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Generic Strategies, Leader Attributes, Environmental Uncertainty, and Organizational Performance: An Empirical Investigation of Contingencies and Configurational Outcomes

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GENERIC STRATEGIES, LEADER ATTRIBUTES, ENVIRONMENTAL
UNCERTAINTY, AND ORGANIZATIONAL PERFORMANCE: AN EMPIRICAL
INVESTIGATION OF CONTINGENCIES AND CONFIGURATIONAL OUTCOMES

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UNCERTAINTY, AND ORGANIZATIONAL PERFORMANCE: AN EMPIRICAL
INVESTIGATION OF CONTINGENCIES AND CONFIGURATIONAL OUTCOMES

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

By

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CHAPTER 1

INTRODUCTION

As the strategic management field has developed over the years, researchers have attempted to accumulate and disseminate knowledge through laboratory and field studies. The goal has been to solidify knowledge through additive replication (i.e. building on the works done by others) or exploration of new areas of research. In effect, attempts have been and are being made, not only to expand the knowledge base in this area, but also to test already existing knowledge in new contexts. Since the strategic management field as a formal discipline only came into existence within the last twenty-five to thirty years (Mintzberg, 1990), there are still areas where potentially useful research contributions can be made.

Science is concerned with developing the knowledge and understanding for natural phenomena. The behavioral sciences study and seek to understand humans and its institutions, actions, and behaviors (Kerlinger, 1979). Specifically, strategic management researchers usually want to know what accounts for performance differences between organizations. Researchers have focused on a host of variables/constructs in their attempt to explain why some organizations are more effective than others. Among this myriad of variables/

constructs, a select few--which are discussed in the following paragraphs--have dominated strategic management research.

Traditionally, strategic management researchers have focused on the importance of certain variables/constructs to organizational performance. During the early years of the strategic management field, the normative orientation to strategic management was the idea of aligning organizational strengths and weaknesses with environmental opportunities and threats (e.g. Andrews, 1971; Uytterhoeven, Ackerman, & Rosenblum, 1973). These early researchers considered each organization to be unique and as such were more likely to analyze case studies since they believed that little or no generalizations could be made about firms' strategies and performance. These early studies--components of what Mintzberg (1990) referred to as the 'design' school of thought in strategic management research--were mostly descriptive in orientation (Hambrick & Lei, 1985).

As the field of strategic management continues to develop, more empirical works are being done to investigate the relationships between individual, organizational, and contextual variables and performance (e.g. Hansen & Wernerfelt, 1989; Kimberly & Evanisko, 1981). One of the schools of strategic management thought that Mintzberg (1990) identified as generating growing interest is in the 'configuration' area. The variables/constructs that have received most of the research attention under the umbrella of this school of thought are strategy, structure,

and the environment (e.g. Drazin & Van de Ven, 1985; Gresov, 1989; Venkatraman & Prescott, 1990).

The importance of strategy to organizational performance has been the focus of many conceptual and theoretical studies (e.g. Andrews, 1980; Hambrick, MacMillan, & Day, 1982; Hofer, 1975; Jones & Butler, 1988). Additionally, studies have been done to distinguish corporate from business-level strategies, operationalize and measure the concept of strategy (including the introduction of generic strategy typologies), and develop strategic contingency theory (e.g. Beard & Dess, 1981; Datta, 1979; Hambrick, 1980; Miles & Snow, 1978; Murray, 1988).

Other studies have conceptualized or investigated the importance of the environment to organizational performance (e.g. Aldrich & Pfeffer, 1976; Lenz, 1980; Prescott, 1986). Early strategic management researchers viewed the external environment as mostly deterministic (e.g. Andrews, 1971). Organizational leaders were encouraged to identify factors/variables in the external environment that were sources of opportunities or threats to their organizations' survival. It was then proposed that the ability of organizations to build upon their strengths in response to environmental opportunities, would determine to a large degree the success or failure of these organizations (Stevenson, 1976). Recently, some empirical works have focused on the importance of the environment to contextual and organizational performance variables (e.g. Prescott, 1986).

It is worth noting that strategic management research has been both univariate and bivariate in orientation (e.g. Hambrick, 1981a; Horowitz & Thietart, 1982; Kim & Lim, 1988). Some researchers have investigated the importance of strategy and structure, or strategy and environment, to organizational performance (e.g. Child, 1972; Bourgeois & Asley, 1979; Jauch, Osborn, & Glueck, 1980). More recently, there is a move toward multivariate--research studies dealing with the importance of three or more variables to organizational performance--studies (e.g. Miller, 1988). It is within the context of these multivariate studies, that a modern stream of configuration-based research has evolved.

Traditional contingency theory generally suggests that one variable/construct can interact with another variable/construct to predict a third variable, usually a performance variable (Schoonhoven, 1981). It also suggests that the impact of the interaction of these variables/constructs on the performance variable would be most meaningful within a particular context (e.g. technology). In other words, contingency theory identifies the variables/constructs that best facilitate performance when situational differences have been analyzed and understood. Among others like Burns and Stalker (1961) and Lawrence and Lorsch (1967), Hofer (1975) sometimes gets the credit for introducing contingency thinking to the management literature even though the landmark work began years before. For example, Chandler (1962)

did the foundational work on the importance of structure to strategy. His thesis that "structure follows strategy" has since been the focus of some research studies (e.g. Pavan, 1976). Chandler found that the more successful organizations had what is often referred to as a "strategy-structure fit". Other theoretical studies have suggested the appropriate organizational structure based on other contingencies like the environment (e.g. Duncan, 1972; Lawrence & Lorsch, 1967). Hall and Saias (1980) even proposed and investigated the opposing hypothesis that "strategy follows structure". They found that "... the hypothesis of a dependent relationship between strategy and structure could be made in both directions ..." (p. 161). In effect, these researchers concluded that one can accept Chandler's thesis that structure follows strategy, but, equally tenable is the hypothesis that strategy follows structure (Hall & Saias, 1980).

Configuration or alignment, like contingency theory is based on the concept of "fit" among variables (Miller & Mintzberg, 1983). Configuration theory is different from traditional contingency theory in that it takes a more "holistic" approach to the study of organizations. While contingency theorists typically isolate and focus on a narrow conceptualization of a few variables/constructs in explaining performance--the reductionistic perspective, configuration theory focuses on a broader conceptualization of more variables--the holistic

perspective (Venkatraman & Prescott, 1990). Thus, configuration theory in explaining organizational effectiveness focuses more upon the consistency of multiple contingencies and structural characteristics rather than on the interaction between pairs of contextual or structural factors (Drazin & Van de Ven, 1985). Therefore, unlike traditional contingency theory, configuration theory makes it possible to formulate effective multiple patterns of interdependence among variables/constructs, enabling management researchers to advance the study of organizations from simple to more complete descriptions of these complex enterprises.

Configuration theorists have often been quick to criticize and highlight the deficiencies of the traditional contingency approach to the study of organizations. While the emphasis on these inadequacies may be necessary, equally important is the fact that configuration and traditional contingency theories are not mutually exclusive. In fact, Drazin and Van de Ven (1985) suggested that researchers should employ multiple approaches to "fit" in the study of organizations because of the advantages that can accrue from each approach. Typically, traditional contingency theorists claim that "fit" theory applies when significant interaction terms exist between pairs of variables/constructs in explaining effectiveness. Conversely, configuration theorists contend that the lack of significant interactions should not be interpreted as meaning that "fit"

theory does not apply because "fit" may occur only at the level of multiple patterns of interdependence between the variables/constructs--testable only when a systems/configurational approach is used (Van de Ven & Drazin, 1985). Therefore, the combination of the traditional contingency and configuration theories should lead to more complete descriptions of the organizations in this study. The simultaneous use of these two approaches to "fit" highlights one of the more important undertakings of this study. The other objectives of this research study are enumerated in the following section.

Objectives of Research Study

Through the use of multiple approaches to examining "fit" theory in organizational research, this researcher hopes to achieve the following objectives:

- (1) to determine the performance implications of the contingencies between leader attributes and different strategies.
- (2) to determine the leader attributes that are most effective in environments with different levels of uncertainty.
- (3) to examine the strategies that are effective in environments with different levels of uncertainty.
- (4) to explore the effectiveness that result from the internally consistent relationships between leader attributes and strategy in an environmental uncertainty context.

The first three objectives are comparable to the ones that would be found in studies that use the traditional contingency approach, which basically focuses on the interaction between the specified variables/constructs. Conversely, the fourth objective is holistic or configurational because it incorporates the previous three objectives into a form where multiple patterns of effective interdependence between the variables/constructs can be studied—a feature lacking in the traditional contingency theory approach.

Theoretical Foundation

This section includes a discussion of the variables/constructs whose contingencies and configurations will be explored in explaining the performance differences between organizations. To date, most of these variables/constructs have been used primarily in traditional contingency-based research studies. The use of these variables/constructs in a configuration-based research, could lead to a richer and more complete description of the complex organizations that are used in this study (e.g. Hambrick, 1984).

Conceptual Model

In the preceding section, strategy, structure, and the environment were identified as the variables/constructs that have

dominated strategic management research. The contingencies among these variables/constructs have received some attention in the management literature (e.g. Hambrick, 1984; Miller & Mintzberg, 1983). Recently, theorists and researchers have suggested that leadership factors should be included in contingency theory-based research studies (e.g. Miller, Kets de Vries, & Toulouse, 1982). In general, management theorists are calling for more generic models that would be useful for understanding organizations regardless of industry, type, or size. Furthermore, some theorists have suggested the variables or constructs that should be included in such a model (e.g. Hadaway, 1989; Hatten, 1982). The most recurring variables or constructs include leadership (i.e. styles and/or attributes), the strategy pursued by the organization, and the environment (e.g. the perception of the rapidity of change in environmental factors). The relevance and importance of these variables or constructs is further reinforced by Ginsberg and Venkatraman's (1985) call for research studies that focus on the importance of strategy, organizational, and contextual factors to the performance of organizations.

Strategy. The importance of strategy to effectiveness, especially in for-profit organizations has been well researched in the management literature (e.g. Miles and Snow, 1978). In an attempt to make the strategy concept more parsimonious, various generic strategy models and typologies have also been developed (e.g. Porter, 1980). More recently, generic strategies models

and typologies have been used to study the importance of this construct to other organizational, individual, and contextual variables or constructs (e.g. Miller & Friesen, 1986; Kim & Lim, 1988). A study like the present one, that is based upon the suggested direction for contemporary research studies about strategy, could build upon previous works by exploring how strategy and the other variables--like environmental uncertainty and leader attributes--factor into configurations that delineate the more from the less effective organizations (e.g. Drazin and Van de Ven, 1985; Venkatraman, 1989).

Leadership. Generally, the management literature suggests that leaders are important to the effectiveness of organizations (e.g. Thomas, 1989). Specifically, some theorists claim that leaders are more important to the effectiveness of not-for-profit organizations because their role is even more central to the success of their organizations (e.g. Hadaway, 1989). The main drawback to this line of reasoning is that there are very few research studies that have examined the importance of leaders to the effectiveness of these organizations. While Smith, Carson, and Alexander (1984) found that there were effective and less effective leaders in the not-for-profit organization from which they drew their sample, no attributes were used to describe these effective and ineffective leaders. This is not surprising because even for the profit-oriented organizations, which have received most of the research attention over the years in the

strategic management area, there are few studies that have gone to the extent of delineating effective from ineffective leaders based on their attributes. The importance of this demarcation is perhaps highlighted by theorists that have suggested that there is a need to distinguish effective leaders from those that are not in order to have the proper "manager-to-strategy fit" (Gupta, 1984).

One possible reason why strategic management researchers have not attempted to delineate effective from ineffective leaders could be attributed to the organizational perspective that has traditionally been taken by them. In general, a 'sociological' perspective, which explains and describes organizations by focusing on structural, rather than personality factors has dominated strategic management research (Perrow, 1970). Conversely, most of the leadership studies have been done from a psychological perspective and can be found primarily in the 'organizational behavior' area (e.g. Kimberly, 1979). Miller et al.'s (1982) study which examined the relationship between top executive locus of control and strategy formulation is one of the few attempts that have been made to integrate the sociological and psychological perspectives into strategic management research. This researcher will build upon Miller et al.'s study by examining how locus of control, other leaders attributes, environmental uncertainty, and strategy factor into a configuration to explain organizational performance.

In order to delineate effective from ineffective leaders, there are various biographical and personality variables from which a researcher might choose. However, one personality variable that has been found to affect the type of strategy that a leader pursues is locus of control (Govindarajan, 1989). Locus of control is the extent to which a person attributes the events in his/her life to his/her actions or to forces beyond his/her control. When someone believes that s/he has very little control over what happens to her/him, that person is said to have an external locus of control. On the other hand, the person with an internal locus of control believes that s/he is in control of what happens to her/him. Govindarajan (1989) found that more effective managers were more likely to have internal locus of control. Locus of control is one of the leader attributes of interest to this researcher, because it is important to determine if leaders with internal locus of control--when examined in a different context--are still preferred to those with external locus of control. Furthermore, a more complete understanding of the importance of a leader's locus of control to performance can be developed in conjunction with other leader attributes.

Andrews (1980) suggested that in order for organizations to be effective, a manager's values must fit with the strategy that is pursued. Sturdivant, Ginter, and Sawyer (1985) found that a manager's values had implications for organizational performance (i.e. conservatism was associated with low earnings per share

growth). Kotter (1982) suggested that the differences observed in biographical and personality orientations of leaders would lead to differences in their behaviors, knowledge, skills, and values. It is practically impossible (because of the magnitude of the variables and the needed large sample size) to observe the behaviors of the leaders of the organizations from which the sample for this study will be drawn. Similarly, to study the various facets of skills and values of these leaders is again too broad a scope for this study. Consequently, the approach taken by Sturdivant et al. (1985) where they reduced values to a more parsimonious variable with liberalism and conservatism at opposite ends of a continuum, will be adopted for use in this research study. The main drawback to this approach is that there may be other types of values that are equally as important but are left out in this attempt to achieve parsimony. On the other hand, one of the primary advantages of using this approach is that it will be possible to compare the findings of this research study to Sturdivant et al.'s.

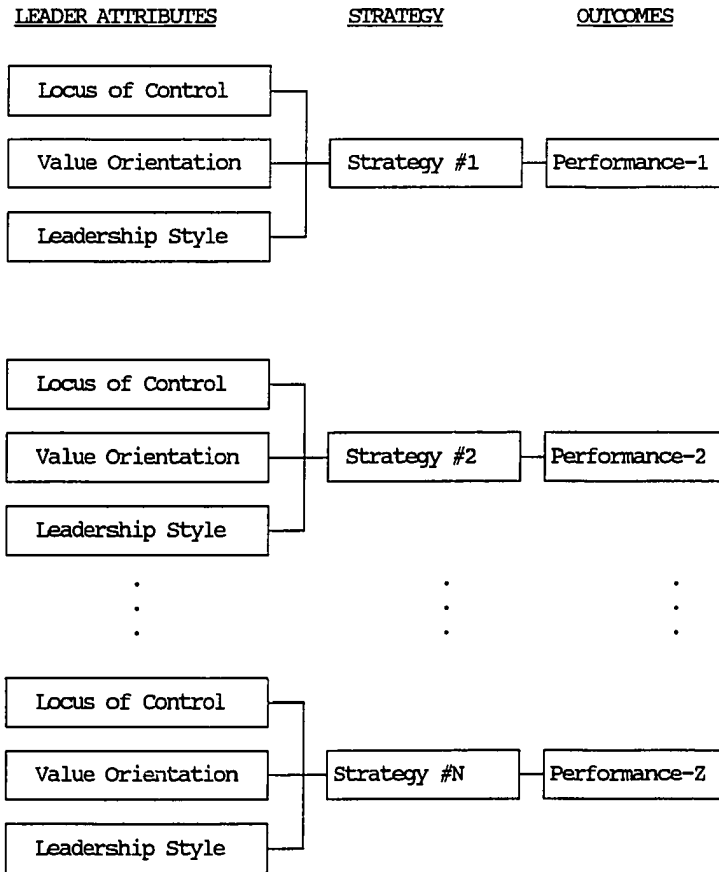
Leadership style is an attribute that has received substantial attention in the literature (e.g. Anderson, 1977; Life, 1986). A leader's style can be oriented toward task and/or people. Task oriented leaders are more concerned with 'getting the job done', while people oriented leaders are interested in creating a friendly work atmosphere and satisfying their followers needs and desires. Contemporary research findings

suggest that effective leaders can be task and/or people oriented depending on certain contingencies (e.g. Bass, 1981). For example, Hadaway (1989) concluded that the effective leaders in the not-for-profit organization that he studied were people oriented. Nevertheless, another factor that may determine effective leadership style is the 'internally consistent' relationships that could exist between leadership style and other leader attributes. Thus, people oriented leaders may be more effective when the leader also has an internal or an external locus of control. In other words, leaders that are people oriented and have internal locus of control may be more effective leaders than any other combination of these two leader attributes in a specific context.

In summary, a leader's locus of control, value orientation, and style are the attributes of interest in this research study. The contingencies that are developed using these leader attributes pertain to the most effective combinations of the same, given that: (1) certain strategies are being pursued, and (2) a particular environmental context has been specified. In other words, the attributes that are effective within the context of a particular strategy or environment may or may not be appropriate within the context of another strategy or environment. A depiction of the postulated relationships between leader attributes in particular strategic context is shown in Figure 1. The specific attributes that may be more congruent

FIGURE 1

LEADER ATTRIBUTES-STRATEGY INTERACTIONS AND PERFORMANCE



where N=the number of strategy types and Performance-1 may be equal to, less than, or greater than the other performance levels (i.e. Performance-2 to -Z).

with specific strategies are discussed in Chapter 2.

Environmental Uncertainty. The importance of the environment to organizational effectiveness has been the focus of many empirical and conceptual studies (e.g. Anderson & Paine, 1975; Prescott, 1986). In fact, some authors have gone so far as to suggest that coping with environmental turbulence is a commonality among all organizations that would supersede any and all differences that may be observed in their activities (Gawthorp, 1971).

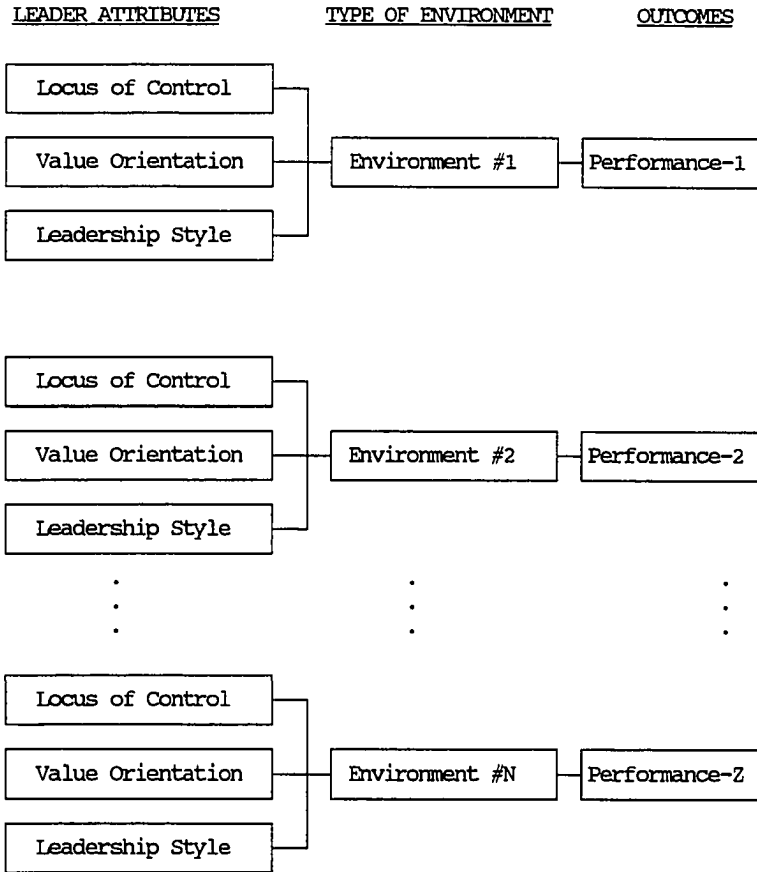
Bourgeois (1980) in summarizing the studies on the environments faced by organizations claimed that there are three perspectives. First, the external objects perspective focuses on the general and task (i.e. customers, competitors, suppliers, and regulatory agencies) environments. Second, the external attributes perspective concentrates on the complexity or heterogeneity (i.e. number of task environment components) and dynamism or volatility (i.e. rate of change of technology and market) of the environment. Finally, the internal perceptions approach focuses on the perceived environmental uncertainty as seen through the eyes of the organization's leader(s). The third perspective is the one that was adopted for use in this study.

Environmental uncertainty can range from low to high. When environmental uncertainty is low, such an environment could be considered to be stable and/or predictable. Conversely, an environment that has a high degree of uncertainty could be

considered to be neither stable nor predictable (Duncan, 1972). Researchers have found that environmental characteristics cannot be ignored when one seeks to explain the determinants of organizational effectiveness (e.g. Boulton, Lindsay, Franklin, & Rue, 1982). Furthermore, these characteristics have been found to be even more critical within the context of other contingency variables/constructs like strategy and/or structure (e.g. Grinyer, Yasai-Ardekani, & Al-Bazzaz, 1980). Most of the studies--like Boulton et al.'s piece--have a univariate or bivariate contingency orientation. Moreover, configuration studies could provide complementary information that would serve to solidify the knowledge base with respect to the importance of this variable (i.e. the environment) to organizational performance (Venkatraman & Prescott, 1990). Specifically, an important area of research that has been neglected to date concerns how leader attributes in an environment with different levels of uncertainty factor into a configuration to explain performance differences between organizations. This is in line with Vickers' (1965) proposition that inevitable relationships exist among organizational variables in predicting the performance of organizations. A depiction of the relationship that is postulated between environmental uncertainty and the leader attributes in this study is shown in Figure 2. This figure implies that the combination of leader attributes that are effective in a specific type of environment may or may not be as

FIGURE 2

LEADER ATTRIBUTES-ENVIRONMENT INTERACTIONS AND PERFORMANCE



where N=the number environment types and Performance-1 may be equal to, less than, or greater than other performance levels (i.e. Performance-2 to -Z).

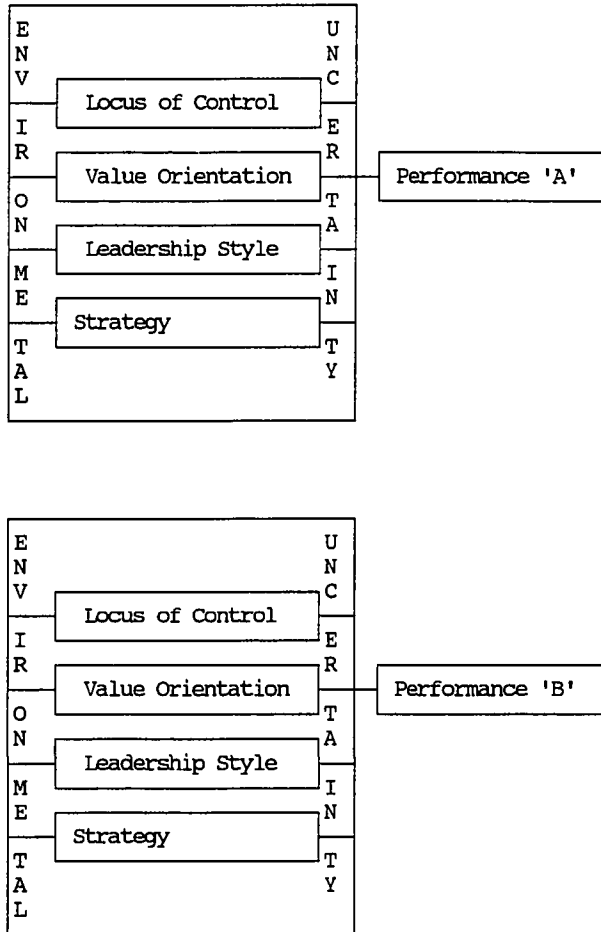
successful in a different type of environment.

In addition to exploring the effective leader attributes in different environments, the strategies that are congruent or consistent within each type of environment will also be explored. In other words, the implications for performance of pursuing specific strategies in different environmental contexts will be investigated.

An overall configuration of all the variables/constructs in this study and performance measures will also be investigated. The primary difference between this overall configuration and the prior three contingent relationships (i.e. leader attribute-strategy, leader attribute-environment, and strategy-environment) is that it suggests that there is a congruence among all the constructs in this study that translate to different performance levels for these organizations. Furthermore, this internal consistency could lead to multiple effective combinations among the constructs. This is in contrast to investigating the interactions between dual combinations of these constructs. In effect, the configuration relationship examines the effectiveness implications of the simultaneous congruence among all the constructs in this study. The formulation of this congruence or configuration is also in line with Miller and Mintzberg's (1983) and Drazin and Van de Ven's (1985) call for configuration-based research that focus on environment, strategy, and the leaders of organizations. Figure 3 depicts this overall configuration and

FIGURE 3

STRATEGY-ENVIRONMENT-LEADER ATTRIBUTES CONFIGURATIONS



where Performance 'A' and Performance 'B' are effective because of the fit between leader attributes and strategy in environments with different levels of uncertainty.

how it differs from the traditional contingency relationships between the constructs.

Research Questions

In this research study, the importance of strategy, leadership, and environmental variables to organizational performance will be investigated. Are the differences in the performance of organizations explained by the pursuit of particular strategies by the leaders with certain attributes? Are these effective leaders conservative or liberal in value orientation, internals or externals with respect to locus of control, people oriented and/or task oriented? What combinations of these attributes are most effective when certain strategies are pursued? Also, how much of the performance differences between organizations can be attributed to having certain leaders in 'appropriate' environments? Are the leaders in the 'appropriate' environments conservative or liberal in value orientation, internals or externals with respect to locus of control, people and/or task oriented? Furthermore, how much of the performance differences between organizations can be explained by pursuing strategies that fit with the characteristics of certain environments? Finally, when organizations are in environments with different levels of uncertainty, do the internally consistent congruencies—as opposed to incongruencies—between strategy and leader attributes

factor into configurations that explain relatively higher performance? Table 1 gives a summary listing of these research questions.

Summary of Study

There are five chapters in this dissertation. The first chapter or the "Introduction"--of which this summary is a part--contains the theoretical foundation, an outline of the research questions, and the enumeration of this study's objectives.

The second chapter, "Literature Review and Research Hypotheses", contains a review and synthesis of the existing conceptual and empirical literature from which the hypotheses that guide this research study were developed. These hypotheses were formulated such that they would be traditional contingency and configuration-based.

The third chapter, "Method", outlines how the sample for this study was selected. A justification was also provided for the sample. This chapter also contains the operational definitions of the variables/ constructs in this study. Furthermore, there was a discussion of the research instruments/scales, the source of the data for this study, and the analyses of the data collected.

In order to uncover any design flaws in the instrument/

TABLE 1

SUMMARY OF RESEARCH QUESTIONS

<p>What is the impact of the leader attributes (i.e. locus of control, value orientation, and style) on performance when the organization is in a particular environment? What are the combinations of attributes that are better predictors of performance in a given environment?</p>
<p>What is the impact of these leader attributes on performance when a particular strategy is being pursued? In addition, what are the combinations of attributes that are better predictors of performance given a certain type of strategy?</p>
<p>Does the pursuit of a particular strategy in a certain environment translate to superior performance? Or, is strategy-environment fit important to organizational performance?</p>
<p>Do the deviations from congruent or internally consistent relationships between leader attributes and strategy in environments with different levels of uncertainty factor into a configuration to explain the performance differences between organizations?</p>

scales, a pilot study was undertaken. Moreover, the effect sizes from the pilot study were used to determine the sample sizes that were needed to find significant results in the main study. In addition, the pilot study was used to highlight and make provisions for potential problems in the main study. The results of the pilot study are also reported in Chapter 3.

The fourth chapter contains the analysis, interpretation, and evaluation of the data collected for the main study. The reliability estimates of the variables/constructs measures were calculated and reported. Thereafter, the description and presentation of the empirical tests of the research hypotheses, as well as the interpretation and discussion of the results of this study were undertaken.

The fifth chapter, "Discussion" highlights the limitations of this research study and their implications for future research studies. In addition, the validity issues, pertaining to the main study were discussed. Finally, the potential contributions of this dissertation to the management literature were enumerated.

Summary

In this chapter, after a brief introduction, the variables/constructs that will be investigated in this study were identified. These variables/constructs are: strategy,

environmental uncertainty, leader's value orientation, leadership style, and leader's locus of control. In addition, the objectives of this research study were discussed. A theoretical foundation was developed to justify the importance of these variables/constructs to this study. Furthermore, the relevant research questions were summarized and listed. Finally, a summary of the organization of this project was presented.

CHAPTER 2

LITERATURE REVIEW AND RESEARCH HYPOTHESES

This chapter contains a discussion and synthesis of the management literature as it pertains to the variables of interest in this research study. First, an evolutionary review of the literature on generic strategies typologies is presented. These typologies are then used as the basis for the strategy descriptions that are used in this study. Second, there is a brief discussion of the environmental uncertainty variable and its implications for organizational performance. Third, the leader attributes that are relevant to this study are presented and examined in light of their importance to the performance variables. Thereafter, a conceptual synthesis of the literature review is used to formulate the research hypotheses. Three of the four hypotheses are traditional contingency or interaction-based while the fourth is configuration-based.

Generic Strategies Typologies

Various studies have attempted to determine the importance of the type of strategies that organizations pursue to the

effectiveness of such organizations (Abernathy & Wayne, 1974; Datta, 1979; Hatten, Schendel, & Cooper, 1978; Kohl, 1984; Miles & Snow, 1978; Hofer, Murray, Jr., Charan, & Pitts, 1980; Schoeffler, Buzzell, & Heany, 1974; and Snow & Hrebiniak, 1980). Overall, the strategy that the organization chooses/formulates and implements determines to a large degree its survival or demise (Buzzell & Wiersema, 1981; Buzzell, Gale, & Sultan, 1975; Glueck, 1976; Govindarajan, 1986; Hambrick, 1983a; Hambrick & Mason, 1984; Hammermesh, Anderson, & Harris, 1978; Hatten, Schendel & Cooper, 1978; Hofer, 1973; Lenz, 1978; Pfeffer & Salancik, 1978; Rumelt, 1974; Schendel & Patton, 1978; Scott & Marks, 1968; Ward, 1976; and Wrigley, 1970). In addition, there are many situational and/or contingency variables that need to be considered and analyzed in order for one to accurately capture an organization's strategy (e.g. Harrigan, 1983; Hofer, 1975). Herbert and Deresky (1987) claim that these myriad of variables have slowed down strategy research.

Therefore, in an attempt to make the strategy concept more parsimonious, various attempts have been made to develop "generic" classifications for strategy. The goal in each case has been to reduce the large number of variables needed to study strategic activity into a manageable but representative few, without sacrificing accuracy for parsimony (e.g. Bourgeois, 1980; Hambrick, 1984). Each classification is based upon some commonalities that the author/researcher observed. A generic

strategy then, can be defined as a "broad categorization of strategic choice which would apply generally regardless of industry, organization type or size" (Herbert & Deresky, 1987, p. 135). The various classification schemes for strategy ranges from the earlier portfolio models to the more contemporary typologies like Miles & Snow's (1978) or Porter's (1985).

Portfolio models

Developing generic strategies typologies has always been of interest to management researchers (e.g. Chandler, 1962). The landmark beginnings for generic classification of strategies is considered by most management researchers to have started with the portfolio models. While there are various forms of the portfolio models, the major ones that are discussed in this section are the Boston Consulting Group (BCG) matrix, the Shell's Directional Policy Matrix (DPM), and the General Electric (GE) Business Screen.

The BCG matrix. The BCG matrix (Boston Consulting Group, 1968) is based on the premise that high market share is an indication of strength in an industry, and that industry's growth rate signifies opportunity. The BCG matrix mainly focuses on the cash flow of the organization. In this model, both relative market share and the industry's growth rate are rated as either low or high. The business' relative market share is on one axis (e.g. horizontal) while the industry's growth rate is on the

other axis (e.g. vertical). The result is a 2 X 2 matrix (Figure 4) that leads to the identification of four product/business strategy types: stars, dogs, question marks, and cash cows. (e.g. Higgins & Vincze, 1989).

The BCG matrix suggests four potentially useful strategic orientation for managers. One or a combination of these four categories can then be used to determine the appropriate strategies for that business to pursue. For example, the appropriate strategy for a "star" product or business is to increase investment so that it (the product or business) can achieve rapid growth and be a source of cash for the organization in the future (Aldag & Stearns, 1987). The BCG matrix has been used by many management researchers (e.g. Hambrick, MacMillan, & Day, 1982). However, controversy still surrounds the characteristics (e.g. cash flow patterns) and the validity of this model (e.g. Swanson & Digman, 1988). Many theorists and researchers have also written about the weaknesses of the BCG matrix, which are discussed later in this section (e.g. Coate, 1983). In fact, it is the inadequacies of the BCG matrix that have led to the development of some of the other portfolio models in this category (e.g. the General Electric Business Screen).

The Shell Directional Policy Matrix. The Shell Directional Policy matrix or DPM, like most portfolio models, is a two-dimensional matrix. On each of the two axes are the business sector prospects, and the organization's competitive

FIGURE 4

BOSTON CONSULTING GROUP MATRIX

RELATIVE MARKET SHARE

		High	Low
MARKET GROWTH RATE	High	STARS	QUESTION MARKS
	Low	CASH COWS	DOGS

capabilities. The business sector prospects is classified as attractive, average, or unattractive while the organization's competitive capabilities is regarded as strong, average, or weak (Shell International Chemical Company, 1975). Consequently, the DPM, unlike the BCG matrix, results in a nine cell matrix. The placement of a product or business in each of these nine quadrants, is based on the scores and weights of the responses that are given to a set of questions that deal with the factors that are relevant to business sector prospects (e.g. the market growth rate), and to the organization's competitive capabilities (e.g. its production capacity). The responses to these questions are then used to position the organization on the DPM matrix which consequently dictates the correct strategic posture for the organization to take (Hussey, 1978; Young and Hussey, 1978).

Robinson, Hichens, and Wade (1978) claim that the nine cells in the DPM (Figure 5) have irregular shapes, flexible boundaries, and can sometimes overlap. Regardless, the DPM recommends the following strategies: disinvest, leader, growth, cash generation, try harder, custodial, and phased withdrawal (Hussey, 1978; Robinson et al., 1978).

Hussey (1978) summarized the problems that he encountered in using the DPM as follows: (1) the questions needed to be changed to suit different markets because the DPM was initially developed for the petrochemical industry; (2) there were weighting problems associated with determining the location of the business on the

FIGURE 5

THE SHELL DIRECTIONAL POLICY MATRIX

BUSINESS SECTOR PROSPECTS

		Attractive	Average	Unattractive	
ORGANIZATION'S COMPETITIVE CAPABILITIES		Leader	Growth Leader	Cash Generator	Strong
		Try Harder	Custodial Growth	Phased Withdrawal	Average
		Double or Quit	Phased Withdrawal	Divest	Weak

axes; (3) the assessment of the impact of environmental factors on the business was unsystematic and inadequate; (4) there was ambiguous definition of businesses and markets; (5) no usefulness was found for the "star scoring system" that was recommended by Shell; and (6) the market growth scores were difficult to use in conglomerates where different market growth rates existed for different businesses. Overall, Hussey claimed that he found the reliability and validity of the DPM to be questionable.

The General Electric (GE) Business Screen. The General Electric Business (GE) Screen like the DPM is a nine cell two-dimensional matrix (Figure 6). One axis measures the industry's attractiveness while the other measures the organization's strengths in that industry. Both industry attractiveness and the organization's strengths are rated as either high, medium, or low (Taylor, 1976). For this model, the major factors that determine industry's attractiveness are: size of potential sales, annual rate of sales growth, pricing, competitive structure, industry profitability, customer purchasing patterns, government regulations, ease of entry, environmental concerns, legal situation, and technical characteristics. On the other hand, the major factors used to determine the organization's strengths are based on market share, profitability, image, technology, managerial capabilities, distribution system, sales skills, service capability, patent protection, product efficiency, raw material availability, and

FIGURE 6

GENERAL ELECTRIC BUSINESS SCREEN

		INDUSTRY ATTRACTIVENESS			
		High	Medium	Low	
ORGANIZATION'S STRENGTHS	High	1	1	2	High
	Medium	1	2	3	
	Low	2	3	3	Low

- 1 = Invest/Grow
- 2 = Hold/Selective Investment
- 3 = Harvest/Divest

ability to adhere to government regulations.

The GE Business Screen was developed for the General Electric Company by the Boston Consulting Group and McKinsey and Company. The GE Business Screen was designed so that it would not have have the same weaknesses as the BCG matrix. Particularly, the GE Business Screen offers more strategies from which to choose, depending on which cell the product or business in question falls in to. There are three possible strategic postures: invest/grow, selectivity/earnings or hold, and harvest/divest (Higgins & Vincze, 1989; Steiner, Miner, & Gray, 1982).

Overall, the main contribution of the portfolio models pertains to the different strategies that may be pursued under different conditions. The strategic posture that is taken by an organization that uses the portfolio models' approach is based on: (1) the constraints or opportunities placed upon the firm by its environment, and (2) the resource availability within the organization. While the portfolio models have received substantial attention in the management literature (e.g. Bettis & Hall, 1981; Hambrick, MacMillan, & Day, 1982; Hussey, 1978; MacMillan, Hambrick, & Day, 1982; Swanson & Digman, 1988; and Wensley, 1982), they do have some deficiencies. The contemporary debate about the portfolio models deals with the issue of cash flows and its implication for organizational investment decisions. For example, in the most recent study done by Swanson

and Digman (1988), they concluded that: (1) the average "star" generates enough cash-flow to support its capital needs, (2) the average "dog" does not generate a positive cash flow, and (3) the average "cash cow" generates substantial cash flow. While the first and third conclusions agree with previous prescriptions and empirical findings, the second conclusion clearly conflicts with the results of an earlier study done by Hambrick et al. (1982). Hambrick et al. found that the "dogs" in their study generated positive cash flows. Swanson and Digman attributed the conflicting results to the different cut off points that were used to classify companies into high or low market share groups by the different groups of researchers.

