

AN ANALYSIS OF THE CONFIGURATION OF STRATEGICALLY
SIGNIFICANT ORGANIZATIONAL FUNCTIONS WITHIN
PARTICULAR CATEGORIES OF GRAND CORPORATE
STRATEGY THAT ARE PREDICTIVE OF
COMPANY PERFORMANCE

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Scope and Method of Study: This study was designed for the purpose of testing the difference in strategic mixes of functions for a particular grand corporate strategy when firms are categorized by performance. The data consists of managerial perceptions of three separate variable sets collected by survey instrument (grand corporate strategy, relative strategic significance of organizational functions, industry) and performance data obtained from the Standard and Poor's Compustat data file. The objective of this study is to examine the nature of influence different grand corporate strategies have on the interrelationships between the relative strategic importance of different functional tasks and the performance of the organization. The data were analyzed using multiple moderated regression analysis and Pearson correlation analysis.

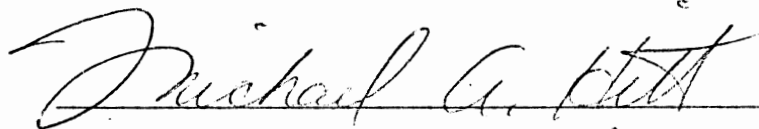
Findings and Conclusions: The results of this study revealed 1) that grand corporate strategy and industry were significant moderators of the relationship between strategic significance of organizational functions and performance in a sample of 93 large industrial firms in the United States and 2) the results of this study limit us in making generalizations that conclude that certain functional mixes are most appropriate for a particular grand corporate strategy due to small sample cell sizes. Within particular strategy/industry cells the interrelationships discussed can lead us to conclude that certain functional mixes are appropriate within a particular strategy industry environment.

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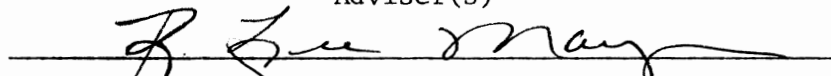
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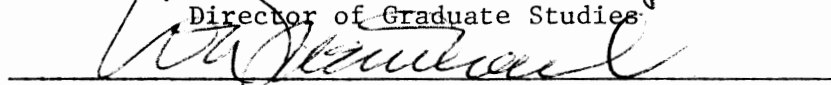




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CHAPTER I

INTRODUCTION

The field of business policy deals with the management of the total organization and it constitutes the core of business practice and management processes. The extent of quality research on corporate strategy has not yet come close to matching its crucial importance to both the survival and growth of the contemporary business organization.

This study in the field of business policy recognizes the fact that the concept of corporate strategy is dynamic and complex, and ". . . suggests that there are definable patterns of relationships for different types of organizations and that we can improve our understanding of how relevant variables interact," (Kast and Rosenzweig, 1973, p. 10). This research paper is concerned with the relative importance of key result areas in different organizational functions to company performance. In addition the moderating effect a particular grand corporate strategy pursued by an organization has on the strategic mix of key organizational functions is also investigated. The objective of this research is to establish a clearer understanding of the relationship between the concept's grand corporate strategy, and relative significance of different organizational functions and company performance. The study is intended to examine the nature of the influence different grand corporate strategies have on the interrelationships between the relative

strategic importance of different functional tasks and the performance of the organization. The basic underlying assumption in this research study is that in an industrial organization seven major organizational functions: 1) General Administrative, 2) Production Operations, 3) Engineering and R & D, 4) Marketing, 5) Finance, 6) Personnel and 7) Public and Government Relations are of critical importance to the effective implementation of the firm's grand corporate strategy and thus affect company performance. However, the relative strategic significance of critical organizational functions varies for firms pursuing different grand corporate strategies.

The significance of this study is that it will further identify, empirically test, and verify the concepts surrounding the functional task's strategic significance approach examined previously by Palia (1979) and, in addition determine the relationship between measures of performance and the strategically significant functional mixes established within a particular category of grand corporate strategy. This research study should provide significant contributions to the development of business policy research. The limitations noted within this study are: a) the study involves a static analysis of corporate strategy, a dynamic concept. It is important to bear in mind that even without a change in the grand corporate strategy, the same top manager may perceive the functional task's strategic significance mix differently at two different points of time; b) the study considers only the strategies of large American industrial corporations, therefore, the conclusions are not completely applicable to corporate strategies of firms in non-industrial and service sectors of the economy; and c) part of the data collected were executive perceptions rather than actual observations

of real world actions and results.

The scope of this study is specific and limited and does not intend to investigate the entire gamut of problems under consideration in the field of corporate strategy. The study will seek to identify critical or strategically significant function(s) for the effective implementation of each type of general corporate strategy, and then examine the level of effectiveness (using company performance measures) of firms studied.

This study is organized into five chapters. This chapter described the nature and objectives of the study and also its significance to theory and management practice.

Chapter II provides a review of the pertinent literature, both theoretical and empirical, on organizational effectiveness, business policy, company performance, and organization theory. The literature review provides the foundation for the conceptual framework which this study is designed to investigate. The relationships among the theoretical and empirical works supporting the study are presented and discussed.

Chapter III discusses the research question examined by the study, describes the research methodology used in the study, and the means of analyzing the data collected for the study.

Chapter IV provides presentation of the statistical analysis and results answering the research question.

Chapter V provides discussion of the major findings, discusses the implications for theory and management practice, and presents final conclusions.

The research study will strive to provide significant contributions to the field of business policy research. Building upon

previously established theoretical and empirical frameworks, the analysis will hopefully provide some added insight into the effective management practice of implementation of corporate strategies. By profiling the interrelationships between performance variables of sample organizations and the relative strategic significance of different functional tasks for firms pursuing a particular grand corporate strategy, this research will provide management practitioners with new insights into corporate strategies, and add to the existing body of research that systematically evaluates these concepts for the purpose of theory building and better management practice.

CHAPTER II

LITERATURE REVIEW

Organizational Effectiveness

Effectiveness is a topic that managers and administrators in all organizations are concerned with to some extent. Yet despite its importance the characteristics of an effective organization are neither universally recognized nor always readily apparent. Effectiveness is commonly referred to as the degree to which predetermined goals are achieved, where as efficiency refers to the economic manner in which goal oriented operations are carried out.

The level of output an organization achieves with its limited resources determines its efficiency, and the extent to which it is successful in doing what it set out to do determines its effectiveness (Katz and Kahn, 1966, p. 149).

There is no lack of material on criteria of organizational success. The literature is studded with references to efficiency, productivity, absence, turnover, and profitability, all of which have been offered as definitions of organizational effectiveness. Most of what has been written on the meaning of these criteria and their interrelatedness, however, is judgmental and open to question.

Organization effectiveness has become one of those handy, but treacherous pseudo concepts, connoting a sort of totality of organizational goodness - a sum of such elements as productivity, cost performance, turnover, quality of output and the like (Katz and Kahn, 1966, p. 150).

Katz and Kahn (1966), in developing a model of organizational effectiveness, considered the meaning of organizational effectiveness

starting with one of its major components, "efficiency." Katz and Kahn defined efficiency as how well the organization utilizes the energy at its disposal and how much energetic investment is required for each unit of output. Efficiency in an organizational system produces synergistic benefits of sustained profitability, and long-term growth and survival.

The organization which increases its efficiency also increases its effectiveness as a viable system. However, the efficiency criterion is insufficient for purposes of a complete organizational analysis; it is only an aspect of organizational effectiveness which considers the economic and technical aspects of the internal life of the organization (Katz and Kahn, 1966, p. 161).

Efficiency takes inadequate account of the openness of the human organization. Thompson (1967) argued that organizations are constantly engaged in several kinds of environmental transactions; they are dependent on outside agencies in the environmental transactions; they are dependent on outside agencies in the environment for making available required energetic inputs and for absorbing the organizational product. Effectiveness of business organizations are not determined solely by considering the efficiency of the internal system design; they are determined by the experience of the organization-environment transactions.

Approaches to Effectiveness

Views of organizational effectiveness are often placed into several categories: classical or traditionalist, goal, behaviorist, and systems models.

Traditionalists

The classical theorists attempt to develop methods of viewing effectiveness by considering only the economic perspective. The success

of effectiveness of an organization is determined by its productivity. Such a model implies a closed systems perspective. It ignores the relationship between the organization and the environment in which it exists. Mahoney and Weitzel (1969); and Child (1974) utilized several such evaluative criteria in modeling organizational effectiveness. Mahoney and Weitzel developed a model of organizational effectiveness for units within manufacturing concerns. They proposed 114 characteristics that are often considered criteria of organizational effectiveness. The researchers through the use of factor analysis and stepwise regression discovered that the effective units within manufacturing companies scored high on four factors. These factors, productivity-support-utilization, planning, reliability, and initiative, generally would be associated with how efficiently the organization was run. Thus managers of manufacturing organizations believe that in order for their firm to be effective, it must be run as efficiently as possible.

Similarly, Child (1974), in conducting a research study among British firms, used profitability and growth in efforts to find supporting evidence to either universalistic or contingent criteria in modeling effectiveness. Child used a universalistic model to match organizational characteristics with organizational effectiveness. Of the characteristics studied, Child found only modest support for any of them, and was forced to conclude that the question of universalistic characteristics leave the problem of effectiveness unresolved. Child then searched for an answer to the effectiveness issue using the contingency model. Child hypothesized "that the variability of the environment faced by the firm and the organizational structure of the organization interact to determine the effectiveness of the organization. The profitability data

lent tentative support to this hypothesis" (Wall, 1977, p. 10). Using either of these approaches, however, Child's approach is still classical in orientation, because of the total reliance on profitability as an indicator of effectiveness.

Goal Approach

The common practice of using statements of organizational goals as criteria for effectiveness have been discussed by Thompson and McEwen (1958); Perrow (1961); and Price (1968). These organization goals may be the formal goals found in charters, company manuals, and other formal documents. Goals may be informal or operative and not stated or emphasized, but are goals to which the organization is actually dedicated.

Parsons (1960); Etzioni (1964); and A. K. Rice (1963) used statements of goals derived from conceptualizations of societal missions. Goals took the form of usable outputs which are consumed as inputs by some other system.

Charles E. Rice (1961) and Bernard Bass (1952) used goals as criteria for measuring organizational effectiveness. Price measured effectiveness within the context of criteria derived from goals commonly sought by organizations of a particular class or type. Price examined a public psychiatric hospital. Statements of goals were derived from interviews with hospital personnel. Price originally intended these goals to serve as out-put variables. Bass approached the problem of criteria from multiple frames of reference. The worth of the organization was judged in terms of the following criteria: productivity, profitability and self maintenance, as well as contributions the organization made to its members and society.

Price (1968), provided an inventory of propositions specifying the determinants of organizational effectiveness as defined by the level of goal attainment. Price developed a model around the dependent variable organizational effectiveness, and five intervening independent variables: productivity, morale, conformity, adaptiveness, and institutionalization. The model was also structured to include the economic, political, internal and external control, population, and the environmental systems of the organization.

Steers (1975), (1977) compared a representative sample of 17 past research studies of organizational effectiveness. He noted "that organization effectiveness has several different meanings based on one's frame of reference. Steers states that different organizations pursue widely divergent objectives and this uniqueness should be recognized in evaluation attempts" (Hitt and Middlemist, 1978, p. 1). He also concluded after his review of several studies on effectiveness that the construct of effectiveness was multidimensional in nature.

Steer (1975) after evaluating 17 multivariate models noted several disadvantages. The major disadvantage was that there was a general lack of concensus regarding a valid set of criteria for measuring effectiveness.

Past criteria have been unstable, difficult to quantify, situation specific, and constrained by the time perspective being employed. When multiple criteria were utilized, it was impossible to resolve the conflict between the mutually exclusive dimensions (Steers, 1975, p. 546).

Steers contributed the differences in criteria for measuring effectiveness to the different frames of reference from which various authors constructed their models. Steers (1975) recommendations suggested that that criteria of effectiveness should be based on the organization's

goals and objectives, that is organizational objectives must be the frame of reference for effectiveness measurement. Other drawbacks specified by Steers are the lack of theoretical relevance of some of the models which were utilized, and the absence of studies which combine both macro and micro perspectives. Steers gave supportive arguments for the development of measures of organizational effectiveness which are consistent with the tenets of systems theory. This is made clear in his statement, ". . . The more relevant models are those that attempt to develop integrating mechanisms by positing how such criteria affect or are affected by other variables . . ." (Steers, 1975, p. 558).

As Steers (1975) points out the systems approach appears to be the mode of thinking currently permeating organizational research. Yet the measures of organizational effectiveness being employed do not have systems theory as their basis.

Behavioralist Approach

Many attempts have been made to build realistic organization models based on the human variable. This group of theorists attempt to measure organizational effectiveness using people as their significant organizational variable. Their argument implies that in order to be effective, an organization must generate positive and satisfying conditions relative to the psychological needs of the worker (Wall, 1977, p. 11).

Webb (1974) studied the effectiveness of churches within a primarily urban presbytery. Webb defined effectiveness in terms of the churches' goal attainment. "A list of 28 church goals were obtained from the official presbytery goals, from interviews with clergymen, and from relevant church literature" (Webb, 1974, p. 663). Webb discovered four organizational characteristics with which to typify the effective church. The effective church was cohesive, efficient, adaptive, and supportive.

"The effective organization is one which meets the needs of people within the organization, this allows the organization to be more efficient which ensures the continued viability of the system (Webb, 1974, p. 674).

Blake and Morton (1963) argued that organizations must have managers who display a high degree of concern for people and a high degree of concern for productivity.

Schein (1970) proposed that the effective organization is one which creates conditions which promote good communication, flexibility, creativity, and genuine psychological commitment.

Neghandi and Reimann (1973) in analyzing the importance of perception of decision-makers and how it is interrelated to the environment and the decision-makers actions evaluated effectiveness in terms of behaviorally oriented measures and economic criteria. The factors examined were: 1) ability to hire and retain high level manpower; 2) employee morale; 3) turnover and absenteeism; 4) interpersonal relationships; 5) interdepartmental relationships; and 6) utilization of high level manpower. The economic and financial criteria examined were growth in sales, and net profits during the last five years.

