- P(6.a) greater use of MIS
 - P(6.b) greater need for coordination.
 - P(6.c) greater overall resources
 - P(6.d) greater total strengths in their functional areas
 - P(6.e) greater use of planning
-

The use of a corporate-wide management information system was not found to be significant in the comparison of high and low performers with prolonged differentiation strategies. Nor was it significant in comparing firms with a prolonged differentiation strategy to other firms with long-lived competitive strategies. This was surprising given the high level of environmental volatility of these firms and their need for knowledge of their competition's moves and countermoves and their market's changing needs.

Additionally, the delegation of strategic authority was not significant within these companies. Since diversity by products or product lines was not found to be significant between these and other firms with long-lived competitive strategies, it can be assumed that within this group there was a wide range of product diversity. Greater product diversity, especially with high environmental volatility

levels would seem to lead to greater need for delegation of strategic authority. Thus, the use of delegation of authority would differ within this strategic group leading to a lack of significance.

The need for coordination, which was also not found to be significant, would also vary, especially between companies structured around divisions and those structured around functional departments. While the need for coordination between functional departments might be considered great in companies with few products, the need for coordination between product divisions may be seen as quite low in diverse companies. Since structure was not found to be significant between high and low performers or between these firms and others with long-lived competitive strategies, it can be assumed that both functional departmentalized and divisionalized organizations existed within this strategic group.

Thus, the potential for coordination and the need for coordination were not found to be critical for this strategic alternative. What was determined to be critical was the type of coordination used by these firms. Standardization, in general, and standardization of skills, in particular were not popular with these firms, which would be expected in organizations which had to remain flexible to change as suggested by the high level of volatility found in these organizations.

The level of resources available to these firms and the

strength of various functional units was not found to be significant for high and low performers or in the comparison of these firms and others with long-lived competitive strategies. One wonders whether the combination of these two factors (resources available and functional strengths) would have provided a significant result. Perhaps the need for greater flexibility is offset by the need for functional strengths in all areas to effectively compete in a volatile competitive environment. Or, because a number of firms reported that their competitive environment was stable, perhaps this is the reason for a lack of significance, with those reporting highly volatile competitive environments requiring flexibility and thus, a high level of available resources and those with stable competitive environments able to use those resources to build distinctive competences in their functional areas. In investigating these two groups together, there would be a tendency for one to cancel the other and no significance would be found.

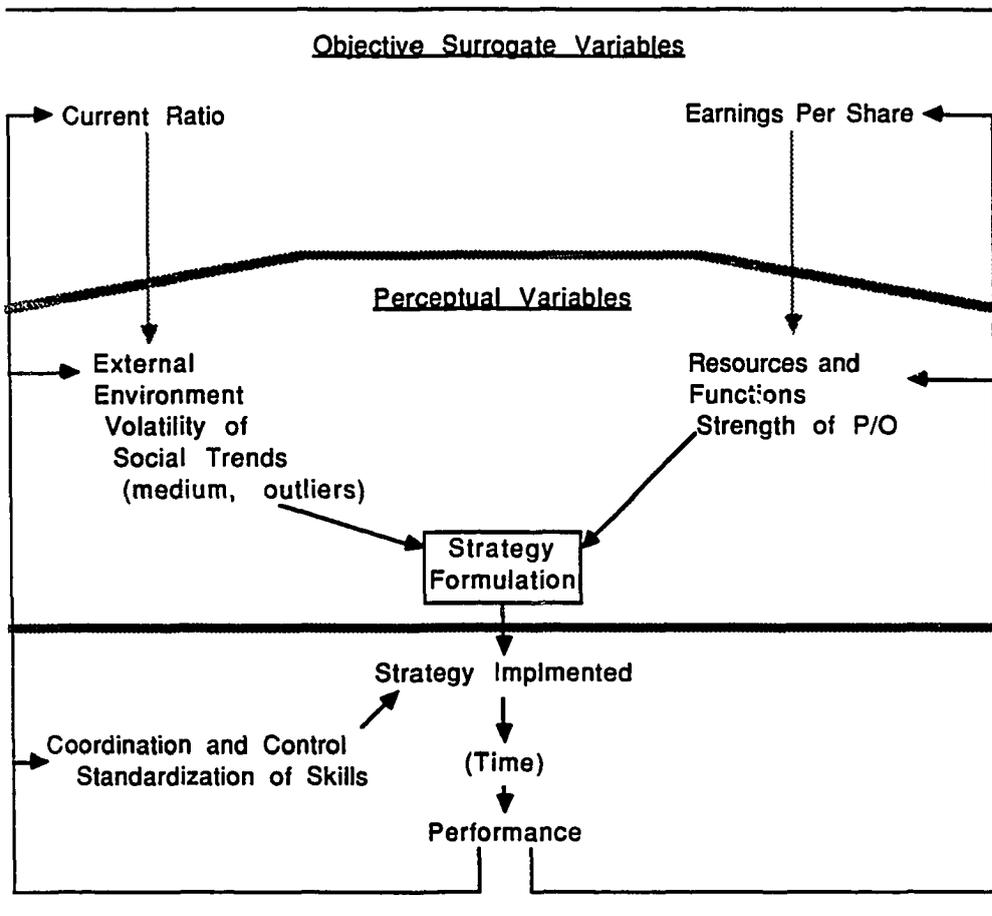
Finally, planning was not found to be significant for either high or low performing firms or in the comparison of those with prolonged differentiation strategies and others with long-lived competitive strategies. Perhaps the costs of planning cannot always be offset by the benefits of planning in highly volatile environments.

Summary - Product/service Differentiation

The following figure depicts the results of this study in the form of a model representing the determinants of the

adoption of the product/service differentiation competitive strategy and then the determinants of performance of the organization after this strategy has been adopted and implementation and control mechanisms have been put into place.

Figure 10-F
 A Model of the Determinants of the Strategy Formulation and Implementation for the Product/Service Differentiation Strategy (includes only those variables which met the constraint for inclusion in the discriminant function ($p < 0.15$))



Concerning the determinants of strategy formulation, only one proposition was supported. Firms which had recently adopted the differentiation strategy were found to more likely indicate that total environmental volatility was high. However, the CEOs of these firms were not found to be significantly more liberal and the organizations were not more vertically integrated and did not have higher manpower resources. Surprisingly, these firms were found to report generally weaker production/operations functions. In fact, this was found to be the best discriminating perceptual variable of those found to be significant in the chi-square analysis. The discriminant function formed from the perceptual variables was only marginally successful in discriminating between strategic groups with an explanatory power of approximately 35%.

One of the surprising results of the analysis of firms with product/service differentiation strategies was the finding that the secondary surrogate variables; earnings per share, the current ratio and R&D expenditures per sales were far better at predicting the adoption of this strategy than the perceptual variables from the mail questionnaire. This is in contrast to the results found for all of the domain direction strategies analyzed in terms of strategy formulation and for the market-focused strategy, as well.

A leading cause of this success may be the high levels of environmental volatility. The three surrogate variables accepted into the discriminant function; earnings per share, the current ratio and R&D expenditures per sales, could all

be considered important in dealing with a volatile environment. Earnings per share would contribute to resources of the organization, the current ratio provides a measure of the organization's ability to adapt and R&D expenditures should lead to greater innovation.

None of the propositions concerned with the successful implementation and control of the differentiation strategy were supported. In fact, only two variables were found to be significant. High performing firms generally claimed less use of standardization of skills or standardization of any kind in coordinating activities. This coincides with the finding that firms with prolonged differentiation strategies continued to have more volatile environments than their counterparts with other prolonged competitive strategies.

Only standardization of skills met the constraints for inclusion in the discriminant function. This function was marginally successful in discriminating between performance levels with an explanatory power of approximately 9%. Thus, it would seem that many of the determinants of successful implementation and control of this strategy have escaped this study. The lack of any significant relationships with organization structure may be a leading cause of this limitation. It is possible that this strategy can exist with different structural configurations and that successful implementation may have to be adjusted to those structures.

Low-cost Production Strategy

A low-cost production leadership strategy generally implies an emphasis on producing at a lower cost than any other competitor in the industry. Success with this strategy has often been tied to market share leadership, standard products and experience curve effects on costs of production. Because only one firm in an industry can be the 'cost leader' one would not expect a high number of firms to be successful with this strategy. If practicing managers are also aware of the difficulty in making this strategy a success then one would expect very few firms adopting or implementing this strategy. This, in fact, is what was found from those firms participating in this investigation.

Because there were only three firms which indicated that they had recently adopted a low-cost production leadership strategy, no analysis was possible of those variables which influence the adoption of this strategy over other competitive strategies. Thus, the discussion jumps to the results of Phase II and will begin with those variables which were significant between firms with long-lived low-cost production strategies from others with long-lived competitive strategies.

Strategy Implementation and Control - Low-cost Production

Firms with a low-cost production strategy are generally assumed to be efficiency driven with their competitive edge determined from their ability to produce at a lower cost than the competition. It follows that these organizations,

if successful, can also be price leaders in their industries due to their ability to be profitable at lower product/service prices.

Firms with prolonged low-cost production strategies were most likely to indicate that their domain direction strategy was domain enhancement. This was not unexpected given the need for these firms to become the experts in the industry on the efficient production of their goods. Success would seem to be enhanced by an organization's single-minded concentration on current operations.

Characteristics of the CEOs of these firms were also found to be significant in comparison to other firms with prolonged competitive strategies. These CEOs were less innovative than their counterparts and were less likely to have general business backgrounds. Lack of innovation would be expected given the need for greater efficiency of operations. Although an explanation for the lack of a general business background is not obvious, it may be that general business experience is better suited to other competitive strategies which have a broader competitive focus than the lowering of production costs.

Although these firms were generally less likely to indicate that survival (or an emphasis on profitability) was a primary organizational need to fulfill, and were less likely to pick profitability as a major objective, they were more likely to choose efficiency as an objective. Efficiency and profitability would seem to be relatively close

substitutes, with greater efficiency increasing the profitability of firms. However, these firms obviously view them as decidedly different. Efficiency of operations comes closer to defining the distinctive competence necessary for the success of this strategy and would be expected as a major objective. Profitability may be too 'broad' a target for these firms with their singular purpose.

In terms of the environment, these firms were found to more frequently view the volatility of their political environments as high and were generally less diverse than other firms with long-lived competitive strategies. Why the political environment may be viewed as being more volatile is not obvious. It could be that these firms are very large and thus are more visible to law-makers. These firms may often be the market share leaders in their industries, especially when experience curve effects are important. It could also be possible that the emphasis on efficiency keeps these firms closer to the edge of certain regulations on business such as pollution controls or employee safety concerns. No support was found for Miller's (1988) claim that firms with conservative cost control strategies were more common in stable environments.

These firms were found to have less segmented markets, fewer international sales and fewer products. Again, the lack of diversity is not surprising considering the importance of efficient operations. It may not be as easy to transfer this strategy across lines-of-business. This finding is also consistent with the relationship found between firms

with low-cost strategies and the likelihood of having domain enhancement strategies at the same time. It should also be remembered that firms with domain enlargement strategies were significantly related to the differentiation and market-focus competitive strategies, suggesting that these may be better suited for entering new industries or markets. That these firms tend to compete in unsegmented markets is also not surprising. One way of reducing costs is to ride the experience curve down on standardized products. Standardized products make this strategy more attractive as an alternative and also lessen the possibility of market segmentation.

Firms with long-lived low-cost strategies were also generally found to have greater control over the major fuels used in their operations. Given the increased cost of energy over the past fifteen years, this should come as no surprise.

Three significant findings were uncovered in terms of the influence of major stakeholders on the organization. Firms with low-cost strategies generally reported higher influence from employees and suppliers of key materials. These two groups are closely related to the technological process and could easily effect the cost of operations. Additionally, the influence of all stakeholders combined was found to be higher in these firms.

The managerial resources of firms with prolonged low-cost production strategies were generally considered to be

higher than those of other firms. Given the need for high degrees of control and the required expertise necessary for this strategy to be successful, one would expect a well developed management hierarchy in these organizations.

The finance function for these firms was considered, in most cases, to be weaker than in other firms. Because these firms were not generally found to be 'growth' firms, perhaps the cost of maintaining a strong finance function does not match the benefits which this function can provide for these firms.

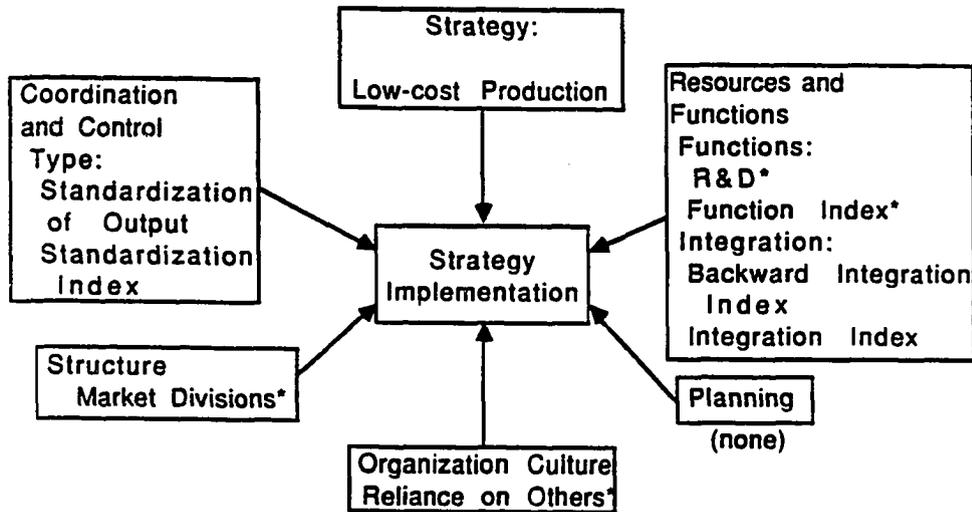
These organizations were also more centralized in terms of decision-making than others with prolonged competitive strategies. Most of the CEOs of these firms indicated that they did not delegate strategic authority to others in the organization. Again, perhaps the emphasis on efficient operations requires greater control not only in operations but through the entire management hierarchy. Also, the lack of diversity would suggest that centralization of decision-making would be more feasible in these firms.

Lastly, the CEOs of these firms were not as likely to agree that they expected loyalty from their lower level managers. The lack of decentralized decision-making may cause loyalty to be less necessary than in other firms where middle-level managers are given more power over the decision-making process.

Of the nine firms which reported having prolonged low-cost production strategies, six were found to be high performers and three fell into the low performance category.

The results of the analysis on these firms are provided below.

Figure 10-G
Determinants of Performance - Low-cost Production



* - Those variables which met the constraints for inclusion in the discriminant function

Four of the five major areas thought to influence the effective implementation and control of strategy were represented by significant variables in the comparison of high and low performing firms with long-lived low-cost production strategies. These areas included coordination and control, structure, resources and functions and organizational culture.

