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Operational and Strategic Planning in Small Business

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Operational and Strategic Planning in Small Business

Abstract
This study examines the effects of formal long-range strategic planning. operational planning, and various types of strategy on the performance of small firms. Strategic planning is defined as a combination of written objectives. written financial forecasts, and long range budgets. Operational planning is defined as short-term financial, marketing, inventory, and sales planning. Strategy refers to the pattern of major decisions over time, and performance is measured in terms of profitability, sales growth, and growth of the workforce...

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Comments
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Operational and Strategic Planning in Small Business

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OPERATIONAL AND STRATEGIC PLANNING IN SMALL BUSINESSES

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Acknowledgments

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Executive Summary

This study examines the effects of formal long-range strategic planning, operational planning, and various types of strategy on the performance of small firms. Strategic planning is defined as a combination of written objectives, written financial forecasts, and long-range budgets. Operational planning is defined as short-term financial, marketing, inventory, and sales planning. Strategy refers to the pattern of major decisions over time, and performance is measured in terms of profitability, sales growth, and growth of the workforce.

In order to assess the level of planning in the firms, the chief executive officers (CEOs) and top managers were asked to respond to relevant questions about the planning practices in their firms. A sample of 97 Iowa small businesses, in manufacturing, retailing, and service industries participated in the survey. The firms provided three years of performance data.

Another purpose of the study is to investigate the relationship of environmental uncertainty with strategic and operational planning. Uncertainty is measured as perceived change among a number of important external factors. CEOs were asked about their relationships with suppliers, customers, competitors and other organizations in an attempt to determine which of these affected strategic and operational planning.

The current literature on strategic planning is reviewed, planning/performance relationships are presented, and a conceptual model is developed to guide the analysis of planning/performance relationships.

Of the 97 CEOs responding to the survey, 65 indicated that they had no strategic plan covering one year or more. By industry, 26 retail, 20 manufacturing, and 19 service firms had no formal plans. Of the 32 firms that did have plans, 12 were service, 11 were manufacturing, and 9 were retail firms. The CEOs indicated that lack of time, expertise, and high costs were the major reasons for not having strategic plans. The study findings also indicated that strategic planning, with only a few exceptions, was not significantly associated with performance or uncertainty.

Almost all the surveyed firms engaged in some form of operational planning. Operational planning was related to performance and uncertainty in the three industries. Manufacturers that developed budgets had high performance, and used market planning when faced with uncertainty. Retailers were greatly affected by changes in technology, and service firms were affected by their competitors. Overall, operational planning was more strongly associated with performance and uncertainty than was strategic planning.

Other findings indicated that small firm competitive strategies were not associated with performance. There was no strong relationship between overall cost leadership and differentiation strategies and performance. Furthermore, stability strategies, and impulsive strategies were not related to performance, but entrepreneurial and balanced strategies were associated with high performance.

The study implications for practicing managers are that operational planning is very important for small firms in uncertain environments. The implications for future research are also presented.

Introduction

Studies of large scale firms generally conclude that such firms benefit from strategic planning. This report, however, examines strategic planning from the perspective of small firms. In a substantial body of literature, strategic management theorists recommend planning as an essential managerial tool and suggest effective business planning to be a key to successful financial performance. Because planning has proven to be effective for large businesses, it is increasingly suggested that small businesses will be more effective if managers become better planners.

A primary objective of this project is to investigate the extent and impact of strategic and short range operational planning used by small businesses. Barriers to planning will be identified and the impact of planning on managers' uncertainty will be determined. Whether or not those who plan have more discernable business strategies and experience increased financial performance will also be determined. The intention of this study is to contribute to the understanding of small business management, and investigate viable methods for small firms to operate more effectively.

Relevance to Small Business

A large percentage of the national economy and a great number of people rely on the prosperity of small businesses in the United States. The Small Business Administration defines "small" as all firms employing fewer than 100 employees and manufacturing firms employing fewer than 500.