Furthermore, while the portfolio models address the issue of investment decisions by organizations, they fail to adequately explain how an organization should integrate its activities in order to optimize its resources (Herbert & Deresky, 1987). Organizations are concerned about both issues (i.e. investment patterns and integration) in order to determine how to compete in a given business or industry (Hofer and Schendel, 1978; Hofer et al., 1980). Finally, the adequacy of the portfolio models to capture the essence of strategy in organizations that use the portfolio approach has been called into question by such writers as Bettis and Hall (1981), Christensen, Cooper, and de Kluyver (1982), Coate (1983), Day (1977), Fruhan (1972), Haspeslagh (1982), and Kiechel (1982).

Coate (1983) identified the following limitations in using the portfolio models: (1) defining business units is a lot more complex than these models suggest (Haspeslagh, 1982); (2) these models are strenuous and consume excessive amounts of time when used; and (3) the validity of the recommended strategies by these models are questionable. Finally, Porter (1985) in a study of 33 major companies concluded that portfolio models are inadequate to the task of corporate strategy. As a result, other generic strategies typologies have been developed.

Product/Market Evolution Typologies

The next generation of generic strategies typologies are based on the product and/or market evolution stages. Basically, these product life cycle (PLC) based typologies claim that the product and/or market go(es) through certain stages from the inception of the product in the market place or introduction to the time that the product is eventually taken off the market or decline (e.g. Anderson & Zeithaml, 1984; Brockoff, 1967). Cox (1967), Day (1981), de Kluyver (1977), Field (1971), Hofer (1975), Kotler (1965), Levitt (1965), MacKenzie (1971a & b), Patton (1959), Polli and Cook (1969), Rink and Swan (1979) and Scheuing (1969) claim that the duration of the stages or life cycles cannot be predetermined.

The PLC concept is well documented in the management literature and is supported by some empirical research (e.g. Anderson & Zeithaml, 1984; Cox, Jr., 1967; de Kluyver, 1977).

Anderson & Zeithaml, 1984; Cox, Jr., 1967; de Kluyver, 1977). The PLC describes the evolution of a product over time, as measured by its sales or percent saturation. The PLC typologies typically have four stages: introduction, growth, maturity, and decline (e.g. Polli & Cook, 1969). Fox's (1973) typology included an additional stage, which preceded the introduction stage, that he referred to as the precommercialization stage. James (1974) also included a stage that he referred to as the regeneration stage—which is similar to Michael's (1971) product petrification stage—prior to the decline stage. According to Fox (1973), there are three interdependent dimensions that are of significance in properly using PLC-based typologies: (1) the length or duration of each of the cycles, (2) the subdivisions within each cycle, and (3) the type as well as the definition of the product.

Each stage of the PLC has a recommended functional focus. For example, Fox recommends that the organization focus on production during the growth phase of the PLC. At each stage of the cycles, there are also recommended operational focus on other important variables like research and development, production, marketing, finance, management accounting, personnel, and physical distribution. In addition, there are prescriptions as to what the focus of the organization should be with respect to customers and competitors, depending on the strategic orientation of the organization and the stage of the PLC that the product is

presently situated.

During the introduction stage (Table 2), sales volume is growing slowly, and initial resource outlays for product and market development usually result in the organization operating at a loss. Hay and Ginter (1979) and Hofer (1975) recommend strategies that: (1) focus on the needs of the buyers; (2) increase buyers purchase frequency; (3) emphasize informative advertising; and (4) encourage product development.

The growth stage is characterized by a booming sales level. The sales level at first increases at an increasing rate, then it continues to increase at a decreasing rate. Competitors enter the market at this stage because of the substantial profit potential that they envisage. Hay and Ginter (1979), Hambrick et al. (1982), MacMillan, Hambrick, and Day (1982), and Rumelt (1979) recommend strategies that focus on: (1) efficiency in production and marketing; (2) strategic segmentation; (3) product modification and/or improvement; (4) modern technology in manufacturing; (5) intensive physical distribution; and (6) advertising aimed at achieving a certain degree of product differentiation.

At the maturity stage of the PLC, the rate of growth is decreasing rapidly as the product reaches its saturation point, price competition intensifies, and more services are offered. Buzzell and Wiersema (1981), Hall (1980), Hambrick et al. (1982), Hammermesh, Anderson, and Harris (1978), Hammermesh and Silk

TABLE 2

STAGES IN THE PRODUCT LIFE CYCLE
(SUMMARY TABLE)

STAGE	NAME	FUNCTIONAL FOCUS
1	Precommercialization	Coordination of R&D and other functions
2	Introduction	Engineering: debugging in R&D production and field
3	Growth	Production
4	Maturity	Marketing and Logistics
5	Regeneration	Recommercialization and Reintroduction
6	Decline	Finance

(1979), Hay and Ginter (1979), Hofer (1975), Luck and Prell (1968), and MacMillan et al. (1982) recommend strategies that focus on: (1) further product differentiation and/or market segmentation; (2) increased efficiency in operations or overall cost reduction in production, marketing, and distribution; and (3) highly differentiated product/service/quality relative to the rest of the industry.

The decline stage is characterized by an accelerated decrease in sales volume and the introduction of substitute products or entry into new markets. The patterns of product decline vary, therefore, alternative strategies may be pursued for products in the decline phase (e.g. Michael 1970). Harrigan (1979), Hay and Ginter (1979), and Hofer (1975), among others, recommend the following strategies: reduce advertising expenditures, use only marginal plant size, discontinue the product, and reintroduce a "new and improved version" of the product.

The PLC and PLC-based typologies have received some attention in the literature which, reinforces the importance of the stage of the product life cycle to organizations' strategic orientations (e.g. Anderson & Zeithaml, 1984). These strategic postures are based primarily on the sales or demand patterns for the products of these organizations. Consequently, for the PLC and PLC-based typologies, the appropriate strategy is dictated by forces in the organization's external environment. In an

integrative frame work, this dependence on an external environmental factor (i.e. sales or demand patterns) is in agreement with one of the important determinants of positioning in the quadrants of the portfolio models, like the industry's attractiveness dimension.

Investment Typologies

The Investment typologies were developed around the same time as the PLC-based typologies. The major Investment typologies include those of Buzzell, Gale, and Sultan (1975) and Hofer and Schendel (1978).

Hofer and Schendel's Typology. Hofer and Schendel's (1978) typology suggests the possibility of six strategy types: share increasing, growth, profit, market concentration and asset reduction, turnaround, and liquidation strategies. The share increasing strategy (Table 3) is appropriate for the organization that seeks to improve its market share through increased investment expenditures. The growth strategy is for the organization that seeks to maintain its share position in an expanding market. If the growth strategy is to be pursued, then the organization should make investment outlays at the industry norm level. Like the growth strategy, the profit strategy also calls for investment expenditures to be made at the industry norm level. In addition, the organization institutes cost control measures to "throw off cash". The market concentration and asset

TABLE 3

SUMMARY OF HOFER AND SCENDEL'S TYPOLOGY

STRATEGY	FOCUS AND INVESTMENT DIRECTION
Share Increasing	Invest highly to improve market share
Growth	Invest at industry norm to maintain market share position
Profit	Invest at industry norm and institute cost control measures to increase cash flow
Market Concentration	Invest in narrowly defined product line or market
Asset Reduction	Invest in narrowly defined product line or market
Turnaround	Improve strategic posture from loser to winner by sizing down operations and investing very selectively
Liquidation	Seek to withdraw product/from market Squeeze all cash out Absolutely no additional investment

reduction strategy is recommended for the organization that wants a realignment of its resources to focused and smaller market segments. Consequently, the organization will focus on a narrowly defined product line and/or market. To improve its strategic posture from that of a loser to a winner, an organization will pursue the turnaround strategy. This may mean that the organization will make some well thought out investments, but sizing down its operations to a manageable and profitable level is the goal of pursuing a turnaround strategy. The liquidation strategy is appropriate for the organization that seeks to withdraw from a market. This means that no additional investment will be made, but the organization must try to squeeze as much cash as possible out of its dying operation.

In conclusion, Hofer and Schendel's typology describes generic strategies primarily on the basis of the organization's desired market share. Therefore, the organization's investment patterns (i.e. aggressive or selective) are dictated by the desire to maintain, acquire, or reduce market share. In terms of integration, Hofer and Schendel's typology highlights the importance of two of the factors in the portfolio models -- market share and investment. The apparent weakness of Hofer and Schendel's typology is perhaps its lack of empirical support in the literature.

Buzzell, Gale, and Sultan's typology. The Buzzell et al.'s (1975) typology suggests the possibility of three strategy types:

build, hold, and harvest. The build strategy (Table 4) is similar to Hofer and Schendel's (1978) share increasing strategy and calls for high investment to increase market share. The hold strategy is similar to Hofer and Schendel's growth or profit strategies and recommends that the organization invest at the industry norm level to maintain market share. The harvest strategy means that the organization will make minimal investment expenditures, allow its market share to decrease, and control costs with the goal of generating cashflow and experiencing profitability in the process.

Unlike the PLC-based typologies, the investment typologies focus on the organization's internal resources. In effect, these typologies suggest that the strategic postures of organizations are reflected primarily in their investment decisions. Therefore, strategies are described by the investment choices that are made by organizations, which is comparable to suggesting that organizations should "put their money where their mouths are". In the integrative scheme of things, the investment typologies highlight the positive relationship between investment expenditures and market share. For one reason or another, the investment typologies have not received much attention in the management literature.

Competitive Typologies

Competitive typologies were developed after the PLC-based

TABLE 4

SUMMARY OF BUZZELL, GALE, AND SULTAN'S TYPOLOGY

STRATEGY	FOCUS AND INVESTMENT DIRECTION
Build	Invest highly to improve market share
Hold	Invest at industry norm to maintain market share position
Harvest	Minimal investment expenditures

typologies. The typologies proposed by Wissema, Van de Pol, and Messer (1980) and Porter (1980) are representative of those in this category.

Wissema, Van de Pol, and Messer's Typology. The Wissema et al.'s (1980) typology basically has six types of generic strategies. The explosion strategy (Table 5) is appropriate when the organization's objective is to strongly improve its competitive position in a very short time period. Basically, the explosion strategy is for entering new product markets, marketing the product of an acquired organization, or "dumping from excess production capacity elsewhere".

The expansion strategy (like the explosion strategy) is geared towards improving the organization's competitive position but over a longer time period. This strategy calls for the organization to expand its production capacity. In order for this strategy to be successfully pursued, the organization must have good planning capabilities and the ability to deal with high levels of risk.

The continuous growth strategy is recommended when the organization seeks to maintain its competitive position in a growing industry. Additional and timely investments are necessary in order for the organization not lose ground to its competitors but, excessive over-capacity must be avoided.

The slip strategy is appropriate for the organization that for one reason or another seeks not to maintain its competitive

TABLE 5

SUMMARY OF WISSEMA, VAN DE POL, AND MESSER'S TYPOLOGY

STRATEGY	OBJECTIVES
Explosion	Strongly improve competitive position over a very short time period
Expansion	Strongly improve competitive position over a longer period of time
Continuous Growth	Maintain competitive position
Slip	Seek NOT to maintain competitive position in a growing industry
Consolidation	Use in saturated or diminishing markets. Requires cost efficiency to milk all the revenues available
Contraction	Use in negative growth markets with an eye toward closure or sale of product

position in a growing industry. With this strategy, the organization's market share declines as no additional financial outlays are made with regard to such important factors as investment, capacity, and promotional activities. Eventually, the organization will exit from the product market for which a slip strategy is pursued.

The consolidation strategy is appropriate for markets that are either saturated or diminishing but not yet extinct. While a minimal amount of growth to match population increases and prosperity is desirable, opening up of new markets is not recommended. Because of the nature of saturated markets, consolidation strategy "... requires above all, therefore, dexterity, adaptability over the short term and artistry in arriving continuously in the market with cost-saving initiatives, with few resources." (Wissema et al., 1980, p. 44). The contraction strategy is used for negative growth markets where there is a discontinuation or sale of the product.

The Wissema et al.'s typology has not received empirical support in the management literature. A unique contribution of this typology is the introduction of a time frame (i.e. short or long time period) to strategy characteristics. Therefore, the descriptions of strategies differ primarily because of the differences in time duration within which the organization seeks to achieve its goal. Finally, the Wissema et al.'s typology also highlights the importance of certain factors in the external

environment (e.g. competitors) to strategy descriptions and strategy choice.

Porter's Typology. Another competitive typology is that of Porter's (1980). The basic premise of Porter's typology is that the nature and degree of competition that confronts an organization should determine its appropriate strategic posture. In formulating strategy, Porter suggests that the following factors be taken into consideration:

- (1) the competitive rivalry among existing firms--deals with such factors as promotional battles, new product introductions, and the like that managers use with the intent of improving their organization's competitive position in the industry.
- (2) the threat of substitute products or services from potential competitors--dictates to some extent the price that the organization can charge for its products or services. If consumers perceive the price of a certain product/service to be high, they are liable to opt for a less expensive substitute.
- (3) the bargaining power of customers in the industry--can result in lower profitability margin for the organization as they (the buyers) play one competitor against the other. They can also use their bargaining power to demand lower prices and higher quality for the product or service.

- (4) the threat of new entrants into the industry--depends on how substantial the barriers to potential entrants to the industry are, and the type of response that these entrants can expect from existing competitors. This threat of entry can in some cases dictate the ceiling price for the product or service.
- (5) the bargaining power of suppliers in the industry-- which may and very often include labor unions can lead to increases in the price of materials, and/or lower the materials' quality. Consequently, powerful suppliers can in certain cases reduce the profitability margins of competing organizations.

Porter claims that once management has determined the importance and relevance of each of these factors to their particular industry, they can then select from one of three strategy types. The overall cost leadership strategy (Table 6) is appropriate for the organization that has the following characteristics: a high market share, easy access to raw materials, products designed for ease of manufacturing, and a wide range of related products or services. The overall cost leadership strategy calls for manufacturing efficiency, cost reduction (through minimal research and development, sales, service, and promotional expenditures), avoidance of marginal customer accounts, and operational and overhead cost control. Ultimately, the pursuance of this strategy should result in an

TABLE 6

SUMMARY OF PORTER'S TYPOLOGY

TYPE	COMMONLY REQUIRED SKILLS & RESOURCES	COMMON ORGANIZATIONAL REQUIREMENTS
Overall Cost Leader- ship	Sustained capital investment and access to capital Process engineering skills Intense supervision of labor Products designed for ease in manufacture Low-cost distribution system	Tight cost control Frequent, detailed reports Structured organization & responsibilities Incentives based on meeting strict quantitative targets
Diffe- renti- ation	Strong marketing abilities Product engineering Creative flair Strong capability in basic research Corporate reputation for quality or technological leadership Long tradition in the industry or unique combination of skills drawn from other businesses	Strong coordination among functions in R&D, product development, & marketing Subjective measurement and incentives instead of quantitative measures Amenities to attract highly skilled labor, scientists, or creative people
Focus	Combination of the above policies directed at the particular strategic target	Combination of the above policies directed at the regular strategic target

Adapted from Aldag and Stearns (1987)

efficient and low-cost organization. The primary tools of competition are efficiency and product/service price.

The differentiation strategy "... is successful through emphasis on strong marketing abilities, creative product engineering, strong commitment to research and development, a reputation for quality or technological leadership, and a long tradition in the industry for having highly skilled employees" (Aldag & Stearns, 1987, p. 232). Unlike the overall cost leadership strategy, cost and market share are only of secondary importance to the organization that pursues a differentiation strategy. With the differentiation strategy, the organization seeks to distinguish its product from those of its competitors by highlighting its unique features and overall superiority. This differentiation then makes it possible for the organization to charge a premium price for its product.

For the organization that finds the overall cost leadership or differentiation strategy unsuitable or inappropriate, there is the focus strategy to serve a narrowly defined market segment. This strategy is recommended for the organization that wants to focus on serving a particular customer group, has a narrow product line, and/or wants to serve a specific geographical market. Depending on which of these two alternative strategies (i.e. overall cost leadership or differentiation) the organization finds more appropriate, it can then focus that strategy on its "niche".

In general, and except for Porter's typology, the competitive typologies have not received any attention in the literature. The competitive typologies reinforce the importance of the external environment to strategy choice as suggested by the portfolio models. Specifically, these typologies focus on the "competitors" in the external environment. Consequently, the appropriate strategy for the organization that uses the "competitive typologies' approach" is dictated by its desired competitive positioning within its industry. In the integrative scheme of things, the competitive typologies highlight the importance of competitors and competitive positioning to describing generic strategies. Because organizational success depends on both internal (e.g. investment outlays) and external factors (e.g. competitors), none of the typologies described so far (because of their emphasis on one factor or another) is independently adequate to describe strategy types. Perhaps, if the characteristics of the models and typologies that have been discussed so far could be combined in a meaningful way, it could be possible to develop more comprehensive typologies. Some theorists and researchers (e.g. Herbert & Deresky, 1987) have proposed more comprehensive typologies that are based on the synthesis of the earlier models and typologies. The following section includes a discussion of some of these contemporary typologies.

Adaptive Typologies

The contemporary generic strategy typologies are usually called "adaptive" or "adaptation" models (Aldag & Stearns, 1987). The major models include those of Miles and Snow (1978), Galbraith and Schendel (1983), and Herbert and Deresky (1987).

Miles and Snow's Typology. The Miles and Snow's (1978) typology (Table 7) is based on the field study of four (i.e. college textbook publishing, electronics, food processing, and health care) industries. They were able to identify four types of generic strategies: defender, prospector, analyzer, and reactor. The defender strategy is appropriate when management seeks or creates a stable environment. In this situation, the organization is forced to concentrate its efforts on some niches within its industry, because it (i.e. the organization) engages in little or no product/market development. Therefore, the organization that pursues a defender strategy would compete primary on the basis of price, quality, and/or service.

The prospector is opposite to the defender strategy. The prospector strategy is considered to be most appropriate in: (1) an unstable environment where there is rapid change, and (2) a market with a high rate of growth. Management's main focus is on locating and exploiting new product/market opportunities. Consequently, an innovative organizational setting is created, and a broad and general definition of the environment is used, in order for the organization to better diversify its operations.

TABLE 7

SUMMARY OF MILES AND SNOW'S TYPOLOGY

STRATEGY TYPES				
PROBLEMS	Defender	Prospector	Analyzer	Reactor
Entrepre- neurial	Stable Environment	Unstable Environment	Stable & Unstable Environ.	Reformulate Organization Mission
Engi- neering	Routine & Flexible Production Method	Flexible & Innovative Production Method	Routine, Efficient, & Flexible Production Method	Reformulate Method of Production
Adminis- trative	Tight control of decision & activity	Loose control of decisions & activities	Tight control of older lines Loose control of new lines	Reformulate organization structure

Adapted from Miles and Snow (1978)

The development and proliferation of new markets is the primary means of competition for an organization that pursues the prospector strategy.

The analyzer strategy is a combination of the prospector and defender strategies. Fewer and slower product changes than the prospector strategy are made, and efficiency is not as strictly pursued as will be required for a defender strategy. The analyzer consistently identifies two areas of activity for the organization--a stable environment for using its defender strategy, and a changing environment for its prospector strategy. The most important concern for an organization that pursues the analyzer strategy is the challenging balance that is required to effectively manage its subunits that pursue different strategies. The primary tools of competition for each of the subunits also depend on the particular strategy (i.e. prospector or defender) that is pursued.

The reactor strategy is considered to have been pursued by an organization that is experiencing strategic difficulties as a result of some wrong decisions and choices that the organization has made. Specifically, a reactor strategy can result from the fact that the chosen strategy: (1) does not fit with the organization's structure and/or processes; (2) has not been clearly communicated; and/or (3) is no longer appropriate in light of the new environmental conditions that are confronting the organization. Therefore, an organization that pursues a

reactor strategy will need to reformulate its strategy, reformulate its organization's mission, and/or reformulate its structure and processes.

The Miles and Snow's typology has been used for research in the management literature (e.g. Hambrick, 1983b; Kohl, 1984). Perhaps, the main contribution of the Miles and Snow's typology (based on empirical research) is the congruence that exists between strategy and environment. Ironically, Miles and Snow claim that either the prospector or defender strategy could be successful in any environment (i.e. it all depends on strategy implementation). However, Zajac and Shortell (1989) found that organizations do not perceive generic strategies to be equally effective in different environments; that organizations change from defender to prospector strategy as the environment becomes more dynamic, unstable, or unpredictable.

Galbraith and Schendel's Typology. Galbraith and Schendel's (1983) strategy typology consists of two main parts: one typology is for consumer products, and the other is for industrial products. Unlike some of the other strategy typologies, Galbraith and Schendel's typology was developed from empirical data. They used a particular segment of the Profit Impact on Marketing Strategy (PIMS) research data base called SPIYR as the data source for their analyses. Using principal component and cluster analyses, they were able to identify six strategy types for consumer variables and four strategy types for industrial

products.

The consumer goods strategy types are harvest, builder, continuity, climber, niche, and cashout. The harvest strategy (Table 8) is a strategy of disinvestment. Therefore, organizations that pursue this strategy usually have weak competitive positions within their industries. Additionally, the pursuance of this strategy frequently means that the organization's promotional and research and development expenditures are insufficient to adequately compete with the other organizations. It is an indication that the product is in a phaseout mode wherever the harvest strategy is pursued. Usually, an organization will sell most (if not all) of its assets whenever a product or business is in a phaseout mode. Galbraith and Schendel's harvest strategy is similar to Vesper's (1979) liquidation strategy.

The builder strategy is recommended for the organization that seeks to rapidly expand its sales and/or improve its market share position. The organization that pursues this strategy needs to cultivate high visibility for its product, be active in product development, and successfully differentiate its product. Therefore, a high level of commitment to promotional and investment expenditures is required. The builder strategy is similar to Utterback and Abernathy's (1975) sales maximization strategy or Buzzell et al.'s (1975) build strategy.

The main goal of the continuity strategy can best be

TABLE 8

SUMMARY OF GALBRAITH AND SCHENDEL'S TYPOLOGY
CONSUMER GOODS CLASSIFICATION SCHEME

STRATEGY	FOCUS & OBJECTIVES
Harvest	Organization has weak competitive position and seeks disinvestment Inadequate promotional and R & D expenditures
Builder	Organization seeks rapid expansion of sales &/or improve market share Product differentiation is crucial to success High levels of promotional and investment expenditures
Continuity	Adhere to industry norms Promotional and investment expenditures are at competitors' levels The strategy of most organizations
Climber	Organization desires to improve its competitive position Initially appears to be noncompetitive but is competitive eventually if successfully implemented
Niche	Is a strategy of specialization Emphasizes product quality or service High R & D expenditures Promotional expenditures may be below industry norm
Cashout	Second most often used strategy Cost advantages over competitors are emphasized Expenditures on investment, and R & D are not emphasized

summarized as "keeping up with the Jones'". Galbraith and Schendel found this type of strategy to be the most commonly pursued by consumer goods' organizations. The organization that pursues a continuity strategy essentially: (1) adheres to industry norms with regard to such factors as promotional and investment expenditures, or (2) reacts in like manner to competitors' strategies.

The organization that wants to improve its competitive position within its industry will need to pursue a climber strategy. While organizations that pursue this strategy seem to have high cost, low prices, narrowly defined product lines, and low quality products initially, in the long run, they appear to be competitive in promotional, pricing, research and development, and new product development activities.

The pursuance of the niche strategy requires specialization. This strategy emphasizes product quality or service, and while it may initially be a high cost strategy, the tendency is for the organization to become more cost competitive. Additionally, the organization incurs significant expenditures on research and development, and new product introductions, even though its promotional outlays may be somewhat inadequate. Utterback and Abernathy's (1975) performance maximizing and Vesper's (1979) specialization strategy types are similar to the niche strategy.

The second most often used strategy by Consumer Products

businesses--based upon Galbraith and Schendel's findings--is the cashout strategy. Organizations that pursue this strategy do not emphasize investment, research and development or new product development, rather, they seek cost advantages over their competitors. Furthermore, these organizations usually have high outlays for promotional expenditures.

The strategy types for Industrial Products include: low commitment, maintenance, growth, and niche. The low commitment strategy (Table 9) is equivalent to the harvest strategy, while the maintenance strategy is similar to the combination of the continuity and cashout strategies of the consumer goods classification. The growth strategy though similar to the builder strategy for consumer goods classification, calls for a higher level of price competition. Finally, the niche strategy for the industrial product classification is exactly the same as for the consumer goods classification.

Galbraith and Schendel's typology has a fairly comprehensive description for each strategy because it is based on important organizational factors like investments, competitors, research and development (etc). One apparent weakness of the Galbraith and Schendel's typology is that it has not yet received empirical support in the management literature.

Herbert and Deresky's Typology. Another adaptive typology is that of Herbert and Deresky's (1987). They claim to have reviewed, synthesized, and categorized what they considered to be

TABLE 9

SUMMARY OF GALBRAITH AND SCHENDEL'S TYPOLOGY
INDUSTRIAL GOODS CLASSIFICATION SCHEME

STRATEGY	FOCUS & OBJECTIVES
Low Commitment	Organization has weak competitive position and seeks disinvestment Inadequate promotional and R & D expenditures
Growth	Higher price competition than consumer goods Organization seeks rapid expansion of sales &/or improve market share Product differentiation is crucial to success High levels of promotional and investment expenditures
Maintenance	Adhere to industry norms Promotional and investment expenditures are at competitors' levels Cost advantages over competitors are emphasized
Niche	Is a strategy of specialization Emphasizes product quality or service High R & D expenditures Promotional expenditures may be below industry norm

the major and most representative typologies of strategy. Their review and synthesis of the literature led to a typology that "... encompasses/explains major and common types of generic strategies and their characteristics" (Herbert & Deresky, 1987, p. 138). Herbert and Deresky contend that their typology is more complete and valid, because it was based on observed commonalities that exist in the generic strategy typologies and models typically found in the management literature (i.e. the portfolio models, product/market evolution typology, Galbraith and Schendel's typology, and Miles and Snow's). They also claim that their typology is comprehensive enough to capture, accurately identify, and test the different types of strategies in the literature. Herbert and Deresky identified four types of generic strategies: develop, stabilize, turnaround, and harvest.

Herbert and Deresky found the develop strategy (Table 10) to be most appropriate for organizations that: (1) are just starting out, (2) seek to enter new markets, or (3) find themselves in industries with volatile technology and/or products. These organizations emphasize innovation, even though most of their research and development is likely to be purchased or contracted from the outside. The focus of this strategy is on the location and exploitation of new product and market opportunities. Therefore, marketing and research and development are crucial to the success of organizations pursuing a develop strategy. The pursuance of this strategy also requires: (1) a constant

TABLE 10

SUMMARY OF HERBERT AND DERESKY'S TYPOLOGY

STRATEGY	FOCUS OF STRATEGY
Develop	Location and exploitation of new product and/or market opportunities Emphasizes marketing and R&D Intensive pursuit of market share Innovative and entrepreneurial behavior
Stabilize	Maintain competitive position Efficient utilization of assets Focus on particular market/product Use strict cost control measures Develop a distinctive competence
Turnaround	Rebuild the organization Stop the 'bleeding' Cost and efficiency controls are immediately instituted Sizing down of operations Do something drastic e.g. reorganize
Harvest	Wind down, 'milk', and divest Cost and asset reduction Intensive pruning of products/markets Emphasizes immediate profits Look for opportunity to sell product Could be the aftermath of an unsuccessful turnaround strategy

monitoring of the relevant environment, (2) high investment outlays for the development and introduction of new products and/or processes, (3) an active effort to develop existing or potential markets, (4) the intensive pursuit of market share, (5) the willingness and ability to change operations or technology, (6) an entrepreneurial/risk-taking behavior, and (7) the desire and drive to competitively pursue new opportunities. The main objective of an organization that pursues a develop strategy is long term growth and earnings.

Herbert and Deresky concluded that organizations in mature, stable industries typically pursue stabilize strategy. The main objective of this strategy is the maintenance of the organization's competitive position through the efficient use of its assets, and/or a focus on particular market segment. The effectiveness of this strategy depends on: (1) defending brands by using strict cost control measures (in order to increase profitability through the production of a limited number of products), (2) emphasizing efficiency of standardized operations, and (3) the organization's ability to acquire a technical production leadership position. Alternatively, competitive position can be maintained by finding and focusing on a niche in the marketplace that is difficult for existing or potential competitors to penetrate. Consequently, "profitability is maintained in a mature market with either a 'cost leadership' approach to stable and technical market conditions, and/or

pursuing market advantage through product specialization/high quality product/distinctive service, etc." (Herbert & Deresky, 1987, p. 143). Finally, the pursuance of this strategy necessitates capital reinvestment because a prerequisite for successful product specialization or production efficiency is modern technological processes.

The turnaround strategy is a rebuilding strategy. One of the immediate goals of the organization that needs a turnaround strategy is to "stop the bleeding". Consequently, the organization needs to institute cost and efficiency controls to generate short-term cash to make the organization viable. For the business that is worth saving, the organization may need to use one or a combination of the following measures: change leadership, reorganize, diversify and/or expand, acquire or merge with other businesses, and scale down operations by discontinuing unprofitable businesses.

The final strategy classification in Herbert and Deresky (1987) typology is the harvest strategy. In Herbert and Deresky's words, "The basic strategy for this organization or unit is to wind down, 'milk', and divest; to disinvest while retaining interim operational viability in order to generate at least minimum returns toward such financial targets as cash flow or ROA, and to attract buyers. Immediate or eventual divestiture (sale as an ongoing unit) or liquidation (of some or all assets) is contemplated. Immediate divestiture might be sought after an

unsuccessful turnaround effort has failed to generate operational or strategic vitality; divestiture may also be sought because of recognition of long-term industry-structural/competitive inevitabilities. In either case, operational efficiency is emphasized, with intensive pruning of less profitable market lines/markets, cost and asset reduction, etc.; emphasis is on the short run. Market share is sacrificed in favor of cashflow or immediate profits; strengths are capitalized on and the business continued only so long as the SBU's products or services are needed for other vital company operations" (Herbert & Deresky, 1987, p. 144).

While the Herbert and Deresky's typology is not the only basis for classifying generic strategies in this study, it does appear—at least intuitively—to be more comprehensive because it was based on a synthesis of the other major typologies. In fact, this typology, because it was based on the review and synthesis of these other typologies could be considered to be the most comprehensive work to date in this area. These claims are argumentative, however, because Herbert and Deresky's synthesis was not empirically derived, and their typology has only been reportedly used once for management research purposes (Herbert & Deresky, 1987b).

Summary of Models and Typologies

One of the strengths of the adaptive typologies is their

attempt to integrate and synthesize the simpler models and typologies--like the investment or competitive typologies. Additionally, research work is continually being undertaken to make these typologies better. For example, Segev (1989) attempted to synthesize the Miles and Snow's and Porter's typologies to achieve more parsimony and completeness. The main weaknesses of the adaptive, as well as the other models and typologies is that most of them are interchangeable. It appears that nothing substantially new is added to the strategy descriptions except for a new name for each of the strategies. Consequently, the generic strategies typologies literature appears to be a semantic jungle. In fact, Mintzberg (1990) identified the generic strategies literature as one that lacks an integrative focus.

Overall, the models and typologies that have been discussed (Table 11) basically suggest that organizations can pursue one of four strategies: two for strategic success (or positioning) and the other two for organizations that are experiencing strategic difficulties. The strategy typology that is used in this research study is based on a conceptual synthesis of the models and typologies that have been discussed so far. These four strategies are generically named Type I, II, III, and IV. This is done to avoid giving one typology or model more prominence over another.

Type I strategies are represented by organizations that: (1)

TABLE 11

SUMMARY OF ALL MODELS AND TYPOLOGIES

TYPE	MODEL OR TYPOLOGY				
	BCG/CPM/GE	PLC & PLC-BASED	INVESTMENT	COMPETITIVE	ADAPTIVE
I	Invest for Growth	Pre-commercialization, Introduction, Growth	Build	Expansion or Explosion	Develop
II	Hold	Maturity	Hold	Continuous Growth	Stabilize
III	Selective Investment	Regeneration	Turnaround		Turn-around
IV	Harvest/Divest	Decline/Petrification	Harvest	Consolidate Contraction Slip	Harvest

continuously seek growth as their main objective, (2) encourage creativity and innovation, (3) are always looking for opportunities to sell their products to new groups of people, (4) are constantly monitoring the environment for new opportunities to tap into, (5) are not afraid to take risks, (6) place little emphasis on the short run, because, they are only concerned about the long term viability of their organizations, and (7) are flexible in their operations. Type I strategy has been referred to by other researchers as "develop", "growth", or "expansion".

Type II strategies are represented by organizations that: (1) like their present economic situation and seek to maintain it, (2) have identified a specific market to serve, (3) have good cost control measures, (4) are efficient in their operations, and (5) 'doing what they do best'. The main objective of organizations pursuing Type II strategies is to 'hold their own'. This strategy has been referred to by others as "stabilize", "hold", or "niche".

Types III and IV strategies are pursued by organizations with strategic difficulties. Basically, Type III strategy is typical of an organization that has been operating unprofitably for some time (e.g. the last 5years) and desires to reverse its 'lack of fortune'. An organization pursuing a Type III strategy will usually emphasize better budgeting and controlling, cut back on operations through the sale and reduction of assets, and will very often replace its chief executive officer. Type III

strategy is often referred to in the management literature as "turnaround" or "regeneration". Finally, Type IV strategy is pursued by an organization that seeks to terminate its existence. To achieve this goal, the organization will sell everything it owns including its building (if it owns one). Type IV strategy is often referred to in the management literature as "harvest" or "decline".

In conclusion, the descriptions that have been outlined in the preceding paragraphs for strategy types I to IV is the premise for classifying generic strategies in this study. In addition, the performance implications of strategy within environmental and leadership contexts appears to be an important area of research that is investigated in this study. Finally, the performance implications of the internally consistent or congruent relationships between strategy and leader attributes in a given environment are also explored.

Environmental Uncertainty

The environment has been an important variable in organizational research studies (e.g. Duncan, 1972; Grinyer, Yasai-Ardekani, & Al-Bazzaz, 1980; Hirsch, 1975; Jauch, Osborn, & Glueck, 1980; Lenz, 1980; Pfeffer, 1976; Pfeffer & Salancik, 1978; McWhinney, 1968; Miller, 1987; Organ, 1971; Osborn & Hunt, 1974; Prescott, 1986). While most of these studies have focused

on for-profit organizations, a few studies have also shown that the environment is important to the performances of not-for-profit organizations (Kohl, 1984; Odom & Boxx, 1988). In general then, the environment is considered in the management literature to be important to the effectiveness and survival of organizations (e.g. Anderson & Paine, 1975; Barnard, 1938; Dess & Beard, 1984; Dill, 1958; Emery & Trist, 1965; Katz & Kahn, 1966; Prescott, 1986; Terreberry, 1968).

In the early years, strategic management researchers considered the external environment of organizations to be deterministic or given (as suggested by the works of Burns & Stalker, 1961; Duncan, 1972; Lawrence & Lorsch, 1967; and Neghandi & Reimann, 1973). Therefore, the environment was considered to be a variable that the organization had very little control over. In other words, the environment was seen as affording the organization some opportunities that can be taken advantage of, as well as some threats that the organization needed to be cognizant of, if it was to survive. Consequently, the effectiveness of an organization depended in part on how well the environment was correctly perceived and interpreted. Furthermore, these early researchers claimed that the environment dictated the types of strategies, structures, and processes that would enhance organizational performance (Khandwalla, 1977; Verbrugge & Goldstein, 1978; Verbrugge & Shick, 1976; Verbrugge, Shick, & Thygerson, 1975).

Recent theory and research have produced a reconceptualization of the environment (Aldrich, 1979; Bourgeois, 1980; Galbraith, 1977; Kotter, 1979; Miles & Snow, 1978; Pfeffer, 1978; Pfeffer & Salancik, 1978; Porter, 1979, 1980). The contemporary view of the environment in the strategic management area is more proactive and opportunistic (Bourgeois, 1980; Child, 1972; Hatten, Schendel, & Cooper, 1978; Mintzberg, 1972; Zeithaml & Zeithaml, 1984). In recent years, the extent of the relationship between environmental perception and organizational performance has been of interest to researchers (e.g. Aldrich, 1979; Prescott, 1986). Another area of important research examines environmental uncertainty issues (e.g. Anderson & Paine, 1975).

The environment is a complex variable. Mintzberg (1979) enumerated that organizational environments can be characterized as stable, complex, diversified, or hostile. This researcher focuses on the stable aspect of the environment because Duncan's (1972) static-dynamic (or a proxy for low and high rate of change in environmental factors) dimension of environmental uncertainty has been found by researchers to account for more variance in the performance variables (e.g. Return On Investment) of organizations (Bourgeois, 1980). Generally, if environmental uncertainty is low, such an environment could be considered to be stable and/or predictable. Conversely, an unstable or unpredictable environment is typically high in uncertainty.

Basically, this researcher is interested in determining how important environmental uncertainty (or the rates of change in environmental factors) in conjunction with strategy and leader attributes are to organizational performance. The primary objective—which has been neglected to date in management research—is to identify the leader attributes and strategy types that are most effective in environments with different levels of uncertainty. For configuration theory-based research, the goal is to determine how the deviation from a congruence between leader attributes and strategy in a given environment affects organizational performance.

Leadership Issues

Leadership and Performance

It is often assumed in the management literature that leaders contribute substantially to the performances of their organizations. Empirical and theoretical studies have also been done to ascertain the importance of leaders to organizational performance (e.g. House & Baetz, 1979; Johns, 1983; Lieberman & O'Connor, 1972; Meindl & Ehrlich, 1987; Meindl, Ehrlich, & Dukerich, 1985; Pfeffer, 1977; Smith, Carson, & Alexander, 1984; and Weiner & Mahoney, 1981).

House and Baetz (1979), in their review of the literature on organizational leaders, concluded that leadership can account for

significant variations in organizational performance. The studies by Meyer (1975), Thomas (1988), and Weiner and Mahoney (1981) seem to support House and Baetz' conclusion. Conversely, Lieberman and O'Connor (1972), Salancik and Pfeffer (1977), and Pfeffer (1977) found that leadership does not account for much of the variances observed in the performances of the organizations that they studied. Therefore, while academicians have not always agreed on whether leaders are important determinants of organizational performance (e.g. Lieberman & O'Connor, 1972 versus Weiner & Mahoney, 1981), more recent studies support the position that effective leadership does make a difference in the performances of organizations (e.g. Thomas, 1988).