The high performing firms made less use of standardization of all types and, more specifically, less use of standardization of outputs as coordinating mechanisms at upper levels of the organization. These findings were inconsistent with Miller's (1986) claim that

standardization mechanisms would be of major importance to the success of this strategy. However, Miller was concerned with the entire organization and did not look specifically at coordination in upper management levels.

The high performers were also not likely to be using market divisions in structuring their organizations. However, their use of functional departments or product divisions (which would be closer to Mintzberg's 'ideal' divisionalized form) is consistent with Miller's claim that the low-cost strategy may be best suited for these structures (1986).

In terms of functional performance, the high performers were more likely to indicate higher performance from their research and development groups but were also more likely to score lower on the total functional performance index. Although success for this strategy seems to depend to some extent on a strong research program, there are obviously other functional areas where strong performance is not required.

The high performing firms were also found to be more integrated than their lower performing counterparts. These firms scored higher on both the backward integration index and the total vertical integration index. These findings are in contrast with the results of Rumelt (1974), where vertical integration was generally associated with low performance. High degrees of control over the various activities necessary for production would seem to be an

important element for the success of this strategy.

Finally, the CEOs of the high performers were more likely to rely on the opinions of others in making major decisions. Thus, even though these firms as a whole were not as likely to delegate strategic authority, the CEOs of the high performers were more open to the views of others in making their decisions. This result is in contrast with White's (1986) findings of a strong relationship between high control by the corporate office and high ROI.

The discriminant analysis on high and low performance firms with prolonged low-cost production strategies indicated that the strength of the research and development function, the CEOs' reliance on others in decision-making, the functional performance index, and the use of market divisions (in that order) were the leading discriminators between performance levels. The discriminant function was highly significant (at the 0.0000 level) and was able to explain 100% of the variance between strategy classifications.

So how did these results match the propositions developed in Chapter 4? These propositions are provided in Table 10-H.

TABLE 10-H
Propositions Concerning High Performance in Firms with
Long-lived Low-Cost Production Strategies

High performers will report:

- P(5.a) greater use of overall standardization
 - P(5.b) greater use of direct supervision
 - P(5.c) greater centralization
 - P(5.d) greater use of MIS
 - P(5.e) greater need for coordination
 - P(5.f) greater use of a functional structure
 - P(5.g) higher levels of manpower resources
 - P(5.h) greater overall resources
 - P(5.i) greater strength in production
 - P(5.j) greater use of planning
 - P(5.k) a more mechanistic culture
-

The use of standardization was found to be significant between high and low performing firms with prolonged low-cost production strategies but the results indicate the opposite relationship than was expected. The high performing firms were actually less likely to use standardization mechanisms, in general, and standardization of output, in particular, than the lower performing firms. It should be remembered that the item on the questionnaire was concerned primarily with coordination types used at the top of the organization. Thus, it is certainly possible that at lower levels more use of standardization techniques could be found. Standardization of output, according to Mintzberg (1979) would be used more extensively in divisionalized firms which were more frequently found in the low performance category. Direct supervision as a coordinating mechanism was not found to be significant between either high and low performing firms with long-lived low-cost

production strategies, or between these firms and others with long-lived competitive strategies.

Firms with prolonged low-cost strategies were found to be more centralized than others with long-lived competitive strategies. However, the CEOs of high performing firms were likely to rely more heavily on the opinions of others in making decisions. Thus, although strategic decision-making remained primarily at the top in these organizations, in the high performing firms input from others was welcome.

Neither the use of a computerized MIS program or the need for greater coordination was found to be significant in these firms. Given the emphasis on efficiency, one would expect a high need for coordination of activities. Perhaps the need for coordination was seen as high for all firms with low-cost strategies and there are other strategies which also require high levels of coordination between work units.

Although the use of a functional structure was not found to be significant, the use of market divisions was determined to be more frequent in low performing firms with a low-cost production strategy. The use of market divisions may detract from the production emphasis required for this strategy to be successful.

Although manpower resources or total resources were not found to be significant between high and low performing firms, high levels of managerial resources did set these firms apart from others with long-lived competitive

strategies. Surprisingly, a strength in production/operations was not found to separate high and low performing firms with low-cost production strategies nor was it significant in comparing these firms with others having prolonged competitive strategies. Although one would not expect these firms to be highly innovative, the strong performance from research and development was found to be significant for high performing firms. Equally surprising was the finding that high performing firms actually viewed the strength of all their functions to be lower than their low performing counterparts. Perhaps the cost of maintaining high performance levels in other functional areas such as marketing, finance and personnel are not warranted for the successful implementation and control of this strategy.

No variable concerned with planning was found to be significant between high and low performing firms or between those with prolonged low-cost strategies and others with long-lived competitive strategies. This does not suggest that planning is not important in these firms, but only indicates that it was not significant in separating performance groups or strategic groups.

In high performing firms the CEOs indicated a stronger willingness to accept inputs from others in making major decisions. This reflects a more organic culture rather than the mechanistic one proposed. The firms with prolonged low-cost strategies were also less likely to expect loyalty from lower level managers. This again points to an organic rather than a mechanistic culture. Thus, although these firms

remain efficiency driven, and centralized in decision-making, their cultures may not be as mechanistic as was proposed.

Summary - Low-cost Production

As was expected, there were relatively few firms which indicated that low-cost production was their primary strategy. Because of the low number of firms which had recently adopted a low-cost production strategy, no investigation of the determinants of the formulation of this strategy could be made.

None of the propositions concerning the successful implementation and control of this strategy were supported. Generally, the higher performing organizations were less likely to be using standardization mechanisms of any type at upper levels of the organization, were less likely to have market divisions (they were dispersed between functional and product division units), were more likely to view their strength in R&D as high but were also more likely to perceive their strengths in all functional areas as lower than their lower performing counterparts. Additionally, the CEOs of the high-performing firms were less likely to indicate a need for loyalty from lower level managers and were more likely to rely on the opinions of others in making their decisions. Both of these results indicate an organic rather than a mechanistic culture.

The results of the discriminant analysis between high and low performers were very strong. The strength of R&D,

reliance on others, the functional strength index and the use of market divisions were all accepted into the discriminant function. This function was found to have an explanatory power of 100%.

Market-focus Competitive Strategy

The market-focus strategy was defined as a competitive focus on specific target markets. This definition differs from that of Porter's in that it accepts that one organization may focus on a number of target markets at one time. Porter's major unit of analysis was at the line-of-business level. Because the unit of analysis for this study is the organization (no matter how diverse), it was thought necessary to relax Porter's original description of this strategy.

Thirty-seven firms indicated that their primary competitive strategy was market-focused. Of these, seven firms had recently adopted this strategy and thirty firms were found to have made extended use of this competitive strategy. Of those with long-lived market-focused strategies, 7 were found to be high performers while 23 fell into the low performance category.

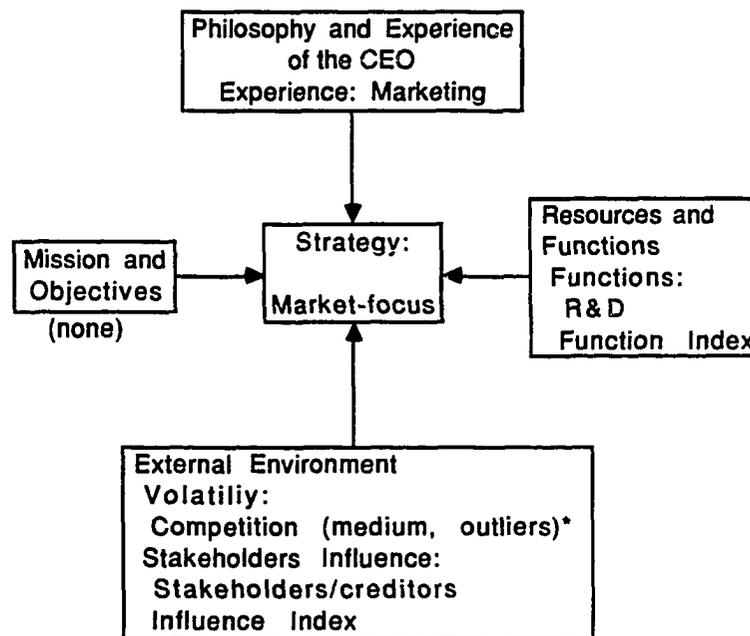
Perceptual Determinants of Strategy Formulation: Market-focus

Firms with recently adopted market-focus competitive strategies were found to most likely report lower levels of importance concerning low-cost production and domain

enhancement to their overall strategy. Also, these firms were most likely to indicate that domain enlargement was their primary strategy and were least likely to pick domain enhancement. Thus, a market-focus strategy seems to be conducive to domain enlargement, in agreement with the results of the analysis on domain enlargement strategies.

The following figure provides those relationships which were found between firms with recently adopted market-focus strategies and firms with other recently adopted competitive strategies using the perceptual variables obtained from the mail questionnaire.

Figure 10-1
Determinants of Strategy Formulation - Market-Focus



* - Those variables which met the constraints for inclusion in the discriminant function

Three of the four major areas thought to influence the formulation of strategy were represented by significant variables found in comparing firms with recently adopted market-focus strategies to others with recently adopted competitive strategies. These included the experience of top management, the external environment and internal resources and functional strengths.

The propositions suggested in Chapter 4 pertaining to the adoption of a market-focus strategy are provided in the following table.

TABLE 10-J
Propositions Concerning the Adoption of a Market-Focused Strategy

P(1.c) Managers will report having backgrounds in marketing significantly more often.

P(3.f) Organizations will be found to have the greatest diversity.

P(4.f) Organizations will report having greater strengths in marketing.

Firms with recently adopted market-focus strategies were found to more frequently have CEOs with marketing backgrounds in agreement with proposition P(1.c). A market-focus strategy certainly indicates a marketing orientation and a need for strong marketing skills. Also, the CEO may be tempted to adopt a strategy directed at their expertise, given that their performance will be judged on the success of that strategy.

Although it was believed that these firms would be the

most diverse, in terms of both products and markets, this was not found to be true. However, three environmental variables were found to be significant, one concerned with the volatility of the competitive environment and two related to the influence of stakeholder groups.

Firms with recently adopted market-focus strategies were most likely to score high or low on their perceived levels of competitive environmental volatility. Firms which indicated a high level of volatility may have chosen a market-focused strategy in the hopes of reducing this volatility by choosing more stable segments of the market. Alternatively, these firms, caught in a volatile environment, may have chosen the market-focus strategy, not to reduce the volatility of the environment but to make it easier for the organization to adjust to that volatility through the concentration on certain segments of the market. Firms which reported relatively stable environments may have decided that enlarging their domains was a feasible direction for their firm and that a market-focus strategy was possibly the best choice of the competitive strategy alternatives in enlarging their domains. It should be remembered that a significant relationship was found between the use of a market-focus strategy and the importance of domain enlargement to the domain direction of the firm. Also, focusing on certain market segments rather than entering the competitive arena within the entire market might be more reasonable for firms with limited resources.

Also, these firms reported low levels of influence from

stockholders and creditors and low levels of influence from all stakeholder groups, in general. Low levels of influence from stockholders and creditors was also noted in firms with recently adopted domain enlargement strategies. Thus, one would expect this finding as long as a significant relationship exists between these two strategies. Why total influence in these firms would be considered low is unclear. Perhaps a change in the competitive strategy as well as a change in the domain of operations (through domain enlargement) can be undertaken, only when the CEO perceives little influence from current stakeholders.

Two variables were significant in regards to the functional strengths of various areas of the organization. Firms with recently adopted market-focus strategies were most likely to indicate low to medium levels of strength in their research and development, yet were more likely to score high on the functional strength index. Thus, although their R&D strength was lower than average, they more than made up for this in their strengths in other areas. No significant relationship was found between the strength of the marketing function and the market-focus strategy as suggested by Proposition 4.f. Apparently, these firms should not be considered to have one primary function, marketing, which stands out above the rest. Although research and development was not considered to be strong, all other functions, including marketing as well as production/operations, finance and personnel produced a

functional strength index which was generally higher than other firms with recently changed competitive strategies. It should again be noted that firms with recently adopted domain enlargement strategies also reported high levels of performance from their functional areas, which provides further proof of the close relationship between these strategies.

Three of the six variables found to be significant to the formulation of a market-focus strategy met the constraints for inclusion in the discriminant function. The best discriminator was found to be the competitive component of the environmental volatility index (medium, outliers), followed by marketing experience of the CEO and the influence of stockholders and creditors. The results of the discriminant analysis were strong with a significance level of .0011 and an explanatory power of approximately 70%. Using these two variables, 100% of the firms under investigation were successfully classified.

Strategy Formulation Using Secondary 'Surrogate' Variables:
Phase III

Surrogate variables were obtained for all but one of the variables found to be significant between firms with recently adopted market-focused strategies and other firms with recently adopted competitive strategies. The one exception was the stakeholder influence index. The perceptual variables and their surrogates from Industrial Compustat are shown in the following table.

TABLE 10-K
 Strategy Formulation: Significant Perceptual
 Variables and Their Surrogates From Industrial
 Compustat

Perceptual Variables	Secondary Surrogates
Marketing Experience	R&D Expenditures R&D Expenditures/Sales Current Ratio Times Interest Earned
Competitive Volatility (medium, outliers)	Total Sales Earnings Per Share
Influence of Stockholders and Creditors	Total Sales Total Assets Sales Volatility # of Employees Times Interest Earned Interest Expense/Sales Cash Dividends/Sales
Stakeholder Influence Index	(none)
Strength of R&D	R&D Expenditures R&D Expenditures/Sales Inventory/Sales
Functional Strength Index	R&D Expenditures

These surrogates were used in place of the perceptual variables in the discriminant analysis between firms with recently adopted market-focus strategies and other firms with recently adopted competitive strategies. However, none of the surrogate variables met the constraint for inclusion in the discriminant function ($p < 0.15$).

Thus, although the results of the discriminant analysis using perceptual variables indicated a fairly strong ability to predict strategy (explanatory power of approximately 70%), their secondary 'surrogates' failed to meet the

constraints for inclusion in the discriminant function. This was nearly opposite of what was found for the formulation of the differentiation strategy where the surrogate variables outperformed the perceptual variables by a wide margin.

Strategy Implementation and Control: Market-focus Strategy

Thirty firms were found to have long-lived market-focused strategies. These firms were less likely to view domain enhancement as a major part of their domain direction strategy. However, a relationship with the domain enlargement strategy was not found between these firms and others with long-lived competitive strategies, as was the case for firms with recently adopted market-focus strategies.

The CEOs of firms with prolonged market-focus strategies generally perceived themselves as being more innovative than their counterparts in other firms with long-lived competitive strategies. Because the competitive edge in these firms is gained from their ability to satisfy the needs of a specific market, they must be willing to respond to the changing needs of that market.