Firms employing fewer than 100 workers dominate (in sales and number employed) in retail trade, wholesale trade, construction, fishing, forestry, and agricultural services (U.S. Small Business Administration 1984). In 1985 alone, 700,000 small businesses began operation (Wall Street Journal 1986).

The contributions of small business to the Midwest economy are especially significant. Nearly 60 percent of all employees in Missouri, Illinois, North Dakota, South Dakota, Nebraska, Iowa, and Minnesota work for firms employing fewer than 100 persons. In Iowa, the average number of employees per firm is 13 (U.S. Small Business Administration 1983). According to Iowa Governor Terry Branstad, nearly 10 percent of all new jobs in the state will be created by small businesses. He has proposed increased allocation of the state's budget for small business development, labor management councils, and business grants (Branstad 1987).

A substantial number of small businesses have gone bankrupt in recent years. This indicates the risk faced by entrepreneurs (Wall Street Journal 1986). Too little is known about firms that continue to operate unsuccessfully or who go out of business voluntarily. Although a business may be small, its operation cannot be characterized as simple or requiring less expertise in comparison to larger businesses. One expert goes so far as to say that the management of small enterprises may be more difficult than that of multinational firms, because management must deal with limited human and financial resources (Patterson 1986).

Owners of small businesses face severe problems. Many small businesses fail and many are relatively unsuccessful. Many managers lack needed resources and some are not fully aware of their opportunities. Their opportunities may be limited. This entire decade looks as if it will be very volatile economically for small businesses. What can be done? Primarily because planning has proven to be effective for large businesses, many business managers have asked about its relevance for small firms, too. Today a growing body of literature suggests that more effective business planning may, indeed, prove to be a key to the success of small businesses.

Objectives

Four objectives are to be accomplished through this project. This report marks the completion of the first three objectives.

1. To develop and pretest an interview instrument that can be used to analyze planning in various types of small businesses.

2. To interview a sample of chief executive officers (CEOs) from small businesses, including retail, manufacturing, and service firms.

3. To use data from the study to analyze factors associated with levelsand with benefits of planning.

4. To develop a training module that will provide information about the benefits of planning, the tools necessary for successful planning, and the development of a successful formal business plan. The module will include a booklet and a slide-tape or micro-disk presentation.

Literature Review and Model

Literature of importance in this study includes a discussion of environmental uncertainty, planning, competitive strategy, and performance, as they relate to small business management. Four propositions regarding planning in small business are offered, and a conceptual model illustrating the propositions is presented.

Uncertainty of Managers

Emery and Trist (1965) stated that the external environments for all organizations were becoming turbulent and more uncertain. With uncertainty, information is limited and it is difficult to predict future environmental conditions. These factors lead to increased risk of failure.

Thompson (1967) was among the first to conclude that the central problem facing organizations, including businesses, was uncertainty. Existing technologies and the environment are the major sources of uncertainty. The first and worst problem for managers is generalized uncertainty generated by the external environment. Confirming the importance of the external environment, Porter and Van Maanen (1970) found in their study of managers' use of time that the most effective managers adapted primarily to external demands.

Duncan (1972) conceptualized the environment as all of the physical and social factors that are taken directly into consideration in decision making, and he differentiated between the organization's internal and external environments. The internal environment includes personnel, staff units, and organizational level components such as goals and objectives. The external environment includes customers, suppliers, competitors, sociopolitical factors, and new technology. Duncan successfully developed a technique for measuring perceived environmental uncertainty that, with modifications, is still in use. He found that complex and dynamic environments are more uncertain than those that are simple and static.

How can uncertainty be reduced? Thompson (1967) observed that coordination and control mechanisms are available to eliminate the uncertainty caused by interdependent technologies. He thought that managers would have to learn more about and adjust to the realities of the external environment to eliminate uncertainty.

Steiner (1963) was among the first to call for increased planning in businesses. He thought that planning would allow managers to experiment mentally with ideas that represent the valuable resources of a business before committing the actual resources to risk.