Specifically, Smith et al. (1984) investigated the importance of leadership to the performance of a not-for-profit organization. Using the salaries paid to fifty senior ministers of the Northeast Ohio (NEO) Conference of the United Methodist church over a twenty-year period, they concluded that a spectrum of effective and ineffective leadership existed within these organizations. They found support for one of their two hypotheses that effective leaders have an impact on organizational performance. One deficiency of the Smith et al.'s study is that they failed to identify the characteristics of effective leaders. In other words, there is no way of identifying these effective leaders based on demographic, or personality variables. For example, are effective leaders more

liberal in value orientation than the less effective leaders?
Consequently, this researcher will build upon Smith et al.'s work
by investigating attributes that delineate effective leadership.

Leader Attributes

Management theorists and researchers claim that certain
leader attributes may be used to distinguish high from low
performance organizations (e.g. Gupta & Govindarajan, 1984a).
Specifically, researchers have found that the: (1) value
orientation, (2) locus of control, and (3) style (i.e. people- or
task-orientation) of leaders have important implications for the
performance of organizations (e.g. Sturdivant et al., 1985).
These leader attributes are discussed below.

Value orientation. The values held by the leaders of
organizations have been found to influence the performances, as
well as the types of strategies that are formulated and/or
implemented by these organizations (e.g. Andrews, 1980; Peters &
Waterman, 1982; Selznick, 1957; Steiner, 1969; and Sturdivant,
Ginter, & Sawyer, 1985). As succinctly put by Andrews (1980, p.
105), "we must acknowledge ... that there is no way to divorce
the most sensible economic strategy for a company from the
personal values of those who make the choice". Learned,
Christensen, Andrews, and Guth (1965), Guth and Taiguri (1965),
Chamberlain (1973), and Porter (1980) also found personal values
to be important not only to strategy development and

implementation, but also to other organizational variables (e.g. culture or 'the way things are done around here').

To measure all the facets of the values held by the leaders of organizations--because of the complexity of this variable--is somewhat too ambitious for the present study, even though there is a need for such a study. Therefore, like Sturdivant et al. (1985), a more manageable study to deal with a narrower value orientation concept was designed. In this respect, the pervasive concept of values was narrowed down to measure the degree of conservatism or liberalism of these leaders (Thompson, 1967; Wilson, 1973). Wilson (1973, p. 260), in contrasting conservatism with liberalism stated that "a liberal attitude has the structure of preferring new things, change or innovation and the content of desiring that change be in an egalitarian and libertarian direction". At the other end of the spectrum, conservatism is defined as the preference for existing and traditional institutions, resistance to change, and the disposition toward being moderate and cautious. Furthermore, Wilson argued that because conservative leaders have a defensive stance (i.e. simplifying, controlling, and securing their environment), they impose order and rigid and simplistic rules upon the 'world'. Thus, leaders with conservative attitudes take steps to reduce conflict and anxiety.

Sturdivant et al.'s (1985) conservatism measure included "business affairs" and "human welfare" values components.

Business affairs values dealt with attitudes toward: (1) power and influence of corporation, (2) tax policies, (3) product quality standards, (4) environmental protection, and (5) deceptiveness in advertising. In addition, human welfare values focused on attitudes toward minorities, the 'welfare' program, and family and individual rights.

A continuous scale was used to capture a leader's value orientation in this study to facilitate the comparison of its results to that of earlier studies. Additionally, the use of this scale made this research study more manageable by making the leader's value orientation variable more parsimonious. It is possible that some accuracy might be sacrificed to achieve this parsimony.

Leadership style. Leadership style is defined in this study as the extent to which a leader is people and/or task oriented. Task oriented leaders are those with strong concerns about group's goals and the means to achieve them (Bass, 1981). These leaders are similarly referred to as production-oriented, production-emphasizing, goal-achieving, work-facilitative or goal emphasizing (Blake & Mouton, 1964; Bowers & Seashore, 1966; Cartwright & Zander, 1960; Fleishman, 1957; Katz, Maccoby, & Morse, 1950). Task oriented leaders also tend to be: (1) high in need for achievement, and (2) psychologically distant from their followers (e.g. Blau & Scott, 1962; McClelland, 1961; Wofford, 1970).

Leaders who have strong concerns about their group members' relations with them and with each other by creating a friendly and supportive atmosphere within the organization are said to be people-oriented (Katz et al., 1950). Such leaders are also commonly referred to as interaction-oriented, interaction-facilitative and supportive, concerned for people, people-centered, and concerned for group maintenance (Anderson, 1974; Bass, 1967; Blake & Mouton, 1964; Bowers & Seashore, 1966; Cartwright & Zander, 1960; McClelland, 1961; and Wofford, 1970). In justifying the task- or people- orientation dichotomy, Bass (1981) suggested that even though people- and task-orientation are components of democratic and autocratic leadership, their inter-correlations are not high and this may indicate that different attributes of an individual is actually being measured when the task- or people-orientation scales are used.

Task- or people-orientation has been the focus of many research studies (e.g. Bryman, Bresnen, Ford, Beardsworth, & Keil, 1987; Klebanoff, 1976; Life, 1986; Likert, 1955; Roberts, Miles, & Blankenship, 1968). Originally, the focus of some of these research studies was to determine if one orientation was always better than the other. Some researchers concluded that people-orientation led to higher levels of performance (e.g. Bryman et al., 1987; Roberts et al., 1968). Conversely, other researchers found that it was task-orientation that led to superior levels of performance (e.g. Dunteman & Bass, 1963; Mann,

Indik, & Vroom, 1963). More recently, it has been suggested that there are contingencies that determine if one orientation or the other, or both will be the most effective for different individual, contextual, and organizational variables (e.g. Bass, 1981). Therefore, the traditional contingency or interaction-based relationships of leadership style with strategy and environmental uncertainty are explored in this study. Furthermore, the performance implications of the congruence between leadership style, the other leader attributes, and strategy in an environmental uncertainty context--or configuration-based approach--are also studied.

Locus of Control. Another leader attribute that is potentially important for delineating effective leadership is locus of control. Locus of control deals with the issue of how much control an individual feels he/she has over the events that happen in his/her life. The one that believes that the events in his/her life are the result of circumstances beyond his/her control (i.e. these events are the result of fate, chance, luck, or destiny) will be classified as an 'external' or one with an external locus of control. On the other hand, an 'internal' or someone with an internal locus of control believes that the events in his/her life result from his/her behavior (Miller, Kets de Vries, & Toulouse, 1982; Rotter, 1966; and Trevino, 1986). Rotter (1966) is considered to have done the landmark work on the concept of locus of control.

Locus of control is an important variable to use in this study because it has been found to be related to organizational performance, as well as to individual variables such as work alienation, intentions to quit, job stress, and ability to deal with job demands (e.g. frustration). Locus of control has also been found to be related to job satisfaction, job involvement, commitment, turnover, and leadership style (e.g. Anderson & Schneier, 1978; Fusilier, Ganster, & Mayes, 1987; Govindarajan, 1988; Govindarajan, 1989; Hollenbeck, Brief, Whitener, & Pauli, 1988; Mia, 1987; Mitchell, 1975; Organ & Green, 1974; Seeman, 1967; Spector, 1988; Storms & Spector, 1987; and Wolfe, 1972). Some researchers have found: (1) externals to be more alienated from their work setting than internals (Mitchell, 1975; Seeman, 1967; Wolfe, 1972), (2) externals to be less satisfied with their jobs than internals (Blau, 1987; Organ & Green, 1974; Pryer & Distefano, 1971; Spector, 1988), (3) that leaders with internal locus of control and groups led by them are more likely to achieve higher levels of performance than external leaders or groups led by them (Anderson & Schneier, 1978; Arnold, 1985; Avila & Fern, 1986; Colwill, 1987; Govindarajan, 1988; Govindarajan, 1989; Hollenbeck, Brief, Whitener, & Pauli, 1988; and Miller & Toulouse, 1986 & 1986b); and (4) that internals appear to have fewer intentions of quitting, less tendency to turnover, greater influence at the work place, and more commitment (Luthans, Baack, & Taylor, 1987; Spector, 1988).

Researchers have also found that while externals are more likely to resort to the use of coercive power, internals are more likely to use more persuasive forms of power (e.g. Goodstadt & Hjelle, 1973; Mitchell, Smyser & Weed, 1975). Hendricks (1985), Licata, Strawser, and Welker (1986), Mitchell et al. (1975), Pryer and Distefano (1971), Runyon (1973), and Spector (1988) found that internals are more considerate supervisors and are more satisfied in a participative work environment. Locus of control has also been found to be related to entrepreneurial behavior. Begley and Boyd (1987), Bowen and Hisrich (1986), Brockhaus (1975), Durand and Shea (1974), Miller and Toulouse (1986), Shapero (1975) and Taylor (1985) found that internals are not only more activity oriented, but they are also more likely to possess entrepreneurial qualities (e.g. take risks). Overall, internals seem to have more favorable attitudes, less dysfunctional behaviors, and higher levels of performance on the job (Blau, 1985; Fusilier, Ganster, & Mayes, 1987; Mia, 1987; and Storms & Spector, 1987).

Contingency Theory

Traditional contingency theory generally suggests that the impact of one variable on another can only be understood within a particular context or situation (e.g. Hofer, 1975). For example, Schoonhoven (1986, p. 351) stated that "When contingency theorists asserts that there is a relationship between two

variables ... which predicts a third variable, ... they are stating that an interaction exists between the first two variables". Traditional contingency theory is one of the components of what has come to be known in the management literature as 'fit' theory. Recently, Venkatraman (1989) pointed out that fit or what could be considered contemporary contingency theory approaches can be tested along five dimensions (i.e. fit as moderation, fit as mediation, fit as matching, fit as gestalts, fit as profile deviation and fit as covariation). These dimensions are especially relevant when choosing the appropriate analytical technique for contemporary contingency-based research studies.

Traditionally, contingency theory-based studies have taken a univariate or bivariate orientation. Various studies have investigated the strategy-structure, strategy-environment, and structure-environment contingencies (e.g. Grinyer et al., 1980; Lawrence & Lorsch, 1967) to cite a few examples. Drazin and Van de Ven (1985) and Schoonhoven (1981) among others have pointed out the deficiencies of the traditional contingency approach. Specifically, its focus on pairwise interactions between variables--which is considered 'reductionistic'--has been suggested to raise more questions than it answers. Furthermore, pairwise interactions may be unable to uncover the overall patterns of internal consistency or congruence between variables. Therefore, some researchers have recently called for

multivariate contingency-based studies, because they might have greater performance explanatory power (Miller, 1988). In addition, multivariate studies are necessary in order to identify how the form and strength of various bivariate relationships may change in different contexts (Miller, 1978).

The call for multivariate contingency-based studies has led to the development of newer approaches for examining fit among variables. These approaches emphasize a more holistic understanding of fit. The most common of these newer approaches is configuration-based studies (e.g. Venkatraman & Prescott, 1990). Most of the configuration studies to date have concentrated solely on strategy-structure-environment fit (e.g. Miller, 1988). This is not surprising, because these are the 'traditional' (or often focused upon) variables/constructs in strategic management research (e.g. Chandler, 1962; Child, 1972; Cummings & Berger, 1976; Grinyer et al., 1980; Hall & Saias, 1980). An area of recent research activities in the strategic management literature is that of delineating effective from ineffective leaders based on their attributes (e.g. Meindl & Ehrlich, 1987; Smith et al., 1984). Therefore, a possible extension of configuration-based research could focus on the performance implications of the congruence or internally consistent relationship between leader attributes and strategy in a specific environmental context.

The importance of using multiple approaches to fit (e.g.

traditional contingency and configuration-based approaches) in management research has been emphasized by certain researchers (e.g. Drazin & Van de Ven, 1985). Advocates of the multiple approaches to fit claim that the additional and complementary information that is obtained from a combination of approaches help to develop better theories. The suggestion is that the different types of information that are obtained from studies that use both the traditional contingency and configuration-based approaches are superior to that which could be obtained from using either approach in isolation. Consequently, both the traditional contingency and the configuration-based approaches will be used in this study to examine the hypothesized relationships. In addition to studying the configuration-based relationship that was specified in the preceding paragraph, the traditional contingency approach will also be used to examine the leader attributes that are effective performance indicators when: (1) a particular strategy is being pursued, and (2) certain environmental characteristics are identified.

Hypotheses

The discussion of the literature in the preceding section highlighted the importance of strategy, environmental uncertainty, and certain leader attributes (i.e. locus of control, value orientation, and leadership style) to

organizational performance. In this section, three traditional contingency and one configuration-based hypotheses are developed with these variables/constructs. The traditional contingency theory-based hypotheses deal with the performance implications of the fits between: (1) leader attributes and environmental uncertainty, (2) leaders attributes and strategy, and (3) strategy and environmental uncertainty. The fourth and final configuration-based hypothesis--in explaining the performance differences between organizations--examines the overall pattern of the three traditional contingency theory-based hypotheses or the congruence or internally consistent relationships between strategy and leader attributes in an uncertain environment.

Leader Attributes and Environmental Uncertainty

The fit between leader attributes and environmental characteristics is an area where further research gains can still be made in the management literature, especially in the not-for-profit sector, where some theorists claim that such relationships may have more significance (e.g. Hadaway, 1989). Hambrick and Mason (1984), called upon strategic management researchers to start focusing on the importance of the top management team to the performance of their organizations. They suggested that the psychological profile of organizational leaders could be reflected in the performance of their enterprises.

Ordinarily, this researcher could have focused on identifying the more effective leader attributes, but contingency theory would suggest that a more complete understanding of these attributes can be developed when explored in a particular context. Therefore, one of the traditional variables for strategic management research--environmental uncertainty, whose importance to organizational performance was discussed in the preceding section--is used as the context within which to delineate effective from less effective leaders. Specifically, the ramifications of a leader's value orientation, style, and locus of control for performance will be examined within the context of an uncertain environment.

Value Orientation and Environmental Uncertainty. England (1967) found that the values of the leaders of organizations may affect their perception of the environment, which may in turn influence the levels of their organizations' performances. Sturdivant et al. (1985) also suggested that liberal leaders may be more effective in dynamic environments, because success in changing environments significantly depends on the flexibility of organizational leaders. In other words, in an environment where uncertainty is high, there is typically a general lack of information for decision making purposes. Therefore, a leader that can tolerate and deal with the ambiguity in such an environment would appear to be more appropriate and effective. In effect, a liberal leader--who prefers new things, change, or

innovation--would be more effective in an environment with high uncertainty. Conversely, a conservative leader would be more effective in an environment with low uncertainty.

Locus of Control and Environmental" Uncertainty. Leaders with internal locus of control tend to engage in more active search for and more efficient processing of task-relevant information (Spector, 1982). Consequently, a changing or turbulent environment, where there is a need for constant monitoring and collection of data (about the environment) will seem to be more congruent with internal leaders than with externals. Therefore, a conceptual synthesis suggests that having an internal leader in an environment that is high in uncertainty will be associated with higher levels of organizational performance. In fact, Miller et al. (1982) found that the more effective leaders in their study were internals operating in changing environments. Conversely, in an environment with low uncertainty, leaders with external locus of control would appear to be more effective.

Leadership Style and Environmental Uncertainty. To date, there are no reported research studies that have focused on the congruence between leadership style and environmental uncertainty. Therefore, unlike the other leader attributes, there is no premise for suggesting whether task- and/or people-orientation would be effective in an environment that is high in uncertainty. A deduction could be made from Miller et

al.'s (1982) study where they found that effective leaders have both internal locus of control and high task-orientation. Consequently, in an environment that is high in uncertainty, task oriented leaders may be effective. In addition, the conclusions that were reached by the Blake and Mouton's (1984) study--that the best managers are high in both task and people--means that people oriented leaders may also be effective in an environment with a high level of uncertainty. Moreover, the instability in an uncertain environment may necessitate a leader that provides both direction and support; Hersey and Blanchard (1974) contend that a leader that is high in both task- and people-orientations would be more effective under this condition.

By using a traditional contingency theory-based approach, the performance implications of the leader attributes that have been discussed in the preceding paragraphs could be developed if these attributes are simultaneously investigated. Consequently, the following hypothesis, based on the composite of the preceding discussions can be made that:

Hypothesis 1:

Organizations in environments that are high in uncertainty will achieve higher levels of performance when they have leaders that are liberals in business affairs and human welfare values, with internal locus of control, and high in both task- and people-orientations.

Strategy and Leader Attributes

Gupta and Govindarajan (1984a) suggested that superior

performance can be achieved by selecting managers whose skills, knowledge, and behaviors are congruent with the requirements of particular strategies. In general, the management literature contends that, in order to be effective, the characteristics of organizational leaders should fit with the type of strategy that the organization is pursuing (Galbraith and Nathanson, 1978; Govindarajan, 1989; Gupta, 1984; Gupta and Govindarajan, 1984; Hambrick and Mason, 1984; Herbert and Deresky, 1987b; Hitt, Ireland, and Palia, 1982; Kerr, 1982; Leontiades, 1982; Miller, Ket de Vries, and Toulouse, 1982; Miller and Toulouse, 1986; and Miller, Toulouse, and Belanger, 1985; Szilagyi and Schweiger, 1984). Therefore, an organization that wants to grow must have the "appropriate" leader in order to successfully implement this strategy. To reiterate, the leader characteristics or attributes that are explored in this study are leadership style, value orientation, and locus of control. This researcher will investigate the relationships between individual and different combinations of these leader attributes, within the context of a particular strategy, and organizational performance.

Strategy and Value Orientation. Andrews (1980) stated that it is impossible to separate the strategic choices that are made within organizations from the personal values of the people that make those choices. Furthermore, Steiner (1969) submitted that the values of the leaders of organizations have a significant impact on the direction that the organization moves and the way

in which it functions.

In general, the literature suggests that the strategy pursued by a conservative leader is likely to be different from the strategy pursued by a liberal leader. The values of liberal leaders (e.g. preference for new things, change, and innovation) indicate that they are more likely to pursue risky, innovative strategies while conservative leaders, because of values such as resistance to change, would perhaps show preference for risk-averse, cautious strategies. In addition, a Type I strategy, as developed and described in the literature review, requires innovative and entrepreneurial behavior—which are more likely to be found in leaders with liberal value orientation. Conversely, a Type II strategy, because of the stability and continuity of its action requirements, are more likely to be pursued by conservative leaders. If this is the case, a leader's values, within the context of a particular strategy, could have significant implications for organizational performance.

Strategy and Leadership Style. Leadership style may dictate the strategy that an organization pursues. Unfortunately, there is no empirically-based premise in the literature for the congruence between leadership style and strategy. Furthermore, there is no theoretical base upon which to determine if task oriented leaders are better at pursuing Type I strategies than people oriented leaders. The characteristics of task oriented leaders (e.g. emphasis on getting the job done), and the

requirements of Type I strategies (e.g. location and exploitation of new product and/or market opportunities) suggest that the successful pursuance of Type I strategy may require a task oriented leader. In addition, since the successful pursuance of Type I strategies calls for creativity and innovation, a supportive leader--facilitator and one who promotes communication in Hersey and Blanchard's (1974) model--or one who is high in people-orientation would also appear to be effective.

Consequently, the leaders that are effective in pursuing Type I strategies would be both task and people oriented. Conversely, because Type II strategies primarily call for repetitive behavior (i.e. more efficiency that derives from 'continuing what we have been doing') high people and low task oriented leaders may be more effective at pursuing these strategies.

Strategy and Locus of Control. Locus of control has been found to relate to strategy making behavior (Govindarajan, 1988; Govindarajan, 1989; Miller, Kets de Vries, and Toulouse, 1982). Miller et al. (1982) investigated the importance of locus of control using correlation analysis to strategy-making behavior, structure, and environment. They hypothesized that a relationship exists between chief executive officer's locus of control and levels of product-market innovation, amount of risk taking, proactiveness, and futurity (or planning horizons). In addition, they proposed that internals will be more likely to operate in a more dynamic and heterogeneous environment, and in

organizations with higher levels of technocratization and differentiation. These hypotheses were supported in their study. However, there was no discussion of the type of strategy that is most likely to be pursued by either internals or externals. Consequently, this researcher will build on the work done by Miller et al. by investigating the performance implications of a leader's locus of control within the context of a particular strategy. Therefore, the following question: "Is a leader with an internal locus of control more effective than another leader with an external locus of control, when a Type I strategy is pursued?" could be answered.

The preceding discussions about the fit between each of the leader attributes and strategy can be combined into a traditional contingency or interaction-based hypothesis such that:

Hypothesis 2:

Organizations which pursue Type I or growth strategies will achieve higher levels of performance when they have leaders with internal locus of control, liberal business affairs and human welfare values, and high task- and people-orientations.

Strategy and Environmental Uncertainty

The environment has important implications for organizational performance. Pearson (1989) claimed that one of the important contributions that leaders make to their organizations is to identify the interrelationships between environment and strategy. The performance implications of

various strategy-environment contingencies have been the focus of many theoretical and empirical studies (e.g.: Hambrick, 1983a, 1983b; Hitt, Ireland, & Stadter 1982; Jauch, Osborn, & Glueck, 1980; Kim & Lim, 1988; Miller, 1988; Miller & Friesen, 1978; Rockhart, 1979; and White, 1986). Some researchers have used data from case studies to examine the strategy-environment alignment and its effect on organizational performance (e.g. Miller and Friesen, 1978). The findings of these studies indicate that turbulent or dynamic environments require innovative strategies if the organization is to succeed. However, Jauch, Osborn, and Glueck, (1980) could not support Miller and Friesen's findings. Venkatraman (1989) attributed these conflicting results to inappropriate analytical methods.

Using Miles and Snow's (1978) generic strategy typology, Hambrick (1983b) found that organizations that use different strategies in different environments attain different levels of performance. Similarly, Zajac and Shortell (1989) using a sample of hospitals found that the strategies of the Miles and Snow's (1978) typology were differentially effective in different environments (prospector strategy in dynamic environments and defender strategy in stable environments). Basically, these researchers found that innovative and creative strategies are more effective in uncertain environments. Other researchers have suggested that Porter's (1980) low cost strategy will be more effective in stable environments while the differentiation

strategy will be more effective in dynamic environments (Kim and Lim, 1988; Miller, 1988; White, 1986). Nevertheless, Miles and Snow (1978) concluded that the characteristics of the prospector and defender strategies can be successfully pursued in changing environments. Therefore, it is hypothesized that:

Hypothesis 3

Organizations in environments that are high in uncertainty will achieve higher levels of performance provided they pursue a Type I or II strategy. Organizations that pursue Type III or IV strategies in high uncertainty environments will be ineffective.

Strategy, Environmental Uncertainty, and Leader Attributes

In order to be effective, organizations need to pursue the appropriate strategy, in the proper environment, with leaders whose characteristics or attributes are supportive of the strategy-environment fit. If hypotheses 1, 2, and 3 were to be combined to focus on the internally consistent or congruent relationships between leader attributes and strategy in an environmental context, an overall configuration hypothesis could be developed for all the variables of interest in this study such that:

Hypothesis 4:

Organizations that achieve higher levels of performance in an environment with high levels of uncertainty are more likely to pursue Type I strategies with leaders that have liberal business affairs and human welfare values, high task- and people-orientations, and internal locus of control. Organizations that deviate from this pattern would have lower performance levels.

Hypothesis 4 falls into the category of what Venkatraman (1989) referred to as 'fit as profile deviation'. Profile deviation is a contemporary fit-based approach that depicts an internal coherence among a set of theoretical variables/constructs. Miller (1981, p.5) described this type of research as follows: "Instead of looking at a few variables or at linear associations among such variables, we should be trying to find frequently recurring clusters of attributes or gestalts". Miller and Friesen (1984) further added that the development of gestalts or profiles could be used to address the problems that arise from internal inconsistencies in bivariate relationships, because it has a multitiered taxonomical approach. Finally, Miller and Mintzberg's (1983, p. 69) argument for configuration studies contended that: "... the organization may be driven toward configuration in order to achieve consistency in its internal characteristics, synergy (or mutual complementarity) in its processes, and fit with its situation." When a performance variable is the basis for determining the gestalts, Venkatraman (1989) referred to this as 'fit as profile deviation'. Profile deviation is otherwise called alignment, configuration, systems, or pattern analysis (e.g. Venkatraman & Prescott, 1990). Hypothesis 4 is different from the previous three in that it enables one to take a more holistic view of the organizations in this study by examining the importance of the overall pattern of relationships between all the research variables/constructs as a

set. This holistic approach has been recommended by other researchers as a complement to traditional contingency theory-based approaches (e.g. Drazin & Van de Ven, 1985; Van de Ven & Drazin, 1985).

Summary

This chapter presented a review of the literature relative to the variables examined in this study. Three traditional contingency and one configuration-based hypotheses were developed around the explanatory variables/constructs that were identified in Chapter One and discussed in this chapter. Generally, it was hypothesized that the interactions between leader attributes with environment and strategy in addition to the interaction between strategy and environment are important to organizational performance. Finally, the performance differences between organizations were hypothesized to result from the incongruence or lack of internally consistent relationships between strategy and the leader attributes in a specific environment.

CHAPTER 3

METHOD

This chapter includes a description of the type of organization from which the sample for this study was drawn, the sample selection method, the operational definitions, as well as the scales and instruments that were used to measure the variables of interest. Furthermore, there is a discussion of the results of the pilot study that was undertaken. The potential contributions that the results of the tests of the hypotheses that were developed in the previous chapter could make to the strategic management literature in general, and to the configuration research stream specifically are also discussed. Finally, the implications of the pilot study for the main study, as well as the variables, subjects, and tasks in the main study are enumerated.

The Sample

In general, organizations are designed on a for-profit or not-for-profit basis. While there are many researchers that have studied how for-profit enterprises are managed, we know very little about not-for-profit organizations. The preponderance of the knowledge that has been accumulated in the strategic

management field deals with variables that enhance the profitability of organizations. It is important, for comparative purposes, to determine if the variables that enhance profitability also account for performance differences in not-for-profit organizations.

The majority of the researchers in the strategic management area have focused on for-profit organizations. While the newness of this area of academic inquiry might have been an acceptable excuse for neglecting not-for-profit organizational research during the early years, there appears to be no strong reasons for its continued neglect today. Consequently, there is a need for research studies that focus on the management of not-for-profit organizations. There are many important reasons (a few of which are discussed in the following paragraph) for focusing on these organizations as the sample unit for analysis.

The not-for-profit sector has been suggested in the management literature to be just as important as the for-profit sector to the United States' economy (e.g. Hatten, 1982; Stewart, 1989). Therefore, any gains in effectiveness that are made in the management of these organizations can translate directly to a more productive national economy. To academicians, especially those in the strategic management area, the knowledge gained through a focus on not-for-profit organizations can add to or solidify the knowledge that has been accumulated on the management of for-profit organizations. In other words,

not-for-profit organizations could provide another context within which some of the knowledge that has been gained in the strategic management area can be tested. In addition, the practitioners--those involved in the management of not-for-profit organizations--could find this stream of research studies to be meaningful and useful.

Kotler (1982) identified two types of not-for-profit organizations: public (e.g. government agencies) and private (e.g. charities). Of these two categories, the private not-for-profit (or PNFP) organizations have received less attention in the management literature. In fact, the PNFP organizations are often referred to as the third sector of the economy. The first and second sectors of the economy are profit-making enterprises and government-based entities respectively. Higgins and Vincze (1989) identified eight major categories of third sector organizations. These categories are: religious (e.g. churches), social (e.g. service clubs), cultural (e.g. museums), knowledge (e.g. private schools), protective (e.g. trade unions), political (e.g. lobbyist groups), philanthropic (e.g. private foundations), and social cause (e.g. women's rights groups) organizations. The diversity in the PNFP sector--which at first glance may make research findings very difficult to generalize--may be one of the reasons why management researchers have distanced themselves from this area of academic inquiry. Hatten (1982) suggested that the PNFP's diversity

should not discourage researchers from focusing on them because they can benefit from the application of the strategic management concepts originally developed for profit making enterprises.

Of the eight PNF categories, the neglect of religious organizations seems specifically unwarranted because they generate an annual revenue of about fifty billion dollars in the United States. In addition, assets like land, buildings, and volunteer work are estimated to be worth several billions of dollars (Stewart, 1989). Given the financial and social importance of this type of not-for-profit organization to the economy, one would expect that religious organizations would have received a greater emphasis in the management literature. Unfortunately, this has not been the case. In fact, the lack of empirical studies dealing with the management of religious organizations is indicative in general of the lack of emphasis in the management literature for all PNF organizations. While some may argue that the lack of empirical research is not surprising because religion is an emotional issue, it has been suggested that religious institutions can be properly managed or mismanaged (e.g. Kohl, 1984). Nevertheless, our goal as management researchers is to understand the factors or variables that account for success in whatever type of organization we are investigating. As succinctly put by Kohl (1984; p. 76):

"The lack of such studies, or their reports is disturbing and problematic for those of us concerned and interested in the future of the institutional church. It is even more appalling for those with

knowledge of the dramatic decline of many mainstream religious organizations during the postwar era who believe ... (that) business models and practices have great applicability to assist struggling parishes in developing for growth ...".

Therefore, a sample of religious organizations was used in this study. Most researchers recommend that because religious organizations are so diverse--in their beliefs, how they define and accept members, administrative freedom of each congregation, and denominational practices and policies--it is better to sample from one denomination when one is studying them (e.g. Smith et al., 1984). In addition, it was preferable to sample from within the same state because the standards for reporting organizational variables (e.g. location) may differ (e.g. Odom & Boxx, 1988). The reporting standards need to be homogeneous if researchers are to assume that organizational records are based on similar requirements. The religious organizations that are used in research studies have well-defined reporting requirements and are therefore usually one of the established denominations like the Methodists or Baptists (e.g. Odom & Boxx, 1988; Webb, 1974). Consequently, the sample for this study was taken from the Arkansas Southern Baptist churches.

Religious organizations from within the same state and denomination--even if randomly chosen--could be considered a narrow sample; however, Miller and Mintzberg (1983) recommend a narrow sample for configuration-based research. While the use of a narrow sample obviously limits the generalizability of research

findings, the nature of configuration research may necessitate such a choice. To circumvent the generalizability problem, Miller and Mintzberg recommend that configuration research be undertaken with samples from different types of organizations. The primary advantage of using a narrow sample is that it could be used to uncover individual configurations intuitively, and to describe them in depth. To this end, Miller and Mintzberg (1983, p. 63) added that "Since multivariate relationships can vary from one configuration to another, we must first try to find these configurations in the form of dense homogeneous clusters of attributes or interrelationships that together form a predictive taxonomy."

Task

All the operational definitions for each of the variables in this study (except the performance measures) were designed in the form of a questionnaire that was sent to the senior ministers of selected Southern Baptist churches in Arkansas. The churches that were selected must have had the same pastor over the last four years because Hadaway (1989) found that a minister's impact on the performance of a church will be felt within the first few years of his tenure. Furthermore, in order for location not to confound the findings of this study, the approach that was recommended by Odom and Boxx (1988) of using churches that have had at least 150 member over the four-year period was adopted for

use in this study. It was estimated that about 500 to 600 churches in Arkansas would be potential subjects. Finally, the participation of all subjects was voluntary but encouraged.

Variables

Independent Variables. Independent or predictor variables are used to estimate the expected values of the dependent or response variables (Berenson, Levine, & Goldstein, 1983). The theoretical foundation section in the previous chapter identified five independent variables that could be classified into three main categories. These independent variables/constructs are: (1) the leader's: (a) value orientation, (b) locus of control, and (c) style; (2) environmental uncertainty; and (3) strategy.

Dependent Variables. The dependent variables in this study measure organizational performance. These variables distinguish growing from stagnant organizations. These organizational performance variables specifically are: membership, Sunday School attendance, and financial receipts. The use of these measures is supported by recent studies in the religious not-for-profit sector (e.g. Odom & Boxx, 1988). Membership in Arkansas' Southern Baptist churches are categorized as 'residential' and 'nonresidential'. Residential members are those who live within the community in which the church is located while nonresidential members are those who live outside of the immediate community. Both measures of membership will be used because they represent

different levels of commitment on the part of the churches as well as the members. Therefore, the relationship between the independent variables and the two membership measures should differ. The only measure of Sunday school attendance is the 'average' that is reported by these churches. Average Sunday school attendance is a performance variable that reflects internal growth in the form of increased members' participation and commitment. The average Sunday School attendance for all churches is the total Sunday School attendance divided by fifty two—the number of weeks in the year. Therefore, using an average should not distort the comparative importance of this variable between church organizations. Total financial contributions received is the monetary receipts of the church organization. Multiple dependent variable measures are used because some researchers have called for simultaneous consideration of these variables in configuration-based studies (e.g. Carper & Snizek, 1980; Drazin & Van de Ven, 1985).

Measures

Strategy. Ministers of the sampled churches were given the characteristics of the four generic strategies classification that was discussed in the literature review (i.e. Types I, II, III, and IV). These strategies were arranged in random order on the questionnaire in order to minimize bias. In addition, the descriptions of these strategies were semantically modified to

fit church organizations. Basically, this translates into using words such as church or congregation, ministries, gospel, or minister instead of organization, business, product, or manager, respectively. Each minister was asked to pick one of the four descriptions that was most representative of the strategy that his church has been pursuing. The description for a Type I strategy is illustrated below:

- The basic strategy of our church is to:
- grow by continuously expanding our ministries
 - use creative and innovative ministry approaches for expansion
 - correctly "package" and "market" the gospel
 - continuously monitor our external environment
 - be willing to take risks
 - make decisions based on their long term effects on our church
 - make our organizational structure more flexible.

The descriptions of all four strategies is in Appendix A.

Value Orientation. Various measurement scales have been developed in the past to measure conservatism (e.g. Bahr & Chadwick, 1974; Nettler & Huffman, 1957; and Wilson & Paterson, 1968). In response to the call by Robinson, Rusk, and Head (1968) for a contemporary conservatism measurement scale, Sturdivant et al. (1985) developed one. They used a sixty five item questionnaire in their pilot study. Through factor analysis, they were able to reduce these to thirty items; sixteen items represent attitudes about 'government/business and the general welfare', while the remaining fourteen items represent attitudes about 'human rights and responsibilities' (including

items about family, individual rights, and minorities). Only twenty of these thirty items were used because items that had factor loadings of 0.50 or higher were considered by this researcher to be the ones with the stronger discriminating capabilities (Taylor, 1984). Of these twenty items, eleven and nine items represented the 'government/business and the general welfare' and 'human rights and responsibilities' categories respectively.

These twenty items were presented in a Likert-type response scale. The subjects/ministers were asked to choose a number (from 1=strongly agree to 6=strongly disagree) that is representative of their level of agreement or disagreement with each of these twenty items. The items were arranged such that some of them required reverse scoring, to reduce mono-method bias (Cook & Campbell, 1977). The value orientation measure was the sum total of the scores on these twenty items. A conservative minister would have a lower score on this instrument than a liberal minister.

Locus of control. This variable was measured by using an instrument developed by Rotter (1966). This is an instrument that is well-known and has been used in the management literature (e.g. Miller et al., 1982). It is often referred to as the Internal-External (or I-E) scale. The I-E scale consist of fifty eight items that deal with twenty nine societal issues. Twenty three of these issues make up the I-E scale while the other six

issues are fillers designed to make the intent of the instrument less obvious to the subject (i.e. reduce hypothesis guessing). Each societal issue on the locus of control scale has one 'internal' and one 'external' statement; the ministers surveyed were required to pick one of these two statements that they believe has some truth or more truth to it.

To determine if a minister has an external or internal locus of control, the approach used by Miller et al.'s (1982) study was emulated. Essentially, one point was assigned to each 'external' response to an item, while an 'internal' response was assigned a score of zero. The scores for all the locus of control issues were then summed up. The higher the minister's score on these issues, the more the minister is interpreted as having an external locus of control.

Leadership Style. Task- and people-orientations were measured by adapting the Leadership Style Questionnaire (LSQ) that was developed from the classic Ohio State University leadership studies. The questions were semantically modified such that they would be applicable to church organizations. Therefore, words such as minister, members, and congregation were used in the place of words like leader, employees, and organization in the original questionnaire. The LSQ uses items that are similar to those of the Leader Behavior Description Questionnaire's (LBDQ) "Consideration" and "Initiation" scales. However, the LSQ items were intentionally designed to be more

behavior specific (Sashkin & Morris, 1987). Fourteen items that described possible leader behavior were used. Respondents rated how frequently the behavior is displayed on a scale of rarely or never=1 to very frequently=5. Seven items measured task-orientation, and another set of seven questions measured people-orientation. The sum total of the responses to each set of seven items were used to determine the leader's task- and people-orientations.

Environmental Uncertainty. Environmental uncertainty was measured on a high-low continuum. Using an adaptation of the Odom and Boxx (1988) scale, the frequency of change (using a Likert-type scale from 1=Never to 5=Very often) of certain factors within the community in the last five years were used to determine if the environmental uncertainty is relatively high or low. These factors were size, age distribution, educational level, socioeconomic status, presence of a new population group, needs of individuals, types of ministries being offered by other churches, type and level of assistance available from the county and/or state associations, receptiveness of individuals within the community to the church's ministries, the general economic condition of the community, and the kind of community in which the church is located (e.g. if the community has changed from a "rural" community to a "town"). The sum of the scores for each minister on each of the questions was used to determine if environmental uncertainty was perceived as high or low. A

higher total score means higher environmental uncertainty.

Organizational performance. In this study, organizational performance was measured by using the changes reflected in a church's: (1) residential membership (2) nonresidential membership, (3) average Sunday school attendance, and (4) total financial contributions received over the past four years. The "Annals of the Baptist State Convention" was the data source for these dependent variables; this is a yearly publication that provides vital statistics on each of the Southern Baptist churches in Arkansas. Table 12 is a summary of the operational definitions for all the variables/constructs in this study.

Data Collection

A prenotification letter was sent to the ministers of selected Arkansas Southern Baptist churches to inform them about the research study and to implore them to fill out the questionnaire that would be mailed to them within the next few days. Three days later, a questionnaire and a cover letter that among other things referred to the prenotification letter was sent to each of these ministers. This researcher assumes that no undue influences or pressures were exerted upon these ministers because no incentives were offered, except the opportunity to request a summary copy of the results of this study. Finally, one week after sending the questionnaire, a follow-up post card was sent as a reminder to increase the response rate.