Systems Approach

The application of general systems theory to organizational theory views organizations as existing in a hierarchy of systems. Systems theory approaches the study of organizations assuming that an organization is a series of interrelated systems that obtain resources from their environment, transform these resources into an output which is valued by the environment, and export these outputs to the environment in exchange for more resources. Effectiveness of organizations to meet their

requirements arising from their situations. As long as the organization is able to maintain the interaction process of exchange with its environment, it will continue to survive. Illustrations of such studies are provided by Bennis (1966); Seashore and Yuchtman (1967); Schein (1970); Prasad (1973); Duncan (1972); Lawrence and Lorch (1967); Thompson (1967); Friedlander and Pickle (1968); Georgopoulos and Tannebaum (1957); Mott (1972); and Katz and Kahn (1966).

Bennis (1966) approached the task of studying organizational effectiveness from the point of view of mental health. Bennis views the major need experiences by organizations to be that of adopting to a changing and turbulent environment. Bennis' criteria of organizational effectiveness paralleled those advocated by psychologists concerned with the development of healthy human personalities: adaptability, a sense of identity and a capacity to test reality; (summary of Bennis criteria provided by Schein, 1965, p. 97).

Yuchtman and Seashore (1967) proposed a systems-resource approach to organizational effectiveness based upon the currently popular open-system model of organizations. Seashore and Yuchtman postulate that the interdependence between an organization and its environment takes the form of constant transactions with other organizations and entities outside its boundaries.

The organization imports various types of scarce and values resources, converts these into outputs which are exported to the environment. The organization's success over a period of time hinges upon its ability to maintain a favorable input-output ratio (Seashore and Yuchtman, 1967, p. 884).

The effective firm is one which can appropriately identify and capture values resources which will help the organization control its environment. The conclusion of Seashore and Yuchtman is that organizational

effectiveness can be best evaluated in terms of the amount of control which an organization wields over its environment or its bargaining position. The more control the organization has over its environment, the more effective the organization will be.

Edgar Schein (1970) viewed a system's effectiveness as its capacity to survive, adapt, maintain itself, and grow regardless of the particular function it fulfills. Schein suggested that the maintenance of effectiveness is through an adaptive coping cycle. The effectiveness of the organization is maintained or lost through this adaptive coping cycle depending upon the use of the organization's environmental feedback.

Prasad (1973) addressed organizational effectiveness by viewing three subsystems of organizations: economic, technical and social. Prasad concluded that an organization can be ineffective in one or two subsystems without jeopardizing its total effectiveness. But if an organization is to maintain a high level of total effectiveness, an equilibrium of the level of effectiveness of all three subsystems must be achieved.

Duncan (1972) and Lawrence and Lorch (1967) employed models in their studies of organizational effectiveness which included the environment as a significant variable. Duncan defined effectiveness as consisting of three component parts: goal achievement, integration, and adaptability. Adaptability was primarily concerned with environmental and organizational interaction. The accomplishment of worthwhile goals and the integration of the organization for this accomplishment dealt primarily with internal processes of efficiency. Lawrence and Lorch (1967) held that to be effective, an organization must have an appropriate balance between

differentiation and integration. Organizational effectiveness is defined as the adaptiveness and responsiveness of the organization to environmental pressures. The firm must differentiate and simultaneously integrate in order to deal with the complexities of its technology and environment.

Thompson (1967) argued that the effective organization must do two things. First, it must identify its important constituents in such a way to insure organizational success. The organization through stratification of constituents into a hierarchy of relative importance puts itself in a better position to determine its strategy for meeting the demands placed on it by its constituents. Those of most strategic importance to organizational success must receive the most attention in terms of ensuring that the interaction between the organization and the constituent is appropriate.

Friedlander and Pickle (1968) attempted to define the criteria of organizational effectiveness to reflect the total organization system and its interdependency with its environment. Friedlander and Pickle dealt with a sample of 97 small business organizations composed of retail, service, manufacturing, and mineral extraction establishments. The purpose of the study was to explore the concept of total organizational effectiveness by examining the relationship between internal and external system effectiveness. Conclusions indicated that organizations find it difficult to fulfill simultaneously the variety of demands made upon them.

Georgopoulous and Tannebaum (1957) defined organizational effectiveness as "the extent to which an organization as a societal system, given certain resources and means, fulfills its objectives without incapacitating

its means and resources and without placing undue strain upon its members" (Georgopoulous and Tannebaum, 1957, pp. 530-531).

Georgopoulous and Tannenbaum (1957) analyzed the effectiveness of a delivery service organization in terms of three criteria of effectiveness: productivity, flexibility, and intra-organizational strain. Effective stations were more productive, lower in intergroup strain and somewhat more flexible than noneffective stations. Georgopoulous and Tannenbaum concluded that the organization operations measured provided reliable indicators and were significantly related to an independent evaluation of effectiveness by experts.

Paul Mott (1972) developed a comprehensive model of organizational effectiveness by viewing effectiveness as the relative ability of the people within the organization to mobilize their centers of power to be appropriately productive, adaptive to change, and capable of handling temporarily unpredicted workloads. Productivity, adaptability, and ability to handle emergency situations were measured using questionnaires. Mott examined the extent to which a task is structured and its effects on conditions that relate to high productivity and effectiveness in an organization. Mott's study provided evidence to suggest that with appropriate safeguards, workers' subjective judgments provide a valid measure of effectiveness.

Katz and Kahn (1966) considered organizational effectiveness in terms of the society of which the organization is a part. Effectiveness is assessed in terms of its contribution to the efficiency, survival power, and environmental control of the entire societal system. The transactions between the organization and other agencies in the society would be judged effective to the degree that the organization provided

maximum return to society; for the demands made on society. Katz and Kahn conclude that organizational effectiveness is the maximization of return to the organization by all means.

Ghorphade (1971) in evaluating the usefulness of the two predominant models in the study of organizational effectiveness: the classical model vs. the social system model, concluded that based upon which conceptualization was used, studies on organizational effectiveness vary in terms of their findings and usefulness.

Ghorphade in reviewing the classical theory of organizational effectiveness pointed out that the classical approach places a great deal of emphasis on the internal functioning of the organizational system. The classical approach views the organization as a closed system with clearly defined goals and a structure that corresponds to the technical demands of the anticipated tasks. The model relies implicitly on the assumption that goals of the formal organization can be neatly established and systematically manipulated. Ghorphade notes that this assumption fails to take notice of the essentially open, multifunctional nature of organizations.

In approaching the study of organizational effectiveness, Ghorphade indicated that social system theorists focus on the functional requirements of the organization under consideration. Functional requirements are the basic needs experienced by the organization; conditions that have to be met if the organization is to survive or function effectively. Ghorphade in his review of effectiveness literature notes that the basic functional requirements emphasized were: adaptation, goal attainment, integration, a sense of identity, and a capacity to test reality.

Ghorphade also pointed out the advantages and disadvantages of the

social system approach. The advantage is that it enables a balanced analysis of the organization from differing perspectives, and provides for consideration of interdependence of the organization and its environment. The disadvantage is the perplexing variability of organizational forms. Because organizations differ greatly in regard to size, shape, functions, and societal interrelationships in which they operate derivation of functional requirements is a monumental and hazardous task. "Statements of universal organizations' needs . . . may be useless for the same organization or differing organizations at various points in time" (Ghorphade, 1968, p. 40).

Conclusion

The issue of organizational effectiveness has been a topic which has been widely discussed and debated. Studies in the past have restricted themselves to using hard criteria such as productivity and profitability.

These measures had the merit of being easy to measure in terms of conventional, statistical, accounting, and other methods of measurement. Their utility as criteria of effectiveness, however, is marred by their static nature and dependence on other variables. In recent years organizational theorists have emphasized the need for the development of more dynamic criteria which reflect the overall "health" and effectiveness of organizations. These criteria have merit in widening the concept of organizational effectiveness and making it more dynamic (Ghorphade, 1968, p. 31-32).

They, however, raise some serious methodological problems. The major methodological flaw of organizational effectiveness studies is that they fail to work out systematically the manner in which the factor investigated is related to overall organizational functions and effectiveness.

"The expanding literature on methodology for organizational research

does not yet include a statement on the methodological problems involved in studying organizational effectiveness" (Ghorphade, 1971, p. 209). The energies of organizational theorists conducting research on this topic have been mainly directed at resolving broad theoretical issues and development of universal criteria of effectiveness. The issue of effectiveness is a complex one, as evidenced by the diversity of attempts to explain organizational effectiveness. The variables to be included in the study are not apparent, and often the relationship between these variables are impossible to predict.

The research objective of finding an ultimate criterion for organizational effectiveness remains elusive to researchers. Review of pertinent performance and policy literature will present various research studies that have developed acceptable measures of performance that overcome some of the weaknesses plaguing previous attempts to quantify and evaluate performance and effectiveness.

Corporate Performance

Business policy, strategy, organizational effectiveness and the environment are entwined in interdependent relationships which impede theory development and empirical research. Policy is viewed as the study of all factors that contribute to organization effectiveness; strategy is the means by which organizations obtain desired end results; effectiveness involves the measurement of organizational performance relative to the goals of the organization; the environment intercedes to both influence strategic decisions and determinants of effectiveness.

Overview of Effectiveness Research

Recently the primary emphasis of effectiveness theorists has been the empirical research design and development of an ultimate criterion of organizational effectiveness applicable to all organizations. As can be seen in the literature review established for effectiveness much controversy exists pertaining to the study of organizational effectiveness. The concept of organizational effectiveness has been subjected to numerous and conflicting interpretations. The perplexing diversity of organization forms in society can account for much of the controversy. Organizations differ in regard to societal functions, size, shape, and structure, and most significantly they differ in relation to the institutional interrelationships and circumstances in which they operate. "Organization effectiveness, like the environments of which it is both cause and effect is multidimensional in nature" (Steer, 1975, p. 547). This multidimensional aspect of effectiveness is the main source of difficulty and controversy in effectiveness research.

Organization effectiveness is defined differently depending on the perception of the researcher and the frame of reference of the measurer. Differences in interests and values of researchers has also contributed to the existing confusion in effectiveness literature. Steers (1975, p. 548) in reviewing the evaluative criteria in multivariate models of organizational effectiveness established in past research studies concluded that there was an inconsistency as to what constitutes a useful and valid set of effectiveness measures.

Each model sets forth its three or four defining characteristics for success, but there is very little overlap across the various approaches. Bennis (1962); Price (1972); Etzioni (1964); Drucker (1954); Gross (1968); Seashore (1960); and March and

Simon (1958) view the effectiveness as a state which organizations strive to attain.

These authors propose and critically discuss the multiple goal nature of organizations.

The frustration experienced by goal theorists in searching for objective goal attainment criteria to express organization effectiveness lead to the emergence of various evaluative models as designated by Kirchoff (1977). Katz and Kahn (1966) and Seashore and Yuchtman (1967) suggest that effectiveness is best understood in terms of the entire organizational system; continuously trying to reach or maintain homostasis with respect to its internal and external environments.

Kirchoff (1977) and Steers (1975) point out weaknesses in recent effectiveness research. Steers (1975, p. 548) indicated that most effectiveness models are normative. "They attempt to prescribe, based on either theoretical formulations or value premises, the requisite conditions under which an investigator manager can determine the degree of effectiveness of a particular organization." Steers emphasizes that various models lack an underlying rationale or empirical defense of why a model should be applied to other organizations. Kirchoff (1977, p. 352) criticizes both goal approach models and evaluative models on the basis that they fail to measure adequately organizational effectiveness.

Goal approach models struggle with identification of appropriate goals and stumble over multivariate methodology in an attempt to integrate multiple goals into an ultimate criterion that will be applicable to more than one organization. Evaluative models use criteria to measure effectiveness that lack the basic requirements for validity and reliability.

In summary, effectiveness literature indicates that researchers are still struggling with the empirical justification of an ultimate

criterion to measure effectiveness. The research goal of finding an ultimate criterion for organization effectiveness remains elusive.

Contribution of Policy Research

Published empirical research on business policy is devoid of reference to the theory of an ultimate criterion of effectiveness. Investigators naively or perhaps wisely ignore the theoretical arguments and adopt the derived goal of the financial community; profit or return on investment (Kirchoff, 1977, p. 352).

The Profit Impact Market Strategy (PIMS) model; Buzzell et al. (1975), Schoeffler (1974); Anderson and Paine (1978); and Kirchoff (1977) has as its stated purpose determination of what factors of the organization and environment cause return on investment (ROI) with the implicit assumption that return on investment is an adequate criterion for expressing organizational effectiveness.

Kirchoff (1975) in a study of intraorganizational strategy used ROI as an ultimate criterion. Kirchoff specified 12 ultimate goal attainment criteria in developing a high explained variance regression model of profit center ROI within one division of a manufacturing corporation. The results of his study provided evidence that no global measure of effectiveness exists, not even among divisions of the same organization.

Schendel and Patton (1975) utilized profit growth as an ultimate long term criterion. The authors in studying corporate stagnation and turnaround used multiple regression with normalized income profit growth as the regressant and nine goal attainment measures as regressors. Models were developed for turnaround and non-turnaround firms. The difference between the two models led the researchers to conclude that

internal factors to the organization affect overall effectiveness to a significant degree.

Professional financial analysts rarely examine any ultimate criterion other than earnings per share. Financial analysts in evaluating the organization's earning power examine many goal attainment criteria. Internal factors such as manager competence, corporate goals, research and development capabilities, labor relations and external factors such as competition, product life cycle, and government regulations are all subjectively evaluated prior to deciding on their ultimate criterion earnings.

Policy research has demonstrated that when earnings is chosen as an ultimate derived goal for effectiveness, it is assumed to be determined by other goal criteria, some internally controlled, some environmentally determined. Kirchoff (1977, p. 352) notes that

PIMS research used at least 18 ultimate goal attainment criteria in creating a significant multiple regression model explaining corporate ROI. PIMS research findings emphasized environmentally determined factors such as the intent of competition, market share, and relative market quality.

Policy research in spite of numerous articles, books and rhetoric on the multiple goal character of effectiveness make the intuitive choice of earnings as an ultimate criterion of effectiveness. The justification is simply that "earnings" is a valid socially derived goal since stockholders are an important segment of society, profit is a socially responsible goal for all business organizations (Friedman, 1962).