These firms were less likely to have objectives related to product quality and service or employee welfare but were more likely to have objectives related to growth. Although growth corresponds to the finding that enhancing current domains was not a major concern for these companies, why product quality and service or employee welfare were not significant remains unclear. It is difficult to comprehend

how product quality and service could not be important for these firms. Perhaps it is so important that it is emphasized, not in the objectives of the company, but in the mission of the organization and in the philosophy of the top management team. Or, perhaps these firms concentrate on market segments where competition is scarce, making product quality and service less important. Employee welfare may be relegated to a 'step-child' position in these firms given their concern for meeting the needs of the customer stakeholder group.

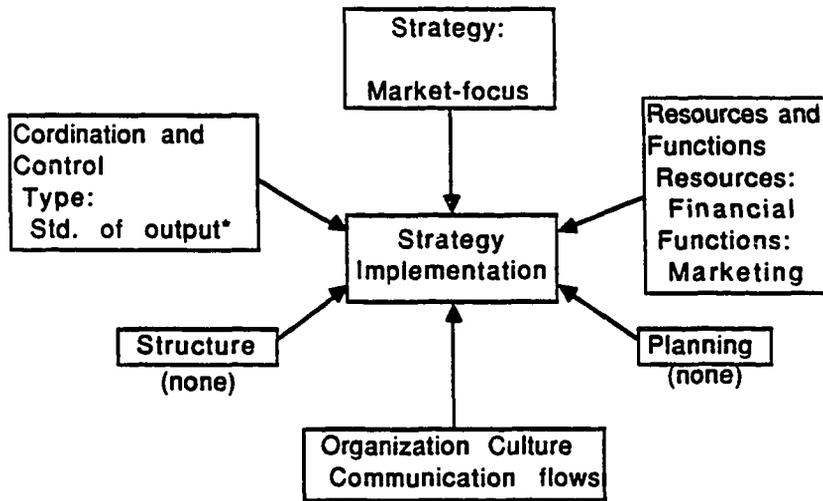
The environments of these firms were also found to have different characteristics than other firms with long-lived competitive strategies. The volatility of social trends was found to be a key, with firms having market-focus strategies more likely to indicate low levels of volatility but also more likely to indicate either high or low levels of volatility rather than medium levels. Low levels of volatility concerning social trends corresponds with the statement earlier that these firms may target segments of the market which are relatively stable. Those with high levels of volatility may have little choice but to target segments of the market in adapting to that volatility. Not surprisingly, these firms generally indicated that their markets were more segmented than other firms with prolonged competitive strategies. A company would seem to need a segmented market to be able to focus on a particular segment.

Also, these firms were found to have generally more control over marketing research, which corresponds to an innovative philosophy and also to the necessity of meeting the needs of specific groups of customers.

Firms with prolonged market-focused strategies were generally found to emphasize direct supervision as a primary coordinating mechanism between major work units but were not found to emphasize shared values and beliefs. According to Mintzberg, the use of direct supervision corresponds with an organic organization, along with mutual adjustment. This coordinating mechanism may be the most appropriate in providing the flexibility to adjust to the needs of consumers in one or a number of target markets, while at the same time providing enough coordination between the marketing function and other functions such as production/operations.

Of the thirty firms which indicated having a market-focused strategy for more than the past two years, only seven were found to be high performers while twenty-three fell into the low performance category. The following figure identifies those variables found to be significant between these two performance groups.

Figure 10-L
Determinants of Performance - Market-focus



* - Those variables which met the constraints for inclusion in the discriminant function

Three of the five major areas thought to influence the successful implementation and control of strategy were represented by significant variables in comparing firms at the two performance levels (high vs. low). No significant relationships concerning the structure of the organizations or planning were found.

In terms of coordination and control, high performing firms were more likely to emphasize the standardization of outputs. Because this is a relatively 'loose' standardization mechanism, it may provide subordinates enough flexibility to effectively meet the needs of a particular market group yet provide enough coordination for the effective administration of the organization.

In terms of resources and functions, the high performers were found to have generally higher levels of

financial resources. This corresponds to the emphasis on growth as a primary objective for these firms which would indicate a high need for these resources. What is surprising is that the high performing firms with prolonged market-focus strategies generally viewed the performance of their marketing function as weak. Two possible explanations for this finding come to mind. First, the CEOs of the high performing firms may simply be harder to please, always pushing for greater performance, especially in what would seem to be an important function for the success of this strategy. A second possibility may be that these companies go out of their way to compete in market segments which are relatively easier to compete in, such as ones where there is a decided lack of other competitors and where the needs of the customers are fairly well understood. This would coincide with an environment where social trends were relatively stable. Given these conditions, a firm may be able to perform better, in terms of profitability, with a weaker (and less expensive) marketing function.

Finally, the high performing firms indicated that communication at the top of the organization was relatively evenly distributed between vertical and horizontal dimensions while the low performing firms indicated more of a vertical flow, within major work units. This suggests a more organic culture and perhaps, a need for some coordination across major work units.

Only one of these variables, standardization of output,

met the constraints for inclusion in the discriminant function. This function was only moderately successful in discriminating between high and low performers with a significance level of 0.1022 and an explanatory power of only 13%.

The following table provides those propositions which were developed in Chapter 4 of this study regarding performance with a market-focused strategy.

TABLE 10-M
Propositions Concerning High Performers in Firms with
Long-lived Market-Focused Strategies

High performers will report:

- P(7.a) greater decentralization
 - P(7.b) greater use of shared values
 - P(7.c) greater use of standardization of output
 - P(7.d) less use of MIS
 - P(7.e) less overall need for coordination
 - P(7.f) greater use of divisionalized structures
 - P(7.g) greater managerial resources
 - P(7.h) higher overall resources
 - P(7.i) greater strength in marketing
 - P(7.j) greater use of planning
 - P(7.k) a more organic culture
-

Decentralization was not found to be significant in the comparison of high and low performing firms with long-lived market-focused strategies or between these firms and others with prolonged competitive strategies. Because this group of firms includes both those that compete only in one focused market and others which compete in several, the degree of decentralization may well depend on the number of target markets included in operations.

The use of shared values was actually found to be less

in these firms than in others with long-lived competitive strategies. Direct supervision was found to be significantly more important as a coordinating mechanism at higher levels of the organization for firms with long-lived market-focused strategies, which would lead one to suspect that most of these firms were relatively small and not very diverse. A high use of standardization of output was found to be significant for high performing firms, as was proposed.

The use of a computerized management information system was not found to be significant, nor was the need for coordination in these firms. High performing firms did indicate a more even flow of communication across and within major units of the organization indicating that some coordination may be beneficial at upper managerial levels. The use of divisionalization was also not found to be significant, indicating that this group of firms consisted of both divisionalized and functionally structured organizations.

In terms of resources and functional strengths, high performers were found to have higher financial resources but not managerial resources or resources, in general. Firms with prolonged market-focus strategies were also not found to have higher resources than their counterparts with other long-lived competitive strategies, even though growth seems to be a primary concern. Perhaps this is a competitive strategy that allows growth without abundant resources. The strength of the marketing department was found to be

significant between high and low performers but the results indicate the opposite relationship from what was proposed. The high performers actually viewed the performance of their marketing function as lower than their lower performing counterparts, as already discussed.

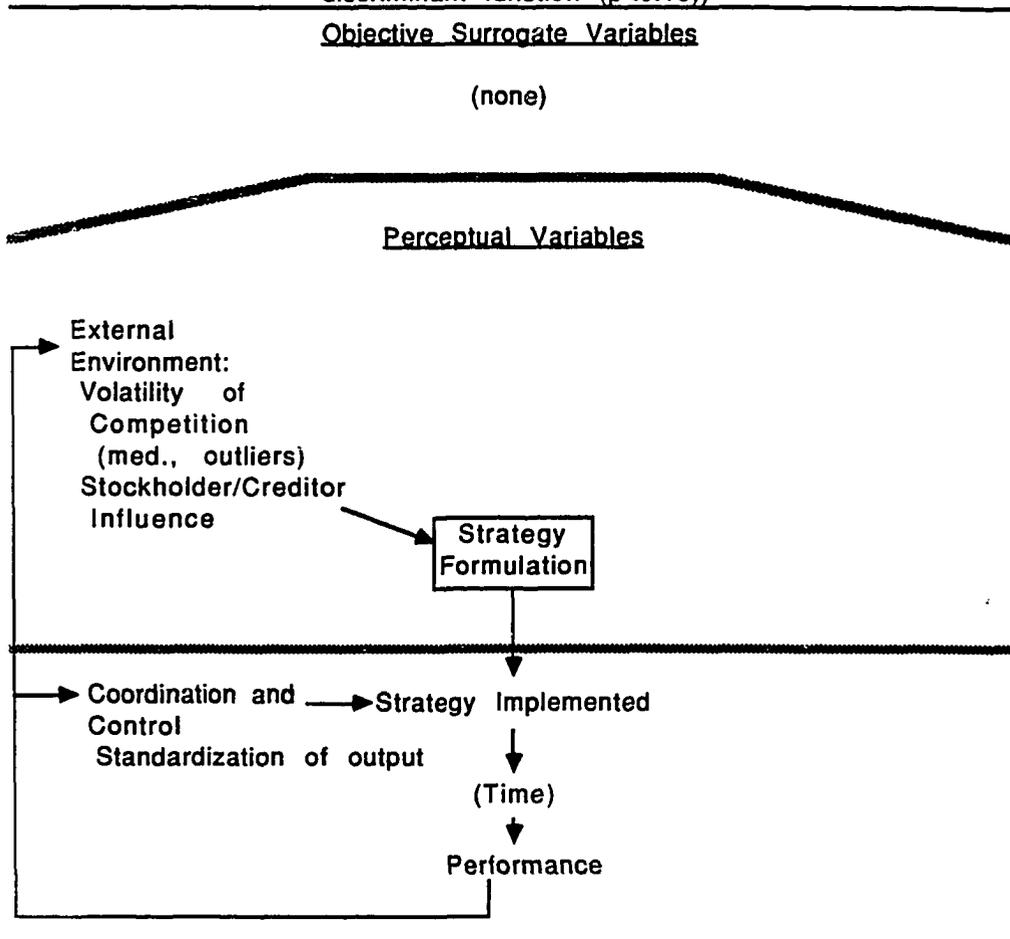
The use of planning was not found to be significant either between high and low performing firms with long-lived market-focus strategies or between these firms and others with prolonged competitive strategies.

Communication flows at upper managerial levels of the organization were evenly distributed between and within major work units in high performing firms, as noted previously. Low performing firms concentrated communication within major work units. Thus, the high performance firms would seem to have a more organic culture, at least on this one dimension.

Summary - Market-focus Competitive Strategy

The following figure presents the results of the analysis of the market-focus strategy in terms of the determinants of the formulation of this strategy and, then, the determinants of performance once this strategy has been adopted and implemented.

Figure 10-N
A Model of the Determinants of the Strategy Formulation and Implementation for the Market-focus Competitive Strategy (includes only those variables which met the constraint for inclusion in the discriminant function ($p < 0.15$))



In terms of the formulation of strategy, only one proposition was supported. The CEOs of firms with recently adopted market-focused strategies frequently had backgrounds in the marketing area. It was believed that this strategy would have a definite marketing orientation starting with the CEO having a marketing background and including major strengths in the marketing function. However, these firms

were found to have major strengths in most areas with the exception of research and development. Because this strategy suggests the possibility of having several focused markets it was also felt that these organizations would be diverse in terms of products and markets. However this was not found to be the case. These firms were found to exist in either stable or fairly volatile competitive environments and perceived little influence from stockholders and creditors or from stakeholder groups, in general. Finally, there is strong evidence of a positive relationship between the adoption of a market focus strategy and the domain enlargement strategy.

The discriminant analysis using perceptual measures was fairly strong. Two variables, the volatility of the competitive environment (medium, outliers) and the influence of stockholders and creditors, were included in the discriminant function. This function was found to have an explanatory power of approximately 70%.

Although surrogate measures were found for all of the perceptual variables except the stakeholder influence index, none could meet the constraints for inclusion in the discriminant function for this strategy.

Partial support for three of the propositions concerned with successful implementation and control of the market focus strategy was found. High performers were more likely to emphasize standardization of output as a coordinating mechanism at upper levels of the organization. Although the

high performers were not found to have significantly greater resources in general, they were found to have greater financial resources. Finally, although the culture index was not significant between the high and low performers, communication flows were significant. High performers emphasized horizontal communications more than low performers which would indicate a more organic culture. Surprisingly, marketing strength was generally perceived to be lower in the high performing firms than in their lower performing counterparts.

Only the use of standardization of outputs met the constraints for inclusion in the discriminant function. This function was only moderately successful in discriminating between performance levels with an explanatory power of approximately 13%.

The Combination Competitive Strategy

The combination competitive strategy was defined as a corporate-wide competitive strategy where two or more of the previous competitive strategies discussed were of equal importance. Only two firms indicated that they had recently adopted a combination competitive strategy, thus no analysis could be made of those variables which seemed to influence the formulation or selection of this strategy over other competitive strategies. The discussion of this strategy will be limited to characteristics of firms with long-lived combination competitive strategies, in comparison to other firms with long-lived competitive strategies and in

comparing the high and low performers with long-lived combination competitive strategies.

Strategy Implementation and Control: Combination Strategy

There were thirty-eight firms which indicated that they had been using a combination competitive strategy for more than the past two years. These firms were less likely to view domain enhancement as their primary domain direction strategy or see it as an important part of their overall strategy. Firms with prolonged combination competitive strategies were more likely to indicate that their primary domain direction strategy was domain restructuring. Thus, a combination competitive strategy seems to correspond to a 'combination' domain direction strategy.

Two characteristics of the CEOs of these firms set them apart from others with prolonged competitive strategies. First these CEOs tended to see themselves as more aggressive than their counterparts. Perhaps aggressiveness leads to multifaceted strategies, not only in the competitive dimension but in the domain dimension as well. Second, these CEOs were less likely to have marketing backgrounds and more likely to have general business backgrounds. A broad background such as general business may be necessary to carry out the successful implementation of these multifaceted strategies.

Only one objective was found to set these organizations apart from others with long-lived competitive strategies. Those with prolonged combination strategies were more likely

to indicate that employee welfare was a major concern. The implementation of multifaceted strategies may lead to greater ambiguity for employees, increasing on-the-job stress and perhaps lead to greater turnover or absenteeism. Another possibility is that these firms are older, larger and further along in their development. Perhaps a concern for employee welfare is tied to development of the organization as was suggested in Chapter 9 regarding the adoption of a domain restructuring strategy.

Firms with long-lived combination strategies tended to be more active in international markets. This is opposite of the results found for firms with differentiation strategies. Combination corporate-wide competitive strategies may leave more strategic flexibility for subunits to adjust to their particular situations while, at the same time, provide a vehicle for synergistic activities between those units.

Also, these companies indicated generally higher levels of control over the retailing of their products. Control over retailing may increase the success rate of various competitive strategy alternatives such as market-focus or differentiation and, thus, becomes highly important when more than one of those strategies are pursued.