Evolution of Planning in Business

Management functions include planning, representing, investigating, negotiating, coordinating, evaluating, supervising, and staffing. "Planning is the determining, in advance of activity execution, what factors are required to achieve goals. The planning function defines the objective and determines what resources are necessary" (Tosi et al. 1986). How important is planning? In one study of 450 managers, researchers found that the managers spent 20 percent of their work day planning. Next to supervising, planning was the most important component of their jobs (Mahoney et al. 1965).

Financial Planning

The evolution of planning in business can be understood within an historical perspective. The financial planning stage emphasized the annual budgeting process and operational efficiency issues. This planning is still effective within stable environments. With financial planning, the budget and financial control processes are used to judge the performance of a business or segments within a business.

Long Range Planning

Long range planning developed as a response to unprecedented growth during and following World War II. To meet required expansions, and to obtain required resources, the planning horizon had to be extended beyond a single year. Forecasting was based on historical projections. Unfortunately, managers found that:

> Long range planning does not work under changing external conditions, increasing uncertainties, intensive competition, or in situations that call for major discontinuities between the past and future (Hanna 1985).

Strategic Planning

Strategic planning developed when managers lost faith in forecasting and in the use of blueprint planning to eliminate uncertainties (Hanna 1985).

Peter F. Drucker (1973) has defined strategic planning as follows:

> It is the continuous process of making present entrepreneurial (risk-taking) decisions systematically and with the greatest knowledge of their futurity; organizing systematically the efforts needed to carry out these decisions; and measuring the results of these decisions against the expectations through organized, systematic feedback.

The emphasis in strategic planning in the 1980s has clearly shifted to an emphasis on environmental monitoring. The definition of strategic management developed by Smith, Arnold, and Bizzell (1985) illustrates this emphasis:

> Strategic management is the process of examining both present and future environments, formulating the organization's objectives, and making, implementing, and controlling decisions focused on achieving these objectives in the present and future environments.

The author of a very popular management text has stated:

> The primary responsibility of the top leader is to determine the organization's goals and strategy, and therein adapt the organization to a changing environment. . .The challenge for top management is that they must determine strategy, and use organizational components despite great uncertainty (Daft 1986).

Strategic planning involves three basic elements: information processing, a decision making process, and a change process. Information processing involves evaluation of both the organization and its environment. Strategic planning typically begins with assessment of major environmental trends and conditions that present opportunities or threats to the organization. Also, the strengths and weaknesses of the organization (and individual departments) are assessed to determine its abilities and competence to compete and survive within its environment.

The decision making process involves determining the overall mission and goals of the organizations. These are most appropriate when based upon matching environmental opportunities and organizational abilities. Next, strategies for realizing the mission and goals must be determined. Again, environmental factors and organizational competence must be considered.

Finally, the change process involves the implementation of a chosen strategy. Strategy is executed by management; resources are allocated and directed where necessary, while appropriate changes in the organization's structure, control systems, technology, and human resources are made (Daft 1986).

Competitive Strategy

Planning is thought to lead to the development of a business strategy. Daft (1986) refers to strategy as a set of plans, decisions, and objectives adopted to achieve an organization's goals. He distinguishes strategy formulation (activities that establish a firm's overall goals, mission, and specific strategic plan) from strategy implementation, which is the administration and execution of that specific strategic plan. Porter (1980) considers strategy formulation as the combination of ends (goals) and means (policies) to realize those ends. The distinction between ends and means is fundamental; the concept of strategy is best typified as the means employed.

Literature in business policy has commonly made the distinction between two levels of strategy: corporate and business. Corporate strategy is concerned with the best combination of business units and product lines in making a coherent business portfolio (Leontiades 1980). Strategic issues in planning at the corporate level include overall business portfolio, acquisitions, divestments, joint ventures, and major reorganizations (Daft 1986).