TABLE 12

SUMMARY OF OPERATIONAL DEFINITIONS

VARIABLE	OPERATIONAL DEFINITIONAL ISSUES
Strategy	Church membership, Budgeting and controlling, Long term outlook, Creativity, Innovation, Packaging, Marketing, Environment, Risk taking propensity, Structure, Members' needs, Efficiency, Segmentation, Cost Control, Ministries, and Asset reduction.
Environmental Uncertainty	Community's size, age distribution, status, educational level, socioeconomic status, and new population groups; competitors' ministries, Local and State level assistance, government regulation, community tolerance and receptivity, general economic conditions, location.
Value Orientation	Government programs, mixed marriages, discipline, homosexuality, discrimination, laziness, bigotry, change, education, organized labor, affirmative action, politics, taxes, the poor, consumer protection, advertising, medical care, environmental protection, and quality of life.
Leadership Style	Task assignment and clarity, source of new ideas, members' involvement and participation, role clarity, work schedules, procedures and policies, organization climate, respect, and consideration.
Locus of Control	Self determination, wars, respect, school grades, leadership effectiveness, liking, destiny, success, power, planning, luck, fate, chance, friends, corruption.
Performance	Memberships, Sunday school attendance, financial receipts.

Data Analysis

The method of analysis for the data that were collected depends on the hypothesis that was tested. The appropriate technique for hypotheses 1, 2, and 3 among others is subgroup analysis. The subgroup analysis requires that the sample be subdivided into categories by some variable like strategy for hypothesis 2 and environmental uncertainty for hypotheses 1 and 3. Because strategy was measured at an ordinal level in this study, the subdivision of the sample was based on its categories. Conversely, environmental uncertainty--a continuous variable--had to be converted to a categorical variable. The two categories that were used are high and low environmental uncertainty sub-samples. The cutoff score that was used for subdividing the sample into this high and low groups was the mean score plus one standard deviation for the items that measured environmental uncertainty on the questionnaire.

Prior to undertaking subgroup analyses, Pearson correlation analysis was used to observe relationships between the variables of interest. Correlation analysis was necessary, in order to highlight any potential problems with multicollinearity. High correlation between the independent variables/constructs could indicate multicollinearity (e.g. Berenson et al., 1983). Whenever independent variables that should not be ordinarily

related have high correlation, then the impact of these variables on the dependent variables could become distorted. The independent variables in this study were checked for multicollinearity.

Finally, Venkatraman (1989) suggested that the appropriate statistical technique for configuration or alignment-based hypothesis is 'profile deviation', pattern, or systems analysis. The profile deviation approach for testing hypothesis 4 involves three basic stages of analysis. In stage 1, the contextual variable (i.e. environmental uncertainty) should be used to develop a low, medium, and high environmental uncertainty subgroups for the study. The low subgroup could be the mean environmental uncertainty score plus one or more standard deviation from the high category. In addition, the scores for the leader attributes and strategy should be standardized to remove scale variance from the fit measure that is to be developed in the next stage. There are three necessary steps in Stage 2. During the first step, the top 5-10 percent performers in each contextual subgroup are identified--to be used later to develop the ideal profiles--while the bottom 5-10 percent performers are permanently removed from the pool of subjects--in order not to skew the distribution of the remaining scores in favor or against the test of the hypothesis. The middle 80-90 percent is the study sample. In step 2 of stage 2, the mean scores of the leader attributes and strategy of the top 5-10

percent performers in each contextual subgroup are used as the ideal profiles. The differences between the mean scores of the ideal profiles and the study sample scores on each of the leader attributes and strategy are then used to develop Euclidian distance measures in step 3 of stage 2. In stage 3, the distance measures are correlated with the dependent variables. Fit or misfit in terms of configuration is supported if the correlations coefficients between the distance scores and the dependent variables are negative and significant. As suggested by Berenson et al. (1983) among others, the analysis of a hold-out sample is necessary to validate the discriminating capacity of the ideal profile that is developed from the high performers in each group. Therefore, a hold-out sample could be used to determine the validity of the profiles that are developed within each environmental uncertainty context such that the higher the deviation of the study or hold-out sample from the profile of the high performers, the stronger the support for hypothesis 4.

Power level is the probability of rejecting the null hypothesis given that it is false, while, alpha or significance level is the probability of rejecting the null hypothesis given that it is true (e.g. Kirk, 1988). The desired power and significance or alpha levels for all the analyses in this study were set at .90 and .05 respectively. These power and alpha levels were used, along with the effect sizes observed in the pilot study, to determine the sample sizes that were needed to

find significant results in the main study (e.g. Cohen, 1988). Stevens (1986) suggested that a very high power level should be used for a research study that requires substantial monetary and time investments, so that the researcher will be able to "observe a difference" if one does exist. In addition, this researcher assumed that the effect sizes that were observed in the pilot study are representative of what to expect in the main study. The results of the pilot study that was undertaken follows.

Pilot Study

A pilot study investigating the hypotheses that are proposed in this study was conducted in June 1990. A pilot study was necessary in order to:

- (1) determine if there are any design flaws in the survey instrument;
- (2) uncover any ambiguous or misleading questions in the survey instrument,
- (3) develop an estimate of the percentage of responses to expect, and if such a response rate will be enough to find significant results in testing the hypotheses, and
- (4) determine an estimate of effect sizes that can be expected in testing the hypotheses. This effect sizes can then be used along with desirable power and significance level to determine the needed sample sizes to obtain significant results in the main study.

The pilot study led to some changes in the main study. These changes are outlined in the section of this chapter that is titled "Contributions of the Pilot Study to the Main Study".

The variables, subjects, task, statistical analysis, and results of the pilot study are discussed next.

Variables

Independent variables. As discussed previously, there are five independent variables in this study. All the variables are continuous, except for strategy which is a categorical variable. Ordinarily, strategy would have been measured at four levels in the pilot study, but none of the respondents chose the Type IV or what Herbert and Deresky (1987) labeled the "harvest" strategy. The other three strategy descriptions (i.e. Types I,II, and III) were chosen by at least one respondent. The other independent variables were measured on a continuous scale. Value orientation was measured on a conservative-liberal continuum. The extremes of locus of control were internal and external. Leadership style was measured separately for task-orientation and people-orientation--each rated from high to low. Environmental uncertainty was measured on a high-low continuum. The raw data was used for analyses in all cases except where a continuous variable needed to be converted to a categorical type--as discussed in the data analysis section.

Dependent variables. The four dependent variables are the performance criteria. In the pilot study, performance was based on the percentage increases over the last four years in: (1) residential membership, (2) nonresidential membership, (3)

average Sunday School attendance, and (4) total financial contributions received.

Subjects

The Southern Baptist convention in Arkansas has forty-two associations. There was at least one church in forty-one of these associations that met the original criteria (i.e. minister's tenure for at least four years and average membership level of 150 for the four year period) required by this study. All the associations (except one) had at least one church that met these conditions. Forty-one ministers (one from each association) were surveyed; thirty returned the questionnaire within the allotted two-week period. Only twenty-nine responses were used in the analyses because one church did not report dependent variable measures for 1986, resulting in a usable response rate of about 70 percent.

Task

The task was for the ministers that were surveyed to complete and return the questionnaire. The length of time reported by some of the ministers that completed and returned the survey ranged from 30 to 45 minutes. The ministers were also asked to note any confusing or ambiguous questions. Their responses and recommendations led to some adjustments in the survey instrument. First, one of the "Background Information"

items in the pilot study was not used in the main study because it did not provide usable or discriminating responses from subjects. Therefore, the item "Please describe (in one sentence) the primary objective of your church over the last four years" was excluded from the questionnaire items in the main study. The typical response to this item was "To reach the world with the gospel of Jesus Christ". Second, another item in the "Background Information" section that was designed to measure the changes in the church's membership by age group was eliminated because ministers reported that their responses were rough estimates. In the main study, this question only required that the ministers indicate whether there has been an overall increase or decrease in memberships over the last four years in their churches—to corroborate the membership figures in the 'Annuals.' Finally, the instruction for responding to the locus of control items was changed to reflect feedback from the respondents to the pilot study from "Please choose the letter option for each of the following issues that comes the closest to your belief" (Appendix A) to "Please choose ONE letter option for each of the following issues that you believe either has MORE TRUTH to it, or SOME TRUTH to it" (Appendix B).

Pilot Study Results

Hair (Jr.), Anderson, Tatham, and Grablovsky (1979) suggest

that whenever a researcher has a metric dependent variable, the appropriate statistical analysis is multiple regression (for metric independent variables) or multivariate analysis of variance (for nonmetric independent variables). All the dependent and independent variables in this study are metric except strategy, which is a categorical variable. Furthermore, as suggested in the 'data analysis' section, the form of hypotheses 1, 2, and 3 necessitated the use of subgroup analyses while hypothesis 4 required the use of profile deviation, pattern, or systems analysis.

Hypotheses

The data collected in the pilot study were analyzed in order to test the hypotheses developed in Chapter 2. The significant ($p < .05$) and marginally significant ($p < .10$) effects are noted and discussed in the following paragraphs. Furthermore, effect sizes were used (along with a power level of .90 and significance level of .05 in each case) to determine the sample sizes that were needed in the main study to find significant results.

The limited number of subjects that were used for the pilot study precluded the in-depth analyses of hypotheses 1 and 2. The full models could not be tested for either hypotheses because the "error degrees of freedom" was zero, making it impossible to calculate the "error sums of squares" and "error mean square" which are necessary to obtain meaningful results. The main

effects models were analyzed for both hypotheses and a discussion of the results follows.

H1 hypothesized that an organization in an environment that is high in uncertainty would achieve higher performance levels--than an organization in an environment that is low in uncertainty--if the leader has relatively: (1) more liberal values, (2) higher task- and people-orientations, and (3) more internal locus of control. No significant results were found for any of the dependent variables for the main effects model. For the low environmental uncertainty subgroup, effect sizes ranged from a low of 0.45 for financial contributions to 0.64 for nonresidential membership. The minimum sample size that is needed in the main study to find significant results is 118. This sample size is associated with the dependent variable that has the lowest effect size (Table 13). For the high environmental uncertainty subgroup, effect sizes ranged from a low of 0.38 for average Sunday school attendance to 0.41 for residential and nonresidential membership. The minimum sample size--associated with the lowest effect size--that is needed in the main study to find significant results is 127 (Table 14).

H2 hypothesized that leaders that pursue a Type I strategy will be more effective than those who pursue Type II strategies if these leaders have relatively: (1) more liberal values, (2) higher task- and people-orientations, and (3) more internal locus of control. As stated earlier, only the main effects models

Table 13

POWER ANALYSIS FOR THE TEST OF H1
(Low Environmental Uncertainty Subgroup)

Source	Value
Sample size	14
Minimum acceptable power level	.90
Effect sizes observed:	
Residential membership	.63
Nonresidential membership	.64
Average Sunday School attendance	.62
Financial contributions	.45
Minimum sample size needed	118

Table 14

POWER ANALYSIS FOR THE TEST OF H1
High Environmental Uncertainty Subgroup)

Source	Value
Sample size	15
Minimum acceptable power level	.90
Effect sizes observed:	
Residential membership	.41
Nonresidential membership	.41
Average Sunday School attendance	.38
Financial contributions	.47
Minimum sample size needed	127

could be tested for hypotheses 1 and 2. For organizations that pursue a Type I strategy, the effect sizes for the test of H2--for the main effects model--ranged from a high of 0.81 for residential membership to 0.40 for total financial contributions for the organizations that pursue a Type I strategy. Furthermore, the impact of a leader's people-orientation ($F = 8.46, p < .05$) and locus of control ($F = 9.67, p < .05$) was significant on the residential membership dependent variable. For nonresidential membership, the leader's people-orientation ($F = 3.92, p < .05$) and values ($F = 3.56, p < .05$) were also significant. No discussion of the findings are discussed here because of the inability to test the full model upon which the hypothesis is really based. No significant relationships were found for the other dependent variables. The minimum sample size that is needed to find significant results for the other dependent variables for hypothesis 2 is 133 (Table 15).

In addition, the test of hypothesis H2 for the organizations that pursue a Type II strategy did not reveal any significant relationships between the independent and dependent variables. The effect sizes observed were from 0.31 for financial contributions to 0.51 for residential and nonresidential memberships. The minimum sample size that is needed in the main study to find significant results is 202 (Table 16).

There were no significant relationships for the test of hypothesis 3. In the low uncertainty environment subgroup, the

Table 15

POWER ANALYSIS FOR THE TEST OF H2
(Type I Strategy Subgroup)

Source	Value
Sample size	14
Minimum acceptable power level	.90
Effect size observed:	
Residential membership	.51
Nonresidential membership	.49
Average Sunday School attendance	.45
Financial contributions	.31
Minimum sample size needed	133

Table 16

POWER ANALYSIS FOR THE TEST OF H2
(Type II Strategy Subgroup)

Source	Value
Sample size	14
Minimum acceptable power level	.90
Effect size observed:	
Residential membership	.51
Nonresidential membership	.49
Average Sunday School attendance	.45
Financial contributions	.31
Minimum sample size needed	202

impact of strategy on average Sunday school attendance and financial contributions was negligible. The effect sizes that were observed for average Sunday school attendance and financial contributions are 0.021 and 0.095 respectively. If these effect sizes do not improve in the main study, the sample size that is required to find significant results for these variables (335 for financial contributions and 976 for average Sunday school attendance) may make it impossible to analyze these relationships. The effect sizes for residential (0.25) and nonresidential memberships (0.22) are high enough to make in-depth analyses of these relationships possible in the main study. The minimum sample that is needed to find significant results for these membership variables is 187 (Table 17).

The test of hypothesis 3 for the high environmental uncertainty subgroup did not reveal any significant results. The effect sizes ranged from a low of 0.296 for residential membership to 0.47 for financial contributions. The minimum sample size that is necessary to find significant results in the main study (i.e. the effect size associated with residential membership) is 108 (Table 17).

The test of hypothesis 4 was also limited by the sample size and the manner in which strategy was measured in the pilot study. The number of subjects in the pilot study was not enough to support profile deviation or systems analysis. More importantly, the ordinal measure of strategy, while facilitating

Table 17

POWER ANALYSIS FOR THE TEST OF H3

Source	IU Value	HU Value
Sample size	14	15
Minimum acceptable power level	.90	.90
Effect size observed:		
Residential membership	.25	.296
Nonresidential membership	.22	.36
Average Sunday School attendance	.021	.41
Financial contributions	.095	.47
Minimum sample size needed	187*	108

where IU = low uncertainty subgroup and
 HU = high uncertainty subgroup

* This sample size is associated with
 the test of H3 for residential and
 nonresidential memberships.

the test of hypotheses 2 made it impossible to analyze hypothesis four. Profile deviation or systems analysis is more meaningful when interval level data is used (e.g. Gresov, 1989). Consequently, this configuration-based hypothesis could not be tested in the pilot study.

Summary. In conclusion, because the small sample size of this pilot study made it impossible to analyze the data collected in depth, the findings are at best tentative, but they suggest that there are potentially useful contributions that the main study can make to the management literature. Perhaps, the primary contribution of the pilot study is that it made it possible to determine the sample sizes that are necessary to find significant results for most of the analyses that will be undertaken in the main study. Despite the deficiencies that have been noted, the pilot study did make some important contributions to the main study which are discussed in the following section.

Contributions of the Pilot Study to the Main Study

The pilot study led to some changes in the main study. These changes are associated with the: (1) measures or questionnaire items for one of the independent variables, (2) sample or the conditions that qualified church organizations will need to meet in order to be used in this study, (3) data analysis, and (4) other miscellaneous information.

Measures

The locus of control items appeared to have presented some problems for most of the ministers. They reported that the two statements for each issue was seldom close to their beliefs. Therefore, the instruction for responding to these items was changed from "Please choose the letter option for each of the following that come the closest to your believe" to "Please choose ONE letter option for each of the following issues that you believe either has MORE TRUTH to it, or SOME TRUTH to it". The ministers did not report any problems with any other questionnaire items.

The Sample

Originally, to qualify, each church organization needed to meet two conditions; the church must have: (1) averaged at least 150 members over the last four years, and (2) had the same minister over the same time period. These conditions were imposed in order to eliminate the need for including 'location' as a variable in this study--as suggested by Odom and Boxx (1988). The number of churches that met both conditions was about 380. Assuming a 70 percent response rate, about 266 respondents could have been expected in the main study. Some of the analyses in the main study required more respondents. Consequently, the 150 members' requirement was eliminated, and

the number of qualified churches increased to about 550. Furthermore, contrary to what was originally planned, location was treated as a variable in the main study, rather than having a limited sample size.

Data analysis

Hypothesis 3 may not yield significant results in the main study because of the minute effect sizes that strategy had on the criterion variables. If the effect sizes observed for the main study for the test of hypothesis 3, especially for average Sunday school attendance and financial contributions in the low environmental uncertainty subgroup, are higher than those of the pilot study, then this potential problem may be eliminated. Suffice it to say, that significant results are expected for the tests of all the hypotheses--for at least two dependent variables--if the effect sizes observed in the pilot study are replicated in the main study.

The approach that was used to analyze the interaction-based hypotheses was changed in the main study. The main reason for the change was the importance of being able to compare the results of this study to others in the configuration literature. Essentially, rather than using subgroup analysis, moderated regression analysis was used to test each of the interaction-based hypotheses. Moderated regression analysis enables researchers to retain more information in hypotheses 1-3 because

the interactions are not artificially demarcated into subgroups. Furthermore, by using moderated regression and systems analyses, it will be possible to compare the results of this study to others like Drazin and Van de Ven's (1985) and Gresov's (1989). Using moderated regression and systems analyses provide better information than subgroup and systems analysis.

Consequently, hypothesis 1, 2, and 3 were analyzed using the approach suggested by Schoonhoven (1981) for analyzing main and interaction effects. Before proceeding with any analysis, the independent variable that modifies the impact of another on the dependent variable should be explicitly stated. For example, the main and interaction effects in an hypothesis that includes two variables can be represented by a mathematical equation of the form:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_1X_2 + e \dots \dots \dots (1)$$

where Y: the dependent variable

a: the slope intercept

X1 and X2: the independent variables

b1 and b2: the coefficients for X1 and X2

X1X2: interaction between the independent variables

e: the error term for the regression equation

If the interaction term (b3) in equation 1 is significant, it may be interpreted as altering the values of b1 and b2. Equation 1 could have alternative interpretations: (1) X1 modifies the impact of X2 on Y, or (2) X2 modifies the impact of X1 on Y. In

the first situation, the partial of the regression equation would be analyzed such that:

$$Y = b_1X_1 + b_3X_1X_2$$

$$Y = X_1(b_1 + b_3X_2) \dots \dots \dots (3)$$

In the second situation, the relevant partial regression equation is:

$$Y = b_2X_2 + b_3X_1X_2$$

$$Y = X_2(b_2 + b_3X_1) \dots \dots \dots (4)$$

While either approach is mathematically appropriate, a choice has to be made based on the formulation of the particular hypothesis. In the latter case, the researcher is interested in how the impact of X2 on Y is modified over the range of X1.

In this study, the implicit assumption is that leader attributes and strategy can be modified more readily than environmental uncertainty. In effect, the impact of leader attributes and strategy on effectiveness measures will be assumed to vary over the range of environmental uncertainty.

The analyses of the interaction terms in this study were done whether they were statistically significant or not. This was in line with Schoonhoven's (1981) procedure. Perhaps the most important reason for analyzing nonsignificant interactions was to determine if they were in the expected hypothesized direction. Since a lack of significance could result from various reasons such as insufficient sample size and/or lack of statistical power, it was important to investigate other

important facets of these interactions even though the conclusions would be tentative at best.

The interpretation of each interaction term involved determining whether the relationships that were observed were monotonic or nonmonotonic. A nonmonotonic--as opposed to a monotonic--effect means that the impact of the modifying variable on the relationship between the independent and the dependent variables is both positive and negative over the range of the modifying variable. The range of the modifying variable is determined by solving the derivative of equation 3 or 4 for X_2 or X_1 respectively. The other contributions that the pilot study made to the main study are discussed next.

Miscellaneous

One of the ministers in the pilot study suggested that the questionnaire should not be sent out around a "religious" holiday (e.g. Christmas) or during the summer since ministers are likely to be very busy or otherwise engaged around these times. Therefore, the main study was not done around a 'religious' holiday to maximize the number of respondents to the survey instrument. Unfortunately, because of the time constraints on this researcher, it was necessary to send the questionnaires for the main study out during the summer; this could have affected the response rate. By sending out the questionnaires during the latter part of the summer, the possible number of non-respondents

that may result from vacationing ministers could have been minimized.

Contributions of this Study

The importance of this study depends to a significant degree on the contributions that can be made through the testing of the proposed hypotheses. The findings will add to the research studies that have empirically investigated the determinants-- environmental, strategic, and leader attributes--of organizational performance. In addition, contingency and configuration-based relationships are explored, in order to keep in line with contemporary research stream (Mintzberg, 1990; Venkatraman, 1989; Venkatraman & Prescott, 1990).

Hypothesis H1 provides a traditional contingency-based approach to fit between leader attributes and environmental uncertainty. The test of this hypothesis will identify the leader attributes that are effective in uncertain environments. The use of multiple performance measures makes it possible to determine the impact of leader attributes on different organizational effectiveness measures. More importantly, the combinations of leader attributes that have important implications for performance in environments with different levels of uncertainty will be identified. Support for hypothesis one indicates that in an environment with a high level of

uncertainty, the organization will be more effective when the leader has attributes that fit with the requirements of such a setting. Lack of support for hypothesis 1 may suggest that a different combination of leader attributes will be effective in an environment that is high in uncertainty, or that such attributes have limited implications for performance.

Hypotheses H2, if supported, will suggest that the leaders of effective organizations have certain attributes (i.e. value orientation, leadership style, and locus of control) that if combined with a particular strategy will lead to higher organizational effectiveness. Support for hypothesis 2 may also indicate the necessity of matching leaders to strategy types because leaders with different attributes may be more successful at pursuing different strategies. Furthermore, support for this hypothesis will identify the leader attributes and the different combinations of the same that have important performance implications. As succinctly put by Govindarajan (1989, p. 252), "... superior performance can be achieved by selecting managers ... congruent with the requirements of particular strategies". He (Govindarajan, 1989; p. 266) also noted that while: "... several managerial characteristics might indicate a desired match with strategy ... one or two of these variables may be so salient to overshadow or dominate the other variables. There is both theoretical as well as practical merit in examining the presence of such 'dominance' among managerial orientations." It will be

possible within the context of this research study to address the issues that were raised in the preceding quotations. Lack of support for hypothesis 2 may indicate the need to consider the importance of other leader attributes to the performance of organizations, especially if the attributes in this study prove not to have any implications for performance. In addition, the lack of support for this hypothesis may suggest that a different combination of these leader attributes be considered within different strategy contexts. In other words, a different combination of attributes--rather than the one that was suggested by hypothesis 2--may be more effective when combined with the pursuit of a Type I strategy.

Hypothesis H3, if supported will indicate that environmental uncertainty moderates the relationship between strategy and performance. The strategy-environment fit literature indicate that innovative strategies are best suited for environments that are high in uncertainty, while conservative strategies are appropriate for static environments (e.g. Khandwalla, 1976). Consequently, support for hypothesis H3 will indicate that innovative and risky strategies appear to be more effective in high uncertainty environments. Conversely, if hypothesis H3 is not supported, it may indicate that environmental uncertainty has not moderated the relationship between strategy and environment in this research study.

Hypothesis 4 is a configuration-based hypothesis about all

the explanatory variables in this study. Support for this hypothesis promotes or justifies the performance implications of the congruence among all the variables in this study. Furthermore, the importance of using multiple approaches to fit in management research studies would be reinforced if the results of the interaction-based hypotheses are insignificant while the profile deviation or systems analysis findings are significant. Lack of support for hypothesis 4 could be attributed to various factors including sample size or measurement scales which could make it difficult to ascertain the importance of the variables/ constructs in this study to performance measures. Table 18 is a summary of the changes that were made in the main study because of the problems that were encountered in the pilot study.

Main Study

The main study for this dissertation was conducted in August, 1991, about one year after the pilot study. Several changes were made before the main study was undertaken because of the results and problems with the pilot study. Some of these changes have been discussed previously but the remaining ones are discussed in the following section.

Variables

Dependent variables. The dependent variables in the main

TABLE 18

SUMMARY OF THE CHANGES NECESSITATED BY THE PILOT STUDY

(1)	Instructions for completing two "background" items and for completing the locus of control measures were changed
(2)	No membership requirement was used for sample selection in the main study. The only criterion for sample selection was the minister's tenure
(3)	The method of data analysis for hypotheses 1, 2, and 3 was changed from subgroup to moderated regression analysis in order to retain more of the information that was collected
(4)	Strategy measures were changed from ordinal to interval-level scale to make profile deviation or systems analysis possible
(5)	Some other minor revisions and modifications were made to the questionnaire—compare Appendix A and B

study were the same as in the pilot study: residential membership, nonresidential membership, average Sunday school attendance, and financial receipts.

Independent variables. The independent variables were the same as in the pilot study: strategy, environmental uncertainty, locus of control, value orientation, and leadership style (i.e. task- and people-orientations). Strategy was measured by a scale that was developed in this study through a synthesis of the relevant literature. There was a major difference in the way the strategy construct was conceptualized and measured in the pilot versus the main study. In the pilot study, organizational leaders were given four categorical descriptions of strategy from which they were expected to pick one. In the main study, the strategy descriptions were converted to a likert-type scale in order to make profile deviation or systems analysis possible. Organizational leaders were required to indicate the extent to which the characteristics of their particular strategies were represented by these descriptions. Three descriptions were used for each strategy category, resulting in a twelve-item scale.

Environmental uncertainty was measured in the same way in both the main and pilot studies. In the main study, an additional question was added in order to better understand the impact of environmental changes on organizational effectiveness. The question was "Overall, have the changes in your community been positive (+), negative (-), or had no effect (o) on your

church?".

The measurements of leadership style and locus of control were the same in both studies. Instructions that were omitted in the pilot study for responding to the leadership style items were included for the main study. The instruction was "The following questions deal with how frequently you take a certain course of action when confronted with a particular situation. Please circle the number that is most representative of your choice of action under the following conditions. There are no right or wrong responses." The instruction for completing the locus of control items was changed from "The following questions deal with two ways of viewing the same issue. Please choose the letter option for each of the following that comes the closest to your belief" to "The following questions deal with two ways of viewing the same issue. Please CIRCLE THE ONE letter option for each of the following issues that you believe has MORE TRUTH to it than the other option. If you believe that neither statement has any truth to it, then choose the option that you less disagree with. There are no right or wrong options." This change was necessitated by the suggestions that were made by the subjects in the pilot study. Furthermore, the filler items were not used in the main study in order to more efficiently use the survey instrument's space. To address the issue of hypothesis guessing, some of the respondents were interviewed. They were specifically asked if they knew what the locus of control items represented,

the answers were negative. The common complaint was that they wished the items were not forced choice.

Finally, the value orientation of these leaders was measured using the same set of questions in both the pilot and main studies. The instructions for completing the questions was changed from "Please write the number that comes closest to the level of your agreement or disagreement with the following statements if: 1=strongly agree, 2=agree, 3=slightly agree, 4=slightly disagree, 5=disagree, and 6=strongly disagree" in the pilot study to "The following items deal with how much you agree or disagree with certain statements about the government, businesses, and social issues. Again, there are no correct or incorrect responses. Please CIRCLE THE NUMBER that comes the closest to your level of agreement or disagreement with the following statements. 1=strongly agree (SA), 2=agree 3=slightly agree, 4=slightly disagree, 5=disagree, 6=strongly disagree (SD)" in the main study. The differences and similarities in the pilot and main studies' questionnaires are in Appendices A and B respectively. Some of the other changes that were made in the main study were summarized on Table 18.

Subjects

The participants in the main study were Arkansas Southern Baptist church leaders. A list of ministers that had a tenure of four or more years was developed through the annual publication

of the Arkansas Baptist State convention. The same publications were used for both the pilot and main studies. All subjects were volunteers to the extent that they had complete freedom as to whether to participate in the study. Five hundred and seventy three pastors were identified using the 1986 and 1989 annual publications. Forty five of these pastors were used for the pilot study, leaving five hundred and twenty eight for the main study. All of these pastors were used in the main study because the power test that was conducted using the pilot study data indicated that a sample size of approximately one hundred and fifty may be needed to find significant results for some of the analyses in the main study.

The response rate for the pilot study was about 70 percent in comparison to the 40 percent (214 total responses) for the main study. Various plausible reasons can be given for this significant variation in response rates: (1) some of the churches that were identified in the original list have had a change of address and/or pastors. Consequently, about ten percent of the questionnaires were returned because of wrong addresses and/or wrong names; (2) in the pilot study, the questionnaires were sent out in early summer while they were sent out later during the summer for the main study--the time when more pastors may be vacationing; (3) some of the responses that were received could not be used because the pastors that were identified in the original list are no longer the current pastor. In most of these

cases, the tenure of the responding pastor was less than the original four years--five years in 1991 or 1986-1991--that was necessary in order for them to be included in the study; (4) The reminder postcard that was used in the pilot study was handwritten. Because of the size of the main study subjects, a form letter had to be used. The suggested implication is that the handwritten postcard could have been interpreted as having more of a "personal touch" and therefore could have elicited a higher response rate than the form letter that was used in the main study. Overall, only 169 of the 214 usable responses could be appropriately used for the tests of the hypotheses because of the tenure requirement for the ministers.

Task

The task was identical to that in the pilot study. A prenotification letter was sent to these ministers in early August, 1991. A few days later, the questionnaires were mailed out. The reminder postcards were then mailed out about one week after the questionnaires. Each organizational leader (i.e. senior minister) had a two to three-week period within which to complete and return the questionnaire. All the instructions for completing the task--responding to and returning the measuring instrument through the mail--were specified in the survey. Each of these ministers was assured that the anonymity of their responses would be preserved.

Summary

This chapter includes the method that was used to collect data in the pilot and main studies. The results of the pilot study were reported; these necessitated that some changes be made in the main study, and these were summarized and described. In addition, the results of the pilot study encouraged the continuation of this study. Finally, the variables, subjects and tasks in the main study were discussed.

CHAPTER 4

DATA ANALYSIS, INTERPRETATION, AND EVALUATION

This chapter presents the results of the main study. All analyses were based on a sample of 169. The first section deals with the measurement of the reliability of the survey instrument; then the hypotheses are analyzed. Finally, the results of the test of each hypothesis are interpreted and discussed.

Reliability of Research Instrument

Measurement is an integral and central aspect of social science research. Even though Stevens' (1951; p. 22) definition of measurement has been the most popular as "... the assignment of numbers to objects or events according to rules.", Blalock's (1968) definition is more appropriate for the social sciences in that it is the process of developing a link between abstract concepts and empirical indicants. In order to determine the extent to which a set of empirical indicators represents a theoretical concept, reliability issues at least need to be addressed. Generally, before any meaningful analysis of data can be undertaken, it is usually necessary to determine the reliability of the research instrument. This was especially

important in this study because the measurement scales had not been previously used with the sample of organizational leaders in this dissertation. As succinctly put by Carmines and Zeller (1979; p. 51) "... it is often too costly in terms of time and money to try to obtain a higher reliability coefficient. But the most important thing to remember is to report the reliability of the scale and how it was calculated." Instrument reliability could be measured through one or a combination of approaches: (1) retest method, (2) alternative form method, (3) split halves method, (4) internal consistency method, and/or (5) factor analysis.

The retest and alternative form methods require multiple administrations of the same or comparable tests respectively. In both cases, reliability is measured by the intercorrelations between the multiple administrations of the test. Because of the time and financial costs involved in using the retest and alternative forms methods, it was not feasible to use either of these approaches in the main study.

The split halves method requires that survey items be duplicated and the intercorrelations between the multiple responses be used to measure the reliability of the research scale. The test-retest method is appropriate when the duplication of questionnaire items will not unduly affect the length of the research instrument. The length of the questionnaire for the main study without any repeat items was

seven pages with an average completion rate of about 35 to 38 minutes. Consequently, in order to minimize the length of the survey instrument and potentially maximize the response rate, the split halves method was considered inappropriate for this study.

The most popular form of the internal consistency method is the Cronbach's alpha (Cronbach, 1951). While the internal consistency method is based on a single test administration, it assumes that scale items are parallel and of equal strength in capturing the construct(s) that they measure. The Cronbach alpha and the factor analytic methods were used in this study.

The factor analytic method was used because all the scales in the survey had not been used extensively in previous research studies, and/or tested with the sample that was used in this study. Therefore, the need to ascertain that scale items in each case measured a single phenomenon equally--a requisite for using Cronbach alpha--necessitated the use of factor analysis in the main study. The set of items that was used to measure each independent variable was factor analyzed using principal component analysis and varimax rotation as suggested by Carmines and Zeller (1979). Correlation analyses between the factors and other "relevant" variables, whenever one was available, were used to validate the uniqueness of the factor loadings. The "inter-factor correlations" was the primary approach used in this study because the length of the original questionnaire precluded the inclusion of other variables that could be used to determine

the validity of the factors. Only the factors with two or more items and loadings of 0.50 or higher were considered unique and used for further data analyses. The "two-item" minimum makes it possible to calculate reliability estimates while the 0.50 factor loadings enables the "stronger" items to be used to describe the factors (Nunnally, 1978; Taylor, 1985). Moreover, the "scree" plots were used to determine the number of factors that should be included in these analyses based on the point at which the "plot" changes direction (SAS User's Guide, 1979). Cronbach alphas were also computed for each or a combination of the factors that were interpreted as unique constructs in the main study.

Environmental uncertainty

There were twelve questions and two factor loadings for the items that were designed to measure environmental uncertainty (EU). Factor 1 consisted of six items that dealt with changes in the demographics, needs of individuals, and general economic conditions within the community (Table 19). Factor 1 was labeled the "microenvironment" because the items dealt specifically with community-related factors. Factor 2 consisted of four items that dealt with the changes in factors such as ministry offering by other churches, assistance from county association, government regulations, and the receptiveness of the community to the church's ministries. These items dealt with the perception of changes in "significant others". Consequently, factor 2 was

TABLE 19

FACTOR ANALYSIS OF ENVIRONMENTAL UNCERTAINTY SCALE ITEMS

<u>ITEM</u>	<u>FACTOR1</u>	<u>FACTOR2</u>
Size	0.71*	0.14
Demographics	0.79*	0.10
New population group	0.66*	0.24
Needs of individuals	0.71*	0.13
Other churches' ministries	0.24	0.67*
County-level assistance	0.11	0.70*
Government regulation	0.07	0.70*
Community's receptiveness	0.28	0.56*
Economic conditions	0.69*	0.18
Location	0.58*	0.27

* items included in defining the factors

Factor1: Microenvironment

Factor2: Macroenvironment

labeled the "macroenvironment". Correlation (Table 20) between factors 1 and 2--micro- and macro-environment was positive and significant ($p < .001$). This suggests a possible relationship between these factors. Consequently, these ten questionnaire items were combined into a composite measure for environmental uncertainty with a Cronbach alpha of 0.81.

Strategy

The fundamental change in how strategies were measured in the pilot versus the main study was that while the latter was on a continuous scale--as a collection of different constructs--the former was ordinal--made up of categorical descriptions. There were 12 items designed to capture four possible types of strategies. The twelve continuous scale items for the main study were developed from the four descriptions of strategies that were used in the pilot study. These twelve items loaded on three factors (Table 21). The loading on three factors is not surprising because in the pilot study, only three of the four strategy descriptions were selected by the thirty respondents. None of the respondents indicated that they pursued a "harvest" or Type IV strategy in the pilot study.

Factor 1 consisted of three scale items that dealt with membership, financial receipts, and focus on meeting the needs of present members. This factor was termed a "stabilize" strategy, the equivalent of the Type II strategy in the pilot study's

TABLE 20

CORRELATION BETWEEN MICRO AND MACRO ENVIRONMENTS

	MICROENVIRONMENT	MACROENVIRONMENT
MICROENVIRONMENT	1.00	0.48***
MACROENVIRONMENT		1.00

***p <.01

TABLE 21

FACTOR ANALYSIS OF GENERIC STRATEGIES SCALE ITEMS

<u>ITEM</u>	<u>FACTOR1</u>	<u>FACTOR2</u>	<u>FACTOR3</u>	<u>FACTOR4</u>
Direction of membership	0.79*	0.08	0.02	0.05
Number of ministries	-0.00	0.70*	-0.02	-0.14
Focus on present members	0.62*	-0.24	-0.05	-0.02
Reducing ministries	0.27	-0.40	0.55*	-0.26
Financial contributions	0.79*	0.23	0.17	0.03
Unique ministries	0.27	0.53*	0.08	-0.44
Repetitiveness of actions	0.23	-0.67*	0.26	0.30
Reducing operating costs	0.24	0.13	0.78*	0.19
Reorganization	0.16	0.59*	0.30	0.25
Longer term orientation	0.40	0.43	-0.28	0.10
Ministry focus	0.10	0.11	0.11	0.83*
Terminating operations	-0.27	-0.04	0.68*	0.05

* items included in defining the factors

Factor1: "Stabilize strategy" (SSSTRAT)

Factor2: "Growth strategy" (GSTRAT)

Factor3: "Harvest-turnaround strategy" (HISTRAT)

descriptions. The Cronbach alpha for this strategy was 0.57. Factor 2 had items that dealt with the number and uniqueness of the ministries, and consistency and flexibility in the operations of the church organization. This factor was termed "growth" strategy, and is similar to the Type I strategy description in the pilot study. The Cronbach alpha for this strategy was 0.52. Finally, factor 3 included items concerning the reduction in the number of ministries, operating costs, and the church's operations in general. This factor was identified as the "harvest-turnaround" strategy. This strategy had characteristics that were similar to those of the Types III and IV strategies in the pilot study. The Cronbach alpha for this strategy was 0.71.

Unlike the other constructs in this study, there was an additional "relevant" construct that could be used to validate the uniqueness of the three factors. This additional construct was risk propensity—the degree to which organizational leaders were likely to take risks. There were three questionnaire items that measured the risk propensity of organizational leaders. The Cronbach alpha for risk propensity was 0.78. Typically, the lower the score on the questionnaire items that were designed to measure strategy, the more that strategy is being pursued. Conversely, the higher the score on the items that measured risk propensity, the more the leader was considered a risk taker. Correlation analysis (Table 22) between each of the strategies and risk provided some support for the uniqueness of the strategy

TABLE 22

CORRELATION BETWEEN RISK PROPENSITY AND STRATEGY TYPES

	RISK	GSTRAT	SSTRAT	HISTRAT
RISK	1.00	-0.26***	0.15*	-0.01
GSTRAT		1.00	0.08	-0.09
SSTRAT			1.00	0.21***
HISTRAT				1.00

*p < .10

***p < .01

types. There was negative and significant correlation between "growth" or Type I strategy and risk--suggesting that risk takers may be more likely to pursue a growth strategy. The correlation between the "stabilize" or Type II strategy and risk was positive and marginally significant. Therefore, risk averse leaders may be more likely to pursue a "stabilize" or Type II strategy. The correlation between risk and "harvest-turnaround" or Types III and IV strategies was near zero. These findings between risk and strategy types are generally consistent with those of other researchers (e.g. Herbert & Deresky, 1987b). In addition, all the analyses in the pilot study that included strategy were more complex in the main study because three continuous types rather than three categorical descriptions were used to measure strategy.