Empirical research in business policy has not gone without criticism. Kirchoff (1977) points out a broader perspective is demanded examining other ultimate criteria as they reflect goals from other segments of society. Each ultimate criterion needs to be expressed in relation to

others since effectiveness is a multi-goal function. Empirical research on policy must incorporate more complex measures of organization effectiveness. Overly simplistic single variable models are inadequate expressions of the real world; multi-goal existence of organizations. Multiple equation models of effectiveness expressing various derived goals of the organization represent the future of policy research. Schoeffler (1974) suggests that models expressing actual performance relative to expected performance of one goal would be useful. These models show potential in measuring organization effectiveness across many organizations. However, early efforts to establish either approach has run into immense data collection problems, and methodology problems.

Directions for Further Research

Policy research and effectiveness research have unanswered the challenge of empirically justifying and defining an ultimate criterion of effectiveness. Effectiveness literature has indicated the controversy among theorists in developing a consistent theoretical framework to consider the concept of effectiveness. Differing interpretations of empirical studies have much controversy to be resolved in the area of effectiveness research. Policy research ignores blatantly effectiveness research and assumes an ultimate criterion of effectiveness; return on investment. Policy research questions what factors explain differences in typical levels of ROI among various kinds of businesses. For example, Schoeffler et al. (1974) analyzed 37 factors in constructing an equation that explains more than 80 percent of the variation in profitability among 620 businesses in the PIMS data base. The objective of the study

was to provide some means of estimating return on investment in a given business, under a given industry, and market conditions, following a given strategy. The models developed in the Schoeffler study and other policy research have tried to answer two basic questions: What factors influence profitability in a business? How does ROI change in response to changes in strategy and in market conditions? The major drawback of these studies is that they fail to consider the broader perspective that is reflective of the goals of the social system in which organizations interact. Policy research does, however, indicate some helpful guidelines to express future models of measuring effectiveness. Kirchoff (1977, p. 354) suggests that models expressing actual performance relative to expected performance of one goal would be useful. "Such models, based upon multivariate analysis of ultimate goals, show potential to measure organizational effectiveness across many organizations." Advancement of policy theory and effectiveness research requires such improvements in the measurement of effectiveness.

Review of performance literature will present the design of organizational performance so we can evaluate the validity of various measures used in past research studies. In the context of the present strategy-performance study the performance literature will indicate empirical studies that develop acceptable measures of performance and overcome some of the weaknesses of previous attempts to quantify effectiveness and performance.

Thune and House (1970); Herold (1974), Ansoff et al. (1971); Rue and Fulmer (1973); Karger and Malik (1975); Rumelt (1974); Grinyer and Norburn, 1975); Kudla (1980) present empirical design measures of organizational performance that consider the dynamics of organizational

performance that consider the dynamics of organizational structure for differing organizations and their respective environments. The performance measures utilized in these studies start to discriminate across industrial groupings and account for variability in organizational forms. All studies except for Khandwalla (1977) which was subjective in nature, and Rumelt (1974) were successful in developing a measure of performance (dependent variable) that discriminated between planners of differing time horizons and formal hierarchical structure; (independent variable). Rumelt related strategy and structure to a measure of economic performance.

The Design Of Organizational Performance

The organization, as a collectivity, succeeds in achieving organizational performance; performance is the net result of the combined efforts of all individuals and groups in the organization.

Situational, strategic, structural, and behavioral variables affect organization performance. The performance of the organization in relation to its rivals can initiate important changes in its strategic and structural variables and sometimes in its situational and behavioral variables (Khandwalla, 1977, p. 572).

In examining the design of organizational performance a review of recent literature on the topic of performance will suggest appropriate methodologies that can be utilized in measuring organizational performance for the present study.

Khandwalla (1977, p. 576) in his study of 103 Canadian firms "assessed performance in terms of an index of subjective performance in which long-run profitability, growth rate in revenues, and stability of profits were equally weighted." Profitability was regarded as a

measure of efficiency, stability measured riskiness, and growth measured dynamism. Khandwalla in developing an index of relative performance rated firms on how well they had done on five goals in comparison with the industry average or principal rivals. The designated goals were: profitability, growth, employee morale, solvency, and public goodwill. Khandwalla in concluding his study found a correlation between the rate of innovation and the subjective index of relative performance of the firm. Khandwalla's findings suggest that an innovative-rich environment requires that management be responsive to this necessarily for innovativeness to increase the performance of the firm when compared to its rivals.

Thune and House (1970) collected information on the long-range planning practices of 36 firms representing six industries. Having this information the firms' long-range planning process was classified as formal or informal. Using different financial criteria to measure the success of each firm, the authors then tested the hypothesis that companies which engage in formalized company-wide, long-range planning are more successful than companies that do not. Performance was measured objectively in terms of five economic measures: sales, stock prices, earnings per share, return on common equity, and return on total capital employed. The statistical methodology utilized by the authors was a two-way analysis of variance, using industrial groupings and formal planners versus informal planners as the independent variables, and changes in the five economic criteria as the dependent variables. Five analyses of variance were computed, one for each measure of economic performance. Thune and House verified their hypothesis and found that:

Formal planners, from the time they initiated long-range planning through 1965, significantly outperformed informal planners with respect earnings per share, earnings on common equity, and earnings on total capital employed. Informal planners did not

surpass formal planners on any of the measures of economic performance after long-range planning was introduced (Thune and House, 1970, p. 84).

The authors' findings are of significant importance in that they provide support to the managerial ideology of planning-oriented organizational structures to improve performance.

Herold (1972) did a cross-valuation study of the original study by Thune and House on the performance of formal planners vs. informal planners. Herold introduced a new independent variable, profits to cross-validate the planning questionnaire of the original study. Herold also hypothesized that the research and development expenditures would be higher for the formal planners than for the informal planners. Using a sample of five pairs of formal and informal planners comparisons over a seven-year period showed formal planners to outperform informal planners on sales and profits and to significantly out-spend informal planners on R & D expenditures. These factors indicate that there are other factors which along with formal long-range planning are correlated with superior performance; R & D expenditures. Herold's findings also support the conclusion of Thune and House by correlating another independent variable, profits, with their predictions and findings using the long-range planning questionnaire.

The Ansoff et al. (1971) study was designed to investigate the relationship between performance and acquisition behavior for a large sample of U.S. manufacturing firms during the 20-year period from 1947-1966. However, as part of the overall project, the researchers also studied the effect of planning status for acquisition; 27.7 percent were classified as planning got the acquisition. After classification the performance of each group was evaluated using 21 different financial criteria.

The study used 21 different measures of performance on 13 separate variables. The variables are listed in Table I. Performance was measured in more than one way to minimize the effects of bias from any one type of measure.

Type I measure was a mean of yearly rates of change over the period. Type II measure incorporated only the values of the variable in the first and last year of the period. Type III measure was used to determine the simple average value of the variable over the measurement period (Ansoff, 1970, p. 3).

Definitions of each variable are given in the Standard and Poors Compu-
stat Tapes Manual. The authors concluded that the firms that exhibited extensive planning of their acquisition programmes significantly outperformed the firms that did little formal planning. The study is significant in that it attempted to investigate quantitatively the relation of acquisition planning and performance. The results were conclusive in indicating that firms with systematic planning and execution not only perform better on the average, but also perform more predictively than the non-planners.

Rue and Fulmer (1973, pp. 67-68) in the initial findings of a large empirical study examined the relationship between long-range planning and financial performance for 386 U.S. Firms. The authors used the questionnaire method to obtain the information required for the study that was related to long-range planning practices of the firms analyzed. The questionnaire allowed the researchers to classify a firm's long-range planning practice as to completeness. Four distinct categories were developed. After classification of long-range planning practices each class of planner was related to financial performance. The following measures of performance were selected:

TABLE I
PERFORMANCE INDICATORS

Khandwalla: (1977)	Long run profitability Growth rate in revenues Stability of profits Employee morale Public goodwill	Totally subjective
Thune and House: (1970) Herold (1972)	Sales Stock prices Earnings per share Return on common equity Return on total capital employed	
Ansoff et al.: (1971)	Sales Earnings Earnings/share Total assets Earnings/equity DVDS/share Stock price (adjusted) Debt/equity Common equity Earnings/total equity P/E ratio (adjusted) Payout (DVDS/earnings) Price/equity ratio	
Rue and Fulmer: (1975)	Sales growth Earnings growth Earnings/sales ratio Earnings total capital	
Karger and Malik: (1975)	Sales volume Sales/share Cash flow/share Earnings/share Book value/share Net income Earnings on capital and net worth Operating margin DVDS/income Capital expenditure/share Average stock price Average P/E ratio	

TABLE I (Continued)

Rumelt: (1974)	Return on equity Return on capital Price earnings ratio
Kudla: (1980)	Return on stockholders equity

sales growth: average annual percentage growth experienced over last three years.

earnings growth: annual percentage growth experienced over last three years.

earnings/sales ratio: average value of the earnings/sales ratio over last three years was selected to measure company efficiency over the recent past.

earnings/total capital: average over last three years and was utilized as a measure of return on investment.

The performance data was obtained from the Standard and Poors Compustat data tapes; which provide 60 different financial measures of performance for a large sample of firms. The authors, after comparing non-planners to the different classes of planners, concluded that there is no simple, across-the board relationship between financial success of the firm and its use of long-range planning. The authors could not determine whether long-range planning pays or does not pay.

Karger and Malik (1975) measured the effects of formal integrated range planning upon commonly accepted financial performance measures in industrial concerns. Formal integrated long-range planning (FILRAP) was defined as an established written plan for the overall organization and for each division and each plant in each division for at least the next five years and a more expanded one-two year plan for each. The sample studied consisted of 90 U.S. companies representing five industrial groupings (Clothing, Chemicals, Drugs and Cosmetics, Electronics, Food and Machinery). The authors issued a questionnaire to the CEO of each firm surveyed which allowed the authors to discriminate between FILRAP planners and those pursuing other degrees of planning--all of this latter group were classified as non-planners. Financial data was collected on 38 usable firms for the years 1964-1973. The annual financial measures utilized in this study were obtained from the Value Line Investment Survey data sheets (refer to Table I for listing). Both the students'

t test and Wilcoxon Rank Sum Test were used to compare the planners to the non-planners. The analysis indicated very strongly, within the limitations of the samples that planners outperformed the non-planners by a wide margin except in those measures involving capital spending, stock price, and distribution of earnings to dividends.

Rumelt (1974) investigated the relationship between economic performance of large scale industrial enterprises in the United States during 1949-1969 and the type of strategy and structure adopted. The author demonstrated an analytical relationship between economic performance and two key variables which managers can influence: strategy and structure. Rumelt's findings indicated a relatively strong performance for firm combining a strategy of diversification into related areas with a structure of divisional organization on a product-line rather than functional basis. Rumelt (1974, p. 93) also noted, "that the variables providing the best measures of economic efficiency and investor appraisal of performance--return on equity, return on capital, and price-earnings ratio--were strongly related to diversification strategy."

Grinyer and Norburn (1975) analyzed the relationships between characteristics of the strategic planning process and financial performance for 21 United Kingdom companies. Consensus tests and agreement scales were developed to measure the extent of agreement among 91 executives in companies on various characteristics of the strategic planning process. Correlation and factor analysis were formed using these scales. Financial performance was measured from 1966 to 1970 using firm financial ratios; including size, profitability, performance, and growth ratios. Return on net assets was the only measure of profitability that was used.

Grinyer and Norburn found no evidence to suggest that common

perception of objectives, clarity of role perception, and formality of planning are related to financial performance. They failed to find a statistically significant relationship between the number of formal communication processes used and financial performance. Grinyer and Norburn concluded that there is no established relationship between formal corporate planning and high financial performance. Their study did suggest that the number of informal communications channels and the number of items of information used in reaching decisions were positively correlated with financial performance.

Kudla (1980) sought to assess the effects of strategic planning on the economic performance and overall riskiness of 129 large manufacturing firms. Strategic planning was defined as

the systematic process of determining the firm's goals and objectives for at least three years into the future and developing the strategies that will govern the acquisition and use of resources to achieve these objectives (Kudla, 1980, p. 5).

The author through the use of mail surveys: 1) identified the firms that were engaged in strategic planning, 2) determined when these firms initiated strategic planning, and 3) classified each of the firms according to the degree of completeness of its planning process. Economic performance was measured by focusing on stockholders' returns rather than firm performance measures because much of business finance is directed at maximizing stockholder wealth. Kudla improves on previous studies in strategic planning by adjusting for risk in measuring stockholders' returns. The capital asset pricing model framework was used to measure risk.

Kudla formulated two statistical hypotheses that tested: 1) the assumption that firms engaged in strategic planning make improved current decisions by considering the futurity of these decisions, which in

turn is reflected in stock prices, and 2) that strategic planning changes the risk-complexion of the firm. Statistical tests did not indicate significant differences in the returns earned by shareholders of planning firms and non-planning firms. No relationship was found between formal planning and performance. In response to the second hypothesis

statistical tests suggested that the strategic planning process led to a transitory decline in systematic risk as measured by beta for the planning firms relative to the non-planning firms. One explanation for this result is that other factors may have had a greater influence on beta than did strategic planning-- factors such as specific growth strategies, degree of leverage, and dividend policy (Kudla, 1980, p. 19).

Conclusion

Policy research and effectiveness research have not successfully answered the challenge of empirically justifying and defining an ultimate criterion of effectiveness. Effectiveness literature has indicated the controversy among theorists in developing a consistent theoretical framework to consider the concept of effectiveness. Much controversy still remains concerning the multi-dimensional aspect of organization effectiveness and the development of a consistent theoretical framework to consider the concept of effectiveness. Organizational effectiveness theorists have failed to work out systematically the manner in which factors investigated are related to organizational functions and effectiveness. Organizational theorists are still struggling with broad theoretical issues and development of an universal criterion for effectiveness. The issue of effectiveness remains a complex research problem because of the diversity of attempts to explain the nature of organizational effectiveness and the differing interpretations of these empirical studies in the area of effectiveness research. The research

goal of finding an ultimate criterion for organizational effectiveness remains elusive.

Policy research has directly circumvented the problem of defining criteria to measure effectiveness by assuming that return on investment is the ultimate criterion for expressing organizational effectiveness. The simplistic single variable models proposed by policy researchers are inadequate expressions of the real world, multi-goal existence of organizations. Policy research in attempts to investigate what factors explain differences in typical levels of ROI among different businesses has questioned: 1) what factors influence profitability in a business organization, and 2) how does ROI change in response to changes in strategy and market conditions. The major drawback of these studies is that they fail to consider the broader perspective that is reflective of the goals of the social system in which the organization exists. Policy research, however, has indicated some helpful guidelines to express future models of measuring effectiveness. Models expressing actual performance relative to expected performance of one goal show potential in measuring organizational effectiveness across many organizations.