The Boston Consulting Group has developed a well known framework for analyzing corporate level businesses and product lines. The analysis is based on a consideration of market share and market growth. Businesses or product lines that command a large portion of a mature market may function as "cash cows" and have to be sold to provide cash for new ventures. "Stars" are important in that they provide rapid growth in expanding markets. "Dogs" command a small portion of mature markets and may have to be sold or abandoned if they lose money (Shanklin and Ryans 1981).

Business strategy is concerned with a single business or product line and how this business can successfully compete (Leontiades 1980). Strategic issues include advertising, research and development, product changes, new facilities and locations, and expansions and contractions of lines (Daft 1986). The focus of the research in this present study is on business strategy.

Miles and Snow Typology

Generic typologies of business strategies have been developed and found very useful in research with large business. The major entrepreneurial problem for management is the selection of a particular product/market domain. Resources are then committed to achieve objectives relative to the domain. Miles and Snow (1978) have described four competitive strategies. The first strategy "defender" is characteristic of businesses that attempt to locate and maintain a secure niche in a stable product or service area. They tend to offer a limited range of products and services while concentrating on quality, service, or low price. "Prospectors" attempt to be the first to offer the latest products/services in new market areas. The third strategy "analyzer" is characteristic of businesses that maintain a stable line of products/services, while at the same time offering new products and services. This type of firm carefully observes other competitors to see if new products or services are profitable before offering them. "Reactors" do not adhere to a designated strategy; they are not as aggressive in maintaining established markets as some competitors and take minimal risks. They respond in areas where environmental pressures require it.

Past studies (Snow and Hrebiniak 1980; Miles 1982) of larger businesses determined that analyzers were most profitable in all industries, reactors performed poorly in all situations, prospectors performed well in dynamic growth oriented industries, while defenders performed well in mature and stable industries.

Porter Typology

While the primary focus with the Miles and Snow (1978) typology is on the selection of product/market domain, the primary focus in the Porter (1980) typology is on competitive strategies. Porter proposed that the generic strategies he developed offer different approaches to out-performing competitors.

"Overall cost leadership" requires efficient scale facilities, cost reductions from experience, tight cost and overhead control, and so forth. This strategy emphasizes low cost relative to competitors without ignoring quality and service. "Differentiation" requires creating a product or service that is perceived industry wide as being unique, thus permitting the firm to charge higher than average prices to brand-loyal customers who are less sensitive to price. "Focus" requires concentrating on a particular customer group, segment of a product line, or geographic market. This strategy involves serving a particular target very well, and more effectively or efficiently than competitors who are competing broadly. As a result, these firms achieve a low cost or differentiation position via a narrow market target.

According to Porter, each strategy is basically a different approach to gaining a competitive advantage. Porter has concluded that a firm attempting to gain competitive advantage through diverse means (multiple strategies) will likely achieve none, since achieving differing types of competitive advantage requires inconsistent actions.

Hall (1980) conducted a study of 64 companies in eight domestic industries and determined that firms implementing one or both of two competitive strategies (cost leadership, differentiation) were profitable. Similarly, Karnani (1984) used a game-theoretical model to analyze generic strategies, and concluded that a low cost or differentiation position leads to increased market share, which in turn leads to higher profitability.

Planning and Slack Resources

Planning requires time, trained personnel, and other resources. Unless these resources are available, planning will not occur. After their excellent review of the strategic planning literature, Robinson and Pearce (1984) concluded that strategic planning was often "conspicuously absent in small firms." The reasons cited for the absence of planning were four fold: managers report that their time is too scarce; they have had minimal exposure to and knowledge of planning processes; they are generalists and lack specialized expertise; and they are hesitant to share their strategic planning with employees or consultants.

Shuman and Seeger (1986) have synthesized the literature on strategic planning in general and in smaller firms. They were especially concerned with the relationship between planning and business performance. They concluded that slack resources had to be considered, too. Slack resources are generated by successful performance and enable the planning needed to ensure continued success, provided the CEO makes the decision to plan. They called for a resource sensitive model that would enable CEOs to estimate the "strategic value" that could be realized from the decision to allocate a portion of their limited resources to the strategic planning process.