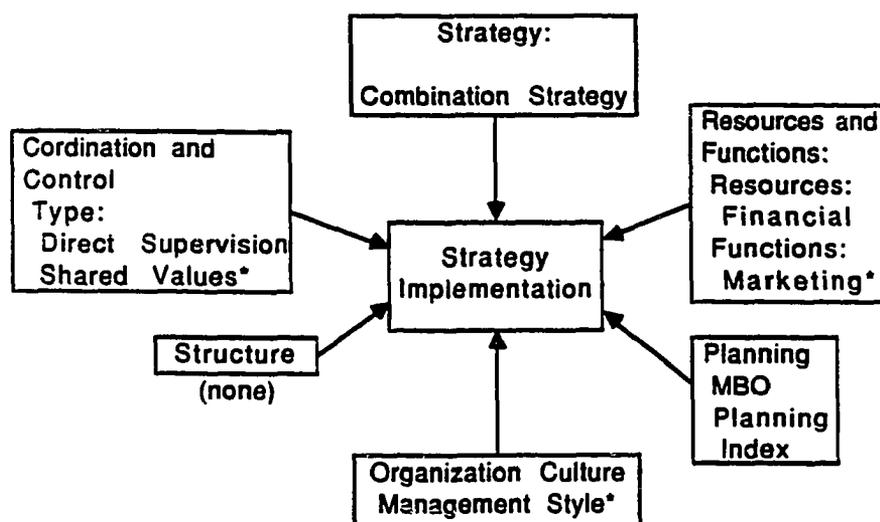
Two relationships were found concerning the influence of various stakeholder groups. These firms were less likely to see employees as major influencers of decisions, even though employee welfare was found to be a primary concern. At the same time these companies were found to more likely fall into the high category for the stakeholder influence

index. Multifaceted competitive strategies may have a greater impact on the relationships the organization has with various stakeholder groups and because the CEO has the greatest control over employees, this group gets left out. On the other hand, these may be larger organizations with more established managerial hierarchies so that the CEO is further removed from the employees, making their ability to influence decision-making that much weaker.

Another characteristic of the CEOs of these organizations was that they were more likely to expect loyalty from their lower level managers. This could be attributed to the geographical diversity of these firms and the long communication lines required to effectively manage geographical diversity. On the other hand, multifaceted strategies, because they are more complex and at the same time ambiguous in nature, may require loyalty for successful implementation and control. Finally, perhaps aggressive CEOs simply demand loyalty from subordinates for no other reason than that it meets their particular needs as individuals.

Thirty-eight firms indicated that their primary competitive strategy over more than the past two years was a combination strategy. Of these, eighteen were high performers and twenty fell into the low performance category. The results of the comparison of high and low performers with prolonged combination strategies are provided in Figure 10-0.

Figure 10-O
Determinants to Performance - Combination Strategy



* - Those variables which met the constraints for inclusion in the discriminant function

Four of the five major areas thought to influence the successful implementation and control of strategy were represented as significant between high and low performing firms with prolonged combination competitive strategies. Only 'structure' was not represented.

Two coordination devices set high and low performing firms apart. The use of shared values and beliefs was generally seen as more important to high performing firm, and the use of direct supervision was somewhat less important for the high performers. Given the geographical diversity of these firms this may be an indication that the high performers work to transfer their cultures throughout the organization rather than try to supervise over long distances.

In terms of resources and functional performance, high performers indicated higher levels of financial resources which one would expect with greater profitability. Surprisingly, the high performers also indicated that the performance of their marketing function was weaker than in the low performing firms. This same relationship was found for high performing firms with prolonged market-focus strategies and the possible explanation remains unclear. Either marketing is not important for high performance or alternatively, it is very important and the CEOs of high performing firms are much more difficult to satisfy!

Two variables concerned with planning were found to be significant. First, the high performing firms were less likely to be using MBO and second, the high performers were more likely to score lower on the total planning index. Perhaps the use of shared values and beliefs can be used, at least partially, in place of planning. Instead of using objectives or action plans to coordinate future decisions, the organization transfers certain values or beliefs which influence the decisions of members of the organization. Or, perhaps when the strategic direction of the firm is to go full speed ahead in multiple directions, the usefulness of planning diminishes.

Another characteristic of the CEO of high performing firms was that they were more likely to indicate that theirs was a more people-oriented management style. Again, this style of management may work best in a geographically diverse organization and it also may fit better with the

ambiguity of trying to go in multiple directions at once.

The use of shared values and beliefs as a coordinating mechanism, the CEO's management style and the strength of the marketing department were found to be the best discriminators between high and low performing firms with prolonged combination competitive strategies. The discriminant function formed by these variables was significant at the 0.0005 level and had an explanatory power of approximately 50%.

The next table provides those propositions which were developed in Chapter 4 which pertain to performance in firms with long-lived combination competitive strategies.

TABLE 10-P
Propositions Concerning High performers in Firms with
Long-lived Combination Strategies

High performers will report:

- P(9.a) greater use of MIS
 - P(9.b) greater overall resources
 - P(8.c) greater use of planning
-

The use of a computerized management information system was not found to be significant between high and low performers even though these were geographically diverse organizations. This was also not found to be significant in comparing these firms to others with long-lived competitive strategies. Perhaps the extensive use of shared values throughout the organization counteracts the need for a corporate-wide management information system.

The total resources of these firms were also not found to be significant between high and low performance categories. However, the high performers did view their financial resources as higher than the low performing firms.

As has already been mentioned, planning was found to be significant between high and low performing firms with prolonged combination competitive strategies. However, the results of the analysis indicates that the relationship is the opposite of what was expected. The high performing firms were found to make less use of MBO and were also found to score lower on the total planning index, which included items concerned with the use of strategic planning and the use of tactical planning.

Summary - Combination Competitive Strategies

Due to the few firms which had recently adopted a combination competitive strategy, no analysis could be performed on the determinants of the formulation of this strategy.

None of the propositions concerning the determinants of performance within this strategy were supported. The planning index was significant between performance levels but the results indicate that the high performers were more likely to be making less use of current planning techniques. Also, although the high performers did not score significantly higher in terms of total resources, as was proposed, they did score higher in terms of their financial resources. Finally, no support was found concerning the use

of MIS in these organizations even though they were found to compete more heavily in international markets than firms with other competitive strategies.

Other significant relationships found in comparing the high and low performing firms with long-lived combination strategies included:

- 1) high performers made more use of shared values and beliefs,
- 2) high performers made less use of direct supervision,
- 3) high performers indicated lower strength in terms of marketing,
- 4) high performers made less use of MBO, and
- 5) the CEOs of high performers indicated a more people-oriented style of management.

The use of shared values and beliefs, management style and the strength of marketing met the constraints for inclusion in the discriminant function. This function was moderately successful in discriminating between performance levels with an explanatory power of approximately 50%.

Multiple Competitive Strategies

The last competitive strategy alternative to be analyzed is another form of the combination competitive strategy. In this case, there is no corporate-wide competitive strategy but, instead, the competitive strategy used in different parts of the organization such as its product or market divisions, is designed to meet the needs of that specific product/market area assigned to that unit of the organization. Thus, these organizations could be said

to have several different competitive strategies, dependent on the number of product/market areas within their domain and the heterogeneity of those areas. For convenience, this strategic alternative will be referred to as 'multiple competitive strategies'.

Only one firm reported adopting this strategy within the last two years. Thus, no analysis could be made in the determination of those variables which seemed to influence the formulation or selection of this strategy over other competitive strategies. The discussion will center on those variables found to be significant to firms with this strategy in comparison to others with long-lived competitive strategies and in comparing the high and low performers with long-lived multiple competitive strategies.

Strategy Implementation and Control: Multiple Competitive Strategies

Companies with long-lived multiple competitive strategies were found to be significantly related to three other strategic alternatives. First, these firms were likely to indicate that differentiation and market-focus were of low importance to their overall competitive strategy. This is reasonable considering that these firms had no 'overall' competitive strategy. However, a market-focus competitive strategy would seem to leave more room for competitive strategy adjustments between focused markets in those firms which competed in multiple market segments. In terms of domain direction, these companies were either found to

indicate that domain enhancement was of great importance to their overall domain direction strategy or that it was of low importance. None of these firms fell into the middle ground for this strategic variable.

Three characteristics of the CEO were significant. The CEOs of firms with prolonged multiple competitive strategies considered themselves to be either risk-seekers or adverse to risk. Again, none of these companies were found in the medium category for this variable. It is possible that this relationship is related to these organizations' domain direction strategies, with those having risk adverse CEOs indicating a commitment to the enhancement of current domains and those having CEOs which sought risk as viewing domain enhancement as relatively unimportant to their domain strategy. Also, these CEOs did not consider themselves to be very innovative. Because this competitive strategy implies the existence of multiple domains of operations, the skill requirements of the CEOs may emphasize administrative rather than entrepreneurial skills. Finally, none of these CEOs had marketing backgrounds. Perhaps a marketing background is better suited for building in an individual the skills required of an entrepreneur rather than those of an administrator of a large company.

Two objectives set these firms apart from others with prolonged competitive strategies. All of these firms indicated that profitability was a primary objective. Because competitive strategies differ between units, perhaps profitability becomes one of the few objectives which all

units can strive to reach. Also, the possibility that corporate headquarters, in these companies, comes closer to being a financial holding center rather than a 'home' for top managers should be considered. When a corporation becomes more of an investor in a portfolio of businesses rather than a manager of those businesses, there may be a stronger push for profitability across the units rather than objectives which define a more specific direction. Finally, these organizations were more likely to indicate that consolidation was a primary concern. Again, one is led to suspect that these are fairly large organizations with a concern for profitability and, perhaps, risk reduction.

A number of environmental characteristics set these firms apart from others with prolonged competitive strategies. These firms were found to be outliers in terms of the volatility of the political environment. In terms of total environmental volatility, these companies generally fell into the low category. Perhaps the complexities of competing along several different competitive fronts requires these companies to choose businesses which have relatively stable environments. Or, perhaps competing in several product/market areas simply causes the CEO to perceive the total environment as relatively stable. Why the political environment would be seen as stable or very volatile is unclear. It may be that some of these companies diversified because their original business was affected strongly by governmental pressures. It may also be that some

of these companies are fairly large organizations which are watched closely by various governmental agencies and interest groups. Others may make a point of choosing industries to compete in where governmental policies have been relatively fixed through time.

Although this competitive strategy indicates some diversity of operations, none of the diversity variables used in the study were found to be significant. Other competitive strategies must also be conducive to diverse environments.

In terms of the influence of various stakeholder groups, three variables were found to be significant. Firms with prolonged multiple competitive strategies generally viewed the influence of suppliers of materials as being less important than their counterparts with other prolonged competitive strategies. Also, these firms were less likely to indicate that customers and consumers were primary influencers of their decisions. However, these same companies generally scored higher on the total stakeholder influence index. Influence by both suppliers and customers may be directed at lower level managers in these organizations who are more closely responsible for actions taken in specific product/market areas and who may even have some power over the formulation of the specific competitive strategy to be used. That the CEOs of these firms perceived total stakeholder influence as being higher than in other firms could be attributed to the administrative role rather than the entrepreneurial role filled by these individuals.

They may view their function in the organization as being an agent responsible more for the satisfaction of the various stakeholder groups and less responsible for setting the direction of the firm. This would certainly seem to be the case at least in terms of competitive strategy.

Finally, these companies were much more likely to be using management-by-objectives in their organizations. The use of objectives or output controls allows some flexibility in the processes required to reach those objectives. This flexibility may be necessary in companies with multiple competitive strategies.

Many of these findings seem to point to a type of organization commonly referred to as a conglomerate. A conglomerate is generally defined as an organization made up of a portfolio of unrelated businesses. The function of the corporate headquarters is generally considered to be management of the portfolio, buying and selling businesses in a way which satisfies the investors of the company. Thus, the headquarters is more a financial management center than a business management center. Is this an apt description of the companies within this strategic category?

The definition of this strategy carries with it the contingency that an organization has multiple product/market areas. Thus, these organizations should be found to have some diversity of operations. However, none of the diversity variables considered in this study were found to be significant in setting these organizations apart from others

with long-lived corporate-wide competitive strategies. Either these organizations are not all that diverse, or, there are other competitive strategies which can and are used, on a corporate-wide basis, for diverse firms. It should be remembered that the measures of diversity used in this study did not look specifically for similarities between products, markets or divisions of the organization. It is possible that corporate-wide competitive strategies are used in highly diverse organizations when some relationship exists between lines-of-business, such as similar markets, similar raw materials used or similar technologies used in production.

Because the competitive strategy used differs between product/market areas there would seem to be a need for a structural form which would be more conducive to the effective implementation and control of multiple strategies, such as the divisionalized form. Many of the variables found to be significant seem to point toward the divisionalized form such as the lack of influence by suppliers and customers on the decisions of the CEO and the use of MBO which is a formalized system of output controls used by the organization for coordination. Mintzberg (1979) indicated that output controls should be emphasized with the divisionalized form because of their built-in flexibility in terms of how those objectives will be reached. However, the use of product divisions, market divisions or divisionalization, in general was not found to be significant in this part of the analysis. Thus, some

companies are using multiple competitive strategies with other than divisionalized structures.

It is now time to determine those variables which seem to affect the performance of these firms through the successful implementation and control of multiple competitive strategies.

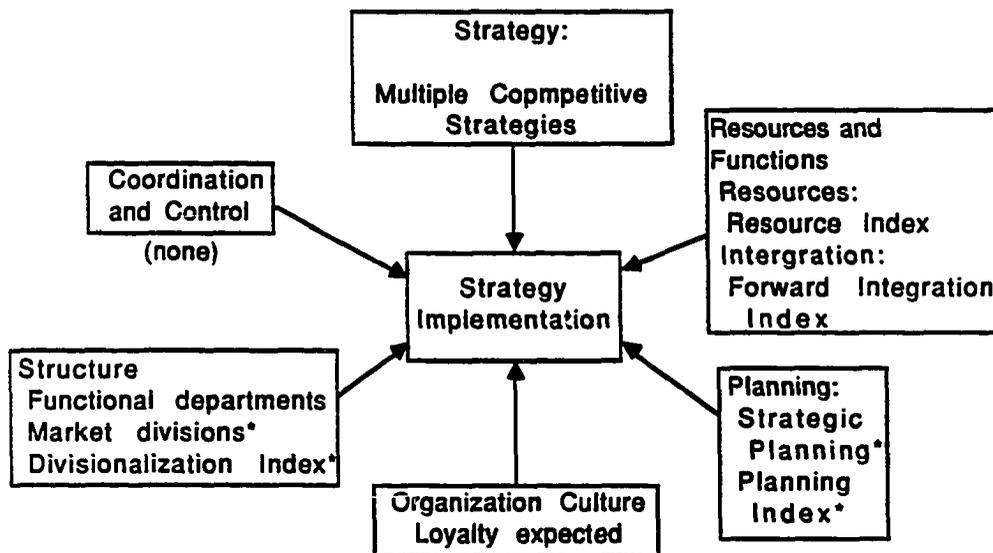
Nine companies indicated that they had been using multiple competitive strategies for more than the last two years. Of these, four were high performers and five fell into the low performance category. Figure 10-Q provides the results of the analysis on high and low performing firms with competitive strategies which changed with product/market areas.