The review of performance literature has presented the design of organizational performance for purposes of evaluating the validity of various measures used in past empirical studies. The literature reviewed indicates empirical studies that have developed acceptable measures of performance in efforts to quantify effectiveness and performance. The studies presented are extremely helpful in that they 1) provide empirically tested measures of performance that can discriminate between independent variables, and 2) provide suggestions of what measures are most noteworthy in examining measures of organizational performance. In

the context of the present strategy-performance research these empirical studies will set the guidelines used in formulating a dependent variable of organizational performance that will explain relationships between strategically significant functional areas and particular grand corporate strategies.

The financial measures of performance that will be used for purposes of this research study are: price earning ratio, earnings per share, return on equity, return on capital, and sales. Thune and House (1970); Herold (1972); Ansoff et al (1971); Rue and Fulmer (1973); Karger and Malik (1975); Rumelt (1974); and Kudla (1980) used measures of organizational performance that consider the dynamics of organizational structure for differing organizations and their respective environments. The performance measures utilized in these studies discriminated across industrial groupings and accounted for variability in organizational forms.

Thune and House (1970) and Herold (1972) in testing the hypothesis that companies engaged in formalized long-range planning outperform companies that do not; used sales, earnings per share, return on common equity, and return on capital employed. Ansoff et al. (1971) in investigating the relationship between performance and acquisition behavior included in his 13 different measures of performance: sales, earnings per share, return on equity, and an adjusted price earnings ratio. Rue and Fulmer (1975) in examing the relationship between long-range planning and financial performance utilized four measures of performance obtained from the Compustat data tapes. Sales and return on capital were among the measures used in the study. (Other measures included earnings growth growth, and earnings/sales ratio.) Karger and Malik (1975) examined the

effects of formal long-range planning upon commonly accepted financial performance measures. The authors included sales volume, earnings per share, return on capital, and price earnings ratio in their measures of performance. Rumelt (1974) in investigating the relationship between economic performance and strategy and structure adopted by industrial enterprises used return on equity, return on capital, and price earnings ratio to measure performance. Rumelt noted that these three measures were the best indicators of economic efficiency and investor appraisal of performance. Kudla (1980) in assessing the effects of strategic planning on the economic performance and overall riskiness of manufacturing concerns measured economic performance by focusing on return of stockholders equity. The performance literature reviewed presents an empirical case of defining performance that constrains and accurately defends the use of certain financial measures of performance for research purposes.

Conceptual Framework

Introduction

The field of business policy deals with the management of the total organization and constitutes the core of business practice and management processes. The analysis of corporate strategy; its formulation, implementation, and evaluation by management researchers is early in the stages of research development. The analysis of corporate strategy has not yet come close to matching its crucial importance to the survival and growth of the contemporary business organization.

Strategy

Corporate strategy deals with the management of the entire organization and constitutes the totality of organizational guidance. Literature abounds with definitions of corporate strategy. Chandler (1962, p. 16) defined strategy as "the determination of basic long-term goals and objectives of an enterprise, and the adoption of courses of action and the allocation of resources necessary for carrying out these goals." Glueck (1976, p. 3) defines a strategy as "a unified comprehensive and integrated plan designed to assure that the basic objectives of the enterprise are achieved." Thompson and Strickland (1978) defined strategy as "the means by which organizations obtain desired end results."

Other authors have differentiated corporate strategies and master or grand strategies. Grand corporate strategy is the overall, primary predominant, single most important strategy of the firm. Paine and Naumes (1974, p. 7) define an overall (or corporate) strategy

as a plan which encompasses not only the mission, policies, objectives and more specific goals of the organization, but also a plan of action for achieving these objectives and goals . . . An overall strategy, then, is the sum total or pattern of . . . past and present actions or decisions."

Steiner and Miner (1977, p. 20) defined grand strategy as "the entire pattern of company's basic mission, purposes, objectives, policies, and specific resource deployment.." It is, therefore, clear from the definition of grand corporate strategy that such a strategy is formulated for and encompasses the activities of the company as a whole rather than a business, or a division, or a product, or a market, or a functional area. For purposes of this study, grand corporate strategy will be defined as the major plan of action for achieving the sales and earnings goal for the company as a whole.

Given the crucial importance of corporate strategy within the management of the total organization it is surprising that empirical research in corporate strategy is of very recent origin. While much has been accomplished in the last decade or so, many strategy-related research questions remain unanswered.

The present study will examine the relationship between grand corporate strategies pursued by industrial corporations, the relative strategic significance of different organizational functions and company performance.

Strategic Significance of Different Organizational Functions

Various research studies have attempted to determine the relative importance of different organizational functions to successful operations, under different conditions. The results of these studies have indicated different combinations of these functional tasks important for corporate strategy in different types of organizations. Palia (1979, p. 204) established that

there is no one universally effective strategic mix of organizational functions for all industrial firms. The nature and content of the strategic mix of functions for a firm, depend upon the the nature of some key organizational characteristics, the most important of which is the firm's grand corporate strategy. The strategic mix of functions is one which is perceived to be essential for the effective implementation of the grand corporate strategy pursued by a firm during a particular time frame.

Several organizational functions may have a significant influence on the implementation of a firm's strategy.

Aguilar (1967, p. 43) in his study of relative importance of different areas of external information, based on responses of managers, found that

market tidings (marketing management's sub-environment) accounted for 58 percent of all responses.

Fox (1973) studied the influence of the product life cycle on business strategies and on the importance of the appropriate functional policies. Fox identified a specific functional focus for each of the five stages of the product life cycle. For instance, he determined that during the "decline" stage of the product life cycle, the functional focus of the business strategy should be financed (Hofer, 1973, pp. 848-49).

Steiner (1969) developed a profile of strategic factors in business success for both current performance and future importance. Glueck (1976 (1976, p. 265) concluded from Steiner's 1969 study that "the crucial aspects of the strategy that need to be evaluated are: 1) management quality and development, 2) environmental appraisal, and 3) financial return." In other words, Steiner found general management, marketing, and finance as strategically significant organizational functions.

Godiwalla (1977) analyzed functional management's influence on the overall corporate strategy and identified marketing, finance, and production as three functional managements having the greatest influence upon the overall corporate strategy.

Heau (1976) examined the relationship between strategy and corporate structure. He identified production and finance as the critical functions for firms pursuing vertical integration and conglomerate diversification, respectively.

Woodward (1965) studied the relationship between the type of production system and three organizational functions (development, production, and marketing), and concluded from her study that firms having

different production systems can be expected to have different "critical functions." Specifically "there seemed to be one function that was central and critical in that it had the greatest effect on organization's success and survival" (Palia, 1979, p. 18).

Lawrence and Lorsch's (1967) study indicated 1) that marketing had more influence than production in both container manufacturing and food processing firms, apparently because of its involvement in (uncertain) innovation and customers; and 2) that special organizational divisions were established to keep the organization current. Lorsch (1973) in commenting further on the 1967 study, stressed the importance of the general administration role and its function at the corporate level.

Kitching (1967) investigated both the relative payoff values from synergy from acquisition and the ease with which synergy is released in each of the five business functions. Kitching found that finance had the highest payoff in all types of mergers except one--horizontal mergers--where marketing had the highest payoff values from synergy after acquisition. The most important conclusion of Kitching's study is that effective management of the finance function is very crucial to the success of mergers. Pohl (1973) also noted the increased importance of the finance function by observing the increased direct involvement of the chief financial officers in the strategic issues handled by top management.

Miles and Snow (1978) examined the relationship between the managerial perceptions of environmental uncertainty and the relative strategic importance of different organizational functions. The authors indicated that each organization has its own strategy for responding to its environment requiring a unique combination of technology, structure, and management process that is consistent with its strategy. The findings

of their study suggest some support that when the organization faces high environmental uncertainty, it places greater emphasis on externally-oriented functions such as market research and product development. Conversely, when an organization is confronted with low uncertainty, internally-oriented functions (such as production) assume strategic importance.

Rockart (1979) discussed a new approach--called "critical success factor (CSF) method"--to defining the managerial information needs of an organization. Rockart suggested in his definition of critical success factors that every organization has a limited number of critical areas that must perform well if the organization is to compete successfully.

Critical success factors

are the few key areas where "things must go right" for the business to flourish. If the results of these areas are not adequate, the organization's efforts for the period will be less than desired . . . critical success factors are areas of activity that should receive constant and careful attention from the management (Palia, 1979, p. 25).

Palia (1979) examined the impact of grand corporate on the significance of major organizational functions for strategy implementation. The results of the study showed that the strategic significance of organizational functions varied by the type of grand corporate strategy. The study examined the nature of relationships between grand corporate strategy pursued by various industrial firms and their top managers' perceptions of the relative strategic significance of different organizational functions. Several major organizational functions were shown to have a significant influence on the implementation of a firm's strategy. General Administration had the highest significance as the most strategic function followed by finance, personnel, and marketing. Production was the least significant function.

Conclusion

Palia (1979) and the literature surveyed above provide support for the notion that several major organizational functions made a significant influence on the implementation of a firm's strategy and success. As Rockart (1979) suggests these "critical success areas" (called key result areas in the present study) reflect an organization's functional goals, strategies, policies, programs, roles, and structure. These key result areas exert a significant impact on corporate performance and are, therefore, critical to an organization's success or failure. The performance of an organization in these key result areas determines the effective implementation of its grand corporate strategy. However, the relative strategic significance of these key result areas may vary with different grand corporate strategies.

In summary, the principal organizational functions investigated in these surveyed studies are general administration (GENA), production/operations (PROD), engineering and R & D (ERD), marketing (MKT), finance (FIN), personnel (PER), and public and government relations (PGR). These key result areas are, therefore, the key organizational variables; they are the "strategic factors," "critical factors," "key success factors," "performance variables," and "limiting factors" (Anthony, 1976, p. 139) that are critical to an organization's success or failure. Performance of an organization in these key result areas will determine how effective the organization is in implementing its particular grand corporate strategy.

The firm's grand corporate strategy determines the nature of the firm's relevant environment and the resulting organizational states, it

also suggests the viable options for the firm's organization and management. Steiner (1969) in his study of strategic factors for current and future business success found that general management, marketing, and finance are strategically significant organizational functions. Godiwalla (1977) identified marketing, finance, and production as three functional managements having the greatest influence upon the overall corporate strategy. Allen (1972) found that the environmental requirements organizational choices, and the resulting organizational states were significantly different for high performing conglomerates and vertically integrated companies. Kitching (1967) in his research study of corporate acquisitions found finance and marketing to be the critical functions in external acquisitive growth strategies. Heau (1976) identified production and finance as the critical functions for firms pursuing external acquisitive growth strategies. Miles and Snows (1978) typology of organizations indicate that each organization type has its own strategy for responding to the environment, and has a particular combination of technology, structure, and management process consistent with its strategy; thus, different functions are important to meet the imperatives imposed by different environments and different corporate strategy requirements.

The literature surveyed above provides the theoretical linkage relating strategic significance of functional areas to performance of an organization with a particular strategy. Thus, providing the theoretical basis for the present study which will be involved in analyzing if grand corporate strategy actually does make a difference in the predictive performance of an organization; if it does then categorization into separate strategies will indicate the strategically significant mixes that act as key success factors in the performance of an organization within a particular grand corporate strategy.

CHAPTER III

RESEARCH METHODOLOGY

Introduction

The nature of policy/strategy research is conceptually and methodologically more difficult than in other more developed fields. The current state of development in the field of corporate strategy imposes certain inherent limitations on the choice of appropriate research design. This research report will be exploratory in nature in that it is intended to reveal more fully the interrelationships between the variables involved. The nature of an exploratory analysis "seeks what is rather than predicts relations to be found." Such a study serves "three purposes: to discover significant variables in a field situation, to discover relations among variables and to lay the ground work for later, more systematic and rigorous testing of hypotheses" (Kerlinger, p. 406). This study attempts to explore the interrelationships between grand corporate strategies pursued by industrial firms and top management's perception of the most effective strategically significant mix of different organizational functions.

Research Question

Conceptually, theoretically, as well as empirically, business policy has yet to develop a theory embodying an empirically tested set of

normative contingency hypotheses in the area of effective implementation of different grand corporate strategies. The field of business policy is not quite ready for hypothesis testing of a deductive nature, since most of the hypotheses affected are definitional in nature; others are prematurely prescriptive in nature since they are not formulated on the basis of descriptive approaches.

As Steiner and Miner (1977) indicate, the research in any field goes through three distinct phases.

As research in a field develops it tends to appear first in the form of surveys dealing, with practice, attitudes, and intentions; then in the form of correlational or correlation-type analyses relating key variables to each other; and finally in the form of experimental studies that establish causal relationships. The field of policy/strategy is now moving into the second of these phases, although certain of its subareas are still in the critical survey phase (p. 781).

This research study attempts at better understanding of strategic mixes of organizational functions for different grand corporate strategies in hopes of contributing to the development of substantive areas of policy/strategy.

Research Question: What configuration or mix of strategically significant organizational functions within particular categories of grand corporate strategy are predictive of company performance?

Variable Definitions and Measures

The definitions and operational measures of the variables involved in this study are described below:

Independent Variables. The independent variable set used in this study consists of managerial perceptions of relative strategic significance of key results areas in seven different organizational functions,

to effective implementation of grand corporate strategy pursued by the firm. The key result areas were classified into the following seven functional categories.

1. General Administration (GA)
2. Production Operations (PO)
3. Engineering and R & D (ERD)
4. Marketing (MKT)
5. Finance (FIN)
6. Personnel (PER)
7. Public and Government Relations (PGR)

The key result areas were categorized in this manner to reflect the functional goals, strategies, policies, programs, roles and structure. The key result areas have a significant impact on corporate performance and are therefore critical to the firm's success or failure.

Strategic factor refers to an action, element or condition which for a business may be of critical importance in its success or failure. It can refer to both a force outside the company as well as one within an enterprise. Success as the word is used in this survey refers to the desired achievement of major objectives and goals established for your company (Steiner, 1969), p. 2).