Slack resources also played a key role in the model of strategic planning developed by Dess and Origer (1987). The firm's environment influences the level of uncertainty experienced by managers. It also influences the likelihood of successful performance. Firms that are successful acquire slack resources that enable managers to plan and to pursue divergent and competing goals.

Planning and Performance

Performance, broadly speaking, is the degree to which an organization achieves its goals. Most analysts agree that performance is the single most important dependent variable when studying strategic planning (Shrader et al. 1984).

Goals and measures of performance vary considerably, depending upon organization type. The most common, however, are those measures indicating economic and financial increase. Business performance is generally expressed by financial or "hard" performance measures such as sales, profits, etc. (See Lawrence and Lorsch 1967; Robinson 1983; Robinson et al. 1984).

Strategic Planning and Performance

The question of whether or not strategic planning leads to financial performance has generated considerable research. Studies suggesting a positive relationship between strategic planning and performance are numerous (Karger and Malik 1975; Wood and LaForge 1979; Sapp and Seiler 1981). Robinson et al. (1984) found that the intensity of strategic planning had a positive effect on small firms' performance regardless of their stage of development (startup, early growth, or later growth). Sexton and Van Auken (1982) examined the relationship between level of strategic planning and company growth in sales and employment. They found only a modest relationship between planning level and growth; however, of the firms not utilizing strategic planning, 20 percent failed in three years. Of the firms that did plan, only 8 percent failed.

Research in the mid 1980s continued to provide at least modest support for strategic planning. A study of small, mature firms (dry cleaning industry) reported a positive relationship between the level of planning process sophistication and financial performance. Studies of strategic planning in large corporations continued to generate support for the process, too. One study reported that strategic planning that included an external focus and a long term perspective was associated with a superior 10-year total return to stockholders (Rhyne 1986). Another study that examined strategic planning in large manufacturing firms reported that the degree of planning formality was positively correlated with firm performance (Pearce et al. 1987).

Some of the research has not yielded positive results. Some studies have concluded that the relationship between strategic planning and performance should be questioned (see Kallman and Shapiro 1978; Grinyer and Norburn 1975). In their longitudinal study of strategic planning in banks, Robinson and Pearce (1983) found that strategic planning was not always associated with increased financial performance.

Operational Planning and Performance

The term "strategic" is used to refer to a formal (written) long range plan, which includes both organizational mission/goals and objectives to achieve those prescribed goals. The premise is that formal (written) plans are superior to implicit plans because the process of recording plans forces ideas to be well thought out. Written plans reduce ambiguity and provide clearer direction. Green (1982) states that strategic long range planning is concerned with the long term direction of the firm from one to five years in the future, while tactical, "operational" planning deals with short term specific processes of the organization. Operational plans are of a more day-to-day nature and involve the functional operations of a firm such as budgeting, human resources, marketing, sales, and inventory.

Shuman (1975) concluded that very few small firms planned for a time period greater than a year. More than half of the 100 firms sampled indicated they felt planning would lead to better decisions; 34 percent felt their planning led to increased profitability. Their major reasons for not planning strategically were lack of time, resistance to change, and the belief that because of the small size of their business, planning benefits would not outweigh the costs. Uni (1981) found that small business owners agree that planning increases the likelihood of success, yet few actually do plan. Managers tended to rely upon judgment and experience, rather than strategic planning, to survive and succeed. Sexton and Van Auken (1982) examined the completeness of planning in 357 small retail firms in Texas. Their study revealed that 20 percent of the respondents lacked formal (written) plans. Only a small percentage carried out any sort of formal plan. Those that did plan, did so on a less formal, short term basis. Managers were able to articulate only partial plans and most admitted to planning "by the seat of their pants." The most general conclusions drawn from these studies are that planning was usually inadequate in small businesses, and managers needed training to help them do a better job of planning.