Leadership style

A factor analysis on the set of questionnaire items that were designed to measure the task- and people-orientations of leaders yielded three factors. The factors were easily interpreted because six of the seven items that were designed to measure task-orientation loaded on factor 1 (Table 23). Similarly, five of the seven items that were designed to measure people-orientation loaded on factor 2. In light of the factor loadings, factors 1 and 2 were called task- and people-orientations respectively. The Cronbach alpha for task-

TABLE 23

FACTOR ANALYSIS OF LEADERSHIP STYLE SCALE ITEMS

<u>ITEM</u>	<u>FACTOR 1</u>	<u>FACTOR 2</u>	<u>FACTOR 3</u>
Knowledge of task expectations	0.73*	0.11	0.00
Trial of leader's new ideas	0.63*	-0.05	0.11
Leader decides course of action	0.27	-0.23	0.71*
Specificity of task assignments	0.53*	0.21	0.33
Understanding of leader's role	0.66*	0.17	-0.14
Extent of detail in work schedules	0.73*	0.09	0.07
The role of policies and procedures	0.69*	-0.04	-0.04
Expression of gratitude	0.22	0.60*	-0.08
Use of congregation's ideas	-0.03	0.82*	0.01
Input of members in decision-making	0.02	0.70*	-0.18
Information about impending changes	0.17	0.44	-0.44
Concern for members' welfare	0.23	0.53*	-0.32
Changes based on member's input	-0.04	0.80*	-0.09
Authoritative decision-making	0.00	-0.11	0.76*

* items included in defining the factors

Factor1: Task-orientation

Factor2: People-orientation

orientation was 0.76 and 0.77 for people-orientation. Even though factor 3 had three items, it was eliminated from further consideration because there was a change in the direction of the "scree" plot after the first two factors. The correlation between task-orientation and people-orientation was not significant.

Value orientation

Unlike the preceding analyses, two factor analytic procedures were performed separately on the items that measured the two types of values (i.e. human welfare and business affairs). Both types of values yielded two factors each (Tables 24 & 25). Further examination suggested that each pair of factors measured the same construct. No unique characteristics were observable for the items in the two factors for each of the business affairs and human welfare values. The correlation (Table 26) between the two factors for business affairs value was positive and significant ($p < .001$). Similarly, the correlation (Table 27) between the pair of factors for human welfare values was positive and significant ($p < .01$). Consequently, the two factors that were generated for each type of value resulted in one human welfare and one business affairs values. Rather than having one value orientation measure—as was the case in the pilot study—two measures were used in the main study because the correlation between the two types of values was not significant.

TABLE 24

FACTOR ANALYSIS OF BUSINESS AFFAIRS VALUES SCALE ITEMS

<u>ITEM</u>	FACTOR 1	FACTOR 2
Impact of business on elections	0.67*	0.15
Fairness of tax laws	0.70*	0.25
Corporations and the poor	0.75*	0.11
Taxes and the wealthy	0.73*	0.15
The role of regulatory agencies	0.19	0.69*
Government protection of the poor	0.53*	0.53*
Advertising and product demand	0.49*	0.36
Medical care supply	0.35	0.51*
Executives' liability for products	0.13	0.76*
Companies and social responsibility	0.16	0.70*
Industrialization and quality of life	0.14	0.64*

* items included in defining the factors

Factor1: Business affairs values #1 (BVALUE 1)

Factor2: Business affairs values #2 (BVALUE 2)

TABLE 25

FACTOR ANALYSIS OF HUMAN WELFARE VALUES SCALE ITEMS

<u>ITEM</u>	FACTOR 1	FACTOR 2
Government programs support laziness	0.44	0.40
Children of interracial marriages	0.07	0.56*
Role of protestors and radicals	0.30	-0.61*
Discipline and juvenile delinquency	0.64*	0.11
Role of radical authority figures	0.55*	0.30
Hiring of a suspected homosexual	0.39	0.52*
Labor unions and strike	0.16	0.58*
Blacks and discrimination	-0.58*	-0.08
Voluntary affirmative action programs	-0.66*	0.20

* items included in defining the factors

Factor1: Human welfare values #1 (HVALUE 1)

Factor2: Human welfare values #2 (HVALUE 2)

TABLE 26

CORRELATION BETWEEN THE TWO BUSINESS AFFAIRS VALUES

	BVALUE 1	BVALUE 2
BVALUE 1	1.00	0.48***
BVALUE 2		1.00

*** p <.01

TABLE 27

CORRELATION BETWEEN THE TWO HUMAN WELFARE VALUES

	HVALUE 1	HVALUE 2
HVALUE 1	1.00	0.24***
HVALUE 2		1.00

*** p <.01

Locus of control

The feedback that was received from the respondents to the twenty-three item Rotter's (1966) scale to measure locus of control, indicated that these questionnaire items created some problems for the subjects. As a group, these items had the most missing values such that only 133 of the 169 responses could be used. The 36 missing values (21 percent of the responses) is the highest for any grouping of items on the questionnaire. A factor analysis of the 23 items yielded 9 factors. Other researchers have found the Rotter's scale to yield as many as 10 factors which could perhaps make the validity of this instrument questionable (e.g. Bass, 1991; McInish & Lee, 1987). The "scree" plot indicated that the first two factors were the strongest (Table 28). Even though the second factor had two questionnaire items, it did not meet the "scree plot" criteria for inclusion in this study. Furthermore, the correlation between the first two factors was not significant. Consequently, only the four items that loaded on factor 1 were used to measure locus of control in the main study. Because of the dichotomous nature of the locus of control items, the approach suggested by Kuder and Richardson (1937)--the equivalent of Cronbach alpha for categorical data--was used to estimate the reliability coefficient for this variable. The reliability coefficient for locus of control was 0.62.

TABLE 28

FACTOR ANALYSIS OF LOCUS OF CONTROL SCALE ITEMS

<u>ITEM</u>	<u>FACTOR1</u>	<u>FACTOR2</u>	<u>FACTOR3</u>	<u>FACTOR4</u>
Source of misfortunes	0.21	0.00	-0.01	-0.12
Reasons for wars	0.04	-0.09	0.05	0.03
Respect for individuals	0.09	0.11	-0.03	0.05
Students and their grades	-0.11	0.09	-0.01	0.09
Effective leadership	-0.01	0.70*	-0.08	0.21
Likability	0.07	0.25	0.08	0.13
Destiny	-0.01	0.07	0.09	0.75*
Students and examinations	-0.01	-0.22	0.14	0.59*
Becoming a success	0.65*	-0.01	-0.02	0.16
Influence of individuals	0.62*	0.00	0.29	0.11
Planning and success	-0.01	0.22	0.75*	0.20
Hard work and success	0.35	0.03	0.61*	-0.20
Getting to the top	0.34	0.13	-0.23	0.63*
Controlling world events	0.53*	-0.05	0.25	0.21
Accidental happenings	0.08	-0.03	0.04	0.11
Friendships/Relationships	-0.07	0.46	0.25	-0.12
Equity of good and evil	-0.03	0.27	0.14	0.22
Politics and corruption	0.72*	0.10	-0.01	-0.17
Hard work and grades	-0.05	0.22	-0.67*	-0.03
Control over one's life	-0.10	-0.13	0.12	0.09
Friendliness/Likability	0.10	0.76*	0.09	-0.16
Acts and consequences	-0.04	0.40	-0.10	-0.13
Government/Electorate	0.17	0.01	0.01	0.03

* items included in defining the factors

TABLE 28 (CONTD.)

<u>FACTOR5</u>	<u>FACTOR6</u>	<u>FACTOR7</u>	<u>FACTOR8</u>	<u>FACTOR9</u>
0.14	0.17	0.70*	0.01	-0.18
-0.09	0.00	-0.03	0.10	0.88*
-0.01	0.71*	-0.08	0.13	-0.09
0.08	0.77*	0.14	0.00	0.07
0.00	0.11	0.02	0.06	-0.08
-0.02	0.34	-0.45	0.02	-0.01
0.29	-0.01	-0.05	0.06	0.21
-0.20	0.16	-0.11	0.14	-0.22
0.24	0.14	0.22	-0.11	-0.00
-0.21	-0.00	0.13	0.41	-0.04
-0.06	-0.18	-0.07	0.19	-0.03
0.05	-0.10	0.20	0.16	0.01
0.03	0.15	0.23	-0.07	-0.04
-0.12	0.09	-0.00	0.19	-0.28
0.79*	0.02	0.19	0.01	-0.18
-0.41	0.15	-0.09	-0.07	-0.15
-0.03	-0.00	0.69*	0.14	0.15
0.04	-0.21	-0.16	0.04	0.24
-0.01	-0.36	-0.01	0.26	-0.11
0.48	0.15	0.02	0.61*	-0.07
0.06	0.06	0.12	-0.10	0.03
0.56*	0.09	-0.30	0.06	0.13
-0.01	0.06	0.06	0.81*	0.14

* items included in defining the factors

Summary

The reliability estimates for the measurement scales were calculated and reported in the preceding sections. The factor analytic and Cronbach alpha approaches were used for all the continuous variables/constructs while Kuder-Richardson's (or KR-20) coefficient was used for the locus of control scale. The reliability estimates ranged from a low of 0.52 for 'growth' strategy to a high of 0.81 for environmental uncertainty. Once the reliability estimates have been reported, the tests of the hypotheses can be undertaken and are reported in the following section.

Hypotheses

The results pertaining to the four hypotheses in this study were based on the analyses of the relationships between the independent and dependent variables. The first three hypotheses were analyzed using moderated regression analysis. An "F" test was used to determine significant regression models in this study because it allows for non-normal or asymmetrical distributions in the scores of variables. The fourth and configuration hypothesis was based on profile deviation or pattern analysis. For all analyses, the approaches used by Schoonhoven (1981) and Drazin and Van de Ven (1985) were adopted. The dependent variables are:

residential membership, nonresidential membership, average Sunday school attendance, and financial receipts. These dependent variables are measures of organizational growth over a four-year period. Based on the factor analytic procedures that were discussed in the preceding section, there were nine independent variables/constructs in the main study: the three types of strategy, environmental uncertainty, task- and people-orientations, human welfare and business affairs values, and locus of control.

Hypothesis 1

It was predicted that in high uncertainty environments, organizations will attain relatively superior levels of performance when the leaders are: (1) liberals in business affairs and human welfare values, (2) high in task- and people-orientations, and (3) internals with regard to locus of control. This hypothesis, in conjunction with hypotheses 2 and 3 are based on interactions between the variables of interest. The discussions in the previous chapter indicated that subgroup or moderated regression analysis could be used to test this hypothesis. Moderated regression analysis was used in the main study in consonance with Schoonhoven's (1981) study. In using moderated regression analysis, hypothesis 1 can be alternatively stated as suggesting that in environments with high levels of uncertainty, business affairs and human welfare values and task-

and people-orientations would have increasingly positive impact on the performance measures, while locus of control would have decreasingly negative effects on the dependent variables. Environmental uncertainty and each of the leader attributes were measured along a low or high continuum. The results of the test of hypothesis 1 deal with the effectiveness implications of the interaction between each leader attribute and environmental uncertainty (Tables 29-32).

Environmental uncertainty, Task-orientation, and the Dependent Variables. The interaction between environmental uncertainty and task-orientation was significant for increases in residential membership (Table 29) and average Sunday school attendance (Table 31). In addition, the lack of significant interactions between environmental uncertainty and task-orientation for nonresidential membership and financial receipts did not preclude further analysis (Schoonhoven, 1981). In order to analyze the interactions, it was necessary to assume--based on the formulation of hypothesis 1--that the effects of higher task orientation on the dependent variables are modified by the level of environmental uncertainty facing the organization. The task orientation-environmental uncertainty interactions may be interpreted with the following equation:

$$Y = b_1(T) + b_2(E*T) \dots \dots \dots (1)$$

where Y = Dependent variable

T = Task-orientation

TABLE 29

LEADER ATTRIBUTES, ENVIRONMENTAL UNCERTAINTY, AND
RESIDENTIAL MEMBERSHIP

DEPENDENT VARIABLE: Residential membership				
<u>Source</u>	<u>DF</u>	<u>Sum of squares</u>	<u>Mean square</u>	<u>F value</u>
Model	11	12673.33	1152.12	2.16**
Error	126	67090.83	532.47	
R-square: 0.16				
<u>Parameter</u>		<u>Estimate</u>		
Environmental Uncertainty (EU)		2.45		
Task-orientation (TO)		6.73***		
People-orientation (PO)		-4.81		
Business affairs values (BV)		-0.08		
Human welfare values (HV)		1.74		
Locus of control (LC)		-10.77		
(EU) *(TO)		-0.25**		
(EU) *(PO)		0.12		
(EU) *(BV)		-0.01		
(EU) *(HV)		-0.04		
(EU) *(LC)		0.43		

**p <.05

***p <.01

TABLE 30

LEADER ATTRIBUTES, ENVIRONMENTAL UNCERTAINTY, AND
NONRESIDENTIAL MEMBERSHIP

DEPENDENT VARIABLE: Nonresidential membership				
<u>Source</u>	<u>DF</u>	<u>Sum of squares</u>	<u>Mean square</u>	<u>F value</u>
Model	11	1696.19	154.20	1.13
Error	126	17186.69	136.40	
R-square: 0.09				
<u>Parameter</u>		<u>Estimate</u>		
Environmental Uncertainty (EU)		2.10		
Task-orientation (TO)		-1.31		
People-orientation (PO)		4.19**		
Business affairs values (BV)		-0.14		
Human welfare values (HV)		0.29		
Locus of control (LC)		1.22		
(EU)*(TO)		0.07**		
(EU)*(PO)		-0.15		
(EU)*(BV)		0.01		
(EU)*(HV)		-0.01		
(EU)*(LC)		-0.03		

**p < .05

TABLE 31

LEADER ATTRIBUTES, ENVIRONMENTAL UNCERTAINTY, AND
AVERAGE SUNDAY SCHOOL ATTENDANCE

DEPENDENT VARIABLE: Average Sunday school attendance				
<u>Source</u>	<u>DF</u>	<u>Sum of squares</u>	<u>Mean square</u>	<u>F value</u>
Model	11	15676.11	1425.10	2.30**
Error	126	78105.00	619.88	
R-square: 0.17				
<u>Parameter</u>		<u>Estimate</u>		
Environmental Uncertainty (EU)		0.82		
Task-orientation (TO)		7.74***		
People-orientation (PO)		-4.52		
Business affairs values (BV)		-1.52		
Human welfare values (HV)		-0.14		
Locus of control (LC)		-19.66**		
(EU)*(TO)		-0.34***		
(EU)*(PO)		0.13		
(EU)*(BV)		0.04		
(EU)*(HV)		0.03		
(EU)*(LC)		0.77**		

**p <.01

***p <.05

TABLE 32

LEADER ATTRIBUTES, ENVIRONMENTAL UNCERTAINTY, AND
FINANCIAL RECEIPTS

DEPENDENT VARIABLE: Financial receipts				
<u>Source</u>	<u>DF</u>	<u>Sum of squares</u>	<u>Mean square</u>	<u>F value</u>
Model	11	6680.32	607.30	0.90
Error	126	85283.35	676.85	
R-square: 0.07				
<u>Parameter</u>		<u>Estimate</u>		
Environmental Uncertainty (EU)		1.61		
Task-orientation (TO)		1.97		
People-orientation (PO)		-0.96		
Business affairs values (BV)		-1.57		
Human welfare values (HV)		1.39		
Locus of control (LC)		-11.27		
(EU)*(TO)		-0.14		
(EU)*(PO)		0.04		
(EU)*(BV)		0.05		
(EU)*(HV)		-0.05		
(EU)*(LC)		0.42		

E = Environmental uncertainty

b1 = main effect of task-orientation

b2 = interaction effect of uncertainty-task orientation

To determine whether the effects of task-orientation on the dependent variables are monotonic or nonmonotonic over the range of environmental uncertainty, a derivative and the solution of equation 1 for environmental uncertainty yields:

$$dY/dT = b1+b2(E) \dots\dots\dots (2)$$

If equation 2 is solved for E--to determine the points at which environmental uncertainty does not modify the effect of task-orientation on the dependent variables--the result is:

$$E = -b1/b2 \dots\dots\dots (3)$$

The values for b1 and b2 from Tables 29-32 are substituted into equation 3 for each of the dependent variables. If the calculated value for environmental uncertainty is within the range observed in this study's sample, it can be concluded that task-orientation has a nonmonotonic effect on the dependent variable over the range of environmental uncertainty.

Nonmonotonic (as opposed to monotonic) effect means that task-orientation has some positive and some negative effects on the dependent variable. Different values of environmental uncertainty can be substituted into equation 2 to determine the range where the positive and negative effects of task-orientation exist over the range of uncertainty. Environmental uncertainty ranged from

10 to 45 in the main study, with a mean of 23.82 and a standard deviation of 6.17.

The effect of task-orientation on residential membership was significant ($p < .05$) and nonmonotonic over the range of environmental uncertainty. The impact of task-orientation on residential membership was positive (negative) for environmental uncertainty scores below (above) 26.92 (-6.73/-0.25). Therefore, the direction of the effect of task-orientation on residential membership over the range of environmental uncertainty contradicts what was expected from the formulation of hypothesis 1--task-orientation had positive effects on residential membership when environmental uncertainty was low.

The interaction of task-orientation and environmental uncertainty on nonresidential membership was similar to that observed for residential membership in that the effect of task-orientation on nonresidential membership was also nonmonotonic over the range of environmental uncertainty in this study. Unlike the case for residential membership, task-orientation had a positive (negative) impact on nonresidential membership for environmental uncertainty scores above (below) 18.71 (or 1.31/0.07). In other words, when environmental uncertainty was low (i.e. less than 18.71), task-orientation had a negative effect on nonresidential membership. Conversely, when environmental uncertainty was high--greater than 18.71--task-orientation had a positive impact on nonresidential membership.

In effect, the positive impact of task-orientation on nonresidential membership increased as environmental uncertainty increased. Since the interaction term between environmental uncertainty and task-orientation was not significant for nonresidential membership, all that can be said at this junction is that the relationship was in the expected direction.

The effect of task-orientation on average Sunday school attendance was significant ($p < .01$), nonmonotonic, and in the same direction as what was observed for residential membership. The impact of task-orientation on average Sunday school attendance was positive and negative for values of environmental uncertainty that were below 22.76 and higher than 22.76 respectively. Therefore, in an environment with a high degree of uncertainty, task-orientation had a negative impact on average Sunday school attendance.

The impact of the interaction between task-orientation and environmental uncertainty on financial receipts, except for not being significant, was similar to that observed for average Sunday school attendance. The effect of task-orientation on financial receipts decreased as environmental uncertainty increased. In fact, the point at which environmental uncertainty did not modify the impact of task-orientation on financial receipts was 14.07. At values of environmental uncertainty above (below) 14.07, task-orientation had a negative (positive) impact on financial receipts. Therefore, the results of the analysis of

the task orientation-environmental uncertainty interaction on financial receipts were not consistent with the direction suggested by the formulation of hypothesis 1.

In summary, there is a general lack of support for the portion of hypothesis 1 regarding the interaction between task-orientation, environmental uncertainty, and effectiveness. The direction of the relationship that is suggested by the task orientation-environmental uncertainty interaction was only slightly observed, based only on direction, for one of the four dependent variables--nonresidential membership. Generally, and inconsistent with the original formulation of hypothesis 1, high task-orientation appeared to be ineffective in high uncertainty environments. In effect, high task-orientation appeared to be effective in environments with low levels of uncertainty.

Environmental uncertainty, People-orientation, and the Dependent Variables. The impact of the interaction between people-orientation and environmental uncertainty was similar to those observed for task-orientation. The interaction between environmental uncertainty and people-orientation was only significant for nonresidential membership (Table 30). In order to analyze the interactions, it was necessary to assume--based on the formulation of hypothesis 1--that the effects of people-orientation on the dependent variables are modified by the level of environmental uncertainty facing the organization. The people orientation-environmental uncertainty interactions may be

interpreted with the following equation:

$$Y = b_3(P) + b_4(E*P) \dots \dots \dots (4)$$

where Y = Dependent variable

P = People-orientation

E = Environmental uncertainty

b₃ = main effect of people-orientation

b₄ = interaction of uncertainty-people orientation

This means that the effect of people-orientation on the dependent variables is modified by the level of uncertainty in the environment. To determine whether the effects of people-orientation on the dependent variables are monotonic or nonmonotonic over the range of environmental uncertainty, a derivative and the solution of equation 4 for environmental uncertainty yields:

$$dY/dP = b_3 + b_4(E) \dots \dots \dots (5)$$

If equation 5 is solved for E—to determine the point at which environmental uncertainty does not modify the effect of people-orientation on the dependent variables—the result is:

$$E = -b_3/b_4 \dots \dots \dots (6)$$

The values for b₃ and b₄ from Tables 29-32 are substituted into equation 6 for each of the dependent variables. If the calculated value for environmental uncertainty is within the range observed in this study's sample, it can be concluded that people-orientation has a nonmonotonic effect on the dependent variable over the range of environmental uncertainty.

Nonmonotonic (as opposed to monotonic) effect means that people-orientation has some positive and some negative effects on the dependent variables. Different values of environmental uncertainty can be substituted into equation 5 to determine the range where the positive and negative effects of people-orientation exist over the range of uncertainty.

The effect of people-orientation on residential membership was not significant (Table 29). The analysis of the interaction term indicated that the effect of environmental uncertainty on the relationship between people-orientation and residential membership was nonmonotonic over the range of environmental uncertainty. When environmental uncertainty scores were extremely high (40.08 and higher), the modifying effect of environmental uncertainty on the relationship between people-orientation and residential membership was positive. For environmental uncertainty scores below 40.08, the effect on residential membership was negative. In other words, people-orientation led to higher effectiveness as environmental uncertainty increased, or a leader's people-orientation had a positive impact on residential membership in high uncertainty environments. This finding is consistent with what was expected—based on the formulation of hypothesis 1.

The effect of people-orientation on nonresidential membership was significant ($p < .05$) and nonmonotonic over the range of environmental uncertainty. The modifying effect of

environmental uncertainty on the relationship between people-orientation and nonresidential membership decreased over the range of uncertainty—high people-orientation in an environment that was high in uncertainty (scores of 27.93 or higher) had a negative effect on nonresidential membership. Therefore, it appears as if the part of hypothesis 1 that dealt with the interaction between people-orientation, environmental uncertainty, and nonresidential membership was not supported because of the direction of the effect of people-orientation on nonresidential membership over the range of environmental uncertainty. Contrary to what one would expect from the formulation of hypothesis 1, people-orientation had an increasingly negative impact on nonresidential membership as environmental uncertainty increased.

The interaction of people-orientation and environmental uncertainty on average Sunday school attendance was similar to that observed for residential membership. The effect of people-orientation on average Sunday school attendance was also nonmonotonic but not significant over the range of environmental uncertainty. This indicates that people-orientation had a positive as well as a negative effect on average Sunday school attendance, depending on the level of environmental uncertainty. When environmental uncertainty was low (i.e. less than 34.76), people-orientation had a negative effect on average Sunday school attendance. Conversely, when environmental uncertainty was

high—greater than 34.76—people-orientation had a positive impact on average Sunday school attendance. In effect, the positive impact of people-orientation on average Sunday school attendance increased as environmental uncertainty increased. This finding was consistent with what was expected from the test of hypothesis 1.

The effect of people-orientation on financial receipts was also nonmonotonic and not significant over the range of environmental uncertainty. The impact of people-orientation on financial receipts was positive (negative) for values of environmental uncertainty that were above (below) 22.83. In other words, in an environment with a high degree of uncertainty, people-orientation had a positive impact on financial receipts. Conversely, for values of environmental uncertainty below 22.83, people-orientation had a negative effect on financial receipts. Again, this finding is consistent with the formulation of hypothesis 1.

In summary, there is general but tentative support for the portion of hypothesis 1 that suggests that the interaction between people-orientation and environmental uncertainty may lead to increased effectiveness. In other words, the direction of the relationship that is suggested by the people orientation-environmental uncertainty interaction was as expected for all the dependent variables except nonresidential membership. Therefore, consistent with the original formulation of hypothesis 1, high

people-orientation appeared to lead to increased effectiveness for most of the dependent variable measures in environments with high levels of uncertainty.

Environmental uncertainty, Business affairs values, and the Dependent Variables. The impact of the interactions between business affairs values (BAV) and environmental uncertainty was not significant for any of the dependent variables even though three of the four were in the expected direction. The analyses of the interaction terms were nonmonotonic for all the dependent variables except residential membership. The lack of significant interactions between environmental uncertainty and BAV did not preclude further analysis as suggested by Schoonhoven (1981). In order to analyze the interactions, it was assumed that the effect of higher BAV on the dependent variables is modified by the level of environmental uncertainty (EU). The BAV-EU interaction may be interpreted as:

$$Y = b_5(B) + b_6(E*B) \dots \dots \dots (7)$$

where Y = Dependent variable

B = Business affairs values (BAV)

E = Environmental uncertainty (EU)

b₅ = main effect of business affairs values

b₆ = interaction effect of BAV and EU on Y

This means that the effect of BAV on the dependent variables is modified by the level of uncertainty in the environment. To determine whether the effects of BAV on the dependent variables

are monotonic or nonmonotonic over the range of environmental uncertainty, a derivative and the solution of equation 7 for environmental uncertainty yields:

$$dY/dB = b_5 + b_6(E) \dots \dots \dots (8)$$

If equation 8 is solved for E--to determine the point at which environmental uncertainty does not modify the effect of BAV on the dependent variables--the result is:

$$E = -b_5/b_6 \dots \dots \dots (9)$$

The values for b_5 and b_6 from Tables 29-32 are substituted into equation 9 for each of the dependent variables. If the calculated value for environmental uncertainty is within the range observed in this study's sample, it can be tentatively suggested that BAV has a nonmonotonic effect on the dependent variable over the range of environmental uncertainty. Different values of environmental uncertainty can be substituted into equation 8 to determine the range where the positive and negative effects of BAV exist over the range of uncertainty.

The effect of BAV on residential membership was not significant (Table 29). The analysis of the interaction term indicated that the effect of environmental uncertainty on the relationship between BAV and residential membership was monotonic over the range of environmental uncertainty. In fact, BAV led to lower levels of effectiveness as environmental uncertainty increased such that the higher the environmental uncertainty, the higher the negative impact of BAV on residential membership. The

monotonic interaction means that BAV had only negative effects on residential membership over the range of uncertainty. Therefore, it appears as if the part of hypothesis 1 concerning the interaction between BAV, environmental uncertainty, and effectiveness measures did not receive statistical or directional support for residential membership.

The effects of BAV on nonresidential membership, average Sunday school attendance, and financial receipts were not significant. The effect of environmental uncertainty on the relationship between BAV and these three dependent variables increased over the range of uncertainty. The effects of BAV were increasingly positive on nonresidential membership, average Sunday school attendance, and financial receipts when environmental uncertainty scores were higher than 11.39, 34.2, and 32.13 respectively. Conversely, at values of environmental uncertainty below those specified, BAV had higher negative effects on these dependent variables. Therefore, the part of hypothesis 1 pertaining to the interaction between BAV, environmental uncertainty, and effectiveness appears to have received tentative directional support in this study for all the dependent variables except residential membership. In other words, and consistent with the formulation of hypothesis 1, liberal business affairs values appear to be associated with higher effectiveness in environments with high levels of uncertainty.

Environmental uncertainty, Human welfare values, and Dependent Variables. The interaction between environmental uncertainty and human welfare values (HWV) was not significant for any of the dependent variables (Tables 29-32). The directions and pattern of these interactions were similar to those for task-orientation and environmental uncertainty (EU) because they were mostly opposite to what was hypothesized. In order to analyze the interactions, it was assumed that the effects of HWV on the dependent variables were modified by the level of environmental uncertainty. The HWV-EU interaction may be interpreted with the following equation:

$$Y = b7(H)+b8(E*H).....(10)$$

where Y = Dependent variable

H = Human welfare values (HWV)

E = Environmental uncertainty (EU)

b7 = main effect of human welfare values

b8 = interaction effect of HWV and EU on Y

This equation can be interpreted to mean that the effects of HWV on the dependent variables are modified by the level of uncertainty in the environment. To determine whether the effects of HWV on the dependent variables are monotonic or nonmonotonic over the range of environmental uncertainty, a derivative and the solution of equation 10 for environmental uncertainty yields:

$$dY/dH = b7+b8(E).....(11)$$

If equation 11 is solved for E--to determine the point at which

environmental uncertainty does not modify the effect of HWV on the dependent variables--the result is:

$$E = -b7/b8.....(12)$$

The values for b7 and b8 from Tables 29-32 are substituted into equation 12 for each of the dependent variables. If the calculated value for environmental uncertainty is within the range observed in this study, it can be concluded that HWV has a nonmonotonic effect on the dependent variable over the range of environmental uncertainty. Different values of environmental uncertainty can be substituted into equation 12 to determine the range where the positive and negative effects of HWV exist over the range of uncertainty.

The effects of HWV though nonmonotonic was not significant over the range of environmental uncertainty for nonresidential membership and financial receipts. The impact of HWV was positive (negative) for environmental uncertainty scores below (above) 23.11 for nonresidential membership and 27.8 for financial receipts. Therefore, the direction of the effect of HWV on nonresidential membership and financial receipts over the range of environmental uncertainty contradicted what was expected from the formulation of hypothesis 1. In effect, contrary to expectations, liberal human welfare values appeared to have an increasingly negative impact on nonresidential membership and financial receipts as environmental uncertainty increased.

The interaction of HWV and environmental uncertainty on

residential membership was similar to that observed for nonresidential membership and financial receipts except that it was a monotonic effect. The interaction of HWV and environmental uncertainty only had positive effects on residential membership over the range of the environmental uncertainty. The positive effects of HWV on residential membership decreased as environmental uncertainty increased. In short, the interaction term between environmental uncertainty and HWV was neither significant nor was it in the expected direction for residential membership.

The effect of HWV on average Sunday school attendance was monotonic over the range of environmental uncertainty. The impact of HWV on average Sunday school attendance was positive and increasing throughout. In other words, as environmental uncertainty increased, the positive impact of HWV on average Sunday school attendance also increased. The result of the analysis of the HWV-environmental uncertainty interaction on average Sunday school attendance was consistent with the direction suggested by the formulation of hypothesis 1. In other words, liberal human welfare values could be associated with increases in average Sunday school attendance as environmental uncertainty increased.

In summary, there was a general lack of support for the portion of hypothesis 1 where the interaction between human welfare values and environmental uncertainty was expected to lead

to increased effectiveness. The direction of the relationship that was suggested by the human welfare values-environmental uncertainty interaction was generally not observed for any of the dependent variables except average Sunday school attendance. Contrary to the formulation of hypothesis 1, liberal human welfare values had increasingly positive effects on most of the dependent variables as environmental uncertainty decreased. In other words, as environmental uncertainty increased, the negative impact of liberal human welfare values on most of the performance measures appeared to also increase.

Environmental uncertainty, Locus of control, and Dependent Variables. The effects of the interactions between locus of control and environmental uncertainty were not significant for any of the dependent variables except average Sunday school attendance. Again, in order to analyze the interaction, it was assumed that the effect of locus of control on the dependent variables is modified by the level of environmental uncertainty. The locus of control-environmental uncertainty interaction may be interpreted with the following equation:

$$Y = b_9(L) + b_{10}(E \cdot L) \dots \dots \dots (13)$$

where Y = Dependent variable

L = Locus of control (L)

E = Environmental uncertainty (EU)

b₉ = main effect of locus of control

b₁₀ = interaction of L-EU on the dependent variables

This means that the effect of locus of control on the dependent variables is modified by the level of uncertainty in the environment. To determine whether the effects of locus of control on the dependent variables are monotonic or nonmonotonic over the range of environmental uncertainty, a derivative and the solution of equation 13 for environmental uncertainty yields:

$$dY/dL = b_9 + b_{10}(E) \dots \dots \dots (14)$$

If equation 14 is solved for E--to determine the point at which environmental uncertainty does not modify the effect of locus of control on the dependent variables--the result is:

$$E = -b_9/b_{10} \dots \dots \dots (15)$$

The values for b_9 and b_{10} from Tables 29-32 are substituted into equation 15 for each of the dependent variables. If the calculated value for environmental uncertainty is within the range observed in this study's sample, it can be concluded that locus of control has a nonmonotonic effect on the dependent variable over the range of environmental uncertainty. Different values of environmental uncertainty can be substituted into equation 14 to determine the range where the positive and negative effects of locus of control exist over the range of uncertainty.

Because of the hypothesized indirect relationships between the dependent variables and locus of control scale, the interpretation of the interaction terms had to be reversed. Consequently, the following discussions are based on the

necessary adjustments that have been made in order to accurately explain the interactions. The effects of locus of control on residential membership, average Sunday school attendance, and financial receipts were all in the same direction (Table 29, 31, & 32). The analysis of the interaction terms indicated that the modifying effects of environmental uncertainty on the relationships between locus of control and these three dependent variables were nonmonotonic over the range of environmental uncertainty. When environmental uncertainty scores were higher than 24.84, 25.6, and 26.72 for residential membership, average Sunday school attendance, and financial receipts respectively, the effects of locus of control on these dependent variables were increasingly negative. For environmental uncertainty scores below these values, the effect of locus of control on residential membership, average Sunday school attendance, and financial receipts were increasingly positive. In other words, external locus of control led to higher effectiveness as environmental uncertainty increased--this is inconsistent with the formulation of hypothesis 1 concerning the interaction between locus of control, environmental uncertainty, and effectiveness measures. Nevertheless, the interaction between locus of control and environmental uncertainty was significant ($p < .05$) for average Sunday school attendance (Table 31).

The effect of locus of control on nonresidential membership was not significant but was monotonic over the range of

environmental uncertainty. The modifying effect of environmental uncertainty on the relationship between locus of control and nonresidential membership increased over the range of uncertainty. The monotonic effect of the interaction between environmental uncertainty meant that as environmental uncertainty increased, the positive impact of internal locus on control on nonresidential membership also increased.

In summary, there was a general lack of support for the portion of hypothesis 1 pertaining to the performance implications of the interaction between locus of control and environmental uncertainty. The relationship that one would expect from the locus of control-environmental uncertainty interaction was not in the expected direction for all the dependent variables except nonresidential membership. In other words, external locus of control was associated with increased effectiveness for most of the dependent variables.

Conclusion

Overall, hypothesis 1 did not receive strong support in this study. Only four of twenty interactions were significant. In addition, only forty-five percent of the interactions were in the hypothesized direction. Each leader attribute had four interactions—one for each dependent variable—with environmental uncertainty. The interactions of business affairs values and people-orientation with environmental uncertainty were the most

consistent with the formulation of hypothesis 1--three out of each set of four interactions were in the expected direction (Table 33). There was one interaction for each of the other dependent variables that was in the hypothesized direction.

One of the main reasons why more significant interactions were not found in testing hypothesis 1 could be a lack of statistical power that resulted from insufficient sample size and/or low effect sizes than expected. Post-hoc power analysis (Table 34) revealed that one or a combination of the following factors could have resulted in the lack of significant results: (1) the effect sizes for all the dependent variables except residential membership were not large enough, and (2) the sample size in the main study was insufficient for nonresidential membership and financial receipts. In general, only residential membership had a power level that was at least 0.90. Consequently, there was a general lack of statistical power for the analysis of hypothesis 1 and this perhaps explains why more significant interactions were not found.

Ordinarily, based on these results, this researcher could have concluded that the leader attributes in this study did not appear to have important performance implications for the organizations in this study in environments with high levels of uncertainty. In the traditional contingency-based studies, this conclusion would not have been farfetched. Fortunately, the multiple approaches to fit that have been recommended by

TABLE 33

PERFORMANCE SUMMARY OF THE INTERACTIONS BETWEEN LEADER ATTRIBUTES AND ENVIRONMENTAL UNCERTAINTY.

MODERATING VARIABLE: Environmental uncertainty					
DEPENDENT VARIABLES	INDEPENDENT VARIABLES				
	TO	PO	BAV	HWV	LOC
Residential membership	no*	yes	no	no	no
Nonresidential membership	yes	no*	yes	no	yes
Average Sunday school attendance	no**	yes	yes	yes	no*
Financial receipts	no	yes	yes	no	no
<p>where: TO = Task-orientation PO = People-orientation BAV = Business affairs values HWV = Human welfare values LOC = Locus of control</p>					
<p>and yes = interaction in the hypothesized direction no = interaction in the opposite direction of hypothesis * = interaction was significant at $p < .05$ ** = interaction was significant at $p < .01$</p>					

TABLE 34

POWER ANALYSIS FOR THE TEST OF HYPOTHESIS 1

Source	Value
Minimum effect size in pilot study	0.38
Maximum effect size in pilot study	0.64
Minimum effect size needed in the main study	0.34
Effect sizes in main study:	
Residential membership	0.40
Nonresidential membership	0.30
Average Sunday school attendance	0.41
Financial receipts	0.27
Minimum acceptable power level	0.90
Actual power found:	
Residential membership	0.99
Nonresidential membership	0.35
Average Sunday school attendance	0.68
Financial receipts	-*
Minimum sample sizes needed in the main study:	
Residential membership	118
Nonresidential membership	157
Average Sunday school attendance	115
Financial receipts	175
Sample size in the main study	137
Significance or alpha level	0.05
<p>-* means power could not be calculated because the "mean square error" was greater than the "mean square model"</p>	

contemporary contingency researchers make it possible to undertake a more meaningful analysis of the importance of these leader attributes to the performance of these organizations. Suffice it to say that other researchers have had problems with the type of interaction-based analysis that was used to test hypothesis 1 (e.g. Schoonhoven, 1981). It is the potential for not uncovering meaningful relationships through the use of traditional contingency approaches that have led some researchers like Drazin and Van de Ven (1985) to advocate the use of multiple approaches to examining fit in the management literature. Nevertheless, the analyses of the other interaction-based hypotheses follow.