Performance by an organization in its different key result areas would determine the effective implementation of its grand corporate strategy. However, different organizations having different grand corporate strategies will emphasize the relative strategic significance of key result areas in the various organizational functions differently. The key result areas listed were derived primarily from Steiner (1969), Glueck (1976), Anthony and Dearden (1976), Paine and Naumes (1974), Stevenson (1976), Murdic et al (1976), Buchele (1962), Sproul (1960), and Rockhart (1979). The evaluation of each key result area in terms of its strategic

significance is based on a seven-point Likert scale ranging from "completely strategically insignificant" to "of the greatest strategic significance." The rating scale is a slightly modified version of Steiner's (1969) measure. Executives were asked to rate a normative list of 55 key result areas on the basis of the seven-point Likert scale. The focus of this analysis is on the strategic mix of different organizational functions. The strategic significance score was computed for each functional area by adding up the scores of respective key result areas and dividing the sum by the number of key result areas in that functional category.

Dependent Variables. The dependent variable set in this study consists of five financial performance variables calculated for each firm. The performance data for the organizations sampled in this study was obtained from Standard and Poor's Compustat data service. This study attempts to analyze the interrelationships between grand corporate strategies pursued by industrial firms and top management's perception of the most effective strategically significant mix of different organizational functions. This particular study includes measures of company performance. The five performance variables include:

1. price earnings ratio (PE)
2. return on equity (ROE)
3. return on capital (ROC)
4. sales (SALES)
5. earnings per share (EPS)

The performance variables were derived from the works of Ansoff et al. (1970), Herold (1972), Karger and Malik (1975), Rue and Fulmer

(1973), Rumelt (1974), Thune and House (1970), and Kudla (1980). The final form of each performance variable consisted of a five year average for the calculated annual percent changes in the data variables. The variable calculations will be explained later in this section.

Moderating Variables. The moderating variables in this analysis consisted of the grand corporate strategy pursued by a firm, and the industry classification of the particular organization surveyed.

Grand corporate strategy for the purposes of this study will be defined as the major plan of action for achieving the sales and earnings goals for the organization as a whole. Grand corporate strategy was measured using a nominal scale consisting of four classifications of strategies derived from Glueck (1976). The survey respondents were asked to identify their primary or single most important strategy as their grand corporate strategy. Glueck classified strategies on the basis of purpose and function since strategies are plans of action to achieve certain specific objectives and are naturally function and purpose-oriented. The normative list of strategies are designated below:

1. Stability Strategies
2. Internal Growth Strategies
3. External Acquisitive Growth Strategies
4. Retrenchment (negative growth strategies)

Refer to Table II for an explanation of strategies. The present analysis had no organization classified within the retrenchment strategy. Sufficient responses were obtained for the remaining three classifications of grand corporate strategy.

TABLE II
GRAND CORPORATE STRATEGIES

1. Stability Strategy:

Your firm continues to serve the customers in the same or similar product-market domain, has its main strategic decision focus on incremental improvement of functional performance, and continues to pursue the same or similar objectives, adjusting the level of achievement about the same percentage each year as it has achieved in the past.

(A Note for Items 2 and 3 - Growth Strategies:

Your firm is pursuing a growth strategy if it aims at increasing the level and/or scope of its product-market objectives upward in a significant increment, much higher than an extrapolation of its past achievement levels. Thus it not only strives at intensive growth of its current product line(s) but may also add new product lines which may or may not be related to its present business.)

2. Internal Growth Strategy:

Your firm pursues internal growth strategy if your emphasis is predominantly on growth through internal development from within the company.

3. External Acquisitive Growth Strategy (including joint ventures):

Your firm pursues external growth strategy, if your emphasis is predominantly on acquisition of, or merger or joint venture with, other firms or divisions of firms.

4. Retrenchment Strategy:

Your firm pursues retrenchment strategy if it tries to improve its performance by scaling down the level and/or scope of its product-market objectives by cutback in costs and by reducing the scale of operations by divestment of some divisions or units.

Industry Kudla (1980, p. 8) noted that "it is important that industry effects be controlled so that the effects of planning on performance can be measured. King (1966) showed that the industry factor explains about 10 percent of the variations of stock returns on average." The moderating effects of industry cannot be ignored. The FORTUNE directory classifies the companies (100 largest United States industrial corporations) into 28 industry groups based on the industry code numbers established by the United States Office of Management and Budget. The organizations in this study were classified into four categories on the basis of their principal industry (representing the largest percentage of company sales) as shown below:

1. Consumer nondurable goods industries
2. Consumer durable goods industries
3. Capital goods industries
4. Producer goods (raw materials, components, and supplies industries)

The classification scheme was derived from Khanwalla (1977) and Schoeffler et al. (PIMS Study, 1974). The survey respondents were asked to identify their industry from among the above four categories. The moderators will be examined to determine if they (grand corporate strategy and industry) significantly affect the predictive performance of an organization's strategic functional mix. The industry moderating variable is implemented into the analysis to check for industry moderation effect on the predictive performance of an organization's strategic functional mix. If grand corporate strategy and/or industry are found to moderate the relationship, the categorization into separate strategies and/or industries will provide an indication of the strategically

significant mixes that act as factors predicting performance within a particular grand corporate strategy and/or industry.

Sample Organizations

The subject organizations for this study were selected from the top 1000 largest United States industrial organizations as listed in the 1978 FORTUNE Directory. The list of sample organizations included only manufacturing industries and excluded banking, financial, utilities, transportation, wholesale and retail trade and other service industries.

Data Collection Procedures

The data for this research paper was collected through the use of mailed questionnaires and access to the Standard and Poor's Data Service computer files.

The survey instruments were mailed to the CEO of each of the 1000 firms. The questionnaire was designed to be filled out anonymously by the senior executive best acquainted with the firm's overall operations and business environment. The CEO completed the questionnaire requesting the firm's grand corporate strategy, and then instructed a knowledgeable senior executive to complete a second questionnaire requesting information pertaining to other variables. This procedure was used to help control for common method variance in the instrument. Responses were received from 249 firms that were adequate and usable for purposes of the original study; Palia (1979). The total 249 usable responses accounted for a 24.9 percent response rate. The response rate was higher than expected for mailed surveys of this type; (Gaedeke and Tootelian, 1976).

The sample of 249 responses utilized in Palia (1979) was further broken down to meet the requirements for the present performance-strategy analysis. The additional criteria for sample selection included:

- 1) Organization identification through the mailed survey and
- 2) corporate financial data obtainable from the Compustat data file.

Space was provided on the questionnaire for those corporations to provide identification interested in participation in the objectives of this strategy research. The number of responses that met both requirements for selection included 93 usable questionnaires, making the total sample size for this study 93.

Instruments

The survey instrument was designed to measure three separate variable sets: grand corporate strategy, relative strategic significance of organizational functions, and industry. These variables have been previously defined as operational variables involved in this study.

The performance data for the organizations sampled in this study was obtained from the Standard and Poor's Compustat data file. The Compustat data service consists of a number of computer readable libraries of financial, statistical, and market information covering several thousand industrial and non-industrial companies. The expanded annual industrial file and over the counter (OTC) files were used to gather the raw data items for performance variable calculation. The industrial and OTC files consist of 175 data items recorded annually on tape for 20 years for over 900 United States industrial corporations. The raw data items extracted included: high and low stock price (P_H, P_L), earnings per share excluding extraordinary items and discontinued

operations (EPS), income before extraordinary items and discontinued operations (INC), common equity (EQ), interest expense (INT), total assets minus current liabilities (ASSETS), and net sales (SALES).

For each of the performance variables utilized in this study a yearly percent change was first calculated for the financial ratio and then adjusted for inflation using the implicit price deflator for 1972. The percent of change was used to control for industry effects on annual figures. The yearly percent changes were calculated for the five year period including 1974-1978. The final form of each performance variable consisted of a five-year average for the calculated annual percent changes in the designated financial variables. This method was used to control for any unusual changes or influences. The formula used to calculate the five financial ratios are designated below:

$$PE = (P_H + P_L)/2/EPS$$

$$ROE = INC/EQ * 100$$

$$ROC = INC + INT/ASSETS$$

$$SALES = SALES$$

$$EPS = EPS$$

Yearly percent changes of each of the five financial ratios was calculated, and adjusted for inflation; and then five-year averages were tabulated to obtain the five performance variables used in this study. Each performance variable represents the average yearly percent change for its respective financial ratios.

Pilot Study

The primary objective of the pilot study was to determine the reliability and validity of the survey instrument. Some reliability figures

were formulated on the survey instrument used in Palia (1979).

For the pilot study, 60 industrial firms in the southwest region were selected randomly from the Moody's Industrial and OTC Industrial Manuals; (firms were selected in the southwest region to increase the probability of response). Two identical copies of the instrument were mailed to the CEO's of each firm. The CEO was asked to follow specific instructions and have two senior level executives complete the questionnaires independently of each other. The pilot survey resulted in 21 usable responses for a response rate of 35 percent. A good cross section of firm sizes was obtained representing all three of the size categories noted in Palia (1979).

The two surveys received from each firm were used to measure the degree of "interjudge reliability." The degree of agreement between the responses of the two senior executives of a company provided a measure of interjudge reliability. The analysis procedure described by Claypool (1975) was used to order the nominally-scaled variables GCS and Industry in the data. Next a Lamda prime (λ^*) was calculated. The λ^* statistic shows the degree of agreement both within and between groups; Ti and Schucany (1975) and Schucany and Frawley (1973). Strong agreement between groups is indicated by a high positive number, whereas disagreement between groups is associated with a high negative number. The distribution of the λ^* statistic can be approximated by use of the standard normal curve. The intervally-scaled variables in the survey instrument were analyzed using Pearson product-moment correlations. Pearson product-moment correlations serve to measure the strength of the linear relationship between two variables. In addition, the calculation of a coefficient alpha was used to evaluate the internal

consistency of multi-item scales. The results of analyses are presented in Table III.

Table III illustrates that all multi-item scales showed good internal consistency both in the pilot study and in the main study (refer to coefficient alphas). The Lamda prime for the nominally scaled grand corporate strategy variable was extremely high and statistically significant at $p > .01$ indicating strong agreement between responses. The interjally-scaled variables showed good interjudge reliability scores ($r > .50$) (Cronback, 1970), except for three of the strategic importance ratings of organizational functions (FIN, PER, and PGR). The correlations were statistically significant at $p > .05$, but showed less than acceptable interjudge reliability scores. The interjudge correlations were reexamined to locate the items that caused the low correlations. Four items in total were deleted from these three scales and new interjudge reliability scores were calculated. The revised scores shown in Table III are all within the acceptable range. In conclusion, the revised instruments were considered to have good reliability.

Earlier it was stated that the degree of agreement between the responses of two senior executives of a company would provide a measure of "interjudge reliability." A high degree of agreement between two executives would also indicate that the revised instrument measures what it intends to measure. Khandwalla (1977) stated a high degree of "interjudge reliability" is also indicative of a measure of some form of validity. Campbell and Fiske (1959) and Stone (1978) indicate that the correlation between independent measures of a variable provide evidence of convergent validity. In summary, the results of the pilot study provide tentative evidence of validity of the survey instruments used.

TABLE III
 RELIABILITY SCORES ON MEASURING
 INSTRUMENTS

	PILOT STUDY (n=21 firms, 42 judges)				Main Study n=249
VARIABLES	Coefficient Alpha	λ^*	Product- Moment Correlations	Revised Correlations	Coefficient Alpha
NOMINAL GCS Industry	N.A.	17.35a 5.58a	N.A.	N.A.	N.A.
Strategic Importance of Organi- zational Functions:					
GENA	.86	N.A.	.63	N.A.	.81
PROD	.94	N.A.	.70	N.A.	.85
ERD	.83	N.A.	.52	N.A.	.81
MKT	.92	N.A.	.60	N.A.	.79
FIN	.92	N.A.	.44	.80	.73
PER	.88	N.A.	.36	.70	.66
PGR	.85	N.A.	.48	.73	.72

^ap<.01

Means of Analysis

After the strategic significance scores for each of the seven organizational functions have been calculated for each of the responding firms, two forms of analysis will be performed for the purpose of testing the research question in this study.

The statistical procedures in this research report will involve moderated multiple regression analysis and Pearson product-moment correlation analysis to test the difference in the strategic mixes of functions for a particular grand corporate strategy when firms are categorized by performance.

Moderated Multiple Regression. The purpose of using moderated multiple regression as described in Zedeck (1971) will be to test the moderation effect that grand corporate strategy and industry have on the strategically significant functional mixes. The moderated relationship that is detailed by the moderated regression models will indicate which functions within a particular grand corporate strategy are the most important for predicting company performance.

Moderated regression techniques involve prediction equations containing a higher-order term such as a XZ cross-product or X^2 . A test is made to determine whether the higher order term in the regression equation contributes to prediction beyond that of the ordinary regression equation. Saunders (1956) defined a moderator variable as a continuous variable that influences the predictive effectiveness of the independent variable(s). The moderator variables examined in this study are grand corporate strategy and industry. A multivariate curvilinear regression equation involving cross-product terms is used in which the beta weights, instead of being constant, are linear functions of the moderator; grand

corporate strategy and industry. The cross-product of the moderator and the strategic significance scores are treated as new predictors in a standard multiple regression model. The regression equation is $y = y + \sum a_i X_i + \sum b_j Z_j + \sum c_{ij} X_i Z_j$ where a , b , and c are weights, X_i the independent variables, and Z_j the moderators. The independent predictors are the strategic significance scores in seven functional areas; (GA, PO, ERD, MKT, FIN, PER, PGR). The moderators include those normative lists of strategies and categories of industry previously defined. The analysis procedure described by Saunders (1956) will be used to evaluate the contribution of the moderating terms in the moderated regression models. A two-tailed t test will be applied to evaluate the contribution of the moderating terms in the regression model.

$$t = \sqrt{\frac{\text{D.F. } (R_M^2 - R_L^2)}{(1 - R_L^2)}}$$

where R_L^2 is the multiple correlation coefficient for the restricted regression model, and R_M^2 is the multiple correlation coefficient for the full regression model. The t -test will indicate if the increase in the multiple correlation coefficient is significant to conclude an operating moderator variable. In summary, the purpose of using moderated regression techniques will be to indicate that grand corporate strategy improves the usefulness of the predictors (strategically significant functional areas) for performance of an organization.