Beginning in the 1960s, efforts were made to emphasize the practical aspects of planning that would benefit small businesses. Golde (1964), for example, developed a one page master planning form for managers, listing relevant items and providing space to specify the actions needed for the new year and for the year after. Golde was also among the first to discuss the important role that outsiders might play in planning. Steiner (1967) demonstrated how the master planning sheet developed by Golde and other planning techniques, such as analysis of return on investments and the identification of planning gaps, could aid in business planning.

Efforts to develop written materials for small business managers continued in the 1970s and have proliferated in the 1980s. Comprehensive books on strategic planning for small business have been developed (Curtis 1983; Cohen 1983). The books discuss the benefits of formal planning and outline the major parts of a business plan. In addition to specialized books, guidelines and models have been prepared. The Small Business Administration (1973; 1977; 1982) has developed a management aids series of publications that includes a model business plan for small service, retail, and manufacturing firms. In addition, the Bank of America (1980) has developed a guide for financing small businesses that includes an outline of a model business plan.

A careful examination of the materials developed in the 1970s and 1980s indicates that most are still too complicated. Few small business managers are likely to rely upon the highly detailed and in depth discussions of planning. More concise modules and planning guidelines are needed to facilitate planning in small businesses.

Recent literature suggests that outsiders might play very important roles in improving the formal planning of small businesses. Small Business Development Centers were inaugurated in 1971 in order to provide free, expert consultation, patterned after the Cooperative Extension Service. Robinson (1982) has reported that small businesses in Georgia utilizing these centers were more effective economically than those that did not. Robinson and Littlejohn (1981) studied small businesses that had been given planning consultation by a Small Business Development Center in South Carolina. These firms showed significant improvement in sales, profits, and increases in employment. The authors concluded that planning was less formal and more short term in small firms.

Robinson and McDougall (1985) report that among small retailers in Georgia, operational planning was superior to formal long range planning in increasing economic success. Successful firms engaged in operational planning because it was difficult to formally plan in their environment. Firms that had both a formal long range plan and operational plans were the highest performers overall. In a study of 135 small businesses, Ackelsberg (1985) found that planning does benefit small businesses. Planning firms had greater increases in both sales and profits over a three year period than non-planners. However, formalizing the plans did not affect performance; rather, small firms using analytical aspects of planning (assessing strengths and weaknesses, identifying and evaluating alternatives, etc.) experienced increased economic performance. In addition, a recent study of independent grocery stores in South Carolina reported that only 15 percent of the stores practiced strategic planning.

Operational planning had more impact on the stores' performance than did strategic planning (Robinson et al. 1986).

Conceptual Model

Figure 1 presents the conceptual model used to analyze relationships in this first phase of a pilot study. The rationale for the propositions was provided by the literature reviewed in the previous section and upon other selected literature discussed here. This model is consistent with other recently developed models, most notably the work of Dess and Origer (1987).