Hypothesis 2

It was predicted that effectiveness would be enhanced when leaders that are: (1) liberals in business affairs and human welfare values, (2) high in task- and people-orientations, and (3) internals with regard to locus of control pursue growth strategies. This hypothesis like hypotheses 1 was based on interactions but in this case between growth strategy and the leader attributes. The statistical technique that was also used to analyze this interaction-based hypothesis was moderated regression analysis. The use of this statistical approach requires that the researcher specify the moderating variable (Schoonhoven, 1981). In this study, it was assumed that the

impact of each of the leader attributes on the dependent variables was moderated by the extent to which a growth strategy was pursued. In addition, hypothesis 2 could be alternatively interpreted, when a moderated regression analysis approach is used, as stating that business affairs and human welfare values, locus of control, and task- and people-orientations have increasingly positive effects on performance measures the more a growth strategy is pursued. All the variables (i.e. growth strategy and leader attributes) were measured along a low or high continuum. The results of the test of hypothesis 2 dealt with the effectiveness implications of the interactions between each leader attribute and growth strategy (Tables 35-38).

The interactions between growth strategy and the leader attributes were not significant for most of the dependent variables. Only the interaction between growth strategy and people-orientation was marginally significant ($p < .10$) for financial receipts. The lack of significant interactions between growth strategy and these leader attributes did not preclude further analysis (Schoonhoven, 1981). In order to analyze the interactions, it was necessary to assume--based on the formulation of hypothesis 2--that the effect of pursuing a growth strategy on each of the dependent variables is modified by the degree to which the leader is task and people oriented, liberal in business and human welfare values, and internal with respect to locus of control.

TABLE 35

LEADER ATTRIBUTE, GROWTH STRATEGY, AND RESIDENTIAL MEMBERSHIP

DEPENDENT VARIABLE: Residential membership				
<u>Source</u>	<u>DF</u>	<u>Sum of squares</u>	<u>Mean square</u>	<u>F value</u>
Model	11	10012.67	910.24	1.67*
Error	129	70322.57	545.14	
R-square: 0.12				
<u>Parameter</u>		<u>Estimate</u>		
Growth strategy (GS)		2.85		
Task-orientation (TO)		3.17*		
People-orientation (PO)		-3.21		
Business affairs values (BV)		-1.02		
Human welfare values (HV)		2.18		
Locus of control (LC)		-3.29		
(GS)*(TO)		-0.23		
(GS)*(PO)		0.15		
(GS)*(BV)		0.04		
(GS)*(HV)		-0.12		
(GS)*(LC)		0.26		

*p <.10

TABLE 36

LEADER ATTRIBUTES, GROWTH STRATEGY, AND NONRESIDENTIAL MEMBERSHIP

DEPENDENT VARIABLE: Nonresidential membership				
<u>Source</u>	<u>DF</u>	<u>Sum of squares</u>	<u>Mean square</u>	<u>F value</u>
Model	11	1693.69	153.97	1.14
Error	129	17464.81	135.39	
R-square: 0.09				
<u>Parameter</u>		<u>Estimate</u>		
Growth strategy (GS)		-6.11		
Task-orientation (TO)		-0.67		
People-orientation (PO)		-1.24		
Business affairs values (BV)		0.38		
Human welfare values (HV)		-0.40		
Locus of control (LC)		-2.30		
(GS)*(TO)		0.08		
(GS)*(PO)		0.18		
(GS)*(BV)		-0.01		
(GS)*(HV)		0.03		
(GS)*(LC)		0.28		

TABLE 37

LEADER ATTRIBUTES, GROWTH STRATEGY, AND AVERAGE SUNDAY SCHOOL ATTENDANCE

DEPENDENT VARIABLE: Average Sunday School Attendance				
<u>Source</u>	<u>DF</u>	<u>Sum of squares</u>	<u>Mean square</u>	<u>F value</u>
Model	11	12242.75	1112.97	1.66*
Error	129	86717.35	672.23	
R-square: 0.12				
<u>Parameter</u>		<u>Estimate</u>		
Growth strategy (GS)		9.43		
Task-orientation (TO)		1.88		
People-orientation (PO)		1.50		
Business affairs values (BV)		-0.41		
Human welfare values (HV)		2.10		
Locus of control (LC)		-8.12		
(GS) * (TO)		-0.22		
(GS) * (PO)		-0.21		
(GS) * (BV)		0.001		
(GS) * (HV)		-0.11		
(GS) * (LC)		0.57		

*p < .10

TABLE 38

LEADER ATTRIBUTES, GROWTH STRATEGY, AND FINANCIAL RECEIPTS

DEPENDENT VARIABLE: Financial Receipts				
<u>Source</u>	<u>DF</u>	<u>Sum of squares</u>	<u>Mean square</u>	<u>F value</u>
Model	11	8990.02	817.27	1.07
Error	129	98896.55	766.64	
R-square: 0.08				
<u>Parameter</u>		<u>Estimate</u>		
Growth strategy (GS)		9.06		
Task-orientation (TO)		-2.06		
People-orientation (PO)		5.63		
Business affairs values (BV)		-0.90		
Human welfare values (HV)		0.81		
Locus of control (LC)		0.68		
(GS)*(TO)		0.08		
(GS)*(PO)		-0.52*		
(GS)*(BV)		0.03		
(GS)*(HV)		-0.03		
(GS)*(LC)		-0.34		

* p < .10

Each leader attribute-growth strategy interaction may be interpreted with the following equation:

$$Y = b_1(L) + b_2(G*L) \dots \dots \dots (1)$$

where Y = Dependent variable

L = Leader attribute

G = Growth strategy

b₁ = main effect of the leader attribute

b₂ = interaction of the leader attribute and growth strategy

This means that the effects of the leader attribute on each of the dependent variables are modified by the degree to which growth strategies are pursued. To determine whether the effects of the leader attributes on the dependent variables are monotonic or nonmonotonic over the range of growth strategy scores, a derivative and the solution of equation 1 for growth strategy yields:

$$dY/dL = b_1 + b_2(G) \dots \dots \dots (2)$$

If equation 2 is solved for G—to determine the point at which growth strategy does not modify the effect of each leader attribute on the dependent variables—the result is:

$$G = -b_1/b_2 \dots \dots \dots (3)$$

The values for b₁ and b₂ from Tables 35-38 are substituted into equation 3 for each of the dependent variables. If the calculated value for growth strategy is within the range observed in this study's sample, it can be concluded that the leader

attribute has a nonmonotonic effect on the dependent variable over the range of growth strategy scores. Nonmonotonic (as opposed to monotonic) effect means that the leader attribute has some positive and some negative effects on the dependent variable. Different values of growth strategy can be substituted into equation 2 to determine the range where the positive and negative effects of each leader attribute exist over the range of strategy scores. Growth strategy scores ranged from 4 to 21 in the main study, with a mean of 11.56 and a standard deviation of 3.62. It is worth noting that unlike environmental uncertainty, higher scores on the growth strategy construct translated to less pursuance of the same. Therefore, the interpretation of the interactions would be mostly opposite to that for hypothesis 1. The results of the analyses of specific leader attribute-growth strategy interactions are discussed in the following sections.

Leader attributes, Growth strategy, and Residential membership. The effects of the interactions of growth strategy with each of task-orientation, human welfare values, and locus of control on residential membership were in the expected directions but not significant. The two interactions--for task-orientation and human welfare values--were nonmonotonic over the range of growth strategy scores. The effects of task-orientation and human welfare values on residential membership were positive (negative) for growth strategy scores below (above) 13.78 and 18.17 respectively. Therefore, the direction of the effects of

task-orientation and human welfare values on residential membership over the range of growth strategy scores were consistent with the formulation of hypothesis 2. In other words, high task-orientation and liberal human welfare values had increasingly positive effects on residential membership the more growth strategies were pursued.

Similarly, the impact on residential membership of the interaction between locus of control with growth strategy were not significant. The nonmonotonic interaction was consistent with what one would expect from the formulation of hypothesis 2. The impact of the interaction between locus of control and growth strategy was positive (negative) for values of growth strategy below (above) 12.65. Therefore, locus of control was interpreted as having an increasingly positive impact on residential membership the more a growth strategy was pursued. Alternatively, this meant that a leader with an internal locus of control could achieve a larger increase in residential membership by pursuing a growth strategy—consistent with the formulation of hypothesis 2.

The effect of the interactions between business affairs values and people-orientation with growth strategy on residential membership were neither significant nor in the expected direction. These interactions were also nonmonotonic over the range of growth strategy scores in the main study. The negative impact of these interactions on residential membership increased

at growth strategy scores below 25.5 for business affairs values and 21.4 for people-orientation. In other words, it appeared as if the more a growth strategy was pursued, higher people-orientation and liberal business affairs values had increasingly negative impact on residential membership--inconsistent with the formulation of hypothesis 2.

Leader attributes, Growth strategy, and Nonresidential membership. The effects on nonresidential membership of two of the five interaction terms--between each of the leader attributes and growth strategy--were in the expected direction (Tables 35-38). The hypothesis-consistent interactions were for locus of control and business affairs values with growth strategy. None of the five total interactions were significant for nonresidential membership. In addition, all the interaction terms were nonmonotonic except for the one between business affairs value and growth strategy. The effect of the business affairs values-growth strategy interaction was such that throughout the range of strategy scores, the more a growth strategy was pursued, the higher the positive impact of business affairs values on nonresidential membership. In effect, consistent with the formulation of hypothesis 2, when a growth strategy is pursued by a leader with liberal business affairs values, it could lead to increases in nonresidential membership.

Similarly, the interaction between locus of control with growth strategy was consistent with the formulation of hypothesis

two. The positive impact of locus of control on nonresidential membership appeared to increase the more a growth strategy was pursued. The positive effect of locus of control on nonresidential membership increased at growth strategy scores below 8.35. Conversely, the impact of the interactions between growth strategy with task- and people-orientations and human welfare values on nonresidential membership were increasingly negative. Consequently, the negative impact of task- and people-orientations and human welfare values on nonresidential membership increased the more growth strategies were pursued. Specifically, at growth strategy scores below 8.5 for task-orientation, 6.99 for people-orientation, and 15.23 for human welfare values, the interaction terms had an increasingly negative impact on nonresidential membership.

The preceding paragraphs could be alternatively interpreted as: while pursuing a growth strategy with internal locus of control appeared to lead to increases in nonresidential membership, high task- and people-orientations and liberal human welfare values seemed to have the opposite effect on this dependent variable. In general, the interactions between each of the leader attributes and growth strategy were not consistent with the direction that one would expect from the formulation of hypothesis 2. The interactions between business affairs values and locus of control with growth strategy were not significant but in the expected direction. The interactions between task-

and people-orientations and human welfare values were neither significant nor were they in the expected direction.

Leader attributes, Growth strategy, and Average Sunday school attendance. The effects of the interactions between growth strategy with task- and people-orientations, locus of control, and human welfare values on average Sunday school attendance were not significant but were in the expected direction. The interactions--for task- and people-orientations, locus of control, and human welfare values--were also nonmonotonic over the range of growth strategy scores. The impacts of task- and people-orientations, locus of control, and human welfare values on average Sunday school attendance were positive (negative) for strategy scores below (above) 8.38, 7.19, 14.35, and 19.78 respectively. Therefore, the direction of the effects of task-orientation, people-orientation, locus of control, and human welfare values on average Sunday school attendance over the range of growth strategy scores were consistent with the formulation of hypothesis 2. In other words, high task-orientation, high people-orientation, internal locus of control, and liberal human welfare values seemed to have increasingly positive effects on average Sunday school attendance the more growth strategies were pursued.

Conversely, the impact of the interaction between business affairs values with growth strategy on average Sunday school attendance was not consistent with what was expected. In fact,

the effect of the interaction between business affairs values with growth strategy was neither in the expected direction nor significant. In addition, this interaction was monotonic over the range of growth strategy scores in this study. Specifically, the negative impact of the interaction between business affairs values on average Sunday school attendance increased the more a growth strategy was pursued. In effect, and contrary to hypothesis 2, it appeared as if a leader with liberal business affairs values would have a negative impact on average Sunday school attendance the more a growth strategy was pursued.

Leader attributes, Growth strategy, and Financial receipts.

Only one of the interactions between growth strategy and each of the leader attributes was marginally significant ($p < .10$) for financial receipts. This interaction was also in the expected direction. In fact, only two interactions--for human welfare values and people-orientation with growth strategy--was consistent with the formulation of hypothesis 2. In addition, all of the interaction terms had monotonic effects on financial receipts except for the one between people-orientation and growth strategy.

Throughout the range of growth strategy scores, the positive impact of human welfare values on financial receipts increased--a monotonic effect. Except for not being significant, the direction was as expected. Similarly, for growth strategy scores below (above) 10.82, people-orientation had an increasingly

positive (negative) effect on financial receipts. Moreover, the interaction between people-orientation with growth strategy was marginally significant ($p < .10$). Nevertheless, both interactions (for human welfare values and people-orientation with growth strategy) were consistent with the formulation of hypothesis 2, and seemed to indicate that liberal human welfare values and high people-orientation led to increases in financial receipts the more a growth strategy was pursued.

Conversely, the effects of task-orientation and business affairs values on financial receipts over the range of growth strategy scores were monotonic and were not in the expected direction. Specifically, the more a growth strategy was pursued, the lower the positive impact of task-orientation on financial receipts. On the other hand, the more a growth strategy was pursued, the higher the negative impact of business affairs values on financial receipts. In both cases, the interactions were inconsistent with what one would expect from the formulation of hypothesis 2 in that high task-orientation and liberal business affairs values did not lead to increases in financial receipts the more a growth strategy was pursued. Similarly, the impact of locus of control on financial receipts over the range of growth strategy scores though monotonic was also inconsistent with expectations because the more a growth strategy was pursued, the higher the negative impact of locus of control on financial receipts. In other words, it appeared as if pursuing a growth

strategy with a leader that has an internal locus of control may not lead to increased financial receipts.

Conclusion

Based on the fact that there was only one interaction term that was marginally significant for the test of hypothesis 2, the suggestion can be made that there was no support for it. In addition, only eleven of the twenty total interaction terms for hypothesis 2 were in the expected direction--a fifty-five percent level of consistency. Nevertheless, the following tentative conclusions--that are based primarily on the direction of the interaction terms using Schoonhoven's (1981) recommendations--could be made: (1) the effects of high task-orientation on residential membership and average Sunday school attendance appear to be consistent with the pursuance of a growth strategy, (2) high people-orientation seemed to have an increasingly positive impact on average Sunday school attendance and financial receipts, (3) liberal business affairs values may have an increasingly positive impact on nonresidential membership the more a growth strategy was pursued, (4) liberal human welfare values could have positive effects on all the dependent variables except nonresidential membership the more a growth strategy was pursued, and (5) internal locus of control appeared to have increasingly positive effects on all the dependent variables except financial receipts the more a growth strategy was

pursued. Table 39 has a summary listing of these results.

In order to determine why more significant interactions were not found, a post-hoc power analysis (Table 40) revealed that one or a combination of the following factors could have resulted in the lack of significant results: (1) the effect sizes were not large enough for nonresidential membership and financial receipts, and (2) the sample size in the main study was insufficient for nonresidential membership and financial receipts. In addition, there was a general lack of statistical power for the analysis of hypothesis 2 for all the dependent variables and this could perhaps explain why more significant interactions were not found.

In summary, the results of the analyses of the interaction terms for hypothesis 2 are consistent with those for the first hypothesis. In effect, the test of hypothesis 2 again highlighted the possible deficiencies of the analysis of interaction-based hypotheses and the need for possibly adopting multiple approaches (i.e. traditional contingency and profile deviation or systems analyses) to examining fit in management research studies. When multiple approaches to fit--like combining the traditional contingency with the profile deviation or systems analysis--are used, researchers like Van de Ven and Drazin (1985) have found that complementary information that would not otherwise be available could be obtained to better understand the relationships between variables. Before

TABLE 39

PERFORMANCE SUMMARY OF THE INTERACTIONS BETWEEN LEADER ATTRIBUTES AND GROWTH STRATEGY.

MODERATING VARIABLE: Growth strategy					
DEPENDENT VARIABLES	INDEPENDENT VARIABLES				
	TO	PO	BAV	HWV	LOC
Residential membership	yes	no	no	yes	yes
Nonresidential membership	no	no	yes	no	yes
Average Sunday school attendance	yes	yes	no	yes	yes
Financial receipts	no	yes*	no	yes	no
where: TO = Task-orientation PO = People-orientation BAV = Business affairs values HWV = Human welfare values LOC = Locus of control					
and: yes = interaction in the hypothesized direction no = interaction in the opposite direction of hypothesis * = significant interaction at $p < .10$					

TABLE 40

POWER ANALYSIS FOR THE TEST OF HYPOTHESIS 2

Source	Value
Minimum effect size in pilot study	0.31
Maximum effect size in pilot study	0.51
Minimum effect size needed in the main study	0.34
Effect sizes in main study:	
Residential membership	0.35
Nonresidential membership	0.30
Average Sunday school attendance	0.35
Financial receipts	0.29
Minimum acceptable power level	0.90
Actual power found:	
Residential membership	0.43
Nonresidential membership	0.20
Average Sunday school attendance	0.43
Financial receipts	0.10
Minimum sample sizes needed in the main study:	
Residential membership	135
Nonresidential membership	157
Average Sunday school attendance	135
Financial receipts	163
Sample size in the main study	141
Significance or alpha level	0.05

proceeding with the alternative approach to fit that was used in this study, the third and final interaction-based hypothesis is tested next.

Hypothesis 3

It was predicted that in high uncertainty environments, organizations will attain relatively superior levels of performance when a growth strategy is pursued. This hypothesis, like hypotheses 1 and 2 was based on the interactions between the relevant variables--strategy types and environmental uncertainty. For the test of this hypothesis, environmental uncertainty was assumed to be the moderating variable, based on the assumption that research subjects have more control over strategy. As was the case for the two previous hypotheses, moderated regression analysis was used to test hypothesis 3. Both environmental uncertainty and the strategy types were measured along a low or high continuum. The results of the test of hypothesis 3 deal with the effectiveness implications of the interaction between each strategy type and environmental uncertainty (Tables 41-44).

Environmental uncertainty and Growth strategy. The interaction between environmental uncertainty and growth strategy (GS) was not significant for any of the dependent variables. As suggested by Schoonhoven (1981), the lack of significant interactions between environmental uncertainty and GS may not

TABLE 41

STRATEGY, ENVIRONMENTAL UNCERTAINTY, AND RESIDENTIAL MEMBERSHIP

DEPENDENT VARIABLE: Residential membership				
<u>Source</u>	<u>DF</u>	<u>Sum of squares</u>	<u>Mean square</u>	<u>F value</u>
Model	7	5600.26	800.04	1.49
Error	138	74194.68	537.64	
R-square: 0.07				
<u>Parameter</u>		<u>Estimate</u>		
Environmental Uncertainty (EU)		-1.44		
Growth strategy (GS)		-1.43		
Stabilize strategy (SS)		-4.36		
Harvest-turnaround strategy (HS)		3.00		
(EU)*(GS)		0.03		
(EU)*(SS)		0.16**		
(EU)*(HS)		-0.06		

** p <.05

TABLE 42

STRATEGY, ENVIRONMENTAL UNCERTAINTY, AND
NONRESIDENTIAL MEMBERSHIP

DEPENDENT VARIABLE: Nonresidential membership				
<u>Source</u>	<u>DF</u>	<u>Sum of squares</u>	<u>Mean square</u>	<u>F value</u>
Model	7	649.43	92.78	0.79
Error	138	16309.07	118.18	
R-square: 0.04				
<u>Parameter</u>		<u>Estimate</u>		
Environmental Uncertainty (EU)		0.37		
Growth strategy (GS)		-0.10		
Stabilize strategy (SS)		1.48		
Harvest-turnaround strategy (HS)		-0.93		
(EU)*(GS)		-0.002		
(EU)*(SS)		-0.05		
(EU)*(HS)		0.01		

TABLE 43

STRATEGY, ENVIRONMENTAL UNCERTAINTY, AND AVERAGE
SUNDAY SCHOOL ATTENDANCE

DEPENDENT VARIABLE: Average Sunday School attendance				
<u>Source</u>	<u>DF</u>	<u>Sum of squares</u>	<u>Mean square</u>	<u>F value</u>
Model	7	12179.74	1739.96	2.92***
Error	138	82187.40	595.56	
R-square: 0.13				
<u>Parameter</u>		<u>Estimate</u>		
Environmental Uncertainty (EU)		-1.30		
Growth strategy (GS)		-1.97		
Stabilize strategy (SS)		-4.22*		
Harvest-turnaround strategy (HS)		4.49		
(EU) *(GS)		0.03		
(EU) *(SS)		0.16*		
(EU) *(HS)		-0.08		

*p <.10

***p <.01

TABLE 44

STRATEGY, ENVIRONMENTAL UNCERTAINTY, AND FINANCIAL RECEIPTS

DEPENDENT VARIABLE: Financial receipts				
<u>Source</u>	<u>DF</u>	<u>Sum of squares</u>	<u>Mean square</u>	<u>F value</u>
Model	7	7092.38	1013.20	1.53
Error	138	91165.42	660.62	
R-square: 0.07				
<u>Parameter</u>		<u>Estimate</u>		
Environmental Uncertainty (EU)		0.35		
Growth strategy (GS)		-1.68		
Stabilize strategy (SS)		-2.00		
Harvest-turnaround strategy (HS)		4.69		
(EU)*(GS)		0.02		
(EU)*(SS)		0.08		
(EU)*(HS)		-0.12		

preclude further analysis. In order to analyze the interaction, it was necessary to assume—based on the formulation of hypothesis 3—that the impact of GS on each of the dependent variables was modified by the level of environmental uncertainty faced by the organization. The growth strategy–environmental uncertainty interaction may be interpreted with the following equation:

$$Y = b_1(G) + b_2(E*G) \dots \dots \dots (1)$$

where Y = Dependent variable

G = Growth strategy

E = Environmental uncertainty

b1 = main effect of growth strategy

b2 = interaction effect of uncertainty–growth strategy

This means that the effect of growth strategy on the dependent variables was modified by the level of uncertainty in the environment. To determine whether the effects of growth strategy on the dependent variables were monotonic or nonmonotonic over the range of environmental uncertainty, a derivative and the solution of equation 1 for environmental uncertainty yields:

$$dY/dG = b_1 + b_2(E) \dots \dots \dots (2)$$

If equation 2 is solved for E—to determine the point at which environmental uncertainty does not modify the effect of growth strategy on the dependent variables—the result is:

$$E = -b_1/b_2 \dots \dots \dots (3)$$

The values for b1 and b2 from Tables 41–44 were substituted into

equation 3 for each of the dependent variables. If the calculated value for environmental uncertainty was within the range observed in this study's sample, the conclusion is that growth strategy had a nonmonotonic effect on the dependent variable over the range of environmental uncertainty. Nonmonotonic (as opposed to monotonic) effect means that growth strategy had some positive and some negative effects on the dependent variable. Different values of environmental uncertainty could be substituted into equation 2 to determine the range where the positive and negative effects of growth strategy exist over the range of uncertainty. Environmental uncertainty ranged from 10 to 45 in the main study, with a mean of 23.82 and a standard deviation of 6.17.

The effect of pursuing a growth strategy on residential membership was not significant, though nonmonotonic, over the range of environmental uncertainty. The impact of growth strategy on residential membership was positive (negative) for environmental uncertainty scores above (below) 42.05 (1.43/0.034). Therefore, the direction of the effect of growth strategy on residential membership over the range of environmental uncertainty was consistent with the formulation of hypothesis 3.

The interaction of growth strategy and environmental uncertainty on nonresidential membership was monotonic over the range of environmental uncertainty observed in this study. The

monotonic effect was of the form that the higher the environmental uncertainty, the higher the negative impact of pursuing a growth strategy on nonresidential membership. This type of monotonic relationship exists when b_1 and b_2 are negative. Consequently, in addition to the lack of statistical significance of the interaction term between environmental uncertainty and growth strategy, the direction of the relationship was also not in the expected direction.

The effects of growth strategy on average Sunday school attendance and financial receipts were also not significant. The impacts of growth strategy on average Sunday school attendance and financial receipts were negative through the range of environmental uncertainty. Both monotonic effects were such that the higher the uncertainty, the lower the negative impacts of pursuing a growth strategy on average Sunday school attendance and financial receipts. In other words, in an environment with a high degree of uncertainty, growth strategy had a decreasingly negative impact on average Sunday school attendance and financial receipts. The results of the analyses of the growth strategy-environmental uncertainty interaction on average Sunday school attendance and financial receipts were consistent with the direction suggested by the formulation of hypothesis 3.

In summary, there is general directional support for the part of hypothesis 3 which suggests that the interaction between growth strategy and environmental uncertainty should lead to

increased effectiveness. There were no statistically significant interactions, however. The performance implications of the interactions between the other two strategy types with environmental uncertainty were also analyzed and are reported in the following section.

Environmental uncertainty and Stabilize strategy. The impact of the interaction between stabilize strategy and environmental uncertainty, though significant for residential membership (Table 41) and marginally significant for average Sunday school attendance (Table 43), was not significant for nonresidential membership or financial receipts (Tables 42 & 44 respectively). The stabilize strategy-environmental uncertainty interactions may be interpreted with the following equation:

$$Y = b_3(S) + b_4(E*S) \dots\dots\dots(4)$$

where Y = Dependent variable

S = Stabilize strategy

E = Environmental uncertainty

b₃ = main effect of stabilize strategy

b₄ = interaction of uncertainty-stabilize strategy

This means that the effects of stabilize strategy on the dependent variables are modified by the level of uncertainty in the environment. To determine whether the effects of stabilize strategy on the dependent variables were monotonic or nonmonotonic over the range of environmental uncertainty, a derivative and the solution of equation 4 for environmental

uncertainty yields:

$$dY/dS = b_3 + b_4(E) \dots\dots\dots (5)$$

If equation 5 is solved for E--to determine the point at which environmental uncertainty does not modify the effect of stabilize strategy on the dependent variables--the result is:

$$E = -b_3/b_4 \dots\dots\dots (6)$$

The values for b_3 and b_4 from Tables 41-44 are substituted into equation 6 for each of the dependent variables. If the calculated value for environmental uncertainty is within the range observed in this study's sample, it can be concluded that stabilize strategy has a nonmonotonic effect on the dependent variable over the range of environmental uncertainty. Again, nonmonotonic effect means that stabilize strategy has some positive and some negative effects on the dependent variable. Different values of environmental uncertainty can be substituted into equation 5 to determine the range where the positive and negative effects of stabilize strategy exist over the range of uncertainty.

The effects of the interaction between stabilize strategy and environmental uncertainty on residential membership, average Sunday school attendance, and financial receipts were significant ($p < .05$), marginally significant ($p < .10$), and not significant, respectively. The analyses of the interaction terms indicated that the effects of environmental uncertainty on the relationship between stabilize strategy and each of residential membership,

average Sunday school attendance, and financial receipts was nonmonotonic over the range of environmental uncertainty. The modifying effects of environmental uncertainty on the relationships between stabilize strategy and residential membership, stabilize strategy and average Sunday school attendance, and stabilize strategy and financial receipts for environmental uncertainty scores above 26.75, 26.375, and 25.64 respectively were positive. In other words, pursuing a stabilize strategy led to higher effectiveness as environmental uncertainty increased.

The effect of stabilize strategy on nonresidential membership, though not significant, was also nonmonotonic over the range of environmental uncertainty. Unlike the other dependent variables that were discussed in the preceding paragraph, the nonmonotonic effect was in the opposite direction of what one would expect from the formulation of hypothesis 3 such that the higher the environmental uncertainty, the lower the positive impact of pursuing a stabilize strategy on nonresidential membership. In summary, the direction of the interaction between stabilize strategy and environmental uncertainty was consistent with the formulation of hypothesis 3 for all the dependent variables except nonresidential membership.

Environmental uncertainty and Harvest-turnaround strategy

The impact of the interactions between harvest-turnaround

strategy (HS) and environmental uncertainty (EU) was not significant for any of the dependent variables. The analyses of the interaction terms was monotonic for all the dependent variables except financial receipts. Schoonhoven (1981) suggested that the lack of significant interactions should not preclude further analysis as the HS-EU interaction may be interpreted with the following equation:

$$Y = b_5(H) + b_6(E \cdot H) \dots \dots \dots (7)$$

where Y = Dependent variable

H = Harvest-turnaround strategy

E = Environmental uncertainty

b₅ = main effect of harvest-turnaround strategy

b₆ = interaction effect of H and E on Y

This means that the effects of HS on the dependent variables are modified by the level of uncertainty in the environment. To determine whether the effects of HS on the dependent variables are monotonic or nonmonotonic over the range of environmental uncertainty, a derivative and the solution of equation 7 for environmental uncertainty yields:

$$dY/dH = b_5 + b_6(E) \dots \dots \dots (8)$$

If equation 8 is solved for E—to determine the point at which environmental uncertainty does not modify the effect of pursuing a harvest-turnaround strategy on the dependent variables—the result is:

$$E = -b_5/b_6 \dots \dots \dots (9)$$

The values for b_5 and b_6 from Tables 41-44 are substituted into equation 9 for each of the dependent variables. If the calculated value for environmental uncertainty is within the range observed in this study's sample, it can be concluded that HS has a nonmonotonic effect on the dependent variable over the range of environmental uncertainty. Different values of environmental uncertainty can be substituted into equation 8 to determine the range where the positive and negative effects of HS exist over the range of uncertainty.

Even though the effects of the interaction between HS and environmental uncertainty on residential membership and average Sunday school attendance were not significant, the directions were similar. The analyses of the interaction terms indicated that the effect of environmental uncertainty on the relationships between HS for residential membership and average Sunday school attendance were monotonic over the range of environmental uncertainty. The monotonic effect was such that the higher the uncertainty, the lower the positive impact of pursuing harvest-turnaround strategy on residential membership and average Sunday school attendance.

Similarly, the effect of the interaction between HS and environmental uncertainty on nonresidential membership, though not significant, was also monotonic. The interaction of HS and environmental uncertainty was negative throughout the range of the environmental uncertainty scores in this study. The negative

effect of HS on nonresidential membership decreased as environmental uncertainty increased. In other words, the higher the uncertainty, the lower the negative impact of pursuing a harvest-turnaround strategy on nonresidential membership.

The impact of pursuing a harvest-turnaround strategy was positive and negative for environmental uncertainty scores below and above 38.76 respectively for financial receipts. When environmental uncertainty was below 38.76, the higher the uncertainty, the lower the positive impact of pursuing a harvest-turnaround strategy on financial receipts. Conversely, the higher the uncertainty, the higher the negative impact of pursuing a harvest-turnaround strategy on financial receipts for scores that were higher than 38.76. In general, consistent with the formulation of hypothesis 3, ineffectiveness result from pursuing harvest-turnaround strategies in environments with high levels of uncertainty except for nonresidential membership.

Conclusion

While none of the interactions in the preceding analyses were marginally or otherwise significant, nine out of the twelve were in the expected direction (Table 45). In fact, the interactions between strategy and environmental uncertainty led to results that one would expect from the formulation of hypothesis 3 for most of the dependent variables except nonresidential membership. Nevertheless, the lack of significant

TABLE 45

SUMMARY FINDINGS OF THE RELATIONSHIPS BETWEEN STRATEGY,
ENVIRONMENTAL UNCERTAINTY, AND THE DEPENDENT VARIABLES.

MODERATING VARIABLE: Environmental uncertainty			
DEPENDENT VARIABLES	INDEPENDENT VARIABLES		
	GS	SS	HT
Residential membership	yes	yes	yes
Nonresidential membership	no	no	no
Average Sunday school attendance	yes	yes	yes
Financial receipts	yes	yes	yes
where: GS = Growth strategy SS = Stabilize strategy HT = Harvest-turnaround strategy			
and yes = interaction in the hypothesized direction no = interaction in the opposite direction of hypothesis			

interactions obviously limits the conclusion that could be drawn from these results. In summary, the test of hypothesis 3 seemed to suggest that when environmental uncertainty is high, pursuing strategies with "growth" and/or "stabilize" characteristics maximize effectiveness (or minimize ineffectiveness). Conversely, when harvest-turnaround strategies are pursued in environments with high levels of uncertainty, effectiveness measures may be adversely affected. These conclusions are tentative at best because they are based on the direction of the interactions rather than their statistical significance.

Post-hoc power analysis (Table 46) revealed that one or a combination of the following factors probably contributed to the lack of significant results in the test of hypothesis 3: (1) the effect sizes for all the dependent variables except average Sunday school attendance were not large enough, and (2) the sample size in the main study was insufficient for all the performance measures except average Sunday school attendance. In general, only average Sunday school attendance had a power level that was at least 0.90. Consequently, there was a general lack of statistical power for the analysis of hypothesis 3 and this perhaps explains why more significant interactions were not found.

The results of the three interaction-based hypotheses to this point has been rather disappointing. If this researcher had only adopted the traditional contingency approach to fit, the

TABLE 46

POWER ANALYSIS FOR THE TEST OF HYPOTHESIS 3

Source	Value
Minimum effect size in pilot study	0.30
Maximum effect size in pilot study	0.47
Minimum effect size needed in the main study	0.34
Effect sizes in main study:	
Residential membership	0.27
Nonresidential membership	0.20
Average Sunday school attendance	0.36
Financial receipts	0.27
Minimum acceptable power level	0.90
Actual power found:	
Residential membership	0.40
Nonresidential membership	--*
Average Sunday school attendance	0.99
Financial receipts	0.37
Minimum sample sizes needed in the main study:	
Residential membership	175
Nonresidential membership	235
Average Sunday school attendance	131
Financial receipts	175
Sample size in the main study	137
Significance or alpha level	0.05
<p>--* means power could not be calculated because the "mean square error" was greater than the "mean square model"</p>	

tentative and general conclusion would have been to suggest that important contingency relationships did not appear to exist for strategy, leader attributes, environmental uncertainty, and performance measures. Alternatively, additional analyses would have been undertaken to determine if the relationship between the explanatory and dependent variables were non-linear. Supplementary analyses for hypotheses 1, 2, and 3 revealed that the best models were linear. In addition to explaining the most variance in the dependent variables, the linear models were also more likely to be significant or marginally significant.

The results of the power analyses that were done for the tests of hypotheses 1, 2, and 3 made it inappropriate to conclude that the independent variables/constructs do not have important performance ramifications for the organizations in this study. Nevertheless, it is still necessary to justify the potential importance of the variables/constructs in this study to performance measures. The multiple approaches to fit that have been advocated by researchers like Gresov (1989) make this justification possible. The importance of using multiple approaches to fit would be reinforced in this study if the test of hypothesis 4 reveals that these variables/constructs do have important performance implications. Therefore, the results of the test of hypothesis 4—using profile deviation or pattern analysis—are reported in the following section.

Hypothesis 4

All the hypotheses to this point were typical of the traditional contingency ones in the management literature. As noted in Chapters 1 and 3, this traditional approach is reductionistic because it focuses on the interactions--usually between two variables--one dimension at a time. Hypothesis 4 is more holistic in that it accounted for all the variables as a set by suggesting that organizations will achieve relatively higher levels of performance when there is a proper alignment between strategy and leader attributes within a given environmental context. The appropriate analytical technique for testing hypothesis 4 has been referred to in the management literature as systems approach, pattern analysis, or profile deviation (Drazin & Van de Ven, 1985; Gresov, 1989; Venkatraman, 1989). The basic premise of the systems approach is to develop 'ideal' or 'pattern' profiles using all the variables in this study and then examine how deviations from these profiles affect organizational performance. The three basic stages that are involved in the analysis of hypothesis 4 were based primarily on the procedure that was recommended by Drazin and Van de Ven (1985).

Stage I: Separate analysis within each environment. The environment was broken down into three dimensions--low, medium, and high levels of uncertainty. The environments with low and high levels of uncertainty were those with half a standard deviation below and above the mean respectively. The

organizations within the one standard deviation between the high and low groups were classified as having a medium level of uncertainty. One standard deviation was used to demarcate the high from the low uncertainty groups to assure roughly equal sample sizes in all three categories. While this approach typically would make it possible for researchers to have sufficient samples to use for further analyses within each category, the lines of demarcation between the low and medium and medium and high groups become distorted. Therefore, the most valid results could potentially be for the high and low uncertainty groups. Finally at this stage, the scores for the leader attributes and strategy types were standardized in order to remove scale variance from the fit measure that is to be developed.

Stage II: Measuring the degree of configuration. This stage involved 3 steps:

Step 1: an empirical profile was developed within each environment by using the top ten percent performers--for residential and nonresidential memberships, average Sunday school attendance, and financial receipts--within each category. Because of the total sample size in the main study, only five, seven, and five subjects were used for the low, medium, and high levels of uncertainty groups respectively to develop the empirical profiles. The mean scores of the seventeen units on the eight variables--task- and people-orientations, human welfare

and business affairs values, locus of control, growth, stabilize, and harvest-turnaround strategies--were noted. The results of the first stage of this pattern analysis are shown in Tables 47-50.

The study sample could have been the ninety percent that was left over from selecting the top ten percent for developing the profiles in each environment. In order not to skew the distribution of the dependent variables, it was deemed necessary by this researcher to also remove the bottom ten percent from the remaining ninety percent. The rationale was that if the dependent variables were normally or non-normally distributed, the use of the top ten percent performers--without removing the bottom ten percent--could conceivably bias the results of the other stages of systems analysis. Therefore, the study sample was the middle eighty percent within each environment. The argument for removing the bottom ten percent is supported by Venkatraman and Prescott's (1990) study.

Step 2: the ideal profile was determined by calculating the standardized mean scores for strategy types and leader attributes. Alternatively, separate OLS (ordinary least squares) regression could be run for each environment with performance measures as criterion and the attributes and strategy as predictors. Thereafter, only the significant strategy and leader attributes are used to determine the profile. The sample size in the main study precluded the use of this alternative approach.