Four of the five major areas thought to affect the successful implementation and control of strategy were found to have variables with significant relationships between high and low performing firms with multiple competitive strategies. Only 'coordination and control' failed to be represented.

The structure of the firm was found to be significant between high and low performers in this group. All of the high performing firms used some type of divisionalization in organizing their major work units (three were found to have market divisions and one indicated product divisions). Of the five low performing firms, three reported the use of functional departments in organizing major work units. It does seem reasonable that the use of some form of

divisionalization would be more appropriate in the effective implementation of different competitive strategies, providing a separation of individuals and tasks in carrying out those strategies.

Figure 10-Q
Determinants of Performance - Multiple Competitive Strategies



* - Those variables which met the constraints for inclusion in the discriminant function

The high performing firms were more likely to indicate either a high level of total resources in their organization or a low level while the majority of the low performers were found in the medium category for this index. Perhaps high performance with multiple competitive strategies requires either high levels of flexibility (which an organization would have with high levels of resources), or a strong distinctive competence which could be obtained through the use of available resources. Also, the high performers were

found to be more forward integrated, indicating greater control over market research, distribution and retailing. This finding is in contrast to Rumelt's study (1974) which indicated that vertical integration was generally associated with low performance. Perhaps forward integration has an impact on success for many of the competitive strategies, thus, it is found to be a major variable in organizations which use multiple competitive strategies.

The high performers were also found to be less active in the use of planning in their organizations. They were less likely to be using strategic planning and were also more likely to score lower on the total planning index. Perhaps corporate-wide planning is not beneficial when the competitive strategy is formed around product/market areas. Or, perhaps it is the fault of current planning techniques which are at fault.

One last characteristic of the CEO was found to be significant between high and low performing firms with long-lived multiple strategies. In the high performance firms, the CEOs were more likely to agree strongly that they expected loyalty from lower level managers. When the successful implementation of the competitive strategy would seem to be more fully in the hands of these lower level managers, it is probably not to surprising that these CEOs would expect a high degree of loyalty.

The discriminant analysis between high and low performing firms was highly successful. Four variables were included in the discriminant function. These were; the

divisionalization index, the use of market divisions, the planning index and the use of strategic planning. Thus, structure and planning were found to be major determinates of performance for these firms. The discriminant function was found to be significant at the 0.0000 level and was able to explain 100% of the variance between performance classifications.

Table 10-R provides those propositions which were developed earlier concerning the performance of firms which matched their competitive strategy to particular product/market areas.

Although the high performing firms were all divisionalized and three of the low performing firms had functional departments, no significant relationship was found in terms of the decentralization of decision-making. Perhaps, because these firms competed in relatively stable environments, decentralization of decision-making was not as necessary as was proposed. Since no significant relationship existed between these firms and others with prolonged competitive strategies, it cannot be assumed that all of these firms delegated authority to make strategic decisions.

TABLE 10-R
Propositions Concerning High Performers in Firms Which
Have Separate Competitive Strategies For Specific
Product/Market Areas

High performers will report:

- P(8.a) greater decentralization
 - P(8.b) greater use of shared values
 - P(8.c) greater use of standardization of outputs
 - P(8.d) greater use of MIS
 - P(8.e) less need for coordination
 - P(8.f) greater use of divisionalization
 - P(8.g) greater overall resources
 - P(8.h) greater strength in finance
 - P(8.i) greater use of planning
 - P(8.j) a more organic culture
-

No significant relationships existed in terms of coordination and control between high and low performing firms or between these companies and others with long-lived competitive strategies. It was found that management-by-objectives was used more often by firms with multiple competitive strategies which is a system for assigning output standards on individuals in the organization. Although the use of shared values was not found to be significant between high and low performers, the expectation of loyalty to the CEO was found to be important. Perhaps, when competitive strategies differ within an organization, consistent shared values which benefit the organization as a whole are difficult to find, so the organization relies on loyalty instead. The need for coordination was also not found to be any less for high performers or for firms with multiple competitive strategies in comparison to others with long-lived competitive strategies. Obviously, this group of

firms is not made up solely of conglomerates but also of firms with work units requiring some degree of coordination.

The use of divisionalization was found to be very important in discriminating between high and low performing firms. On the other hand, it was not found to be significant in differentiating this strategic group from others with prolonged competitive strategies. Three companies, all low performers, were found to be using a functional department structure in implementing and controlling this strategic alternative.

Total resources available was found to be significant. However, the high performers were evenly split between the high and low categories for this index while the low performers were generally found in the medium category. High flexibility or a strong distinctive competence may be the key to the success of this strategy.

The strength of the financial function was also not found to be significant between high and low performers or between these firms and others with long-lived competitive strategies. One wonders if these are financial holding companies and, if so, how great of an effect corporate headquarters has on performance.

As has already been noted, planning seems to be a detriment to these companies, with high performing firms inactive in strategic planning and scoring low on the planning index. Perhaps the development of planning systems has not reached a stage where they are beneficial for these

complex organizations. Or perhaps corporate-wide planning is not beneficial as long as competitive strategy remains formed around specific product/market areas.

Only one item under culture was found to be significant between high and low performing firms. The CEOs of high performers expected greater loyalty from lower level managers. This would indicate a more mechanistic culture but may also be a weaker substitute for the use of shared values as a coordinating mechanism.

Summary - Multiple Competitive Strategies

Because of the few firms which indicated that they had recently adopted competitive strategies which differed for specific product/markets in which they competed, no analysis of the determinants of the formulation of this strategy could be made.

Only one of the propositions concerning performance within this strategy was supported. The use of divisionalization was found to be high in the high performing firms. Other significant relationships included:

- 1) high performing firms indicated either high or low levels of total resources,
- 2) high performing firms were generally more forward integrated,
- 3) high performers were less active in the use of strategic planning,
- 4) high performers scored lower on the planning index, and
- 5) the CEOs of high performers were more likely to indicate a high need for loyalty from lower level managers.

The discriminant analysis indicated that the

divisionalization index, the use of marketing divisions, the use of strategic planning and the planning index were the best discriminators between performance levels for this strategy. The discriminant function formed by these variables was highly successful in discriminating between performance levels with an explanatory power of 100%.

Summary of the Search for Determinants of the Formulation
and Successful Implementation of Various Competitive
Strategies

The search for determinants of the formulation of various competitive strategies was only partially successful. This was due, in large part, to the few firms which had recently adopted new competitive strategies. Apparently, firms rarely change competitive strategies and generally do so only when they are forced to do so. Among other things, firms with recently adopted competitive strategies were found to have more conservative philosophies, to more likely have 'financial stability' as a primary objective and to have generally lower financial resources and total resources than their counterparts with long-lived competitive strategies.

Due to the low number of firms with recently adopted competitive strategies, only two of these strategies could be analyzed; product/service differentiation and the market-focused competitive strategy.

In the chi-square analysis concerned with the formulation of the differentiation competitive strategy,

three perceptual variables were found to be significant. Firms with recently adopted differentiation strategies generally reported either low or high levels of volatility in regards to social trends and high levels of total environmental volatility. Also, these firms generally reported lower strengths regarding production/ operations. The discriminant function included two of these variables; the volatility of social trends and the strength of production/operations. This function was found to explain 35% of the variance between those firms with recently adopted differentiation strategies and other firms with recently adopted competitive strategies.

The chi-square analysis analysis between firms with recently adopted market-focus strategies and other firms with recently adopted competitive strategies yielded six significant variables. Firms with recently adopted market-focus strategies were more likely to have CEOs with marketing backgrounds, fall into the low or high categories in regards to competitive volatility and perceive the influence of stockholders and creditors as well as stakeholders, in total, as generally low. Also, these firms reported generally lower strengths in R&D but higher total functional strengths. The discriminant function formed for discriminating between firms with recently adopted market-focus strategies and other firms with recently adopted competitive strategies included variables concerned with whether the CEO had a marketing background, the volatility of the competitive environment and the influence of

stockholders and creditors. This function was able to explain approximately 70% of the variance between strategic groups.

The search for surrogate variables which could act as determinants of the formulation of these strategies was mixed. Significant relationships were found for all of the significant perceptual variables except the stakeholder influence index. The discriminant function formed from the use of these surrogate variables for the differentiation strategy included earnings per share, the current ratio and R&D expense/sales. This function was found to have an explanatory power of approximately 94%, far greater than the function formed using perceptual variables. On the other hand, no discriminant function could be formed for firms with recently adopted market-focus strategies using surrogate variables, as these variables failed to meet the constraint for inclusion in the function ($p < 0.15$).

The results of the search for determinants of performance varied widely between the competitive strategy alternatives considered in this study.

For determining performance in firms with long-lived differentiation strategies, two variables were found to be significant between performance levels using the chi-square test of independence. High performing firms generally indicated a lower emphasis on the use of standardization of skills and a lower emphasis on standardization mechanisms of all kinds in coordinating activities between major units.

Only standardization of skills met the constraint for inclusion in the discriminant function. This function was able to explain approximately 9% of the variance between performance classifications.

For firms with long-lived low-cost production strategies, eight variables were found to be significant between high and low performing firms. High performers made less use of standardization of outputs and generally scored lower on the standardization index, were less likely to have market divisions, indicated a higher level of strength in R&D but scored generally lower on the functional strength index, and were further integrated backward and, in total, than the low performers. Also, the CEOs of the high performers were likely to rely more heavily on others in making major decisions. The discriminant analysis performed between high and low performers with prolonged low-cost strategies accepted the variables concerned with the strength of R&D, the CEO's reliance on others, the functional strength index and the use of market divisions. This function explained 100% of the variance between performance levels.

For firms with long-lived market-focused strategies, four variables were found to be significant between performance levels using the chi-square test of independence. High performers were more likely to emphasize standardization of outputs, have high financial resources, indicate lower strength in marketing, and have an even distribution of communication across units and within

primary units of the organization. Only the use of standardization of outputs met the constraint for inclusion in the discriminant function. This function was able to explain approximately 13% of the variance between performance levels.

For firms with long-lived combination competitive strategies, seven variables were found to be significant in the chi-square analysis between high and low performers. High performers were more likely to emphasize shared values and beliefs and to score lower on their use of direct supervision, had higher levels of financial resources, perceived their marketing strength to be lower, were less likely to be using MBO, scored lower on the planning index and had CEOs which practiced more people-oriented styles of management. The use of shared values, management style, and the strength of marketing were included in the discriminant function between high and low performers with prolonged combination competitive strategies. This function was found to have an explanatory power of approximately 50%.

Eight variables were found to be significant in the chi-square analysis between high and low performing firms with long-lived multiple competitive strategies. Generally, high performers used some form of divisionalization and more specifically market divisions and were less likely to be using functional departments. Also, the high performers fell into either the high or low category for total resources, scored higher on the forward integration index, were less

likely to be making use of strategic planning and scored generally lower on the total planning index. Finally, the CEOs of the high performers were more likely to indicate a high need for loyalty from lower level managers. The discriminant function included the divisionalization index, the use of market divisions, the planning index and the use of strategic planning. This function was able to explain 100% of the variance between performance levels.

CHAPTER 11

Conclusion

In this final chapter, general conclusions will be made concerning the findings of this investigation as they address the research questions put forth in Chapter 1. Limitations of this study are also discussed. Finally, implications for future research are suggested based on the results of this study and on the current progress of research in the strategic management field.

Conclusions: Determinants of Strategy Formulation

In Chapter 1, the following research question was put forth:

- What organizational and environmental conditions exist which have a significant impact on the formulation of particular organizational strategies?

In addressing this question, the 156 participating firms in this study were divided into two segments, those which had adopted a strategy within the past two years and those which had proceeded with one strategy for more than two years. Those which had recently adopted a specific strategy (one of the domain direction strategies or competitive strategies) were compared to other firms which had recently adopted some other domain direction or competitive strategy. The comparisons centered around variables from four major areas thought to be important to the formulation of strategy; the philosophy and background of the CEO, the mission and objectives of the organization, the resources and functional strengths of the organization

and the external environment. Two statistical tests were used in making these comparisons; the chi-square test of independence and forward stepwise discriminant analysis.

The following paragraphs briefly describe the findings of this investigation in terms of the strategies considered and the major areas thought to be important to the formulation of strategy. Only three of the four domain direction strategies and two of the five competitive strategies considered in this investigation could be analyzed due to the low number of firms indicating that they had recently adopted certain strategies. Those strategies which could not be analyzed included the domain reduction, low-cost production, combination competitive and multiple competitive strategies.

Philosophy and Background of the CEO

As noted in Chapter 2, there has been a diminishing emphasis on top management characteristics as an instrumental force in shaping organizational outcomes (Meindl and Ehrlich, 1987). The results of this investigation indicate that for some strategies the philosophy and background of the CEO plays an important role in determining the strategy of a firm. In two of the three domain direction strategies analyzed in this study characteristics of the philosophy of the CEO were found to be significant. The CEOs of firms with domain enlargement strategies were more liberal than CEOs of other firms while the CEOs of firms with recently adopted domain enhancement

strategies were generally more conservative. Furthermore, the philosophy index was found to be the best discriminator between firms with recently adopted domain enlargement strategies and other firms with recently adopted domain direction strategies. For the domain enhancement strategy, the philosophy variable concerned with growth of the firm was second in importance in discriminating between groups. However, for the domain restructuring strategy and the two competitive strategies analyzed in Phase I, philosophy failed to be represented by variables showing significant results.

This does not mean that the philosophy of the CEO is unimportant in terms of competitive strategy formulation. Only 19 firms reported adopting a new competitive strategy within the last two years and the majority of these firms adopted either a market-focused or differentiation strategy. Major differences in philosophy may not exist between the CEOs of firms which adopt these two strategies but may exist for firms which adopt a low-cost strategy or some other competitive strategy. Only further research will provide more insights into this contingent relationship.

The background of the CEO was generally not found to be of major significance in the formulation of strategy. Only once was this factor significant in the selection of a strategy. Firms with recently adopted market-focus strategies had more CEOs with marketing backgrounds than other firms with recently adopted competitive strategies.

Because the background of the CEO was not considered as a major factor in influencing performance, it is not possible to comment on Norburn and Birley's (1988) assertion that top management teams with marketing experience will outperform others with different backgrounds.

Overall, Schendel and Hofer (1979) may have been too conservative in their estimate of the importance of the values of top management when they stated that the values of top management, the resources of the organization and the environment of the organization should be considered of equal importance to the formulation of strategy. At the same time, other characteristics of the CEO, such as their functional experience, where past research has often been concentrated, may not be as important in strategy formulation, except, perhaps, for their influence on the philosophy of the CEO.