Pearson Product-Moment Correlation Analysis. The objective of correlation analysis is to determine the extent to which variation in one variable is linked to variation in another (concomitant variation). Bivariate correlation provides a single number which summarizes the

relationship between two variables. A correlation coefficient summarizes the strength of association between pairs of variables, and provides a means for comparing the strength of relationship between one pair of variables and a different pair. For purpose of this study, Pearson product-moment correlation analysis will be used to examine the strength of the linear relationship between strategic functional areas and particular performance measures within individual strategy/industry cells. The strength of relationship will indicate both the goodness of fit of a linear regression line to the data and, when r is squared, the proportion of variance in one variable explained by the other. If the value of r is close to zero, we can assume there is little or no relationship between two variables. If the value of r approaches $+1.0$ or -1.0 , we can assume there is a strong linear relationship. Pearson's r^2 will be interpreted as the proportion of variation in one variable "explained" by another. In summary, Pearson Correlation analysis will assist this research in examining the strength and direction of relationships between performance measures, and strategic functional areas for individual strategy/industry cells. Refer to the contingency table for an overview of separate correlation analyses (SPSS Handbook, 1976).

CHAPTER IV

RESULTS

It is important to re-emphasize that the conceptual framework of this research is not theory in the strict sense of the term. The field of business policy is not quite ready for more systematic and rigorous testing of hypotheses. This research study is exploratory in nature in that it attempts to develop a better understanding of the interrelationships between the concept's grand corporate strategy, the relative strategic significance of different organizational functions and company performance. Business policy has yet to develop a theory embodying an empirically tested set of normative contingency hypotheses in the area of effective implementation of different grand corporate strategies. This research study hopes to contribute to the development of a substantive area of policy/strategy.

The research question of this study was concerned with what configuration or mix of strategically significant organizational functions within particular categories of grand corporate strategy are predictive of company performance. The data were analyzed using moderated regression analysis and Pearson product-moment correlation analysis. The results of these analyses are presented below in two separate sections.

Moderated Regression Results

Moderated regression models were formulated to test for a difference

in the strategic mixes of functions for a particular grand corporate strategy and/or industry where firms are categorized by performance. Two separate analyses were performed using moderated regression techniques: 1) grand corporate strategy was implemented as a moderator to determine if grand corporate strategy improves the usefulness of the predictors (strategically significant functional areas) for performance of an organization and 2) industry was implemented into the analysis to check for industry moderation effect on the predictive performance of an organizational strategic functional mix. The results of these analyses are shown in Tables IV and V respectively. A two tailed t test was used to evaluate the contribution of the moderators in the regression models to test the moderation effect that grand corporate strategy and industry have on the strategic functional mixes of the organizations sampled.

As shown in Tables IV and V the t's calculated for evaluation of the moderators (grand corporate strategy and industry) were all significant at $p < .01$. Thus the difference in the squared multiple correlation coefficients for the restricted regression models (R_L^2) and the squared multiple correlation coefficients for the full regression models (R_M^2) were significant to conclude the operating of grand corporate strategy and industry as moderator variables.

The use of moderated regression has indicated that grand corporate strategy and industry improve the usefulness of the predictors (strategic functional areas) for performance of an organization. The moderators, grand corporate strategy and industry, significantly affect the ability of the strategic significance of functions to predict the performance of 93 large industrial firms in the United States. The established moderating relationships provide an indication that the

TABLE IV
 MODERATED REGRESSION ANALYSIS WITH
 INDUSTRY AS MODERATOR

Dependent Variable	Regression Model	R^2	
Price Earning Ratio (PE)	Restricted (Independent+Dummy)	$R^2 = .1993$	t=3.104**
	Full (Ind. Var.+Dummy+Moderated)	$R^2 = .3758$	
Return on Equity (ROE)	Restricted	$R^2 = .1884$	t=3.121**
	Full	$R^2 = .3180$	
Return on Capital (ROC)	Restricted	$R^2 = .0725$	t=3.531**
	Full	$R^2 = .2620$	
Sales	Restricted	$R^2 = .1155$	t=4.275**
	Full	$R^2 = .3805$	
Earnings per Share (EPS)	Restricted	$R^2 = .1227$	t=4.037**
	Full	$R^2 = .3518$	

NOTE: LEGEND: Restricted Regression Model: consists of strategic functional areas (GA, PO, ERD, MKT, FIN, PER, PGR) and dummy variable classifications of industry.
Full Regression Model: consists of strategic functional areas, dummy variable classifications, and moderated variables.

**Significant at or beyond the 1 percent level.

*Significant at or beyond the 5 percent level.

TABLE V
 MODERATED REGRESSION ANALYSIS
 WITH GCS AS MODERATOR

Dependent Variable	Regression Model	R^2	
Price Earnings Ratio (PE)	Restricted (Independent+Dummy)	$R^2 = .1361$	t=2.820**
	Full (Ind. Var.+Dummy+Moderated)	$R^2 = .2353$	
Return on Equity (ROE)	Restricted	$R^2 = .2246$	t=3.212**
	Full	$R^2 = .3405$	
Return on Capital (ROC)	Restricted	$R^2 = .0473$	t=3.255**
	Full	$R^2 = .1913$	
Sales	Restricted	$R^2 = .1040$	t=3.229**
	Full	$R^2 = .2416$	
Earnings per Share (EPS)	Restricted	$R^2 = .1458$	t=3.255**
	Full	$R^2 = .3687$	

NOTE: LEGEND: Restricted Regression Model: consists of strategic functional areas (GA, PO, ERD, MKT, FIN, PER, PGR) and dummy variable classifications of grand corporate strategy. Full Regression Model: consists of strategic functional areas, dummy variable classifications, and moderated variables.

**Significant at or beyond the 1 percent level.

*Significant at or beyond the 5 percent level.

strategically significant mixes of the critical functional areas specified in this study act as factors in predicting performance but each mix must be considered within a particular grand corporate strategy and industry type.

Pearson Correlation Results

Pearson product-moment correlation analysis was used in determining where the strength and direction of relationships between performance measures and strategic functional areas for individual strategy/industry cells was statistically significant. Table VI gives an overview of the 12 separate strategy/industry cells resulting from a grand corporate strategy by industry matrix. The individual cell for Stability/Capital Goods was not analyzed due to sample size limitations making correlation analysis impossible. The tables will be discussed by each strategy by industry type cell as they appear in the contingency table from top left to bottom right hand corners of the contingency table.

Stability/Consumer Nondurable

In Table VII the correlation coefficient between PE and PO was statistically significant at $p < .10$. The relationship between PE and PO was positive and the common variance was (.579). The remaining coefficients in the matrix were not statistically significant.

Internal Growth/Consumer Nondurable

In Table VIII the following correlations were statistically significant. The correlations between PO and PE, ROE, ROC, and SALES were significant at both $p < .10$ and $p < .05$. All correlations were positive

TABLE VI
STRATEGY/INDUSTRY CONTINGENCY TABLE

	STRATEGY			Total
	Stability	Internal Growth	External Growth	
Consumer Nondurable Goods	N=5	N=19	N=4	N=28
Consumer Durable Goods	N=3	N=5	N=4	N=12
Capital Goods	N=1	N=14	N=4	N=19
Producer Goods	N=7	N=19	N=8	N=34
Total	N=16	N=57	N=20	N=93

Note: N's denote sample size existing within each strategy/ industry cell. Contingency Table provides overview for separate Pearson-Product moment correlation coefficient analysis for each existing strategy/industry cell.

TABLE VII
 STABILITY/CONSUMER NONDURABLE PEARSON
 CORRELATION COEFFICIENTS MATRIX

N=5

	GA	PO	ERD	MKT	FIN	PER	PGR
PE	.346	.761*	-.314	.668	.349	.264	.618
ROE	.223	.596	-.548	.476	.099	-.005	.324
ROC	-.344	.073	-.256	-.122	-.166	.235	.045
SALES	.122	.580	-.441	.443	.129	-.035	.280
EPS	.162	.511	-.643	.374	-.017	-.109	.219

(Coefficient)

Note: Legend: GA=General Administration, PO=Production/Operations, ERD=Engineering and R & D, MKT=Marketing, FIN=Finance, PER=Personnel, and PGR=Public and Government Relations.

PE=Price Earnings Ratio, ROE=Return on Equity, ROC=Return on Capital, SALES=Sales, EPS=Earnings Per Share.

N: Denotes Number of Cases
 *= p<.1
 **= p<.05
 ***= p<.01

TABLE VIII
INTERNAL GROWTH/CONSUMER NONDURABLE PEARSON
CORRELATION COEFFICIENTS MATRIX

N=19

	GA	PO	ERD	MKT	FIN	PER	PGR
PE	.125	.459**	.174	.169	-.190	.039	-.281
ROE	.183	.391**	.214	.139	-.032	.027	-.294
ROC	.031	.369*	.041	.131	-.136	-.035	-.297
SALES	-.053	-.384*	-.574***	.058	.044	-.383*	-.242
EPS	.147	-.048	-.064	.208	-.150	-.394**	-.411**

(Coefficient)

Note: Legend: GA=General Administration, PO=Production/Operations, ERD=Engineering and R & D, MKT=Marketing, FIN=Finance, PER=Personnel, and PGR=Public and Government Relations.

PE=Price Earnings Ratio, ROE=Return on Equity, ROC=Return on Capital, SALES=Sales, EPS=Earnings Per Share.

N: Denotes Number of Cases
 *= p .1
 **= p .05
 ***= p .01

except SALES/PO which was negative. SALES also showed significant negative correlation with the critical functional areas ERD ($p < .01$) and PER ($p < .10$). For the performance variable EPS the critical functional areas PER and PGR were negatively related at $p < .05$. The common variance for all correlations within Table VIII ranged from (.136) to (.329).

External Growth/Consumer Nondurable

In Table IX the negative relationships between ROC and the critical functional areas ERD and MKT were statistically significant at $p < .10$. The common variance for the respective relationships was (.760) and (.743).

Stability/Consumer Durable

For firms in Table X the strategic functional areas GA, PO, ERD, and PER has statistically significant correlation coefficients in all performance variable classifications. The correlation coefficient with the highest statistical significance was EPS/ERD at $p < .01$. The MKT key result area was significantly correlated with the performance variables ROE, ROC, and EPS at $p < .10$. FIN was significantly related with PE and SALES. The significant interrelationships between the SALES performance variable and the key result areas noted (*) in Table X were all negatively correlated. The direction of all other relationships noted in Table X was positive. The range of common variance for all relationships noted within this cell was (.998) to (.925). The extremely high common variance could be attributed to possible spuriousness of the relationships due to small sample size within this cell.

TABLE IX

EXTERNAL GROWTH/CONSUMER NONDURABLE PEARSON
CORRELATION COEFFICIENTS MATRIX

	N=4						
	GA	PO	ERD	MKT	FIN	PER	PGR
PE	.677	.719	.605	.182	.319	.725	.343
ROE	.113	.309	.583	.749	-.199	-.268	-.488
ROC	-.466	-.666	-.872*	-.862*	-.014	-.120	.268
SALES	.160	.418	.636	.369	-.422	-.081	-.565
EPS	.039	.267	.564	.661	-.339	-0.336	-.608

(Coefficient)

Note: Legend: GA=General Administration, PO=Production/Operations, ERD=Engineering and R & D, MKT=Marketing, FIN=Finance, PER=Personnel, and PGR=Public and Government Relations.

PE=Price Earnings Ratio, ROE=Return on Equity, ROC=Return on Capital, SALES=Sales, EPS=Earnings Per Share.

N: Denotes Number of Cases
 *= p<.1
 **= p<.05
 ***= p<.01

TABLE X
 STABILITY/CONSUMER DURABLE PEARSON
 CORRELATION COEFFICIENTS MATRIX

N=3

	GA	PO	ERD	MKT	FIN	PER	PGR
PE	.999**	.995**	.997**	.941	.962*	.995**	.771
ROE	.978*	.962*	.996**	.985*	.901	.965*	.652
ROC	.986*	.973*	.999**	.977*	.919	.975*	.684
SALES	-.992**	-.998**	-.969*	-.872	-.994**	-.997**	-.867
EPS	.991**	.980*	.999***	.969*	.931	.982*	.706

(Coefficient)

Note: Legend: GA=General Administration, PO=Production/Operations, ERD=Engineering and R & D, MKT=Marketing, FIN=Finance, PER=Personnel, and PGR=Public and Government Relations.

PE=Price Earnings Ratio, ROE=Return on Equity, ROC=Return on Capital, SALES=Sales, EPS=Earnings Per Share.

N: Denotes Number of Cases
 *= p<.1
 **= p<.05
 ***= p<.01

Internal Growth/Consumer Durable

In Table XI five coefficients were statistically significant. ERD was negatively correlated with PE at $P < .01$. PO was positively correlated with SALES at $p < .01$. MKT was negatively related with both ROE ($p < .05$) and EPS ($p < .10$) while FIN was positively correlated with SALES ($p < .10$). Common variance for the coefficients within the matrix ranged from (.938) to (.474).

External Growth/Consumer Durable

In Table XII FIN shows a significant negative correlation with all performance categories excluding PE. Both ERD and PER showed significant negative relationships with PE while GA was positively correlated with ROE at $p < .10$. The common variance for all relationships ranged from (.669) to (.893).

Internal Growth/Capital

In Table XIII PO and PER were significantly correlated with all performance variables except SALES. They were positively correlated with PE, ROE, and ROC and negatively correlated with EPS. The pattern of negative interrelationships between the key result areas PO, ERD, PER, PGR and the performance variable EPS showed strong statistical significance at both ROE ($p < .10$) and ROC ($p < .05$), while GA was positively related with PE ($p < .05$). The common variance range was (.192) and (.440) for coefficients that were significant.

External Growth/Capital

In Table XIV PE and ROC were negatively related to a majority

TABLE XI

INTERNAL GROWTH/CONSUMER DURABLE PEARSON
CORRELATION COEFFICIENTS MATRIX

N=5

	GA	PO	ERD	MKT	FIN	PER	PGR
PE	-.176	-.279	-.969***	.264	-.457	-.124	-.603
ROE	-.562	.216	.417	-.818**	-.111	-.627	-.047
ROC	.278	.673	-.280	.343	.429	-.115	-.537
SALES	.322	.968***	.455	.048	.689*	-.102	-.195
EPS	-.466	.173	.469	-.737*	-.737*	-.527	.069

(Coefficient)

Note: Legend: GA=General Administration, PO=Production/Operations, ERD=Engineering and R & D, MKT=Marketing, FIN=Finance, PER=Personnel, and PGR=Public and Government Relations.