TABLE 47

PROFILES OF MEAN LEADER ATTRIBUTES AND STRATEGY SCORES FOR HIGH EFFICIENT, LOW, MEDIUM, AND HIGH ENVIRONMENTAL UNCERTAINTY UNITS*

DEPENDENT VARIABLE: Residential membership			
Leader and strategy characteristics	Environmental Uncertainty		
	Low (N=5)	Medium (N=7)	High (N=5)
Leader attributes			
Task-orientation	-0.228	-0.144	-0.550
People-orientation	-0.324	-0.710	-0.006
Business affairs values	0.021	-0.015	0.106
Human welfare values	-0.045	0.878	0.581
Locus of control	-0.641	-0.055	0.072
Strategy			
Growth	1.020	-0.274	0.066
Stabilize	-0.094	-0.180	0.556
Harvest-turnaround	0.083	0.346	0.425
* Based on standardized scores			

TABLE 48

PROFILES OF MEAN LEADER ATTRIBUTES AND STRATEGY SCORES FOR HIGH EFFICIENT, LOW, MEDIUM, AND HIGH ENVIRONMENTAL UNCERTAINTY UNITS*

DEPENDENT VARIABLE: Nonresidential membership			
Leader and strategy characteristics	Environmental Uncertainty		
	Low (N=5)	Medium (N=7)	High (N=5)
Leader attributes			
Task-orientation	-0.201	0.602	-0.174
People-orientation	0.947	0.312	0.073
Business affairs values	-0.547	0.451	0.390
Human welfare values	-0.006	-0.176	0.297
Locus of control	-0.463	-0.522	0.786
Strategy			
Growth	0.813	0.042	0.066
Stabilize	0.456	-0.180	-0.695
Harvest-turnaround	-0.345	-0.275	-0.048
* Based on standardized scores			

TABLE 49

PROFILES OF MEAN LEADER ATTRIBUTES AND STRATEGY SCORES FOR HIGH EFFICIENT, LOW, MEDIUM, AND HIGH ENVIRONMENTAL UNCERTAINTY UNITS*

DEPENDENT VARIABLE: Average Sunday school attendance			
Leader and strategy characteristics	Environmental Uncertainty		
	Low (N=5)	Medium (N=7)	High (N=5)
Leader attributes			
Task-orientation	-0.014	-0.450	-0.335
People-orientation	-0.324	-0.313	0.153
Business affairs values	0.532	0.106	0.049
Human welfare values	-0.094	0.402	0.346
Locus of control	-0.596	-0.437	0.251
Strategy			
Growth	0.052	-0.116	-0.570
Stabilize	-0.094	0.535	-0.395
Harvest-turnaround	0.267	0.798	0.504
* Based on standardized scores			

TABLE 50

PROFILES OF MEAN LEADER ATTRIBUTES AND STRATEGY SCORES FOR HIGH EFFICIENT, LOW, MEDIUM, AND HIGH ENVIRONMENTAL UNCERTAINTY UNITS*

DEPENDENT VARIABLE: Financial receipts			
Leader and strategy characteristics	Environmental Uncertainty		
	Low (N=5)	Medium (N=7)	High (N=5)
Leader attributes			
Task-orientation	0.040	-0.067	-0.014
People-orientation	0.153	0.425	-0.086
Business affairs values	-0.206	0.248	-0.064
Human welfare values	0.229	0.346	0.699
Locus of control	-0.463	-0.310	0.072
Strategy			
Growth	0.177	-0.432	-1.261
Stabilize	-0.545	0.177	-0.094
Harvest-turnaround	0.248	0.628	0.425
* Based on standardized scores			

Therefore, the mean standardized scores for the top ten percent performers within each environment were considered to be the derived ideal profiles.

In order to increase residential membership, the ideal profile for the most effective organizations in high uncertainty environments in this study appeared to have leaders that are: (1) low in task-orientation, high in people-orientation, liberals in business affairs and human welfare values, with external locus of control, and (2) more likely to pursue growth strategies, and less likely to pursue stabilize and harvest-turnaround strategies. The ideal profile for the organizations that are most effective in increasing average Sunday school attendance is similar to the one for residential membership except that both growth and stabilize strategies were pursued and the leader had conservative business affairs values. Nonresidential membership could be increased when leaders pursued the characteristics of growth and stabilize strategies. Moreover, these leaders appeared to be more likely to have high task- and people-orientations, liberal business affairs and human welfare values, and external locus of control. The ideal profile for increasing financial receipts were exactly the same as for nonresidential membership except that only growth strategies were pursued and the leaders had low task-orientation.

Step 3: differences between the ideal patterns and the standardized scores of the study sample for each of the strategy

types and leader attributes were calculated using a Euclidian distance metric. These distances were computed by focusing on the differences between each subject's and its ideal type's scores on strategy and leader attributes within the appropriate environmental uncertainty group. The distance measures were calculated using the following formula:

$$\text{DISTANCE} = \sqrt{\sum (X_{is} - X_{js})^2}$$

where 'X_{is}' is the score of the ideal unit on the 's'th leader or strategy dimension while 'X_{js}' is the score of the 'j'th focal unit on the 's'th dimension.

Stage III: Assessment of the performance impact of configuration. This third and final stage involved the correlation of the distance measures with the performance variables (i.e. residential membership, nonresidential membership, average Sunday school attendance, and financial receipts). Fit or misfit in terms of configuration or alignment would be supported if the distance scores are negatively correlated with the performance measures, especially for high uncertainty environments. These negative correlations would indicate that the deviation from the ideal profiles had negative effects on performance.

The correlations between distance and the dependent variables for each level of environmental uncertainty are shown in Table 51. The low and high environmental uncertainty groups had the greatest correlations between distance and performance

TABLE 51

CORRELATIONS OF DISTANCE MEASURE WITH DEPENDENT
VARIABLES, EXCLUDING HIGH-PERFORMANCE UNITS

DEPENDENT VARIABLE	DISTANCE	CORRELATION COEFFICIENT
Residential membership	DIST0	0.3277
	DIST1	-0.1895
	DIST2	-0.3406*
Nonresidential membership	DIST0	-0.3529*
	DIST1	0.0010
	DIST2	0.0387
Average Sunday school attendance	DIST0	0.4441**
	DIST1	-0.1579
	DIST2	-0.2041
Financial receipts	DIST0	0.1470
	DIST1	-0.0800
	DIST2	0.2355
where DIST0 = distance for low environmental uncertainty group DIST1 = distance for medium environmental uncertainty group DIST2 = distance for high environmental uncertainty group * = $p < .10$ ** = $p < .05$		

measures. Generally, the correlations between distance and the dependent variables were lower for the group with medium level of environmental uncertainty. As predicted, each unit's distance from its ideal type correlated negatively with the dependent variables in high uncertainty environment for residential membership and average Sunday school attendance (-0.3406 and -0.2041). While the only marginally significant ($p < .10$) correlation was for residential membership, both correlations were in the expected direction. In addition, for residential membership and average Sunday school attendance, distances also correlated negatively (-0.189 and -0.1579) for the medium environmental uncertainty groups. For nonresidential membership, distance correlated negatively (-0.35) and was marginally significant ($p < .10$) for the low environmental uncertainty category. The only category that had a negative correlation between distance and financial receipts was the medium level of uncertainty. This correlation was not significant.

A review of Table 51 reveals that the dependent variable that received the weakest support was financial receipts. Therefore, the alternative approach that was mentioned in step 2 of Stage 1 (i.e. using significant or marginally significant OLS variables) was also used. In addition, two standard deviations were used to separate the low from the high uncertainty groups. The top 14 performers in each uncertainty group were used in the OLS analysis. The only dependent variable that had marginally

significant or significant independent variables was financial receipts. The correlations of the distance measures with financial receipts for the low, medium, and high environmental uncertainty groups were -0.2072, -0.0165, and -0.8152 respectively. Even though all three correlations were in the expected direction, only the correlation for the high uncertainty group was significant ($p < .01$). The use of this alternative approach did not improve the results for any of the other dependent variables. In addition, the results of the alternative approach for financial receipts should be carefully interpreted for two reasons: (1) because there were only 27 units in the high environmental uncertainty group when two standard deviations were used to separate the low from the high uncertainty groups, the top 14 performers represented the top half of the sample while the bottom half were used as the study sample, and (2) the inability to remove the bottom 14 performers and still have a study sample. Both of these reasons most likely biased the results for the high environmental uncertainty group.

These results show some support for the systems approach to fit in explaining the importance of certain leader attributes and the pursuance of particular strategy types to organizational effectiveness. Ordinarily, this researcher could have been discouraged by the results of hypotheses 1, 2 and 3, but by using an alternative approach to examine the fit or congruence between the relevant variables, there was some marginal statistical

justification for the importance of these variables to organizational performance in this study.

Profile validation. Ordinarily, the ideal profiles in this study—especially for residential membership—could have been validated by randomly splitting the original sample into two. The hold-out sample would have been analyzed following the same procedure as for the study sample. The direction of the impact of the deviations on performance and the overall consistency of the profiles in the two samples will indicate the validity of the configuration. Because of the insufficient total sample size in this study, the pilot study data was used as an alternative method to validate the profiles. In fact, a stronger case could be made for the validity of the profiles that were developed in the main study by using data that was collected separately and at a different time period. Unfortunately, because strategy was measured at an ordinal level in the pilot study, only the leader attributes profiles could be validated. Nevertheless, the results are very promising and are shown in Table 52.

Even though nine of the twelve correlation coefficients were in the expected direction, only one was significant. Consistent with the results of the previous tests of the profiles on the study samples, the correlation that was significant was for residential membership in the high environmental uncertainty group. The partial validation of this profile using leader attributes was assumed to strengthen the conclusion that when

TABLE 52

VALIDATION OF IDEAL PROFILES USING PILOT STUDY DATA

DEPENDENT VARIABLE	DISTANCE	CORRELATION COEFFICIENT
Residential membership	DIST0	-0.3223
	DIST1	0.8739***
	DIST2	-0.6354**
Nonresidential membership	DIST0	-0.2859
	DIST1	-0.4727
	DIST2	-0.1372
Average Sunday school attendance	DIST0	-0.4707
	DIST1	0.6350*
	DIST2	-0.5035
Financial receipts	DIST0	-0.5101
	DIST1	0.3242
	DIST2	-0.1549
where DIST0 = distance for low environmental uncertainty group DIST1 = distance for medium environmental uncertainty group DIST2 = distance for high environmental uncertainty group * = $p < .10$ ** = $p < .05$ *** = $p < .01$		

environmental uncertainty is high, leader attributes and strategy do have important performance implications for the organizations in this study. Moreover, the ideal profiles were generally consistent with the formulation of hypothesis 4 such that the more effective organizations in uncertain environments had leaders that were low in task-orientation, high in people-orientation, liberal business affairs and human welfare values, with external locus of control. A discussion and the inconsistencies of the results of the tests of all four hypotheses are in the following chapter but first, a review of what has been accomplished in the preceding sections.

Summary

Chapter 4 presented the results of the main study. The reliability of the scales for each of the independent variables except locus of control were calculated using the Cronbach alpha. The items that loaded on unique factors were used to measure these independent variables/constructs. Furthermore, the hypotheses were tested and they produced interesting results.

Generally, the interaction-based hypotheses (H1 to H3) did not receive statistical support. Of the 52 total interactions for all three hypotheses, only 5 were significant or marginally significant. For hypothesis 1, the only significant ($p < .05$) interaction for residential membership was between environmental uncertainty and task-orientation. This lone interaction was not

in the expected direction. The interaction between people-orientation and environmental uncertainty was the only significant ($p < .05$) one for nonresidential membership. The direction of this interaction was not as expected. Even though there were two significant interactions for average Sunday school attendance, neither of them were in the expected direction. These significant interactions were between task-orientation and environmental uncertainty ($p < .01$) and locus of control and environmental uncertainty ($p < .05$). There were no significant interactions for financial receipts. In terms of the direction of the interaction terms for hypothesis 1, there was weak support because only forty-five percent were in the expected direction.

There was only one marginally significant ($p < .10$) interaction between the leader attributes and growth strategy for all the dependent variables in testing hypothesis 2. The marginally significant interaction was between people-orientation and growth strategy for financial receipts. In addition, there were no significant interactions between growth strategy with environmental uncertainty for any of the dependent variables for hypothesis 3. While only about half of the interaction terms were in the expected direction for hypotheses 2, about three-fourths were in the expected direction for hypothesis 3. Either way, because of the lack of statistically significant interactions that most likely resulted from a lack of statistical power, the tentative conclusions were that marginal directional

support exist for hypotheses 2 and 3.

The lack of significant interactions for hypotheses 1 to 3 would have led a traditional contingency theorist to suggest that there was no fit between the independent variables/constructs in this study for explaining organizational performance. The test and results of hypothesis 4 however would make such a conclusion erroneous. Systems analysis or profile deviation revealed that these independent variables/constructs may be important for performance in environments with different levels of uncertainty, especially when the uncertainty level is high. Since one of the important questions in this research study pertains to the sufficiency of the traditional contingency (i.e. interaction-based) approach used in isolation, the results of the systems analysis in testing hypothesis 4 lends further credence to using multiple approaches to "fit" in examining the importance of strategy types and leader attributes to organizational performance. The discussion and possible implications of the results of these analyses follow.

CHAPTER 5

DISCUSSION

This chapter contains the discussion of the results of the tests of the hypotheses in Chapter 4. Especially, the consistencies and inconsistencies in the hypotheses-results are explained. Furthermore, the limitations of this study are discussed along with an explication of the potential contributions of this project to the contingency- and configuration-based studies in management research. Finally, suggestions for future research are made.

Hypotheses-Results (In)consistencies

In analyzing and presenting the results of the tests of the hypotheses in Chapter 4, some relationships that were consistent and inconsistent with the hypotheses in Chapter 3 were discovered. There is potential importance in exploring and explaining the possible reasons--when possible--why these relationships were found. It may be informative to know why hypothesized relationships did or did not occur. The following sections deal with the hypotheses, based primarily on the statistical significance of the hypothesized relationships and

secondarily on the direction of the interaction terms between variables/constructs for hypotheses 1, 2, and 3.

Hypothesis 1

There were only four statistically significant interactions for this hypothesis and none of them were in the expected direction. The lack of statistical power in testing this hypothesis could have accounted for the lack of more significant relationships. Two of the four significant interactions dealt with the impact of task-orientation on attracting residential members and increasing average Sunday school attendance. The task-orientation inconsistency could be explained by the uncertainty in the environment which could perhaps make a "directive" leader ineffective. Another interaction that was significant revealed that a highly people-oriented leader may be ineffective at attracting members from outside of the church's immediate community or nonresidential membership. Generally, it appeared as if a leader with high people-orientation would be more effective in an uncertain environment. The higher effectiveness of people-orientation over task-orientation may also be due to the 'reductionistic' nature of traditional contingency theory, the type of organization in this study, and/or the underlying measures of performance that were people-oriented.

A fourth interaction term that was significant but not in

the expected direction dealt with the impact of a leader's locus of control on average Sunday school attendance in an environment with high uncertainty. The inconsistency with the management literature in general (e.g. Miller & Toulouse, 1986) and specifically with hypothesis 1 in this study was that internal locus of control had increasingly negative impact on the performance measures as uncertainty increased. Previous findings concluded that internal locus of control typically led to higher performance in uncertain environments (e.g. Anderson & Schneier, 1978). This inconsistency may be attributed to the difficulty that respondents had with the scale items that were supposed to measure the locus of control construct and/or to other reasons that are discussed later in this chapter.

The other relationships for hypothesis 1 were not statistically significant--the possible reasons are discussed after the discussions for hypotheses 2, 3, and 4. In summary, the following could be the general and tentative conclusions for each dependent variable when an organization is in an uncertain environment: (1) a leader that has low task-orientation, high people-orientation, conservative business affairs and human welfare values, and external locus of control could be most effective in increasing residential membership; (2) a leader could have the most impact on nonresidential membership if s/he is high in task- and low in people-orientations, liberal in business affairs and conservative in human welfare values, and

has an internal locus of control; (3) the most effective leader in increasing average Sunday school attendance could be those with low task-orientation, high people-orientation, liberal business affairs and human welfare values, and external locus of control; and (4) if the goal is to achieve increases in financial contributions, the most effective leaders could be those with low task-orientation, high people-orientation, liberal business affairs values, conservative human welfare values, and external locus of control (Table 53). The plausible theoretical base for the inconsistencies in the results of the test of hypothesis 1 could be more meaningful when done in conjunction with the findings of the other hypotheses.

Hypothesis 2

There were no significant interactions for this hypothesis except for the one between people-orientation and growth strategy which was marginally significant for financial receipts. One possible reason why more significant interactions were not found could be explained by the lack of statistical power in the test of this hypothesis. Nevertheless, the following discussion is based on the direction of the interactions between growth strategy and the leader attributes. In general, the following effective relationships were found to possibly exist when organizational leaders pursued growth strategies: (1) a leader with high task-orientation, low people-orientation, conservative

TABLE 53

SUMMARY FINDINGS OF THE RELATIONSHIPS BETWEEN LEADER ATTRIBUTES,
ENVIRONMENTAL UNCERTAINTY, AND THE DEPENDENT VARIABLES.

MODERATING VARIABLE: Environmental uncertainty					
DEPENDENT VARIABLES	INDEPENDENT VARIABLES				
	TO	PO	BAV	HWV	LOC
Residential membership	-*	+	-	-	-
Nonresidential membership	+	-*	+	-	+
Average Sunday school attendance	-**	+	+	+	-*
Financial receipts	-	+	+	-	-
<p>where: TO = Task-orientation PO = People-orientation BAV = Business affairs values HWV = Human welfare values LOC = Locus of control</p>					
<p>and</p> <ul style="list-style-type: none"> + = relationship in the hypothesized direction - = relationship in the opposite direction of hypothesis * = relationship was significant at $p < .05$ ** = relationship was significant at $p < .01$ 					

business affairs values, liberal human welfare values, and internal locus of control could be most effective in increasing residential membership; (2) the biggest increase in nonresidential membership could occur when the leader is low in task- and people-orientations, liberal in business affairs values and conservative in human welfare values, and has internal locus of control; (3) a leader with high task- and people-orientations, conservative business affairs values, liberal human welfare values, and internal locus of control could have the most effective impact on increasing average Sunday school attendance, (4) to increase financial receipts may require a leader that is low in task-orientation, high in people-orientation, conservative business affairs values, liberal human welfare values, and an external locus of control (Table 54).

One possible inference that could be drawn from the tentative conclusions for hypotheses 1 and 2, is that leaders with different attributes may be effective in environments with different levels of uncertainty and/or successful in pursuing strategies with distinctive characteristics, especially when there are multiple performance measures. Nevertheless, the inconsistencies in the test of hypothesis 2 can be more meaningfully undertaken in combination with those of the other hypotheses. Therefore, the effectiveness implications of pursuing growth strategies in uncertain environments are now discussed.

TABLE 54

SUMMARY FINDINGS OF THE RELATIONSHIPS BETWEEN LEADER ATTRIBUTES, GROWTH STRATEGY, AND THE DEPENDENT VARIABLES.

MODERATING VARIABLE: Growth strategy					
DEPENDENT VARIABLES	INDEPENDENT VARIABLES				
	TO	PO	BAV	HWV	LOC
Residential membership	+	-	-	+	+
Nonresidential membership	-	-	+	-	+
Average Sunday school attendance	+	+	-	+	+
Financial receipts	-	+	-	+	-
<p>where: TO = Task-orientation PO = People-orientation BAV = Business affairs values HWV = Human welfare values LOC = Locus of control</p>					
<p>and: + = relationship in the direction hypothesized - = relationship in the opposite direction of hypothesis * = relationship was significant at p < .10</p>					

Hypothesis 3

The hypothesized relationship between growth strategy and environmental uncertainty was not significant for any of the dependent variables. The fit between environmental uncertainty and growth strategy types was in the expected direction for all the dependent variables except nonresidential membership. In effect, pursuing a growth strategy in an environment that was high in uncertainty appeared to lead to increases in residential membership, average Sunday school attendance, and financial receipts. This finding is generally consistent with those of previous researchers for profit-oriented organizations (e.g. Herbert & Deresky, 1987). Similarly, while pursuing stabilize strategies in environments with high levels of uncertainty appeared to be effective, harvest-turnaround strategies were ineffective for all the performance measures except nonresidential membership. Except for not being significant, probably because of a lack of statistical power, the test of hypothesis 3 yielded the most consistent findings. Therefore, hypothesis 4, because it is a composite of the three hypotheses that have been discussed to this point, could shed some light on the inconsistencies for hypotheses 1 and 2.

Hypothesis 4

The results of the test of hypothesis 4, though marginal, highlights the importance of discussing the direction of the

interaction terms for hypotheses 1, 2, and 3 in the preceding sections. Ordinarily, the lack of significant interactions for these three hypotheses could have led traditional contingency theorists (TCTs) to assert that "fit" theory does not apply. The reductionistic tendencies of TCTs make it difficult at times to detect the effects of significant individual interactions on effectiveness measures. Furthermore, because TCTs typically focus on pairwise relationships, they may be unable to detect overall patterns of internal consistency among context, structure, organization, and process variables. In addition, the holistic approach of systems analysis makes it possible for contingency or "fit" theorists to study the patterns of organizational performance when more sophisticated relationships exist.

The multiple approach to fit that was used in this study revealed that both congruent and contingency forms of fit could be operating to explain the performance differences between these organizations. As succinctly put by Drazin and Van de Ven (1985; p. 536), "Reporting tests of only one form of fit leaves more questions unanswered than resolved." Multiple forms of fit can also provide complementary and/or supplementary information that may be useful for developing a deeper and broader understanding of the relationship between variables. The additional information could also provide the impetus for the formulation of better and more meaningful theories.

The results of the test of hypothesis 4 were more encouraging than for the interaction-based hypotheses, even though the profile deviation or systems analysis and its validation was only significant for residential membership. In general, leaders that: (1) have the following attributes: low task-orientation, high people-orientation, liberal values, external locus of control, and (2) pursue growth strategies are more effective in uncertain environments. These findings are generally consistent with the formulation of hypothesis 4. The alternative theoretical base that could be used to explain the inconsistencies in the tests of the hypotheses are discussed in the following section.

Alternative Theoretical Explanations for Inconsistencies

The inconsistencies in hypotheses 1 and 2 can be explained by configuration theorists assertion that the pairwise approach of traditional contingency theorists very often lead to confusing results (e.g. Van de Ven & Drazin, 1985). Consequently, because hypothesis 4 dealt with the multiple interdependencies between the variables of interest in this study, the patterns that were observed for the interaction-based hypotheses could be misleading since these relationships were based on the 'reductionistic' tendencies of the traditional contingency approach. In other words, the additional and supplementary information that was obtained through systems analysis in terms of the inconsistencies

in the hypothesized relationships between the research variables/ constructs, underlies the following discussion.

When the inconsistencies in the tests of hypothesis 1 and 2 are examined along with the more comprehensive and inclusive test of hypothesis 4, there were basically two major inconsistencies: leaders with high task-orientation and internal locus of control may be ineffective in uncertain environments. Conversely, leaders with high people-orientation and external locus of control appeared to be more effective in uncertain environments. Miller, Kets de Vries, and Toulouse (1982) suggested that leaders with high task-orientation and internal locus of control would tend to be more effective. Alternatively, leaders with high people-orientation and external locus of control may also be effective under different conditions. Consequently, the effectiveness of high people-orientation and external locus of control could be a form of 'fit' that is peculiar to the organizations in uncertain environments and/or to the organizations in this study.

Furthermore, the Hersey and Blanchard (1974) situational leadership theory could be used to explain the low task- and high people-orientation effectiveness in this study. Hersey and Blanchard (HB) labeled people-orientation as "relationship" and used the high-low dichotomies for task and relationship centered behavior to develop four types of leadership styles. The low task-high relationship category HB called "participating" and is

typical of situations where the leader and follower share in decision making, and the main roles of the leader are those of facilitator and communicator. Therefore, in uncertain environments, it may be necessary for the leader to create and exhibit a participative atmosphere in order to attain superior levels of performance.

There is no sound theoretical base for explaining why leaders with external locus of control would be effective in uncertain environments. The reported problems that respondents had with the questionnaire items that were designed to measure locus of control and the reliability coefficient for this construct makes this researcher hesitant to justify this inconsistency. Nevertheless, the lack of statistical power in the tests of hypotheses 1 and 2 and/or the possible "fit" between people-orientation and external locus of control as previously discussed, could possibly explain the inconsistency that were observed.

Summary

The preceding sections dealt with the results of the analyses of the hypotheses. In support of previous works, the systems approach to fit provided complementary information that could have been difficult or impossible to obtain had only the traditional contingency approach been used. The limited number of significant interactions for hypotheses 1 to 3 and the

marginally significant systems analysis could lead one to raise some important questions regarding the survey instrument, sample, or some other limitation of this study which are addressed in the following section.

Limitations of study

The inconsistencies that were previously discussed, the lack of significant interactions, and the marginal support for systems analysis point out the need for enumerating the problems with this study. Specifically, the limitations that resulted from statistical conclusion, internal, construct, and external validity are discussed.

Statistical Conclusion Validity

Cook and Campbell (1979) defined statistical conclusion validity as that which derives from the conclusions that are drawn from the statistical evidence about cause and effect. Because this project was a field study, some of the weaknesses of field studies apply. The inability of this researcher to better control the experimental situation leaves room for the possibility of extraneous influences on the results obtained. The field setting additionally means that systematic and random noise persists. Therefore, the responses to the questionnaire may have been contaminated by uncontrollable factors like

fatigue, stress, or the different conditions under which the task was completed by each of the respondents. In addition, the following limitation could exist.

Weak effects. The results of the fourth hypothesis is of concern in this study because the correlations were mostly marginally significant ($p < .10$). Ordinarily, a significance level of .05 or better is preferred (e.g. Venkatraman & Prescott, 1990). It is not unusual however for researchers to adopt a more liberal significance level of .10 in order for the effects that are observed to be considered marginally supportive of the hypothesis. The marginally significant results for hypothesis 4 could also be due to a lack of statistical power—a deficiency that systems analysis by nature cannot directly address (Drazin & Van de Ven, 1985).

Conclusion. All the steps that were necessary to enhance statistical conclusion validity could not be taken primarily because this was a field study. There were potential problems with measures partly because they had not been previously used with this type of sample. Furthermore, the inability to control the experimental setting added to the potential negative effects of extraneous variables. Therefore, the measures and the setting could have reduced the ability to detect stronger effects.

Internal Validity

The validity of the statistical conclusions drawn with

respect to causality is referred to as internal validity (Cook & Campbell, 1976). Relevant questions are: did the measures capture what they were intended to? do the relationships infer cause and effect? and does the absence of a relationship imply the absence of cause? Potential limitations with respect to internal validity include instrumentation, inequity perceptions, rivalry, and demoralization.

Instrumentation. The reliability estimates for the scale items ranged from a low of 0.52 for growth strategy to 0.81 for environmental uncertainty. Carmines and Zeller (1979) recommended reliability estimates of 0.8 or higher for well established scales. Conversely, this study represented the first time most of the scale items on the questionnaire have been used for the sample in this study. In fact, the respondents had difficulty with Rotter's (1966) locus of control scale which has been extensively used in the management literature. The low reliability coefficient (0.62) for Rotter's scale is an indication that there might have been some measurement problems in this study. This could partially account for the lack of more significant results in this dissertation because weak measures make it difficult to find hypothesized relationships.

Inequity perceptions. The different levels of educational attainment of the respondents could have made the task of completing the survey instrument easy for some of the subjects while making it difficult for the others. The absence of any

financial rewards could also have resulted in different levels of commitment to completing the task. In addition, because only one or two churches were typically selected from the same community, the respondents may have communicated with other ministers that did not have to undertake the task of completing and returning the questionnaire. These factors may have contributed to the lower response rate—in comparison to the pilot study's—and the lack of significant results.

Demoralization. Since it was supposed to take anywhere from 30 to 45 minutes to complete the questionnaire, subjects could have been demoralized toward the end of finishing the task. This could mean lower confidence in the scale items toward the end of the questionnaire. The possibility that the length of the questionnaire resulted in subjects either becoming frustrated or less attentive to the completion of the task is a threat to the findings in this study.

Conclusion. The internal validity threats to this study have been discussed in the preceding sections. Since it is the responsibility of the researcher to deduce internal validity threats to his/her study, the potential problem areas in this study (i.e. measures, inequity perceptions, and demoralization) have been highlighted. Furthermore, this study also potentially has construct and external validity problems. The construct validity problems are discussed in the following section while the external validity issues are addressed thereafter.

Construct Validity

Problems can arise in any research study when operations can be construed in terms of more than one construct (Cook & Campbell, 1979). Whenever unexpected findings exist, construct validity problems become relevant. In this study, potential construct validation issues are: inadequate construct explication, mono-method bias, hypothesis guessing, evaluation apprehension, experimenter expectancies, and restricted generalizability across constructs.

Inadequate construct explication. In order for a study to have high construct validity, it must necessarily have proper and clear explication of constructs. Because there are usually multiple formal definitions of constructs available, different definitions could have been adopted by another researcher undertaking this study. The unique approach that is taken by each researcher—dictated by the literature and logical assumptions—determines the chosen definition. Generally, preferred definitions should play a role in this choice but should not limit it. The need to develop new definitions and expand on the more established ones are added considerations. The inadequate construct explication threat was probably more severe in this study because most of the scale items had not been previously used with this current group of subjects. Regardless, this threat is almost always present for all social science research and therefore is most likely present in this study as

well, even though the threat could have been minimized by the attempt at thoroughness in Chapters 1 to 3.

Mono-method bias. The mono-method bias threat refers to the use of a single method or procedure for task completion. This could be reflected in the way questions are structured and/or the response format for scale items. Whenever either or both of these situation(s) exist(s), there is potential for bias. In order to limit the effects of this threat, the researcher needs to vary questions and response scales from positive to negative. Even though attempts were made in this study to overcome mono-method bias, this threat could still have emerged.

Hypothesis guessing. Effects may be obscured by subjects that tried to figure out the goal(s) of this study. The increasing scrutiny that the "church" has come under in recent years could have influenced some ministers to respond to the questionnaire in a socially acceptable manner, rather than on what their actual perceptions and beliefs were. The inability to use a random sample may have increased the existence of this threat. Even though, Cook and Campbell (1979) suggested that more knowledge about this threat and its effects on behavior are necessary, not using a random sample meant that hypothesis-guessing could have contaminated the data in this study.

Evaluation apprehension. This threat exists when subjects are apprehensive about being evaluated and therefore act in ways that they normally would not. In effect, the respondents seek to

be seen in a positive light by the researcher. If there is evaluation apprehension, it could have distorted the true effects in the study. As mentioned in the preceding section, ministers have come under increasing scrutiny recently. Therefore, it is possible that this threat was present in this study.

Experimenter expectancies. This threat deals with the tendency of researchers to act in ways that direct the efforts of subjects to respond such as to confirm their hypothesis. Because this was a field study, this threat was probably minimized. The existence of this threat could be reflected, however, in the way the questions were structured and/or in the way the response formats were developed. Consequently, the existence or lack thereof of the experimenter expectancies threat could not be ruled out in this study.

Restricted generalizability across constructs. The inability of a researcher to generalize his/her findings because of the typically narrow conceptualization of constructs is referred to as the restricted generalizability threat. Since it is usually impossible for researchers to account for all the measures that a construct may affect, the restricted generalizability threat could not be ruled out in this study. The typical way to minimize this threat is to replicate this research study (Sidman, 1960). Replication is especially useful here because of the limited number of studies that have used ministers as their relevant sample.

Conclusion. The threats of inadequate explication of constructs, mono-method bias, hypothesis-guessing, evaluation apprehension, experimenter expectancies, and construct generalizability most likely limited this study. Some of these threats may be overcome by future studies as more researchers focus on religious not-for-profit organizations, others may have to be accepted as part of the price that is paid for undertaking social science research. Nevertheless, another important validity issue deals with the generalizability of the findings in this study and is addressed in the following section.

External Validity

One of the reasons for using a field experiment for this research study was so that the effects observed could be stronger since the relevant realism attained through the experimental situation will supposedly increase the strength of the variables, contribute to external validity, and make generalizations to other situations more valid (Kerlinger, 1979). In general, external validity can be defined as the extent to which a causal association can be generalized over people, time, functional relationships, operations, or conditions (Cook & Campbell, 1979). In general, the findings of this study may be limited over people, settings, and time.

Generalizability over people. The generalizability of the results of this study over people is somewhat limited in that the

use of a non-random sample of leaders from one denomination, across a single state, precludes broad conclusions. The results of this study cannot be generalized to the larger universe. In fact, some of the findings may be unique to the sample of organizational leaders that were used as subjects.

Encouragingly, some of the findings in this study are consistent with the previous conclusions of other studies that have dealt with religious not-for-profit organizations (e.g. Hadaway, 1989). Regardless, it is important to replicate this study in some form across denominations and states to validate the instrument and the results. The only generalization that is perhaps possible would apply to organizations that have characteristics that are similar to the ones used in this study. Consequently, the results of the study may not be valid for all religious not-for-profit organizations.

Generalizability over setting. An additional problem with this study is that the results may not be applicable to the leaders of other organizations, especially managers. Moreover, these findings may not even be applicable to the leaders of other religious denominations in other states. The administration of the task during the summer months--the period of time that most of these leaders are on vacation--could have also excluded some otherwise important subjects. This could be partly responsible for the differences in the response patterns and rates for the pilot and main studies. Nevertheless, the point is that one

cannot be sure that the results in this study can be generalized across organizations.

Generalizability over time. The generalizability of this work is further limited by the relatively few number of studies that have used samples of religious leaders. Cook and Campbell (1979) explained the generalizability over time validity problem as the inability to extrapolate findings from the present to the future. The primary means of reducing this threat is through future replication of studies with the same or similar conclusions. As the not-for-profit sector becomes more important to strategy researchers, it could be possible to generalize the findings of this study in the future. Presently, the generalizability of this study is limited.

Conclusion. Generally, external validity, unlike internal validity, must be addressed through inductive reasoning (Cook & Campbell, 1979). To overcome or minimize external validity threats mostly requires replication of studies. Unfortunately, replication, in spite of its usefulness, is not popular in academic circles. Furthermore, because this is a field study, an extensive amount of time and financial resources will be needed to replicate this study. Without this replication, the results of this study cannot be generalized. Despite the deficiencies that have been discussed in the preceding sections, this study has potentially important contributions that are discussed in the following section.

Contributions and Implications

The potential contributions of this study are twofold: (1) the need to use multiple approaches to fit for strategy research, and (2) understanding the importance of leader attributes and strategy to organizational effectiveness in an environmental uncertainty context in the not-for-profit sector. These contributions along with their implications are also discussed.

Multiple approaches to fit

Contingency theory is one of the more dominant approaches to studying organizations (e.g. Schoonhoven, 1981). Unfortunately, a mono-method approach has typically been adopted in analyzing the relationships between variables. Recently, researchers have suggested the need for more rigorous analyses of these relationships.

Contributions. This is the first study that has used both the systems analysis and contingency theory approaches to fit to examine the performance implications of leadership and strategy attributes in an environmental context. The works to date have dealt primarily with strategy-environment, structure-process-task uncertainty, or some other combination of these variables (e.g. Drazin & Van de Ven, 1985; Venkatraman & Prescott, 1990). The inclusion of leader attributes in this study was important to the

extent that the congruence between them and strategy types could be validated for organizational effectiveness. Even though most of the interaction terms were not significant, the importance of using another approach to "fit" revealed that leader attributes and strategy may have important performance implications. As succinctly put by Drazin and Van de Ven (1985; p. 536) "We believe that the evaluation of multiple approaches to fit ... provides an example of knowledge accumulation that contingency-theory researchers should follow. Furthermore, because the forms of fit may differ across situations, multiple approaches to fit could help to minimize or eliminate what has traditionally been inconsistent contingency-theory findings." If only the traditional contingency approach had been used in this study, it would have been difficult to credibly suggest the importance of the leadership and strategy variables to performance measures. If nothing else, this dissertation may have answered the call of researchers like Venkatraman and Prescott (1990) for including leadership variables in systems analytic studies.

Implications. The relevance of leadership to performance measures could be one of the important implications of this study. This is especially true because support for research showing the importance of leaders to the performance of their organizations has not always been positive. House and Baetz (1979), in their review of the literature on organizational

leaders, concluded that leadership can account for significant variations in organizational performance. The studies by Meyer (1975), Thomas (1988), and Weiner and Mahoney (1981) seem to support House and Baetz' conclusion. Conversely, Lieberman and O'Connor (1972), Salancik and Pfeffer (1977), and Pfeffer (1977) found that leadership did not account for much of the variances observed in the performances of the organizations that they studied. More recent studies that take the position that effective leadership does make a difference in the performances of organizations are partially supported by this study. Perhaps, the most important contribution of this study is that it adds to the relatively few number of studies that have used subjects from the religious not-for-profit sector; the potential importance of this is discussed in the following section.

Not-for-profit sector

While the focus of most management researchers on profit-making enterprises is understandable, the apparent neglect of not-for-profit (NFP) organizations is perhaps unwarranted as they have become more important to the way of life in the United States in recent years (Stewart, 1989). Any effectiveness or efficiency gains that are made in the NFP sector could translate to higher wealth for the national economy. Consequently, more studies that increase our understanding of how NFP organizations can be better managed are needed. This study is one such work.

Contributions. This study has potentially contributed to the management field by extending contemporary approaches to fit to the NFP sector and examining the performance implications of the congruence between leader attributes and strategy in the same sector. Because there have been relatively few research studies in the NFP sector, the approaches that have been used for data collection and analysis have been rudimentary (e.g. Odom & Boxx, 1988). While data collection methods can be improved as more research works are undertaken, there is no excuse for limiting analysis of data to simple correlation procedures. Therefore, one of the potential contributions of this study is to pave the way for researchers in the NFP sector to use more comprehensive approaches for analyzing data.

Since some theorists (e.g. Hadaway, 1989) have suggested that leaders are important to the effectiveness of NFP organizations, this study provides some empirical support for this position. Furthermore, there may be certain attributes that delineate effective from ineffective leaders depending on the goals of the organization. The tentative findings of the test for the interaction-based hypotheses indicate that different combinations of leader attributes may be effective when alternative performance measures are considered. In general, the results that are suggested by the traditional contingency approach coupled with the holistic results of systems analysis indicate that leader attributes and strategy are important for

performance in the NFP sector. Since these results were not strongly supported, this study should provide the impetus for further research into the importance of leader attributes and strategy types to performance. The lack of strong support for the hypotheses in this study should not discourage future works along the same lines. In fact, as better measures are developed, better results may emerge. Furthermore, when additional leader attributes are incorporated into these future studies, stronger and more meaningful attributes may lead to better mid-range theories. These theories could lead to a parsimonious number of leader attributes for identifying effective leaders.

Another potential contribution of this study pertains to generic strategies. This is probably the only study to capture the characteristics of generic strategies in the NFP religious sector. The three types of generic strategies that were identified in this study could serve as the foundation for developing more comprehensive and parsimonious measures of strategy for these organizations. This stream of research could lead to some valuable results. For example, the preliminary finding in this study, and the pattern observed in the pilot study seem to indicate that religious organizations may be reluctant to pursue "divest" or "harvest" strategies. If the tentative results in this study are replicated, then the performance implications of not pursuing a "divest" or "harvest" strategy could be undertaken. In addition, the comparison and

contrast of the characteristics of generic strategies in the for-profit and not-for profit sectors could be facilitated.