Mission and Objectives

The primary need of the organization was used as a surrogate for the mission of the organization. Organizational needs were found to be significant to the formulation of strategy in only one circumstance. Firms with recently adopted domain restructuring strategies were more likely to indicate that self-actualization was a primary need. Also, this variable was the last of five variables to be accepted into the discriminant function formed between firms with recently adopted domain restructuring strategies and others with recently adopted domain direction

strategies. In general, the five major organizational needs suggested by Tuzzolino and Armandi (1981) do not seem to play an important role in the formulation of different strategies. From the results of this research, it can be assumed that a wide range of organizational needs can be found in organizations which adopt any one specific strategy, except for those adopting the domain restructuring strategy.

Fourteen major objectives were considered in determining the importance of objectives in formulating specific strategies. Five of these objectives were found to be significant in formulating domain direction strategies. No significant results were found between objectives and the two competitive strategies analyzed in Phase I. Growth as an objective was more common in firms with recently adopted domain enlargement strategies while efficiency was not common in these firms. In fact, efficiency as an objective was the fourth of four variables to be included in the discriminant function for recently adopted domain enlargement firms. Product quality and service and employee welfare were found to be significant for firms with recently adopted domain enhancement strategies. Product quality and service as an objective was more common in these firms while employee welfare was less common. Employee welfare was the third of seven variables accepted into the discriminant function for the adoption of this strategy. Employee welfare and market share were significant for firms with recently adopted domain restructuring strategies. Both of these

objectives were more common in these firms. Furthermore, employee welfare, as a major objective was found to be the best discriminator for firms with recently adopted domain restructuring strategies.

According to Bourgeois (1985), investigations concerned with the content of strategy have largely replaced an earlier emphasis on the content of 'goal sets' in organizations. At least for domain direction strategies, strategy content and major objectives were found to be significantly related in many instances, so perhaps, only one or the other need be considered. On the other hand, at the most only two objectives were found to be significant for any one specific strategy. This leaves at least twelve other objectives that appeared with generally the same frequency between the groups of firms being analyzed. Perhaps the content of strategy could be further specified by combining the domain direction and competitive strategies of firms with their major objectives.

Caution must be used before concluding that objectives are not important in the formulation of competitive strategies. Again, only nineteen firms had recently adopted competitive strategies and these were clustered around the market-focus and differentiation strategies.

The External Environment

The environment of the organization has been of major concern to organizational theorists as well as researchers in the strategic management area. Organization theorists

have been primarily concerned with the uncertainty of the environment and its effect on the organization. Attributes of uncertainty often include its volatility, diversity and complexity. In strategic management, a growing body of literature is concerned with the influence of various stakeholder groups on organizations.

Variables concerned with the external environment were found to be significant for every strategy analyzed in Phase I. The external environment was divided into four major factors including environmental volatility, diversity, complexity and stakeholder influence. The impact of each of these major factors on different strategies is discussed below.

Environmental volatility. Seven variables were used to assess the volatility of the organization's environment. These included the CEO's perceptions of the volatility of the competitive environment, the economic environment, the political environment, technological change, social trends and the overall business climate, as well as the environment volatility index. These items from the questionnaire were categorized in two ways, first in terms of low, medium and high levels of volatility and then in terms of medium and outlier categories, where firms with low or high levels of volatility were grouped together in the outlier category.

Variables concerned with the volatility of the external environment were found to be significant to the formulation of the domain enhancement strategy, the domain restructuring

strategy, the differentiation strategy and the market-focus strategy. More specifically, significant relationships were found for those variables concerned with economic volatility, competitive volatility, the volatility of social trends and the environmental volatility index.

Economic volatility was significant for firms with recently adopted domain enhancement and domain restructuring strategies. Firms with recently adopted domain enhancement strategies were generally more likely to indicate high levels of volatility or to fall into the outlier category. Both measures of economic volatility met the constraints for inclusion in the discriminant function for the adoption of a domain enhancement strategy. The variable categorizing responses as medium or outliers was selected fourth out of a total of seven variables included in the discriminant function while the variable with high, medium and low categories was the seventh variable to be selected. The two variables concerned with the economic volatility of the environment were also significant for firms with recently adopted domain restructuring strategies. These firms were all found to fall into the medium volatility category. Only the variable which categorized firms in terms of medium or outliers met the constraints for inclusion in the discriminant function. This variable was the second of five variables to be selected in the discriminant function.

The volatility of social trends was found to be significant for the adoption of a differentiation strategy.

Firms with recently adopted differentiation strategies were more likely to fall into the outlier category for this variable. In other words, these firms either perceived social trends affecting their operations as being very volatile or relatively stable. The volatility of social trends was the second of two variables selected for inclusion in the discriminant function for the adoption of a differentiation strategy.

The volatility of the competitive environment was found to be significant to the adoption of a market-focus strategy. Firms with recently adopted market-focus strategies were more likely to fall into the outlier category for this variable. They generally saw their competitive environment as either very volatile or relatively stable. Competitive volatility was the first of three variables to be selected for inclusion in the discriminant function for the adoption of this strategy. In fact, this variable explained approximately 41% of the variance between firms with recently adopted market-focus strategies and firms with other recently adopted competitive strategies.

The environmental volatility index was found to be significant to the adoption of the domain restructuring strategy and the differentiation strategy. Firms with recently adopted domain restructuring strategies were most likely to fall into the medium category for this index. However, the environmental volatility index did not meet the constraints for inclusion in the discriminant function for

this strategy. Firms with recently adopted differentiation strategies were most likely to claim high levels of total volatility in their environment. Again, this variable did not meet the requirements for inclusion in the discriminant function for the adoption of this strategy.

Environmental diversity. Diversity was the second factor considered in assessing the environment of organizations. Chandler (1962) claimed that diversity created greater strains on the administration of the organization and led to the adoption of a divisionalized structure. Four variables were used to determine the diversity of these organizations. These variables were concerned with determining the number of products produced, the number of product lines produced, the segmentation of major markets in which the organization competed and the extent of sales in international markets.

Diversity was found to be significant for only one of the strategies analyzed in Phase I of this study. Firms with recently adopted domain enlargement strategies were found to have generally more products, more product lines, a greater percentage of sales coming from international markets and less segmented markets. However, none of these variables met the constraints for inclusion in the discriminant function for the adoption of a domain enlargement strategy.

Environmental complexity. Complexity was determined by the extent of vertical integration in these organizations.

This factor included 9 variables in total. The backward integration index consisted of the cumulative scores of variables concerned with the organization's control over raw materials used in production, major fuels and product research and development. The forward integration index consisted of the cumulative scores from variables concerned with the determination of the organization's control over market research, distribution of the product and retailing. The total integration index was made up of the combined scores of the backward integration index and the forward integration index.

Environmental complexity was found to be significant to only one of the strategies analyzed in Phase I of this study. Firms with domain restructuring strategies were more likely to score low on the forward integration index. This variable was the third of 5 variables which were selected for inclusion in the discriminant function for the adoption of this strategy.

Stakeholder influence. Stakeholder influence was the final major factor used for assessing the environments of organizations. Variables concerned with the determination of the influence of various stakeholder groups on decisions made in the organization were found to be significant for all of the domain direction strategies analyzed in Phase I and for the market-focus competitive strategy.

The influence of stockholders and creditors was found to be significant for the adoption of the domain enlargement

strategy, the domain enhancement strategy and the market-focus strategy. Firms with recently adopted domain enlargement strategies generally claimed that the influence of stockholders and creditors was less than in other firms with recently adopted domain direction strategies. Firms with recently adopted domain enhancement strategies indicated generally greater influence from this stakeholder group. Firms with recently adopted market-focus competitive strategies indicated that stockholders and creditors were less influential in decisions made by the organization than in firms with other recently adopted competitive strategies. The influence of stockholders and creditors was the second of four variables selected for inclusion in the discriminant function for firms with recently adopted domain enlargement strategies. It was also the primary discriminator for firms with recently adopted domain enhancement strategies. Finally, the influence of stockholders and creditors was selected as the last of three variables included in the discriminant function for firms with recently adopted market-focus strategies.

The influence of customers and consumers was found to be significant to the domain enhancement and domain restructuring strategies. Firms with recently adopted domain enhancement strategies generally claimed less influence from this stakeholder group while those with recently adopted domain restructuring strategies indicated greater influence. This variable was the sixth of seven variables selected for inclusion in the discriminant function for firms with

recently adopted domain enhancement strategies and was selected fourth out of five variables included in the discriminant function for firms with recently adopted domain restructuring strategies.

The stakeholder influence index, made up of the cumulative scores of the influence of all stakeholder groups considered in this investigation, was found to be significant to the market-focus competitive strategy. Firms with recently adopted market-focus strategies claimed less total influence from all stakeholder groups. This variable, however, did not meet the constraints for inclusion in the discriminant function for firms with recently adopted market-focus strategies.

Summary of the impact of the environment on strategy formulation. From the results of this study there should be little doubt that the environments of organizations play an important role in the selection of different strategies. Two major factors stand out as being of primary importance. The volatility of the environment, and especially the volatility of the economic environment was found to be important to most of the strategies analyzed in Phase I. Stakeholder influence was also found to be highly important to most of the strategies considered. Stakeholder influence has only recently gained the attention of researchers in the strategic management area. These results indicate that this attention is certainly warranted, especially in regards to the influence of two of the stakeholder groups considered in

this study, stockholders and creditors and customers and consumers.

Although it is not possible to estimate the overall importance of the environment to strategy formulation in comparison to the other major areas considered, it is probably accurate to say that the environment plays as important a role as any other major area generally considered to be important to the formulation of strategy in organizations.

Resources and Functions of the Organization

According to Bracker (1980), the common thread among definitions of business strategy is that an environmental analysis is used to determine the proper use of resources to achieve the organization's goals. Hofer and Schendel (1978) indicated that an important component of any organization's strategy was the effective use of resources to build a distinctive competence within the organization. Snow and Hrebiniak (1980) suggested that functional areas can often become distinctive competencies in organizations. Thus, strategy seems tied to two major factors pertaining to the organization; its resources and its functional strengths.

Resources of the organization. Four variables were considered in assessing the resources of organizations. These variables were concerned with the determination of the level of financial, management and manpower resources available to the organization as well as the resource index,

which consisted of the cumulative scores of each of the resources considered. No significant relationships were found between any of the resource variables with the strategies analyzed in Phase I.

Functional strengths. Six variables were concerned with assessing the functional strengths of the organization. These included variables concerned with the determination of the marketing, production/operations, personnel, finance and research and development strengths which exist in these organization as well as the functional strength index. Functional strengths were found to be significant to the domain enlargement strategy, the domain enhancement strategy, the differentiation strategy and the market-focus strategy.

The functional strength index was significant to the domain enlargement strategy, the domain enhancement strategy and the market-focus strategy. Firms with recently adopted domain enlargement strategies generally perceived the strengths of all functional areas, in total, to be higher than in other firms with recently adopted domain direction strategies, while those with recently adopted domain enhancement strategies usually reported low total strengths from their functional areas. Firms with a recently adopted market-focus strategy generally perceived their strengths as greater than other firms with recently adopted competitive strategies. The functional strength index was selected for inclusion in the discriminant functions for both the domain

enlargement and domain enhancement strategies. For domain enlargement, it was selected third out of a total of four variables included in the discriminant function, while for domain enhancement it was selected fifth out of a total of seven variables.

The strength of production/operations was found to be significant for firms with recently adopted differentiation competitive strategies. These firms were most likely to view their production/operations' strength as lower than in other firms with recently adopted competitive strategies. This variable was the primary discriminator between firms with recently adopted differentiation strategies and other firms with recently adopted competitive strategies.

The strength of research and development was found to be significant to the adoption of a market-focus competitive strategy. Firms which had adopted this strategy generally viewed the strength of this functional area as lower than other firms with recently adopted competitive strategies. The strength of R&D did not meet the requirements for inclusion in the discriminant function for the adoption of a market-focus strategy.

Predicting the Strategic Choice Using Perceptual Variables

The ability to discriminate between strategic groups using the perceptual variables found to be significant through the chi-square analysis ($p < 0.10$) varied greatly between the different strategies. The explanatory power of the functions formed by the perceptual variables ranged from

a low of 35% for the differentiation strategy to a high of 92% for the domain enhancement strategy.

For the domain direction strategies, only three of the four strategies could be tested due to the low number of firms which had recently chosen a domain reduction strategy. For the formulation of the domain enlargement strategy, the variables concerned with the philosophy index, the influence of stockholders and creditors, the functional strength index, and the objective of efficiency formed a discriminant function which explained 50% of the variance between strategic groups. For the domain enhancement strategy, the variables concerned with 'growth' as an ingredient of success, employee welfare as an objective, economic volatility (both high, medium and low categories and medium outlier categories), influence of stockholders and creditors, influence of customers and consumers and the functional strength index led to a discriminant function which could explain 92% of the variance between strategic groups. For the domain restructuring strategy, the variables concerned with employee welfare as an objective, economic volatility (high, medium and low categories), the forward integration index, the influence of customers and consumers and the organizational need of self-actualization formed a discriminant function which led to an explanatory power of 56% between strategic groups.

Only two competitive strategies could be analyzed due to the low number of firms which had recently adopted certain strategies. For the differentiation competitive

strategy, the variables concerned with the volatility of social trends and production/operations strength formed a discriminant function which explained 35% of the variance between strategic groups. Finally, for the market-focused strategy, the variables concerned with whether the CEO had a marketing background, the volatility of the competitive environment and the influence of stockholders and creditors formed a discriminant function which was able to explain 70% of the variance between groups.

Summary of the Search for Determinants of Strategy Formulation

Thus, for those strategies that could be analyzed the results of the search for the determinants of the formulation of those strategies can be considered a success. Unfortunately, the variables found to be of importance vary widely between strategies. Very few variables were found to be important to more than one specific strategy at the formulation stage. So, although the results of this study do provide some insights into the contingent relationships which may exist for certain strategies at the approximate time of formulation, they do not go very far in limiting the total variables that must be considered in order to formulate the appropriate strategy.

Strategy Implementation and Control

Phase II of the study addressed the second research question put forth in Chapter 1. This question is reprinted

below.

- What internal organizational conditions exist which seem to most effectively enhance the performance of firms in the implementation and control of particular strategies?

In addressing this question only those firms which indicated that they had proceeded with one strategy for more than two years were considered. The time constraint was used to make sure that the organizations analyzed had the opportunity to adopt appropriate mechanisms for the successful implementation of the chosen strategy and that these mechanisms had time to affect the performance of the firm. These firms were segmented by the strategy chosen and comparisons were made between high and low performers for each specific strategy.

The comparisons centered around variables from five major areas thought to be important to the successful implementation and control of strategy; coordination and control, the structure of the organization, resources and functional strengths, planning and organizational culture. Two statistical tests were used in making these comparisons; the chi-square test of independence and forward stepwise discriminant analysis.