PE=Price Earnings Ratio, ROE=Return on Equity, ROC=Return on Capital, SALES=Sales, EPS=Earnings Per Share.

N: Denotes Number of Cases
 *= p<.1
 **= p<.05
 ***= p<.01

TABLE XII

EXTERNAL GROWTH/CONSUMER DURABLE PEARSON
CORRELATION COEFFICIENTS MATRIX

N=4

	GA	PO	ERD	MKT	FIN	PER	PGR
PE	-.462	-.704	-.859*	-.334	-.362	-.906**	-.503
ROE	.829*	.180	.475	-.459	-.921**	.212	.823*
ROC	.152	-.280	-.327	-.395	-.888*	-.580	.29
SALES	-.018	.008	-.336	.005	-.818*	-.666	-.012
EPS	.782	.262	.455	-.346	-.945**	.153	.783

(Coefficient)

Note: Legend: GA=General Administration, PO=Production/Operations,
ERD=Engineering and R & D, MKT=Marketing, FIN=
Finance, PER=Personnel, and PGR=Public and Govern-
ment Relations.

PE=Price Earnings Ratio, ROE=Return on Equity,
ROC=Return on Capital, SALES=Sales, EPS=Earnings
Per Share.

N: Denotes Number of Cases
*= p<.1
**= p<.05
***= p<.01

TABLE XIII

INTERNAL GROWTH/CAPITAL PEARSON
CORRELATION COEFFICIENTS MATRIX

N=14

	GA	PO	ERD	MKT	FIN	PER	PGR
PE	.471**	.467**	.200	.064	.349	.525**	.281
ROE	.066	.459**	.013	-.063	-.019	.439*	.414*
ROC	.192	.524**	.294	-.017	.326	.589**	.515**
SALES	.168	-.006	.195	.003	.186	.304	.282
EPS	-.014	-.546**	-.509**	-.346	-.334	-.624***	-.664***

(Coefficient)

Note: Legend: GA=General Administration, PO=Production/Operations, ERD=Engineering and R & D, MKT=Marketing, FIN=Finance, PER=Personnel, and PGR=Public and Government Relations.

PE=Price Earnings Ratio, ROE=Return on Equity, ROC=Return on Capital, SALES=Sales, EPS=Earnings Per Share.

N: Denotes Number of Cases
 *= p<.1
 **= p<.05
 ***= p<.01

TABLE XIV
EXTERNAL GROWTH/CAPITAL PEARSON
CORRLATION COEFFICIENTS MATRIX

N=4

	GA	PO	ERD	MKT	FIN	PER	PGR
PE	-.984***	-.838*	-.811*	-.656	-.856*	-.887*	-.751
ROE	.729	.446	.991***	-.026	.458	.514	.103
ROC	-.894*	-.897*	-.484	-.919**	-.842*	-.916	-.950**
SALES	-.360	-.571	.241	-.939**	-.510	-.539	-.877*
EPS	.712	.530	.949**	-.037	.258	.573	.019

(Coefficient)

Note: Legend: GA=General Administration, PO=Production/Operations, ERD=Engineering and R & D, MKT=Marketing, FIN=Finance, PER=Personnel, and PGR=Public and Government Relations.

PE=Price Earnings Ratio, ROE=Return on Equity, ROC=Return on Capital, SALES=Sales, EPS=Earnings Per Share.

N: Denotes Number of Cases
 *= p<.1
 **= p<.05
 ***= p<.01

of strategic significant functional areas. The key result areas GA, PO, ERD, FIN, and PER were negatively correlated with the performance variable PE at both $p < .01$ and $p < .10$. The performance variable ROC was negatively correlated with all strategic functional areas except ERD. The other statistically significant coefficient noted in Table XIV included a significant positive correlation between ERD and the performance variable ROE ($p < .01$), a pair of negative correlations between MKT, PGR, and the performance variable, SALES, and a positive correlation between ERD and EPS. The range of common variance for coefficients examined was (.657) and (.982).

Stability/Producer

In Table XV ERD was significantly correlated with all performance variables except ROE at $p < .10$. ERD was negatively correlated with PE and positively correlated with performance variables ROC, SALES, and EPS. Other interrelationships worth noting are the negative correlations between the key result areas FIN, PER, and the performance variables EPS and SALES respectively, and the positive correlation between PO and ROC at $p < .10$. The range of common variance for coefficients examined was (.328) to (.582).

Internal Growth/Producer

In Table XVI a majority of the key result areas were significantly positive in correlation with PE. All critical result areas were significantly positive in relation with PE except the functional areas GA and ERD. MKT in all categories of performance except ROC was significantly correlated. MKT was positively related with PE and negatively

TABLE XV
 STABILITY/PRODUCER PEARSON CORRELATION
 COEFFICIENTS MATRIX

N=7

	GA	PO	ERD	MKT	FIN	PER	PGR
PE	-.045	.159	-.659*	.211	.015	.131	.255
ROE	-.091	.542	.696	-.188	-.477	.117	-.009
ROC	-.003	.573*	.664*	-.142	-.413	.183	.047
SALES	-.191	-.536	.658*	-.512	-.458	-.724**	-.477
EPS	-.546	.228	.669*	-.543	-.763**	-.354	-.317

(Coefficient)

Note: Legend: GA=General Administration, PO=Production/Operations,
 ERD=Engineering and R & D, MKT=Marketing, FIN=
 Finance, PER=Personnel, and PGR=Public and Govern-
 ment Relations.

PE=Price Earnings Ratio, ROE=Return on Equity,
 ROC=Return on Capital, SALES=Sales, EPS=Earnings
 Per Share.

N: Denotes Number of Cases
 *= p<.1
 **= p<.05
 ***= p<.01

TABLE XVI
INTERNAL GROWTH/PRODUCER PEARSON
CORRELATION COEFFICIENTS MATRIX

N=19

	GA	PO	ERD	MKT	FIN	PER	PGR
PE	.299	.541***	.284	.392**	.334*	.618***	.309*
ROE	-.010	-.253	-.154	-.330*	-.295	-.273	.060
ROC	-.114	-.031	.148	.156	-.037	-.163	-.305
SALES	.117	-.109	-.236	-.374*	-.124	-.232	-.073
EPS	-.053	-.203	-.198	-.332*	-.258	-.150	.076

(Coefficient)

Note: Legend: GA=General Administration, PO=Production/Operations, ERD=Engineering and R & D, MKT=Marketing, FIN=Finance, PER=Personnel, and PGR=Public and Government Relations.

PE=Price Earnings Ratio, ROE=Return on Equity, ROC=Return on Capital, SALES=Sales, EPS=Earnings Per Share.

N: Denotes Number of Cases
 *= p<.1
 **= p<.05
 ***= p<.01

related with ROE, SALES, and EPS. The common variance ranged from (.095) to (.292) for coefficients examined within this matrix.

External Growth/Producer

In Table XVII the correlations between GA and all the performance categories except PE were significantly negative at both $p < .05$ and $p < .01$. The positive interrelationships between MKT, FIN, and PE and the positive correlations between PO and ROE were significant at both $p < .10$ and $p < .05$. The remaining correlations to be noted were all negative. They included the negative correlations between ERD and the performance variables ROC ($p < .10$) and SALES ($p < .05$), and finally the negative correlation between MKT and ROE at $p < .10$. The range for common variance was (.313) to (.702).

In summary the results of the Pearson product-moment analysis by grand corporate strategy and industry type indicates that functional strategies do predict performance but in a differential manner. The analyses results limit us from making generalizations that conclude that certain functional mixes are most appropriate for a particular grand corporate strategy because of small sample cell sizes. Within the particular strategy/industry cells the interrelationships discussed can lead us only to conclude that certain functional mixes are appropriate for success within a particular strategy industry environment.

It is important to note several recurring characteristics of the strategy/industry cells analyzed: 1) The extremely high common variances throughout the correlation analyses reflect strong interrelationships between the performance variables and strategically significant functional areas that were significantly related, 2) the significant

TABLE XVII
 EXTERNAL GROWTH/PRODUCER PEARSON
 CORRELATION COEFFICIENTS MATRIX

N=8

	GA	PO	ERD	MKT	FIN	PER	PGR
PE	.308	-.005	.096	.620**	.585*	.065	.311
ROE	-.639**	.570*	.288	-.560*	-.141	.357	.173
ROC	-.752**	.422	-.557*	-.347	-.163	.181	.157
SALES	-.838***	.233	-.708**	-.111	-.099	-.141	.199
EPS	-.652**	.499	-.421	-.464	-.151	.336	.164

(Coefficient)

Note: Legend: GA=General Administration, PO=Production/Operations, ERD=Engineering and R & D, MKT=Marketing, FIN=Finance, PER=Personnel, and PGR=Public and Government Relations.

PE=Price Earnings Ratio, ROE=Return on Equity, ROC=Return on Capital, SALES=Sales, EPS=Earnings Per Share.

N: Denotes Number of Cases
 *= p<.1
 **= p<.05
 ***= p<.01

correlation coefficients noted displayed both positive and negative directional relationships, 3) all of the strategic functional areas were significant in some cell within the correlation analysis, 4) each strategy/industry cell had at least one statistically significant relationship, and 5) the possibility exists that some of the interrelationships within cells are spurious due to small sample sizes within individual strategy/industry cells.

CHAPTER V

DISCUSSION AND CONCLUSIONS

The principal objective of this research was the investigation of relationships between grand corporate strategies, the relative strategic significance of different organizational functions and company performance.

The results (Tables IV and V) indicate that the use of grand corporate strategy and industry as moderators improve the usefulness of the strategically significant function predictions of organizational performance. Grand corporate strategy and industry were found to significantly affect the ability of the strategic significance of functions to predict significance in 93 large industrial corporations in the United States. These results suggest that the strategically significant mixes of critical functional areas discussed in this chapter may affect performance. However, each functional mix must be considered within a particular grand corporate strategy and industry. These research findings appear to support Palia's (1979) study of the impact of grand corporate strategy on the significance of major organizational functions for strategy implementation. In addition, the research findings support studies by Thune and House (1970), King (1966), and Kudla (1980) that suggest the importance of industry effects in studying the interrelationships of strategic planning on performance.

Finally, the results of the Pearson product-moment correlation

analyses (Tables VII-XVII) show that certain functional mixes are appropriate for success within a particular strategy industry environment. The results suggest the notion that several major organizational functions have a significant influence on the success of an organization within a particular strategy and industry. The present study does extend the work of earlier studies by Palia (1979), Rockhart (1979), Steiner (1969), Godiwalla (1977), Kitching (1967), Heau (1976) and Miles and Snow (1978). These studies addressed two research issues: 1) that different functions are important to meet the imperatives imposed by different environments and different corporate strategy requirements, and 2) the performance of an organization in these key result areas will determine how effective the organization is in implementing its particular grand corporate strategy. The research findings support the literature previously noted relating the strategic significance of functional mixes to the overall performance of the organization. Due to limited sample cell sizes the analyses results limit us from making definite conclusions that suggest certain functional mixes are appropriate for implementation of a particular grand corporate strategy. The final results do suggest, however, that the strategically significant mixes act as important factors in the performance of an organization pursuing a particular grand corporate strategy and operating in a certain industrial environment. Further discussion and reasoning are presented to support the findings within the particular strategy industry cells analyzed in this study.

Stability/Consumer Nondurable

The results as shown in Table VII suggest the strategic functional

importance of production operations for firms implementing a stability strategy and producing consumer nondurable goods. Firms within such a strategy industry environment concentrate their efforts to develop a meaningful competitive advantage within their existing product market environment. The major problem confronting these organizations is that of inefficiency in the manufacturing process. An improved plant modernization program and an efficient plant layout, workflow, and work environment would maintain the effectiveness of the manufacturing process so that it would be comparable to major competitors. The price and market competition of the industrial environment may dictate that production operations be maintained above norm if an organization is to be successful.

Internal Growth/Consumer Nondurable

The analysis displayed in Table VIII of the present study indicate that for firms exercising an internal growth strategy and manufacturing consumer nondurable goods PO is of strategic importance to the successful operations of the organization. ERD, PER, and PGR if emphasized might have negative effects on sales and earnings per share for these firms.

Manufacturers of consumer nondurable goods because of relatively low capital costs are subject to more competition. Efficiency in production operation policies is one method these firms compete and stress growth from a foundation of proven competition in present lines of business. These particular type organizations emphasize expansion in sales by increased primary demand for their present products. Motivation and encouragement for new uses of products is a mode these organizations

use to differentiate their product lines from competition.

It is surprising to note that the strategic area MKT was not of importance to the success of the organizations in this cell. The need for innovative and stimulating ideas to improve sales promotion, and advertising campaigns for new products and product uses would seem to be critical to success. The strategic objectives of firms within this industry using the internal growth strategy stress an enthusiastic marketing effort that develops effective advertising, stimulating packages, and efficient distribution and pricing strategies. Firms stressing expansion internally to other market segments should strive aggressively to be competitive through improved production systems, and innovative marketing efforts.

The results indicating a negative relationship between ERD, PER, PGR, and sales performance indicators SALES and EPS further supports the necessity to minimize costs associated with personnel and public and government relations functions.

External Growth/Consumer Nondurable

In the case of external growth-consumer nondurable goods analysis noted in this Table IX. The negative strategic functional importance of ERD and MKT in relation to the performance indicator ROC is easily explained.

Firms pursuing an external growth strategy aim at increasing the level and/or scope of their product-market objectives to maximize profitability. Producers of consumer nondurable goods require less capital and R & D expenditures to maintain competitiveness than other producers. The concentrated efforts of these organizations is to intensively expand

present product lines and possibly add new product lines through acquisition, merger, or contract for joint venture with another firm. The firms within this strategy/industry environment strive to: 1) widen the consumer base by intensive market penetration and development and 2) develop a more efficient and effective product line policy for product contribution analysis. By accomplishing these strategic objectives the organizations are better equipped to confront the uncertainties of the competitive environment in which they interact. In other words organizations in this group must invest substantial amounts in MKT to be successful, and therefore, should expect lower returns on capital. In addition ROC might not be a good performance indicator for the strategic elements ERD and MKT because capital expenditures are not as important.

Due to limited sample cell size a more detailed illustration of the strategic functional mix was impossible for the external growth/consumer nondurable firms. We can however propose that like the internal growth strategy within this same industrial environment PO and MKT would possible be strategically important.