An additional contribution of this study was negative but informative. It seemed that the subjects in this study had some problems with Rotter's (1966) locus of control scale. This scale has been extensively used with different subjects in the management literature. Ironically, it appears that this locus of control scale has never been used with religious leaders. The problems that were encountered in this study is typical of what one would generally experience in doing research in the NFP sector. Even the instrument scales that have been well used in the for-profit sector have rarely been validated across other types of organizations, especially the religious not-for-profits. Consequently, this study again highlights the need for more meaningful research in the NFP sector.

Implications. This study has implications for the management research literature, especially in the NFP sector. Research into the possible characteristics of generic strategies in the religious NFP sector have been initiated and future studies could make the literature even more complete. The performance implications of leader attributes and strategy types were also highlighted. Whenever organizations have different goals, individually unique combinations of leader attributes may be necessary to delineate effectiveness. More importantly, the need for research studies that at least employ subjects from the

NFP religious sector are also needed.

Summary and Conclusions

The potential contributions and implications of this study have been discussed in the preceding sections. The necessity and importance of using multiple approaches to examining the fit between variables in management research were enumerated. Furthermore, the importance of leader attributes and strategy types to organizational performance were summarized. Specifically, the effectiveness of leader attributes and the possible exposition of the characteristics of generic strategies in the NFP religious sector were also discussed. Overall, the preceding discussion emphasized the need for more research studies along the same lines as this dissertation. Some of the propositions that could be addressed by these future research studies are discussed next.

Future Research

An important point that was reiterated in the preceding section was the need to replicate this study. In order to enhance and promote future research, a number of propositions will be offered. In addition, some methodological issues will be addressed.

Propositions

The results, limitations, and implications of this study led to some propositions for future research in this area. The results raise some interesting issues that future researchers should explore. These propositions are based on the relationships that were statistically significant. To date, researchers have not investigated the leadership style--task- and/or people-orientation(s)--that is most effective in an uncertain environment. Ironically, most of the significant relationships in the interaction-based hypotheses--and supported by the profile deviation or pattern analysis--were for leadership style. Consequently, three of the five propositions that are developed for future research deal with this construct.

- Proposition 1. Leaders that are people-oriented are more effective in not-for-profit religious organizations when environmental uncertainty is high.

- Proposition 2. High task-orientation may not enhance effectiveness in the religious not-for-profit sector when environmental uncertainty is high.

- Proposition 3. High task-orientation may improve effectiveness in the religious not-for-profit sector when environmental uncertainty is low.

- Proposition 4. Not-for-profit religious organizations are less likely to pursue a "harvest" or "divest" strategy even when faced with decreasing effectiveness.

Proposition 5. Not-for-profit religious organizations are more likely to pursue "growth" and/or "stabilize" strategies.

In order to test these propositions in the future, several changes will need to be made to the present study. These changes include sample selection and measurement procedures.

Sample. There are several directions that could be followed with the study sample. It may be important for future studies to use random samples from within the same denomination as this may decrease some of the validity threats to the present study. Moreover, a more heterogeneous sample of religious organizations may be advantageous. A national sample of these organizations could also enhance the quality of the results of future studies. It is important to add that a sample that is random, across denominations, and 'national' also has its disadvantages. A random sample from the list of qualified leaders could potentially limit the total available sample size, however, as was the case in this study. If a national pool of religious organizations is used, the sample size may not be a problem but the cost of the study could become a concern. The cost of undertaking this study at a national level could be prohibitive. In addition, the differences between denominations with respect to membership, reporting standards and the like become pertinent concerns for future studies. More importantly, future studies need to develop more reliable and valid measures for the

explanatory or independent variables/constructs in this study.

Measures. The instrument scales for measuring constructs have not been well developed in the not-for-profit sector. This is not unusual for situations where the literature is not well developed as is the case for this sector of the United States' economy. Future studies need to focus on developing more parsimonious measures of constructs/variables. This is necessary not only to increase the validity of these measures but also to improve their reliability. As better measures are developed, better theories can be formulated, and more meaningful research studies can be undertaken.

Summary and Conclusions

Suggestions were offered in the preceding sections regarding the importance of leadership style to organizational effectiveness and the development of the content of generic strategies in the religious not-for-profit sector. These suggestions formed the impetus for the formulation of the propositions that could be tested in future research studies. In addition, a general call for more research studies using subjects in other than for-profit organizations was made. Methodological issues regarding sample selection and measurement of constructs were also addressed. It was also highlighted that in the final analysis, it is only through more research studies that better theories can evolve.

Summary and Final Comments

This chapter presented the consistencies and inconsistencies in the tests and results of the hypotheses. For the most part, the interaction-based hypotheses (i.e. 1, 2, and 3) were not statistically supported. One important result relates to the suggestion that people-oriented leaders may be more effective in uncertain environments than task-oriented leaders--a result that could be explained with the Hersey and Blanchard's situational leadership theory and/or a unique finding for the population from which the sample for this study was drawn. Nevertheless, the importance of the leader attributes and strategy types in this study to performance measures were marginally supported by the results of the systems analysis. This finding was generally consistent with the hypothesis. More importantly, this study again reiterated the need for contingency-based researchers to adopt multiple approaches in the analysis of data.

This study was not without its deficiencies and they were pointed out as the potential limitations of this project. These faults included threats to statistical conclusion, construct, internal, and external validity. In spite of these real and potential problems, the contributions and implications of this study were discussed. Of special note is the additional and complementary information that researchers can obtain from using multiple approaches to fit.

Furthermore, future research suggestions were made in the form of five propositions. The most interesting one was the importance of people-oriented leadership to effectiveness measures in uncertain environments. In addition, the need for this study to be replicated was also highlighted, and the contribution that this study could make to the management literature in general and to the not-for-profit literature specifically were discussed throughout. In conclusion, because this dissertation may have contributed some insight into the relevance and importance of the pertinent variables, it is offered as a complement and an extension to previous works and a basis for future research studies. In the final analysis, the validity and reliability of the results of this study will be upheld only by the findings of future studies.

APPENDIX A

PRENOTIFICATION LETTER FOR PILOT STUDY'S QUESTIONNAIRE

Department of Management
College of Business Administration
University of Arkansas
Fayetteville, AR 72701

«name»«IF company»
«company»«ENDIF»
«street»
«city», «state» «zip»«IF company=""»«ENDIF»

Dear Reverend «sal»,

Enclosed is the survey that I mentioned in my earlier correspondence with you. Again, please note that all the information that you provide will be held in the strictest confidence. Completing the questionnaire will only take about thirty minutes of your time. Mostly, the survey requires that you read certain statements and then indicate on a given scale how much you agree or disagree with them. The code on the business reply envelope is to prevent me from writing a reminder letter to those who have already responded to the questionnaire. Please, do not put your name or the name of your church on the questionnaire unless you want a summary of my findings. I assure you that your name and the name of your church will not be in my data set, only your responses to the questions in the survey.

I will really appreciate it if you will mail the completed questionnaire back to me in the business reply envelope that is enclosed within the next two weeks. Again, if you need additional information about me or my study you can call the Chairman of my Dissertation Committee (Dr. John Todd) at 575-4059, or my Pastor at 521-2989.

Thank you very much for your help in this regard. I believe you will find the questionnaire interesting. The summary of the results will be available to you as indicated on the last page of the questionnaire. My prayer is for God's blessings to be upon you, your family, and your congregation.

Sincerely,

Tope Bello

COVER LETTER FOR PILOT STUDY'S QUESTIONNAIRE

Department of Management
College of Business Administration
University of Arkansas
Fayetteville, AR 72701

«name»«IF company»
«company»«ENDIF»
«street»
«city», «state» «zip»«IF company="»«ENDIF»

Dear Reverend «sal»,

I am a student at the dissertation stage of my doctoral study at the University of Arkansas. My dissertation deals with church growth and church administration. I need to collect data from the pastors of selected Baptist churches in Arkansas through a survey that I will mail to you within the next few days. I will very much appreciate your participation. Please be assured that the information you provide will be used for research purposes only and will be held in the strictest confidence. The questionnaire will only take about thirty minutes of your time to complete. A postage-paid reply envelope will also accompany the survey to make it easier for you to send your completed questionnaire back to me.

Please, help me. I have been in contact with the Associate Executive Director of the Arkansas Baptist State Convention in Little Rock, Jimmie Sheffield and he is aware of what I am doing. I am a Christian and if you need additional information about me or my study you can call collect the Chairman of my Dissertation Committee (Dr. John Todd) at 575-4059, or my Pastor at 521-2969.

Thank you very much for your help in this regard.

Sincerely,

Tope Bello

QUESTIONNAIRE FOR PILOT STUDY

The information provided through this survey is completely
CONFIDENTIAL and will be used for research purposes only.

BACKGROUND INFORMATION

When was your church established? _____

How many full-time ministers does your church have? _____

How many part-time ministers (if any) does your church have? _____

For how long have you been in the ministry full-time (i.e. as youth pastor, associate pastor, pastor, etc.)? _____

How long have you been a senior pastor? _____ In how many churches have you served as the senior pastor? _____

Please describe (in one sentence) the primary objective of your church over the last four years:

How long have you served as the senior pastor of your present church? _____

What is the highest academic degree you have earned? _____

Do you have Seminary training? _____

How old are you? _____

What is the approximate age breakdown of the regular attendees at your church?:

Using "+" for increase and "-" for decrease and "o" for no change, please indicate for each age group whether there has been an overall increase or decrease in the last five years.

Direction of change
over the last five years

under 12	_____ %	_____
teenagers	_____ %	_____
young adults (20-35)	_____ %	_____
older adults (36-65)	_____ %	_____
senior adults (over 65)	_____ %	_____
TOTAL	_____ %	_____

STRATEGY DESCRIPTION

The following paragraphs describe four types of strategy. Please read all four descriptions before choosing one. None of these strategies is inherently "good" or "bad". Please circle the letter that best describe the type of strategy that your church is currently pursuing:

- (a): the basic strategy of our church is to:
- stop and reverse our declining membership as quickly as possible
 - do a better job of managing, budgeting, and controlling our church organization
 - to cut back on the number of ministries that we have
 - do some drastic things in order to ascertain the future viability of our congregation.
- (b): the basic strategy of our church is:
- to grow by continuously expanding our ministries
 - use creative and innovative ministry approaches
 - correctly "package" and "market" the gospel
 - continuously monitor our external environment
 - be willing to take risks
 - make decisions based on their long-term effects
 - make our organizational structure flexible.
- (c): the basic strategy of our church is:
- primarily for the spiritual and physical developmental needs of our members
 - to identify some segments in our community to minister to
 - to provide the best ministry to these specific segments
 - to have good cost control measures, efficiency of operations, and doing what we do best to achieve our ministry objectives to these people.
- (d): the basic strategy of our congregation is to:
- wind down our operations
 - prune our ministries and eventually close our church doors
 - sell some of the assets that are not essential to us
 - ultimately sell our building.

Has there been a change in the strategy used by your church (based on the descriptions given above) from one of these strategy categories to another within the last four years? _____

If "Yes", please explain. _____

Has your congregation been enthusiastically supportive of this change in strategy? _____ If "No", please explain. _____

Please indicate on a scale of 1 - 5 how much the following factors have CHANGED in your community over the last four years:

1=None (or no changes), 2=Almost none (or almost no changes), 3=Some (or some changes), 4=Significant changes, 5=Always changing

	None		Some		Always
	1	2	3	4	5
The size of your community					
General educational level, age, and socio-economic status of individuals within the community	1	2	3	4	5
Presence of a new population group within the community to which a church may develop a ministry (examples: college students)	1	2	3	4	5
Needs of individuals within the community	1	2	3	4	5
The types of ministries being offered by other churches in the community	1	2	3	4	5
Type and level of assistance available from the county association or state convention	1	2	3	4	5
Government regulation of the church or its ministry	1	2	3	4	5
General receptiveness of individuals in the community to the church's ministries	1	2	3	4	5
The general economic conditions in the community	1	2	3	4	5
Kind of community in which the church is located (e.g. change from rural to town)	1	2	3	4	5

If: 1=Never, 2=Almost Never, 3=Sometimes, 4=Frequently, 5=V. Frequently

How frequently do you as the minister:

	Never	Sometimes	V. Freq.
(a) take time to explain to individual members of your church which tasks are expected of them	1	2	3 4 5
(b) ask the congregation to try out your new ideas	1	2	3 4 5
(c) decide personally what will be done by the church and how to do it	1	2	3 4 5
(d) assign specific congregational members to particular tasks	1	2	3 4 5
(e) make certain that the church understands your role	1	2	3 4 5
(f) prepare specific and detailed work schedules for the staff and volunteers	1	2	3 4 5
(g) insist that the congregation follow known procedures and policies	1	2	3 4 5
(h) create a pleasant church climate by thanking a member for his/her efforts	1	2	3 4 5
(i) ask for and use the congregation's ideas	1	2	3 4 5
(j) treat the congregation as your equals in decision making	1	2	3 4 5
(k) let the congregation know well in advance of impending changes	1	2	3 4 5
(l) demonstrate a <u>great deal</u> of personal concern for each member's welfare	1	2	3 4 5
(m) listen to the congregation and make changes based on their suggestions	1	2	3 4 5
(n) act on your own initiative without consulting the congregation when making important decisions	1	2	3 4 5

Please circle the number that best describe your views on the following issues:

- | | | | | | | | |
|---|---|---|---|---|---|---|---|
| In general, I favor a strong emphasis on tried and true approaches to doing things | 1 | 2 | 3 | 4 | 5 | 6 | I prefer doing things in new ways |
| We have not started any new ministries in the last four years | 1 | 2 | 3 | 4 | 5 | 6 | We have started a lot of new ministries in the last four years |
| I try to avoid risky projects as much as possible | 1 | 2 | 3 | 4 | 5 | 6 | In order to bring about progress, I often engage in risky projects |
| In general, because of our environment, I believe our church should change very gradually, via slow, incremental behavior | 1 | 2 | 3 | 4 | 5 | 6 | Because of the nature of our environment, bold, wide-ranging changes are necessary to attain objectives |
| When confronted with decision-making situations involving uncertainty, I typically: | | | | | | | |
| Adopt a cautious, wait-and-see posture in order to minimize the probability of making costly decisions | 1 | 2 | 3 | 4 | 5 | 6 | adopt a bold, aggressive posture in order to maximize the probability of exploiting potential opportunities |
| I monitor our environment occasionally to see if there are things that our church should do, not do, or do differently | 1 | 2 | 3 | 4 | 5 | 6 | I constantly monitor our environment so that our church will be able to identify new ministry opportunities |

Please answer 'Yes' or 'No' to the following questions:

	Yes	No
Our church has an <u>active</u> (at least once a month):		
children's ministry (under 12)	---	---
youth ministry (12 - 19years)	---	---
music ministry	---	---
visitation ministry to nonmembers	---	---
WNU ministry	---	---
Brotherhood ministry	---	---
ministry to young adults (20 - 35yrs)	---	---
ministry to older adults (36 - 65yrs)	---	---
ministry to the poor	---	---
ministry to the homeless	---	---
visitation ministry to members	---	---
ministry to single mothers	---	---

Please list other ministries that your church has (for example,
 ministry to college students) _____

The following questions deal with two ways of viewing the same issue. Please choose the letter option for each of the following that come the closest to your belief.

1. a. Children get into trouble because their parents punish them too much.
 b. The trouble with most children nowadays is that their parents are too easy with them.
2. a. Many of the unhappy things in people's lives are partly due to bad luck.
 b. People's misfortunes result from the mistakes they make.
3. a. One of the major reasons why we have wars is because people don't take enough interest in politics.
 b. There will always be wars, no matter how hard people try to prevent them.
4. a. In the long run, people get the respect they deserve in this world.
 b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.
5. a. The idea that teachers are unfair to students is nonsense.
 b. Most students don't realize the extent to which their grades are influenced by accidental happenings.

6. a. Without the right breaks one cannot be an effective leader.
b. Capable people who fail to become leaders have not taken advantage of their opportunities.
7. a. No matter how hard you try some people just don't like you.
b. People who can't get others to like them don't understand how to get along with others.
8. a. Heredity plays the major role in determining one's personality.
b. It is one's experiences in life which determines what they are like.
9. a. I have often found that what is going to happen will happen.
b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.
10. a. In the case of the well prepared student, there is rarely if ever such a thing as an unfair test.
b. Many times exam questions tend to be so unrelated to course work that studying is really useless.
11. a. Becoming a success is a matter of hard work, luck has little or nothing to do with it.
b. Getting a good job depends mainly on being in the right place at the right time.
12. a. The average citizen can have an influence in government decisions
b. This world is run by the few people in power, and there is not much the little guy can do about it.
13. a. When I make plans, I am almost certain that I can make them work
b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.
14. a. There are certain people who are just no good.
b. There is some good in everybody.
15. a. In my case getting what I want has little or nothing to do with luck.
b. Many times we might as well decide what to do by flipping a coin.
16. a. Who gets to be boss often depends on who was lucky enough to be in the right place first.
b. Getting people to do the right thing depends upon ability, luck has little or nothing to do with it.
17. a. As far as world affairs are concerned, most of us are the victims of forces we can neither understand nor control.
b. By taking an active part in political and social affairs, people can control world events.
18. a. Most people don't realize the extent to which their lives are controlled by accidental happenings.
b. There really is no such thing as luck.

- 19.a. One should always be willing to admit one's mistakes.
b. It is usually better to cover up one's mistakes.
- 20.a. It is hard to know whether or not a person really likes you.
b. How many friends you have depends upon how nice a person you are.
- 21.a. In the long run the bad things that happen to us are balanced by the good ones.
b. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.
- 22.a. With enough effort we can wipe out political corruption.
b. It is difficult for people to have much control over the things politicians do in office.
- 23.a. Sometimes I can't understand how teachers arrive at the grades they give.
b. There is a direct connection between how hard one studies and the grade one gets.
- 24.a. A good leader expects people to decide for themselves what they should do.
b. A good leader makes it clear to everybody what their jobs are.
- 25.a. Many times I feel that I have little influence over the things that happen to me.
b. It is impossible for me to believe that chance or luck plays an important role in my life.
- 26.a. People are lonely because they don't try to be friendly.
b. There's not much use in trying too hard to please people, if they like you, they like you.
- 27.a. There is too much emphasis on athletics in college.
b. Team sports are an excellent way to build character.
- 28.a. What happens to me is my own doing.
b. Sometimes I feel that I don't have enough control over the direction my life is taking.
- 29.a. Most of the time I can't understand why politicians behave the way they do.
b. In the long run the people are responsible for bad government on a national as well as on a local level.

Please write the number that comes closest to the level of your agreement or disagreement with the following statements if:
 1=strongly agree, 2=agree, 3=slightly agree, 4=slightly disagree,
 5=disagree, and 6=strongly disagree

GOVERNMENT/BUSINESS AND GENERAL WELFARE ISSUES

	SA					SD
Corporations have too much influence on the outcome of the presidential elections	1	2	3	4	5	6
Current tax laws allow wealthy individuals to pay less than their fair share	1	2	3	4	5	6
The disadvantaged in our society suffer because of the economic power exerted by large corporations	1	2	3	4	5	6
Tax laws should be changed to close loopholes that allow wealthy individuals to pay proportionately less taxes than low-income individuals	1	2	3	4	5	6
Product quality standards should be set by regulatory agencies to protect consumers	1	2	3	4	5	6
One of the principal purposes of government should be to protect the citizen from the economic power generated by large corporations	1	2	3	4	5	6
Advertising is often a devious method used by companies to lure customers into purchasing their product	1	2	3	4	5	6
To ensure adequate care of the sick, we need to change the present system of privately owned and controlled medical care	1	2	3	4	5	6
Executives of toy-producing companies should be subject to jail sentences for failure to inform parents that their products may be hazardous	1	2	3	4	5	6
Companies should not have business dealings with other companies which ignore their responsibility to protect the environment	1	2	3	4	5	6
The quickened pace of business and competition has taken a heavy toll on the quality of life	1	2	3	4	5	6

Please circle the number that comes the closest to the level of your agreement or disagreement with the following statements if:
 1=strongly agree, 2=agree, 3=slightly agree, 4=slightly disagree
 5=disagree, and 6=strongly disagree

HUMAN RIGHTS AND RESPONSIBILITIES

	SA					SD
Government programs to aid the poor usually support those people too lazy to work	1	2	3	4	5	6
The children that are born as a result of racially mixed marriages are detriments to society	1	2	3	4	5	6
Protestors and radicals are good for society even though they may cause a change in normally accepted standards	1	2	3	4	5	6
We would not have so many juvenile delinquents if parents were stricter with their children	1	2	3	4	5	6
There are too many professors in our colleges and universities who are radical in their social and political beliefs	1	2	3	4	5	6
A business should not hire a person if they suspect him of being a homosexual	1	2	3	4	5	6
Labor unions should not have the right to strike when the survival of the business is threatened	1	2	3	4	5	6
Many blacks would be executives of major corporations if they had not been discriminated against in the past	1	2	3	4	5	6
Even though the resulting cost may be a reduction in profits, business should set and attempt to meet minority hiring quotas	1	2	3	4	5	6

If you will like a copy of the results of this survey, please put your name and address below:

THANK YOU VERY MUCH FOR TAKING TIME OUT OF YOUR BUSY SCHEDULE TO FILL OUT THIS QUESTIONNAIRE. YOUR KINDNESS IS VERY MUCH APPRECIATED.

REMINDER POSTCARD LETTER FOR PILOT STUDY*

Dear Rev. _____

I have prayed that the Lord will more than make up to you the time that you spend to fill out the survey that I sent to you a few days ago. You will be helping a "brother" in need by responding to my survey. Please help me.

You may take till June 25 to return the survey if you need more time. Please call me collect at 521-6646 if you have misplaced the one that I sent to you. If you have filled out the survey, thank you and may God richly bless you.

Sincerely,

Tope Bello

* This letter was handwritten for the forty-two pastors that were selected for the pilot study.

APPENDIX B

PRENOTIFICATION LETTER FOR MAIN STUDY'S QUESTIONNAIRE

Department of Management
College of Business Administration
University of Arkansas
Fayetteville, AR 72701
July 26, 1991

«name»«IF company»
«company»«ENDIF»
«street»
«city», «state» «zip»«IF company=""»«ENDIF»

Dear Reverend «sal»,

I am a student at the dissertation stage of my doctoral study at the University of Arkansas. My dissertation deals with church growth and church administration. I need to collect data from the pastors of selected Baptist churches in Arkansas through a survey that I will mail to you within the next few days. I will very much appreciate your participation. Please be assured that the information you provide will be used for research purposes only and will be held in the strictest confidence. The questionnaire will only take about thirty minutes of your time to complete. A postage-paid reply envelope will also accompany the survey to make it easier for you to send your completed questionnaire back to me.

Please, help me. I have been in contact with the Associate Executive Director of the Arkansas Baptist State Convention in Little Rock, Jimmie Sheffield and he is aware of what I am doing. I am a Christian and if you need additional information about me or my study you can call collect the Chairman of my Dissertation Committee (Dr. John Todd) at 575-4059, or my Pastor at 521-2989.

Thank you very much for your help in this regard.

Sincerely,

Tope Bello

COVER LETTER FOR MAIN STUDY'S QUESTIONNAIRE

Department of Management
College of Business Administration
University of Arkansas
Fayetteville, AR 72701
August 2, 1991

«name»«IF company»
«company»«ENDIF»
«street»
«city», «state» «zip»«IF company="»«ENDIF»

Dear Reverend «sal»,

Enclosed is the survey that I mentioned in my earlier correspondence with you. Again, please note that all the information that you provide will be held in the strictest confidence. Completing the questionnaire will only take about thirty minutes of your time. Mostly, the survey requires that you read certain statements and then indicate on a given scale how much you agree or disagree with them. The code on the business reply envelope is to prevent me from writing a reminder letter to those who have already responded to the questionnaire. Please, do not put your name or the name of your church on the questionnaire unless you want a summary of my findings. I assure you that your name and the name of your church will not be in my data set, only your responses to the questions in the survey.

I will really appreciate it if you will mail the completed questionnaire back to me in the business reply envelope that is enclosed within the next two weeks. Again, if you need additional information about me or my study you can call the Chairman of my Dissertation Committee (Dr. John Todd) at 575-4059, or my Pastor at 521-2989.

Thank you very much for your help in this regard. I believe you will find the questionnaire interesting. The summary of the results will be available to you as indicated on the last page of the questionnaire. My prayer is for God's blessings to be upon you, your family, and your congregation.

Sincerely,

Tope Bello

MAIN STUDY'S QUESTIONNAIRE

The information provided through this survey is completely
CONFIDENTIAL and will be USED FOR RESEARCH PURPOSES ONLY.

BACKGROUND INFORMATION

How many full-time ministers does your church have? _____

How many part-time ministers does your church have? _____

How many years have you been in the ministry full-time (i.e. as youth pastor, associate pastor, pastor, etc.)? _____

In how many churches have you served as the senior pastor? _____

Are you the senior pastor of this church (Yes or No)? _____

How many years have you served as the pastor of your present church? _____

What is the highest academic degree you have earned? _____

Did you graduate from a Seminary (Yes or No)? _____

How old are you? _____

Using "+" for increase and "-" for decrease and "o" for no change, please indicate whether there has been an overall increase or decrease in your church membership over the last four years: _____

There are no right or wrong answers to the following statements, it is your opinion that counts. Please circle the number that best describes your views on the following issues:

In general, I favor a strong emphasis on tried and true approaches to doing things	1 2 3 4 5 6	I prefer doing things in new ways
--	-----------------------	-----------------------------------

I try to avoid risky projects as much as possible	1 2 3 4 5 6	In order to bring about progress, I often engage in risky projects
---	-----------------------	--

When confronted with decision-making situations involving uncertainty, I typically:

Adopt a cautious, wait-and-see posture in order to minimize the probability of making costly decisions	1 2 3 4 5 6	Adopt a bold, aggressive posture in order to maximize the probability of exploiting potential opportunities
--	-----------------------	---

Overall, would you consider yourself to be a risk-taker with regard to your job as a pastor (Yes or No)? _____

Please indicate on a scale of 1 to 6 how much you agree or disagree with the following statements regarding the general direction of your church over the last four years. There are no correct or incorrect responses.

	1-strongly agree (SA)	2-agree	3-slightly agree	4-slightly disagree	5-disagree	6-strongly disagree (SD)
Trying to reverse declining membership	1	2	3	4	5	6
Continuously increasing the number of ministries	1	2	3	4	5	6
Primarily focusing on meeting the spiritual and physical needs of our present members	1	2	3	4	5	6
Reducing the number of our ministries	1	2	3	4	5	6
Trying to reverse declining financial receipts	1	2	3	4	5	6
Introducing and developing ministries that are not provided by the other churches in our community	1	2	3	4	5	6
We are doing the same things we have always done	1	2	3	4	5	6
We are cutting back on our operating costs	1	2	3	4	5	6
We are reorganizing the way we do things	1	2	3	4	5	6
Decisions emphasize the long term or the future viability of our church, even at short-term costs	1	2	3	4	5	6
We are ministering to a few specific segments in our community	1	2	3	4	5	6
We are winding down our operations because we feel that closing our church doors will best serve our community and our remaining members	1	2	3	4	5	6
We have changed pastors within the past two years	1	2	3	4	5	6

To what degree do you as the pastor dictate the general direction in which your church is headed (e.g. 50% for half way) _____

There are no right or wrong responses to the items in this section as long as it is representative of what you believe to have happened in your community over the last four years.

Please indicate TO WHAT DEGREE the following factors have CHANGED in your community over the last four years.

1=no changes 2=almost no changes 3=some changes
4=significant changes 5=always changing

	None		Some		Always
	1	2	3	4	5
The size of your community					
General educational level, age, and socio-economic status of individuals within the community	1	2	3	4	5
Presence of a new population group within the community to which a church may develop a ministry (e.g. college students)	1	2	3	4	5
Needs of individuals within the community	1	2	3	4	5
The types of ministries being offered by other churches in the community	1	2	3	4	5
Type and level of assistance available from the county association	1	2	3	4	5
Government regulation of the church or its ministry	1	2	3	4	5
General receptiveness of individuals in the community to the church's ministries	1	2	3	4	5
The general economic conditions in the community	1	2	3	4	5
Kind of community in which the church is located (e.g. change from rural to town)	1	2	3	4	5

Overall, have the changes in your community been positive (+), negative (-), or had no effect (o) on your church? _____

Of the ministries that are listed, please CIRCLE the ones that your church is actively involved with. An active ministry is one that meets at least once a month.

children's ministry (under 12), youth ministry (12 - 19years),

music ministry visitation ministry to nonmembers

WNU ministry Brotherhood ministry

Please list other ministries that your church has (for example, ministry to college students) _____

The following questions deal with two ways of viewing the same issue. Please CIRCLE THE ONE letter ("a" or "b") that identifies the option that you believe has MORE TRUTH to it than the other option. If you believe that NEITHER statement has any truth to it, then choose the option that is MORE TOLERABLE. There are no right or wrong choices.

1. a. Many of the unhappy things in people's lives are partly due to bad luck.
b. People's misfortunes result from the mistakes they make.
2. a. One of the major reasons why we have wars is because people don't take enough interest in politics.
b. There will always be wars, no matter how hard people try to prevent them.
3. a. In the long run, people get the respect they deserve in this world.
b. Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.
4. a. The idea that teachers are unfair to students is nonsense.
b. Most students don't realize the extent to which their grades are influenced by accidental happenings.
5. a. Without the right breaks one cannot be an effective leader.
b. Capable people who fail to become leaders have not taken advantage of their opportunities.
6. a. No matter how hard you try some people just don't like you.
b. People who can't get others to like them don't understand how to get along with others.
7. a. I have often found that what is going to happen will happen.
b. Trusting to fate has never turned out as well for me as making a decision to take a definite course of action.
8. a. In the case of the well prepared student, there is rarely if ever such a thing as an unfair test.
b. Many times exam questions tend to be so unrelated to course work that studying is really useless.
9. a. Becoming a success is a matter of hard work, luck has little or nothing to do with it.
b. Getting a good job depends mainly on being in the right place at the right time.
10. a. The average citizen can have an influence in government decisions.
b. This world is run by the few people in power, and there is not much the little guy can do about it.
11. a. When I make plans, I am almost certain that I can make them work.
b. It is not always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyhow.

Please CIRCLE THE ONE letter ("a" or "b") that identifies the option for each of the following issues that you believe has MORE TRUTH to it than the other option. If you believe that NEITHER statement has any truth to it, then choose the option that is MORE TOLERABLE. There are no right or wrong choices.

- 12.a. In my case getting what I want has little or nothing to do with luck.
b. Many times we might as well decide what to do by flipping a coin.
- 13.a. Who gets to be boss often depends on who was lucky enough to be in the right place first.
b. Getting people to do the right thing depends upon ability, luck has little or nothing to do with it.
- 14.a. As far as world affairs are concerned, most of us are the victims of forces we can neither understand nor control.
b. By taking an active part in political and social affairs, people can control world events.
- 15.a. Most people don't realize the extent to which their lives are controlled by accidental happenings.
b. There really is no such thing as luck.
- 16.a. It is hard to know whether or not a person really likes you.
b. How many friends you have depends upon how nice a person you are.
- 17.a. In the long run the bad things that happen to us are balanced by the good ones.
b. Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.
- 18.a. With enough effort we can wipe out political corruption.
b. It is difficult for people to have much control over the things politicians do in office.
- 19.a. Sometimes I can't understand how teachers arrive at the grades they give.
b. There is a direct connection between how hard one studies and the grade one gets.
- 20.a. Many times I feel that I have little influence over the things that happen to me.
b. It is impossible for me to believe that chance or luck plays an important role in my life.
- 21.a. People are lonely because they don't try to be friendly.
b. There's not much use in trying too hard to please people, if they like you, they like you.
- 22.a. What happens to me is my own doing.
b. Sometimes I feel that I don't have enough control over the direction my life is taking.

- 23.a. Most of the time I can't understand why politicians behave the way they do.
- b. In the long run the people are responsible for bad government on a national as well as on a local level.

The following questions deal with how much you agree or disagree with certain statements about the government, businesses, and social issues. Again, there are no correct or incorrect responses. Please CIRCLE THE NUMBER that represents how you feel about the following statements.

1-strongly agree (SA) 4-slightly disagree	2-agree 5-disagree	3-slightly agree 6-strongly disagree (SD)							
Corporations have too much influence on the outcome of the presidential elections		SA	1	2	3	4	5	6	SD
Current tax laws allow wealthy individuals to pay less than their fair share			1	2	3	4	5	6	
The disadvantaged in our society suffer because of the economic power exerted by large corporations			1	2	3	4	5	6	
Tax laws should be changed to close loopholes that allow wealthy individuals to pay proportionately less taxes than low-income individuals			1	2	3	4	5	6	
Product quality standards should be set by regulatory agencies to protect consumers			1	2	3	4	5	6	
One of the principal purposes of government should be to protect the citizen from the economic power generated by large corporations			1	2	3	4	5	6	
Advertising is often a devious method used by companies to lure customers into purchasing their product			1	2	3	4	5	6	
To ensure adequate care of the sick, we need to change the present system of privately owned and controlled medical care			1	2	3	4	5	6	
Executives of toy-producing companies should be subject to jail sentences for failure to inform parents that their products may be hazardous			1	2	3	4	5	6	
Companies should not have business dealings with other companies which ignore their responsibility to protect the environment			1	2	3	4	5	6	
The quickened pace of business and competition has taken a heavy toll on the quality of life			1	2	3	4	5	6	

Please CIRCLE THE NUMBER that represents how you feel about the following statements. There are no right or wrong responses.

	1-strongly agree (SA)	2-agree	3-slightly agree	4-slightly disagree	5-disagree	6-strongly disagree (SD)
Government programs to aid the poor usually support those people too lazy to work	SA					SD
	1	2	3	4	5	6
The children that are born as a result of racially mixed marriages are detriments to society	1	2	3	4	5	6
Protestors and radicals are good for society even though they may cause a change in normally accepted standards	1	2	3	4	5	6
We would not have so many juvenile delinquents if parents were stricter with their children	1	2	3	4	5	6
There are too many professors in our colleges and universities who are radical in their social and political beliefs	1	2	3	4	5	6
A business should not hire a person if they suspect him of being a homosexual	1	2	3	4	5	6
Labor unions should not have the right to strike when the survival of the business is threatened	1	2	3	4	5	6
Many blacks would be executives of major corporations if they had not been discriminated against in the past	1	2	3	4	5	6
Even though the resulting cost may mean a reduction in profits, business should set and attempt to meet minority hiring quotas	1	2	3	4	5	6

If you would like a copy of the results of this survey, please put your name and address below:

THANK YOU VERY MUCH FOR TAKING TIME OUT OF YOUR BUSY SCHEDULE TO FILL OUT THIS QUESTIONNAIRE. YOUR KINDNESS IS VERY MUCH APPRECIATED.

REMINDER POSTCARD LETTER FOR MAIN STUDY

August 12, 1991

Dear Rev.

I hope you have received the survey that I sent to you about a week and a half ago. I really do need your help. I have been praying that the Lord will more than replenish the time that you take out of your busy schedule to complete and return the questionnaire. Please, help me.

You may take till August 23 to return the survey if you need more time. If you need a new copy of the survey, please call collect 501-521-6473 and leave your name and address. If you have completed and returned the survey, thank you very much. I continue to pray that God's blessings will be upon you, your family, and your congregation.

Sincerely,

Tope Bello

LETTER TO THE ASSOCIATE EXECUTIVE DIRECTOR OF THE
ARKANSAS BAPTIST STATE CONVENTION

July 16, 1991

Rev. Jimmy Sheffield
Associate Executive Director
Arkansas Baptist Association
P.O. Box 552
Little Rock, AR 72203

Dear Rev. Sheffield:

I am supervising a doctoral student, Tope Adeyemi-Bello, on his doctoral dissertation research. I believe he contacted you several months ago in regard to his special interest in church leadership and administration.

While our area of study in the Department of Management usually deals with business leaders and managers, I have encouraged Tope to pursue his particular interest in churches. Although there are obvious differences between business and churches, I believe both types of organizations have much in common and can gain by comparing their leaders' characteristics and strategies. Specifically, Tope will be testing a configurational theory model by looking for the configuration(s) of leader (pastor) characteristics and church strategies which are associated most closely with church growth.

I am enclosing a draft of a questionnaire which Tope will be mailing out soon to selected pastors. You will receive a summary of the results when they are available. In the meantime, let me know if I can provide you additional information.

Sincerely,

John Todd
Professor

Enclosure

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BIBLIOGRAPHY

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GENERIC STRATEGIES, LEADER ATTRIBUTES, ENVIRONMENTAL
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INVESTIGATION OF CONJINGENCIES AND CONFIGURATIONAL OUTCOMES

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ABSTRACT APPROVAL PAGE

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ABSTRACT OF DISSERTATION

The implications of strategy, environmental uncertainty, and leader attributes to the performance of organizations have been the subject of many research studies. The traditional interaction-based contingency approach that has typically been used in the management literature for examining the interrelationships between these variables, may very often be inadequate to capture the overall pattern of fit among them. A contemporary approach that allows researchers to examine sophisticated relationships between variables is configuration or systems theory--which suggests that inevitable relationships exist between strategic, environmental, contextual, and organizational variables and performance. This study used both the interaction and configuration-based approaches to determine the performance implications of the contingencies and congruencies between strategy and leader attributes in an uncertain environment.

A review of the literature--the basis for the formulation of the three contingency and one configuration-based hypotheses--on generic strategies, environmental uncertainty, and the relevant leader attributes was undertaken. From the generic strategies literature review, a conceptual synthesis of previous classification schemes was used to develop a set of attributes

that was then used to measure the extent to which organizational leaders pursued the characteristics of different types of strategies. The measures for strategy and all the other variables/constructs were designed in the form of a questionnaire that was sent to the senior ministers of selected Arkansas Southern Baptist churches. Sampling from a religious institution is yet another contribution of this study, in that it adds to the limited number of studies that have investigated the management of these important but scientifically unexplored organizations.

The collected data was analyzed in order to test the research hypotheses. The results indicate that the variables in this study may have important performance implications. Furthermore, the findings support the call by previous researchers for using multiple approaches to examine the fit between organizational and contextual variables. Finally, the implications of the results of this study for contingency and configuration-based research and the strategic management field in general were also discussed.