The following paragraphs briefly describe the findings of this investigation in terms of the strategies considered and the major areas thought to be important to the implementation and control of strategy. Three of the four domain direction strategies and all five competitive strategies were considered in this phase of the

investigation. Only four firms indicated having a domain reduction strategy for more than two years and these firms were all considered low performers. Thus, only general comments could be made concerning this strategy.

Coordination and Control

Three major factors were considered in assessing the coordination and control which existed in the organizations participating in this study. These included the type of coordination mechanisms used at upper levels of the organization, the potential for coordination between major units, and the perceived need for coordination between major units of the organization. All three major factors were found to be significant for at least one of the strategies analyzed in Phase II of this study.

The types of coordinating mechanisms used to coordinate activities at upper levels of the organization were found to be significant to performance for five of the strategies considered. High performing firms with prolonged domain enlargement strategies were found to use medium levels of direct supervision and standardization of skills while they were more or less evenly split between the high and low categories for their use of shared values in coordinating actions. None of these variables met the requirements for inclusion in the discriminant function for performance within this strategy.

High performing firms with prolonged differentiation strategies were more likely to indicate a low use for

standardization of skills and for standardization in total (the cumulative score of the three standardization mechanisms considered in this study; standardization of work process, standardization of output and standardization of skills). The use of standardization of skills was the only variable which met the constraints for inclusion in the discriminant function for performance within this strategy.

High performing firms with prolonged low-cost production strategies were more likely to indicate low use for standardization of output and for standardization, in total, than their counterparts with lower performance. However, neither of these variables met the requirements for inclusion in the discriminant function for performance within this strategy.

High performing firms with market-focused strategies were much more likely to indicate that the use of standardization of output was of high importance than their lower performing counterparts. Standardization of output was the only variable accepted for inclusion in the discriminant function for performance within this strategy.

High performing firms with prolonged combination competitive strategies were found to more likely indicate that the use of shared values was of high importance while the use of direct supervision was of medium importance to coordinating activities across major units of the organization. The use of shared values was the first of three variables included in the discriminant function for performance within this strategy, explaining approximately

26% of the variance between performance levels.

Both the need for coordination and the potential for coordination were found to be significant for only one strategy, domain restructuring. High performing firms with prolonged domain restructuring strategies were most likely to indicate that effective coordination between major units was of low importance to the success of their organizations. In regards to the potential for coordination, the delegation of strategic authority was found to be significant for high performing firms with this strategy. High performers were most likely to indicate that they did delegate strategic authority to others in the organization. However, neither of these variables met the requirements for inclusion in the discriminant function for performance within the domain restructuring strategy.

Thus coordination and control seems to play an important role in the successful implementation and control of various strategies. The type of coordinating mechanism used at upper levels of the organization seems to be the major factor of the three for those most of the strategies considered in this study. Additionally, the appropriate type of coordinating mechanism/s used generally differ, dependent on the strategy in question.

Structure

The structure of organizations was found to be significant to performance for two of the competitive strategies analyzed in Phase II. High performing firms with

prolonged low-cost production strategies were less likely to be using market divisions than their lower performing counterparts. The use of market divisions was the fourth of four variables accepted into the discriminant function for performance within this strategy.

Structure was also found to be significant to performance for high performing firms with multiple competitive strategies. High performers were all found to be using some form of divisionalization in their organization structure with market divisions as the most common form. The use of functional departments was more common in low performing firms. The divisionalization index and the use of market divisions were the first two variables selected for inclusion in the discriminant function for performance within this strategy. Together, these two variables explained approximately 77% of the variance between performance levels.

The overall structure of the organization was, thus, important to performance for two of these specific strategies. However, given the previous research on organization structure and its contingent relationships with strategy and performance, it is surprising that more significant relationships were not found. The strategies considered may generally be conducive to many different structural forms. In other words, a 'tight' link between strategy, structure and performance may not exist, at least for some strategies.

Resources and Functions

Three factors were considered in assessing the internal conditions which existed in the organizations participating in this study. These factors included the resources of the firm, the functional strengths of the firm and the degree of vertical integration of the firm. Significant relationships were found between this major area and performance for all but one of the strategies analyzed in Phase II of this investigation. The differentiation competitive strategy was the one exception where no significant relationships were found.

Resources. Resources of the organization were found to be significant to performance for the domain restructuring strategy, the market-focus competitive strategy, the combination competitive strategy and for multiple competitive strategies. For the domain restructuring strategy, high performers generally reported lower levels of manpower and managerial resources than their lower performing counterparts. However, neither of these variables met the constraint for inclusion in the discriminant function for performance under this strategy.

High performers with market-focused strategies and with combination competitive strategies indicated that their financial resources were generally higher than their lower performing counterparts. However, the availability of financial resources did not meet the constraints for inclusion in the discriminant function for performance

within either of these strategies. Because performance was measured in terms of profitability and because there would seem to be a close relationship between profitability and financial resources available to the organization, it was surprising that significant relationships were not more common between this variable and performance.

High performing firms with multiple competitive strategies were found to generally fall into either the high or low categories for the total resource index while poor performers most often indicated medium levels of total resources. Again, this variable failed to meet the constraints for inclusion in the discriminant function.

Thus, although resources available do seem to be important in the successful implementation and control of various strategies they generally are not the best discriminators between high and low performers. Also, the type of resources available seems to be as important as the overall level of resources.

Functional strengths. Functional strengths were found to be significant between performance levels for six of the eight strategies considered in this investigation. Specific variables found to be significant included the strength of finance, marketing, R&D and the functional strength index.

The strength of the finance function was found to be significant for high performing firms with long-lived domain enlargement, domain enhancement, and domain restructuring strategies. High performing firms with domain enhancement or

domain restructuring strategies generally indicated higher strengths in their finance function while the high performers with domain enhancement strategies generally indicated a lower strength in this function than their lower performing counterparts. The strength of the finance function was found to be the best discriminator between performance levels for firms with domain enlargement and domain restructuring strategies while this variable failed to meet the constraints for inclusion in the discriminant function for performance under the domain enhancement strategy.

The strength of the marketing function was found to be significant to performance for the domain enhancement, market-focus and combination competitive strategy. Surprisingly, in all three cases the high performers were more likely to indicate lower strengths in their marketing function than their lower performing counterparts. The strength of the marketing function was the third of three variables included in the discriminant function for performance with a combination competitive strategy.

The strength of R&D was found to be significant to performance for firms with a long-lived low-cost production strategy. High performers generally reported higher strengths in this functional area. Strength of R&D was, in fact, the best discriminator between performance levels for firms with long-lived low-cost production strategies.

The functional strength index was significant between

high and low performers for firms with domain enhancement and low-cost production strategies. In both cases, high performing firms generally reported lower strengths, in total, in their functional areas. The functional strength index was found to be the best discriminator between performance levels for the domain enhancement strategy while it was the third of four variables included in the discriminant function for performance with a low-cost production strategy.

Functional strength can, thus, be considered a major determinant of performance for several different strategies. However, in many cases each strategy seems to require different combinations of strengths in different functional areas. Also, high strength is not always what was found to be appropriate for high performance.

Vertical integration. The degree of vertical integration was found to be significant to performance in two of the strategies analyzed in this investigation. High performing firms with low-cost strategies were generally further vertically integrated backward, and, in total, than their lower performing counterparts. High performing firms with multiple competitive strategies generally indicated a higher degree of forward integration than their lower performing counterparts. Degree of vertical integration failed to meet the constraints for inclusion in the discriminant function for performance within either of these strategies.

Summary of resources and functions. Thus, although all three factors considered under the resources and functions of the organization proved to be important to the performance of specific strategies, the strength of various functional areas stands out as the dominant factor of the three. Again, different variables arise as significant dependent on the strategy considered. The exception is with the strength of the finance function which was found to be an important determinant of performance for all of the domain direction strategies analyzed.

Planning

Four variables were used to assess planning in these organizations. These variables were concerned with the use of strategic planning, the use of MBO, the use of tactical plans and the planning index (which combined the responses of the first three variables). Planning was found to be significant to performance for both the combination competitive strategy and the multiple competitive strategy. High performers with combination competitive strategies indicated lower use of MBO and generally scored lower on the planning index than their lower performing counterparts. Neither of these variables met the constraint for inclusion in the discriminant function for performance under this strategy. High performing firms with multiple competitive strategies generally indicated less use of strategic planning and scored lower on the planning index. The planning index and the use of strategic planning were picked

as the third and fourth variables (out of a total of four) to be included in the discriminant function for performance under this strategy.

Thus, planning can be seen as playing a limited role in determining performance within various strategies. From the results of this study, the role it does play seems to be a dysfunctional one. This, however, does not necessarily mean that planning is always dysfunctional. Its main benefit may be in matching the organization to its 'environment' through the adoption of specific strategies rather than improving performance once that strategy is adopted.

Organizational Culture

The organization's culture was evaluated through four variables concerned with determining management style, communication flows at the top of the organization, expectations of loyalty from lower level managers and the CEO's reliance on others in decision-making. These were also combined as a culture index with high scores associated with an organic culture and low scores indicating a mechanistic culture.

Variables associated with the determination of the organization's culture were found to be significant to two of the three domain direction strategies investigated and four of the five competitive strategies studied.

Management style was found to be significant to performance for the domain enhancement, domain restructuring, and combination competitive strategy. For the

domain enhancement strategy, high performers generally had CEOs which practiced more task-oriented styles of management. This was found to be the second of two variables included in the discriminant function for performance in this strategy. The CEOs of firms with domain restructuring and combination competitive strategies were likely to practice more people-oriented styles of management. For the combination strategy, this variable was the second of three included in the discriminant function for determining performance levels.

The expectation of loyalty was found to be significant to the domain restructuring strategy and to the multiple competitive strategy. High performers with domain restructuring strategies indicated a low need for loyalty from lower level managers while high performers with multiple competitive strategies generally indicated a high need for loyalty. This variable was the second of two variables included in the discriminant function for determining performance under a domain restructuring strategy.

High performing firms with long-lived low-cost production strategies were found to have CEOs which relied more heavily on the opinions of others in making major decisions. This was the second of four variables selected for inclusion in the discriminant function for determining performance under this strategy.

High performing firms with long-lived market-focus

strategies were more likely to indicate an even distribution of communication across and within major units of their organizations. However, this variable failed to meet the constraints for inclusion in the discriminant function.

Finally, high performing firms with long-lived domain restructuring strategies were more likely to fall into the high category for the culture index, indicating a more organic culture. Again, this variable failed to meet the constraints for inclusion in the discriminant function.

Although organization culture was found to be an important determinant of performance for a number of different strategies, its overall importance does not seem to be as great as, perhaps, coordination and control or the resources and functions of the organization. In no cases was it found to be the primary discriminator between performance levels in those strategies where it was significant. In many cases, it failed to meet the requirements to even be included in the discriminant function. Additionally, different dimensions of culture seem to be important for different strategies.

Predicting Performance

The ability to predict performance within various strategies varied greatly depending on the strategy considered. The explanatory power of the discriminant functions formed ranged from a low of 9% for the differentiation strategy to a high of 100% which was found for both the low-cost production strategy and multiple

competitive strategies.

Only three of the domain direction strategies could be analyzed due to the low number of firms which reported extended use of the domain reduction strategy. For the domain enlargement strategy, the variable concerned with the strength of the finance function formed a discriminant function which explained approximately 19% of the variance between performance levels. For the domain enhancement strategy, the functional strength index and management style formed a discriminant function which explained approximately 39% of the variance between performance levels. For the domain restructuring strategy, the variables concerned with the strength of the finance function and the expectation of loyalty formed a discriminant function which explained 80% of the variance between groups.

In the competitive strategies, the discriminant function for performance under the differentiation strategy was made up of only one variable, the use of standardization of skills, which explained 9% of the variance between performance groups. For the low-cost production strategy, the variables concerned with the strength of R&D, the CEO's reliance on others, the functional strength index and the use of market divisions was found to explain 100% of the variance between performance levels. Under the market-focused strategy, the variables concerned with the use of standardization of output was the only one accepted into the discriminant function. This function had an explanatory power of approximately 13%. For the combination competitive

strategy, the variables concerned with the use of shared values, management style and strength of marketing formed a discriminant function which explained 50% of the variance between performance groups. Finally, for the multiple competitive strategy, the divisionalization index, the use of market divisions, the planning index and the use of strategic planning formed a discriminant function which explained 100% of the variance between high and low performing groups.

The Search for Secondary Surrogates

Phase III of the study addressed the third research question put forth in Chapter 1 as well as its corollary. These questions are reprinted below.

- Which variables found to be significant in the formulation of certain strategies have adequate surrogate measures which can be determined from secondary data sources?
- What is the predictive power of these surrogate measures in determining the chosen strategy?

In addressing these questions, those perceptual variables which were found to be significant to the formulation of strategy in Phase I of the study were tested against numerous secondary variables using chi-square analysis. The secondary variables were obtained from Industrial Compustat (1988).

Secondary surrogate variables were obtained for all but two of the perceptual variables found to be significant in Phase I. The two exceptions were the objective concerned

with product quality and service and the stakeholder influence index. In most cases, numerous surrogate variables were obtained for each perceptual variable.

The power of these surrogate variables to predict the chosen strategy of the firm was generally less than when perceptual variables were used. The exception to this was for the differentiation strategy. For this strategy the surrogate variables formed a discriminant function which explained 94% of the variance between strategic groups while the discriminant function formed by the perceptual variables was only able to explain 35% of the variance between those firms with recently adopted differentiation strategies and those with other recently adopted competitive strategies.

Thus, the conclusion which can be made from Phase III of this study is that there generally are surrogate variables from secondary data sources which can be used in place of most of the perceptual variables found to be important to the formulation of strategy. However, the predictive power of these surrogates in determining strategic choice is generally less than that of the perceptual variables.

Limitations of the Study

There are several limitations of this study which need to be addressed. The first major limitation is the general lack of validity associated with many of the variables considered. Very few investigations have tried to be as all-encompassing as this research project. Because variables

concerned with both strategy formulation and strategy implementation were considered and because two general dimensions of strategy were investigated (domain direction and competitive strategy) it was not possible to form a questionnaire that would be encompassing enough and at the same time check the validity of each variable.

The strategies considered were defined in the mail questionnaire and, for the most part, are fairly well understood by both academicians and practitioners. The significant results of the three phases of the investigation go a long way in indicating that the definition of the strategies included remained relatively constant across respondents and, although few of the propositions were supported, in hindsight the significant results do seem to generally 'fit' the definition of the strategies perceived by the designers of the questionnaire.

The surrogate variables found in Phase III provide some validation of the perceptual variables found to be significant to the formulation of strategy. However, it should be noted that the search for surrogate variables was not made for validation purposes. In other words, the search for surrogate variables was not confined to only those variables which seemed like they could be surrogates of the perceptual variables but resembled more of a 'fishing expedition'.