Stability/Consumer Durable

The results as shown in Table X indicate that GA, PO, ERD, MKT, FIN, and PER are strategically important for the overall performance of the organizations pursuing a stability strategy and operating within the consumer durable goods sector. Readers should be aware that because of limited sample cell size in this particular case the significant relationships discussed would be possibly misleading. However, the interrelationships will be discussed.

Firms within the cell manufacture goods that are cyclical in demand

and income elastic. Therefore, in striving to serve the same customers in a similar product-market domain these firms have to develop an organizational framework that meets peak capacity yet does not overly penalize the organization for excess capacity in recession.

The functional area GA is emphasized because of the need for overall coordination and control of corporate performance. The development of an effective company-wide planning system is essential for corporate development and success. The development of an effective production operations system (PO) will permit the control of production flow that is necessary to assure low cost, and standard quality output. Emphasis on ERD will help improve process engineering, energy efficiency, and value analysis of product lines in developing a more economical means to convert raw materials to final product.

Since these organizations are often engaged in national or even international distribution networks the MKT strategic function will have to be utilized to widen and refine existing product distribution networks and distributor relations. FIN is a critical result area because of the cyclical and sometimes volatile nature of demand increasing the importance of the financial control and performance of the company. PER will be important in formulating effective relations with trade unions with the objective of improving the existing work environment for employees and, in addition, maintaining a high quality of staff.

The negative relationships of SALES with GA, PO, ERD, FIN, and PER are inconsistent with the objectives of firms within this cell. The possibility exists that sales growth might be a poor indicator of performance for these type of organizations (particularly those using a stability strategy). To reiterate all correlations could be spurious

in nature due to the small sample cell size.

Internal Growth/Consumer Durable

The results illustrated in Table XI present several conflicting findings for this particular strategy industry type. The negative interrelationships noted for MKT and ERD is not conducive for an organizational framework that strives to expand its sales demand through price and product differentiation. The consumer durable manufacture deals in a sector of the economy which is sensitive to changes in consumer demand and income.

Firms in efforts to internally develop the organization to meet the contingencies imposed by the external environment emphasize research and development capabilities for new products, and effective coordination of R & D, operations, and marketing research (Khandwalla, 1977). Such a strategic mix is not absurd. Firms within this sector of the economy are constantly improving and modifying products. The increased R & D activity has a tendency to decrease earnings in the short run and thus, PE may not be a good performance indicator for these firms. Improved marketing research and information systems in the new product development area is essential for an organization that is in a highly competitive and volatile environment. The will to survive dictates that the consumer durable manufacturer implement sophisticated control and information systems for the firms planned growth.

The positive interrelationships established between PO, FIN, and SALES reflects the tendencies of these organizations to be geared for mass production with emphasis on quality products but also financial control. The development of effective evaluation procedures for new

business opportunities and product development plans explains the reasoning for the financial result area to be stressed in the plan for future growth. Emphasis of PO would be imperative to the development of production control systems for better control of quality, cost, and time.

External Growth/Consumer Durable

The results shown in Table XII suggest that ERD, PER and particularly FIN should not be emphasized for most of the organizations in this cell. GA is of strategic importance to the performance of such firms. The reader should be aware of the possibility of spurious results due to limited sample cell size.

The negative relationships noted in Table XII for FIN is hard to justify since organizations within this cell strive to expand and diversify through acquisition. The need for financial coordination and planning is essential for purposes of carrying out an acquisition or merger. FIN is especially important as the motive behind acquisition is to increase efficiency and profitability. FIN will be strategically important in analyzing the possible synergistic effects of the acquisition. Management in gathering information on the benefits of acquisition will need an evaluation procedure to inform management of the probabilities of whether the acquisition will complement the parent organization. The FIN result area serves this purpose of evaluating the synergies of acquisition or merger. However, over emphasis on financial control procedures may be detrimental to external growth opportunities (due to an overly conservative posture by management in evaluating potential acquisitions). In addition, the essential competitive tool of

product quality (characteristic of most consumer durable goods markets) might be lowered due to concentrated efforts in financial control.

The importance of GA can be seen in the requirement for organizations exercising an external growth strategy to properly develop and communicate a unified sense of purpose and direction for all members to follow. GA is essential in effectuating the smooth transitions for the acquired or merged firm.

The negative relationship noted for PER and ERD is appropriate when considered in the context of the strategic objectives of this strategy industry type. Organizations within this strategy industry environment are motivated to make a good investment: purchase a unit which makes better use of funds than reinvesting the same funds internally. Companies strive to balance the product line, or acquire needed resources that will assist diversification efforts. The only perspectives that PER and PGR would have within this strategy industry cell would be to 1) effectively coordinate R & D objectives and strategies of the acquired firm, and 2) acquire a highly innovative management to coordinate the acquisition.

Internal Growth/Capital

The results shown in Table XIII indicate that PO and PER are strategically important for the performance of the organization. GA and PGR affected some of the performance indicators but not to the same magnitude.

Companies within this strategy industry environment concentrate their efforts on expanding sales within existing product markets. The markets they interact in are capital intensive. Manufacturing costs are high due to the unique specifications often required by the customer.

The functional importance of PO is parallel to the need for a modernized production control system. An efficient plant is essential to meet the problems imposed by a custom production-oriented system which demands enormous R & D capabilities to develop more sophisticated machinery and products.

The importance of PER is easily related to the necessity for employers at all levels to be constantly reeducated to remain informed to new developments in their fields. The capital producing sector of the economy produces mainly for other large manufacturing concerns and the government for defense contracts. Producers within this industrial sector must maintain (PGR) effective relationships with relevant regulatory bodies, interest groups, and government branches (defense contracts) if they are to perform successfully. In addition, an improved overall corporate image is essential to secure the needed contracts that make the organizations successful.

The importance of coordination and control by management cannot be overplayed. The constant need for well trained and competent top managers, and maintenance of management depth through training and development programs is conducive of the strategic importance of GA in this cell.

The negative interrelationships across all significant strategic functional areas for the performance indicator EPS suggests that EPS may be inappropriate for measuring the performance of organizations in this strategy/industry environment.

External Growth/Capital

The results in Table XIV showed that the performance indicators

PE, ROC, and SALES were negatively related to several critical functional areas (GA, PO, ERD, FIN, PER, PGR). The details of the specific correlations are noted in the results section for Table XIV. These negative relationships are not characteristic of the objectives for this particular type of organizational framework. PE and ROC may not be good performance indicators for this strategy industry environment, while SALES can be explained.

The only real difference between the two specific growth strategies discussed in this study is that the internal growth strategy confines expansion internally, while the external growth strategy seeks competitive advantages for growth through merger or acquisition. The previous discussion on internal growth/capital producers provides little justification for the findings in Table XIV. Differences in growth strategies may not be responsible for such a turnabout in relationships between performance indicators and strategically significant functions. Heavy emphasis on external growth may indicate a deemphasis on internal functions within the current internal organization. ERD would usually not be stressed in external growth but may be necessary to remain competitive in the capital goods industry because of the requirements for high quality. The two positive correlations noted in Table XIV (ERD and ROE and EPS) do provide some insight into the necessity of ERD to the performance of this type of firm. The capital and technological intensity of this industry sector requires improved research and product development capabilities along with more effective process engineering management. It is possible that the correlations noted are possibly spurious due to limited sample cell size, or the performance indicators PE and R & D are inappropriate to measuring performance within this

strategy industry environment.

Stability/Producer

The results of Table XV suggest that ERD is the most important strategic function for firms implementing a stability strategy and operating within a producer good industry. "Research and development is stressed in efforts to discover new uses for products and to cheapen the cost of production. The wider the range of products in which a particular producer good is used, the larger and more stable tends to be the demand for it" (Khandwalla, 1977, p. 312).

The negative relationships noted for FIN and PER reflect the emphasis characteristic of a stability strategy. The main strategic decision is focused upon the incremental improvement of functional importance so that firms can successfully serve customers within the same product-market domain (Glueck, 1976).

The negative correlation noted between ERD and PE is not conducive with the above discussion about the strategic importance of ERD. The direction of this correlation could be attributed to a possible spurious quality of the relationship or an indication of the inappropriateness of using PE to measure performance in this particular situation.

Internal Growth/Producer

The results shown in Table XVI suggest that PO, MKT, FIN, PER, and PGR are predictive of the performance indicator PE. Since these firms are emphasizing growth through internal development, the strategic significance of these critical result areas is characteristic. Firms pursuing this strategy will have to consider 1) how adequate their financial

resources (FIN) are to increase the market share to a level that is intensive enough to justify growth, and 2) whether the government (PGR) will approve of the acquisition if it endangers the competitive environment in the industry. Production operations (PO will have to be organized to reflect the dependent nature of the producer good on the demand for the final finished product. Plant modernization and efficiency will have to be maintained to cheepen the cost of production. PER will be of strategic importance in providing an incentive performance rewards system to stimulate creative ideas for discovering new uses for products. PER through improving employee motivation, job satisfaction and morale will stimulate employees to express their ideas openly about the organizational framework they work in; the final result being a productive and successful organization.

The negative relationship with three performance indicators reflects the limited need of producer goods organizations to stress marketing efforts. Because most of their clients are primarily other organizations rather than consumers marketing serves no purpose. The positive correlation between PE and MKT is inconsistent with the above discussion and possibly indicates the ineffectiveness of PE to predict performance within this strategy industry environment when correlated directly with the marketing function.

External Growth/Producer

The results of Table XVII show that GA and ERD were negatively related to multiple performance indicators. The motives for merger or acquisition stress that a firm strive to coordinate its functional mixes to make a profitable investment that will reduce competition, expand its

present product-market domain, improve the stability of the company's earnings, and acquire needed resources to increase the efficiency of operations. Development of an extensive and efficient management team to coordinate and plan is not necessarily of top priority for a firm which is concentrating its strategic planning efforts to acquire a new organizational unit to increase profitability. In fact, many external growth-oriented firms maintain only small corporate staffs. FIN would be imperative in evaluating investment considerations and developing a sound capital structure that provides flexibility to raise additional capital for acquisition (the positive correlation for FIN supports this discussion).

The research finding in Table XVII that ERD is negatively related to performance indicators illustrates that the firm's strategic orientation is external rather than discovering new uses for products, and product lines to enhance the present product mix.

PO is positive in its prediction of performance because of the necessity to improve plant layouts, work flow, and work environment in efforts to modernize the plant's operations to meet the demand characteristics for the final manufactured products it supports.

The results for MKT are conflicting in direction when associated with different performance indicators. MKT as previously discussed for the internal growth/producer cell is not necessary because of the unique client relationships of this industry cell. Producer firms serve other manufacturing concerns by providing the material requirements vital for finished goods production.

Implications of Research Findings

This research has identified the nature in which grand corporate strategy and industry significantly affect the ability of strategically significant functions to predict performance in large industrial corporations. It has integrated certain key concepts from the organizational policy and organizational theory fields, which have provided important contributions to the existing body of knowledge regarding the interrelationships between grand corporate strategy, relative strategic significance of different organizational functions and company performance. This study has attempted to integrate different fields of management by identifying the critical functional tasks that are conducive to predicting organizational performance. The aim of this research study was to determine the configuration of strategically significant organizational functions within particular categories of grand corporate strategy that are predictive of company performance.

The functional approach to the study of corporate strategy is of very recent origin. The results of this study provide important contributions to the existing body of knowledge regarding the influence of strategy and industry on the strategic mixes of functions that predict performance in industrial firms. Propositions about the influence of grand corporate strategy on the strategic functional mixes predicting company performance were limited due to small sample cell sizes caused by the additional moderation effect of industry type on strategic functional mixes/performance relationships. The research methodology in this study has provided an integrative functional approach to the study of grand corporate strategy utilizing several organizational theory and business policy concepts; and has thereby opened many research avenues

for the study of strategy in other business and non-business organizations.

Since the results of this study are partially derived from the perceptions of senior executives in large industrial organizations they are likely to be of interest to practicing managers. Depending on the contingencies facing an organization, its senior executives can compare their strategic mix of functions with those identified by senior executives participating in this study. This will assist practicing management in identifying the key strategic functions in their firms and induce them to search for possible reasons for a particular strategic mix. The identification of strategic key results areas that predict organizational performance will help executive management utilize their organizational resources more effectively in implementing a chosen strategy that leads to better overall performance within a particular industrial environment. As Steiner (1969) indicates

. . . that by identifying the majority of strategic factors which businessmen themselves think are most important in their firms success, the basis will be laid for a more systematic evaluation of these factors by each executive to find that combination which, when identified and followed, will enhance the fortunes of his company and benefit all those interested in its well-being (p. 66).

Implications for Further Research

In this study the focus of the research was to identify the strategic mixes of functions within particular categories of grand corporate strategy that predict organizational performance. Future research on the areas examined within this study should replicate the present analysis. The limitations imposed by small sample cell sizes prevented generalizations in this research study concerning strategic functional

mixes within particular grand strategies that predict performance. It might be fruitful to replicate the present study significantly increasing sample cell sizes. The investigation of differences in strategic functional mixes for particular grand strategies when firms are categorized by performance needs further research work. The findings of this study only provide indications of strategic functional mixes for firms implementing a particular strategy and operating within a certain industrial framework.

Further empirical work is needed to see if the results of this study and past strategy research apply to industrial firms classified as "small businesses." The functional approach to studying strategy needs to be modified and applied to different settings other than large industrial organizations. Extensions to include other business and non-business organizations might prove beneficial. The longitudinal research is needed in studying corporate strategy, a dynamic concept. Longitudinal studies can be undertaken for a small sample of homogeneous firms to evaluate causality in the relationships being analyzed. Finally, further research is needed to identify strategic functional mixes for different divisional strategies within a division, and for different key result areas within a function.

Concluding Statements

In conclusion, this research report has made contributions to the study of corporate strategy. The study has integrated business policy literature and concepts from organizational theory, and performance literature in efforts to empirically investigate certain interrelationships. The study has contributed to the research methodology in the field of

corporate strategy research. This research report has provided evidence of important relationships and the need for continued research in the area of corporate strategy utilizing the strategic functional mix approach, and has also provided implications for organizational practices.

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Report: AN ANALYSIS OF THE CONFIGURATION OF STRATEGICALLY SIGNIFICANT ORGANIZATIONAL FUNCTIONS WITHIN PARTICULAR CATEGORIES OF GRAND CORPORATE STRATEGY THAT ARE PREDICTIVE OF COMPANY PERFORMANCE

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