The variables used in Phase II in the search for determinants of performance are largely unvalidated. These variables seemed to be fairly well understood by the

respondents and the results of the investigation are not highly out of line with past knowledge of the successful implementation and control of strategy.

A second major limitation is concerned with the subsample sizes used in this investigation. Although 156 firms participated in this investigation, these were divided into two subsamples, those with recently adopted strategies and those with long-lived strategies. The firms with long-lived strategies were then further divided by their particular strategy. Thus, instead of working with a sample size of 156 firms, it was more common to be working with subsamples ranging from 6 to 51 firms. This small subsample size diminishes confidence in the results of both the chi-square and discriminant analyses performed.

A further limitation is attributed to Phase I of the investigation, the search for determinants of strategy formulation. Firms which had adopted a strategy within the past two years were considered in this phase. The use of a two year time period was an arbitrary decision. Its use was based on the assumption that firms which had adopted a strategy within this time period would more likely have the conditions which brought about the formulation of the strategy than firms with longer lived strategies. However, considering firms which had adopted a strategy within the past year or that had just changed strategies would be far better in determining those variables associated with the formulation of certain strategies. Unfortunately, limiting

the search in this way would have severely reduced the number of firms which could be analyzed. Even in using a two year time period, the investigation for determinants of specific strategies was limited to three of the four domain direction strategies and two of the five competitive strategies.

A further limitation of this study is in the strategies considered. These were generic strategies which were used to describe the existing strategy of a broad variety of firms. Each strategy considered was relatively loosely defined so that it might encompass a number of different strategies of these organizations. For instance, the domain enlargement strategy would include related and unrelated diversification, market expansion and forward or backward integration. Each of these more specific strategies may have different sets of variables which are important in their formulation and to their successful implementation and control.

The final limitation to be addressed is associated with the methodology of the investigation. The participants were forced into clusters based on their strategy, for Phase I, and on their strategy and performance, in Phase II. However, there is a great possibility that important clusters exist within these clusters. This was shown by the significance of the volatility of various aspects of the environment using medium and outlier categories. When a strategy was found more frequently in the outlier category, it may be a signal that two important clusters of firms exist using that

strategy, each with highly different environments. The possibility that firms can organize themselves in different ways for optimum performance also exists. The appropriate conditions for implementing a market-focus strategy for a firm which competes in only one focused market may be quite different than a firm which competes in numerous focused markets. This may be a reason why the explanatory power of the discriminant function for performance was relatively low for some strategies.

Although this investigation had several limitations, it can be seen as a first step in the evolutionary process to strategic management. Its implications for future research are discussed in the following section.

Implications for Future Research

The findings from this investigation suggest a number of directions that research in the strategic management field may take. From the results of the investigation it can be seen that the four major areas generally thought to be important to the formulation of strategy were, indeed, important. More research is needed to further specify the relationships between the philosophy and background of the CEO, the mission and objectives of the firm, the external environment and the internal resources and functions with the formulation of various strategies. The role of various stakeholder groups requires much attention. These groups were found to be highly important, yet little previous research has been directed to evaluating this relationship.

Relationships between these major areas should also be considered. Is there a relationship between the philosophy of the CEO and the environmental volatility of the organization or the influence of stockholders and creditors? Is there a direct relationship between the resources and functional strengths of the organization and does success under different strategies depend on trading off one for the other? Variables found to be significant in Phase I of this investigation may not be directly related to the strategy adopted but rather to another variable important to the formulation of the strategy. The search for these 'primary' variables could easily reduce the number of variables which have to be considered in making the strategic choice.

Another direction research could follow would be to determine the changes in the organization and its environment as a strategy ages. Does the continued use of a differentiation competitive strategy work to keep the environment volatile or will the environment, through time, become more stable. What are the effects of a long-lived domain enlargement strategy? Does this strategy eventually use up the resources of the firm or are resources generally gained through growth strategies? By tying the organization's conditions to the age of strategy and, perhaps, to the performance of the organization, it may be possible to find paths of strategic changes that exist in firms. Perhaps there are a limited set of paths associated with strategic change that firms generally follow. Galbraith

and Kazanjian (1986) suggest such a path for growth strategies, but this may be only a beginning. From the results of this study it can be seen that the domain direction strategies and the competitive strategies of firms are to some degree intertwined.

Further research on the implementation and control of various strategies is also needed. This research could take several directions. One direction could address one of the limitations mentioned earlier. There is a need to determine if a finite number of clusters or ways of organizing exist for optimum performance in the various strategies. In other words, is there one best structure for a given strategy or are there a number of ways of organizing to reach optimum performance.

Another possibility is to more carefully evaluate what is happening further down in the organization. This investigation concentrated on the top levels of the organization. What characteristics of lower level management, of the employees and of the technology of the organization seem to lead to high performance within each strategy? What is the role of various staff departments on performance within each strategy? Further research in this area is certainly necessary and although it will probably prove to be even more difficult to obtain information than has been the case for research on strategy formulation, its rewards should be great. Success will bring about a transformation in strategic management from a way of thinking to a guide to action for practicing managers.

Yet another direction that could be taken in terms of the search for determinants of the successful implementation and control of strategy would be to investigate changes in the way firms organize with the age of the strategy. For ease, this study treated implementation and control as one phase in the strategic management process. It is possible that the way an organization implements a particular strategy may closely resemble the way it controls that strategy once it is implemented. But the possibility also exists that implementation and control are two very different stages of strategy development and what it takes to successfully implement a particular strategy may not be appropriate once the strategy is implemented. Perhaps, as a general rule, there is a need for a more mechanistic style of management as a strategy ages. Or, perhaps there is a natural tendency for management to become more mechanistic as the age of the adopted strategy grows and firms must take actions to ward off this tendency. Only further research can provide answers to these important questions.

Greater use of secondary data sources may be a necessity in future research, especially as research activity continues to increase in this field. The quality of the results of research based on secondary data should continue to be questioned. From the results of this study, surrogate variables can be found for most of the variables found to be important to the formulation of strategy. However, the explanatory power of these surrogate variables

in discriminating between strategies was generally less than when perceptual variables were used. The use of secondary surrogate variables will open the door for longitudinal studies of large numbers of firms which would certainly be welcome in this field.

This investigation combined the 'content' of strategy research with current knowledge of the strategic management process. We have not created a guide to strategic action but have taken a small step in that direction. More research is certainly required. As progress is made, more specific guides can be established. The search for determinants of effectiveness in organizations must continue.

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APPENDIX A:
ORIGINAL QUESTIONNAIRE

QUESTIONNAIRE

CHECK THE APPROPRIATE RESPONSE.

- | | YES | NO | DON'T
KNOW (DK) |
|--|-----|-----|--------------------|
| 1. Does your organization use a corporate-wide: | | | |
| a. strategic planning system? | ___ | ___ | ___ |
| b. management information system (MIS)? | ___ | ___ | ___ |
| c. management-by-objectives (MBO) system? | ___ | ___ | ___ |
| 2. Do you, as CEO, delegate authority to make long-term strategic decisions to others in the organization? | ___ | ___ | ___ |
| 3. Are managers in your organization expected to formulate tactical plans based on a corporate-wide plan? | ___ | ___ | ___ |

FOR QUESTIONS 4 THROUGH 15 CIRCLE THE APPROPRIATE RESPONSE(S).

4. Which one of the following best expresses your background?

a. production/operations	d. general business	
b. marketing	e. other (please specify)	
c. finance/accounting	_____	DK ___

5. How many distinct products does your organization produce?
(For example, each bolt in a line of different sized bolts would be counted as one product. For "service" organizations answer "0".) _____ DK ___

6. How many product lines does your organization produce? (Here our line of bolts is treated as one product line.) _____ DK ___

7. What percent of sales come from international markets? _____ % DK ___

8. Which one of the following best describes your organization's current corporate-wide competitive strategy?

a. product/service differentiation (would include an emphasis on customer service or product quality)	
b. low-cost production (includes price leadership)	
c. focusing on particular target markets	
d. combination, no <u>one</u> of the above is of primary importance	
e. changes with specific products(services)/markets	
f. other (please specify) _____	DK ___

9. Approximately how long (in years) has this been true of your competitive strategy? _____ DK ___

10. Which one of the following best describes your organization's primary current strategic direction? (Circle one)

a. implementing new types of activities to be performed, producing new products(services) and/or competing in new markets	
b. improving competitive position with current activities, products (services) and markets	
c. deleting certain activities, products(services) or markets from current operations	
d. no <u>one</u> of the above is of primary importance	
e. other (please specify) _____	DK ___

11. How long (in years) has this been generally true of your strategic direction? (Refers only to question #10) _____ DK _____

12. Please circle three of the following which you would consider to have the highest priority in your company at this time.

a. profitability	h. research and development
b. growth	i. diversification
c. market share	j. efficiency
d. social responsibility	k. financial stability
e. employee welfare	l. resource conservation
f. product quality and service	m. management development
g. multinational enterprise	n. consolidation
o. other (please specify) _____	

DK _____

13. Circle no more than three of the following which best represent the primary organizational needs which your organization is trying to fulfill at the present time.

- survival (major emphasis on profits)
- lowering business risk
- affiliation with others (industry, community)
- greater esteem (image, leadership, position)
- greater self-actualization (improve relations with employees, the community and/or society)
- other (please specify) _____

DK _____

14. Which one of the following best describes your organization's structure?

a. functional departments	c. market divisions
b. product(service) divisions	d. other (please specify) _____

DK _____

15. Which one of the following stakeholder groups has the greatest overall influence on strategic decisions made in your organization at the present time?

a. stockholders and creditors	d. employees
b. customers and consumers	e. other (please specify) _____
c. key suppliers	

DK _____

FOR QUESTIONS 16 THROUGH 25 USE THE FOLLOWING SCALE TO DETERMINE YOUR RESPONSE. PLACE THE APPROPRIATE WHOLE NUMBER IN THE SPACE PROVIDED OR "DK" FOR "DON'T KNOW".

<u>low</u>			medium			<u>high</u>
1	2	3	4	5	6	7

16. How would you describe the rate of change of the following in relation to their impact on your organization?

a. economic environment	_____
b. political environment	_____
c. social trends	_____
d. technological change	_____
e. competition	_____
f. overall business climate	_____

17. What is the extent of your organization's control over the following:
- a. sources of major raw materials _____
 - b. sources of major fuels _____
 - c. product research and development _____
 - d. marketing research _____
 - e. distribution to buyers _____
 - f. retailing to consumers _____
18. What is the extent of your organization's use of the following in coordinating activities between primary work units (i.e., divisions, major departments)?
- a. shared values and beliefs _____
 - b. standardization of tasks _____
 - c. standardization of output _____
(includes assigned goals)
 - d. standardization of skills _____
 - e. direct supervision _____
19. In general, what is the extent to which the following are able to influence current strategic decisions?
- a. customers and consumers _____
 - b. stockholders and creditors _____
 - c. suppliers of key materials _____
 - d. employees _____
20. What level of strength would you assign to your organization in terms of the following resources:
- a. financial _____
 - b. managerial _____
 - c. manpower _____
21. What level of performance would you assign to each of the following functional areas in your organization at the present time?
- a. production/operations _____
 - b. marketing _____
 - c. finance _____
 - d. personnel _____
 - e. research _____
22. To what extent do you agree with the following?
- a. I expect all managers in the organization to be very loyal _____
 - b. I rely heavily on the opinions of others in making major decisions _____
 - c. I am very aggressive _____
 - d. I am a risk-seeker _____
 - e. I am always willing to try something "new" _____
 - f. growth is important for the company's "success" _____
 - g. financial leverage is an important ingredient for company "success" _____

23. What level of importance would you assign to the following in regard to the current direction of your organization?
- a. expanding into new activities, products (services) and/or markets _____
 - b. improving competitive position within current operations _____
 - c. deleting certain activities, products (services) and/or markets from current operations _____
24. What level of importance would you assign to the following in regard to your overall, competitive focus?
- a. corporate-wide low-cost production leadership _____
 - b. corporate-wide product/service differentiation _____
 - c. corporate-wide focus on particular target markets _____
 - d. adjusting specific product/market strategies to their specific situations _____
25. What level of importance would you assign to effective coordination between primary work units to the success of the company? _____

Circle the appropriate response for each of the following.

- | | | | |
|--|--|---|----|
| 26. How segmented are the markets in which your organization competes with major products/services? | not
<u>segmented</u>
1 2 3 4 | highly
<u>segmented</u>
5 6 7 | DK |
| 27. How would you describe communication flows within <u>upper management levels</u> of your organization? | between
<u>major units</u>
1 2 3 4 | within
<u>major units</u>
5 6 7 | DK |
| 28. How would you describe your general "management style"? | task-
<u>oriented</u>
1 2 3 4 | people-
<u>oriented</u>
5 6 7 | DK |

Additional comments:

Thank you for your help.

STRATEGIC MANAGEMENT AND THE SEARCH FOR DETERMINANTS
OF ORGANIZATIONAL EFFECTIVENESS

Abstract of dissertation submitted in partial fulfillment
of the requirements for the degree of
Doctor of Philosophy

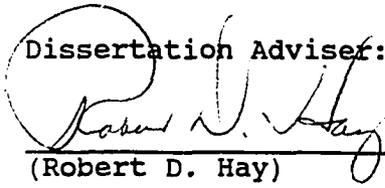
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This investigation sought determinants of the formulation and successful implementation of various generic strategies. Phase I investigated relationships between strategies formulated and perceptual variables covering four major areas; the philosophy and experience of the CEO, mission and objectives of the organization, the external environment and organizational resources and functions. Phase II sought determinants of performance within various strategies. Variables included covered five major areas; coordination and control, structure, resources and functions, planning and organization culture. Phase III sought determinants of strategy formulation using objective criteria from Industrial Compustat (Standard and Poor's, 1988).

Questionnaires were sent to 1250 firms randomly selected from Industrial Compustat. One-hundred and fifty-six firms were included in the analysis. 'Perceptual' data obtained from the returned questionnaires was combined with financial information from Industrial Compustat (1988).

Two major dimensions of strategy were considered. These included the organization's domain direction and competitive strategy. For domain direction, the four strategies analyzed included domain enlargement, enhancement, reduction and restructuring. For competitive strategy, the five strategies considered were product differentiation, low-cost production, market-focused, combination and multiple competitive strategies.

Two statistical tests were used in the three phases of the study. A chi-square analysis determined one-to-one relationships and stepwise discriminant analysis determined multiple variable effects.

The search for determinants of the formulation of various strategies indicated that for domain direction strategies all areas considered were important. For the competitive strategies, the environment and the resources and functions of the organization were of major importance.

Results of the search for determinants of performance varied between strategies considered. This variance existed both in the significant variables found and in the ability of those variables to discriminate between performance levels. Although all areas were of some importance, coordination and control and resources and functions generally provided the strongest effects.

Surrogate variables from Industrial Compustat were obtained for all but two of the significant perceptual variables from Phase I. Generally, the surrogate variables were less effective in discriminating between strategies than the perceptual variables.