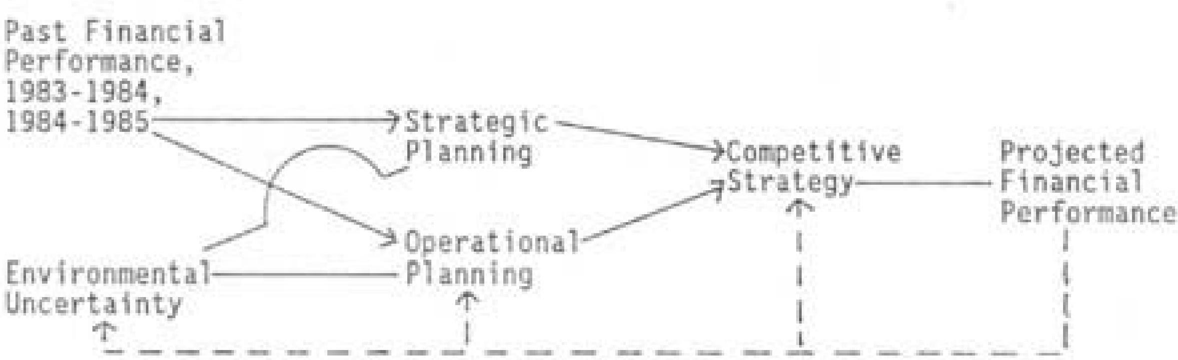

Figure 1. Conceptual Model of Planning, Strategy, and Performance

Small firm managers must operate with relatively limited resources. Shuman (1975) was among the first to find that managers were unwilling to devote resources to planning, fearing that the benefits would not outweigh the costs. Should resources increase, however, managers may be willing to allocate some to strategic planning. From the literature reviewed here, it is clear that firms experiencing increasing financial performance are more likely to have slack resources available. Our proposition is:

P_1: The greater the past performance of small firms, the greater the amount of both strategic and operational planning.

The review of literature has shown that for two decades management theorists have been concerned about environmental uncertainty. Business environments may be becoming increasingly uncertain because of competition, regulatory interventions, and new technology. Environmental uncertainty, however, is not uniform and may vary from one business to another. Given this reasoning, our proposition is:

P_2: The greater the uncertainty experienced by managers of small firms, the greater the amount of both strategic and operational planning.

Grant and King (1982) state that planning should result in "a best strategy." They also speak of the steps to be followed by management in the implementation of "a chosen strategy." In other words, planning should result in a discrete and discernible strategy. This is consistent with the thinking of Miles and Snow (1978) and Porter (1980), who have developed two very well known typologies of competitive strategies. Competitive strategies are regarded as distinct. Thus, our proposition is:

P_3: The greater the amount of strategic and operational planning undertaken by small firms, the more likely the development of a competitive strategy.

Although research results have not been completely consistent, several studies reviewed in this project have reported a positive association between strategy use and business performance. Trying to utilize multiple strategies could result in inconsistent action by organizations. Given this reasoning, our proposition is:

P_4: The greater the development of a competitive strategy, the greater the projected financial performance.

Methodology

Sample

Data from Dunn and Bradstreet were used to select the sample of businesses. The businesses selected employ 10 or more people, but fewer than 100, employees. Prior to the sample selection, data from County Business Patterns, Iowa 1982 (U.S. Bureau of the Census 1984) were examined to determine an estimated number of businesses by type (manufacturing, retail, and service) in Story County, Iowa. This analysis indicated that there were approximately 24 manufacturing firms, 150 retail firms, and 59 service firms located in Story County that met the workforce criteria.

A search was undertaken for a comprehensive list of businesses that included the names of the top managers, their telephone numbers, and addresses. The Dunn and Bradstreet Market Identifiers File was considered a possible sample source. The Dunn and Bradstreet Market Identifiers File identifies firms attempting to establish credit or interacting with older businesses seeking credit information (e.g., insurance companies). This file includes name, address, and telephone number of the firm, type of business, age of firm, principal officers, standard industrial classification (SIC) code, and sales and employment data. The file is continuously updated. New firms are added, out of business firms are deleted, and employment, sales, and related statistics are updated when new information is available. The file's population includes firms that need credit ratings and insurance; this encompasses most firms involved in full time business (U.S. Small Business Administration 1984).

The four digit SIC codes were used to indicate the principal line(s) of business. The Technical Committee on Standard Industrial Classification (sponsored and supervised by the Office of Statistical Standards of the Bureau of the Budget) generated the SIC codes. The businesses and their SIC codes are listed alphabetically and by geographical location and product classification. Up to six classifications may be shown for each business, but the principal activity of the business is usually the first number after the "Primary SIC" notation. Each SIC number shows the function or type of operation and the product line. The first two digits of the code indicate the major industry group (manufacturing, wholesale, etc.), the third and fourth digits specify the line (the good produced, sold, or processed or services rendered).

After determining the Dunn and Bradstreet Market Identifiers File appropriate for the project objectives, primary SIC code numbers were used to draw a sample of manufacturing, retail, and service firms. The goal was to obtain data from at least 30 businesses in manufacturing, at least 30 in retail, and at least 30 in services. Since there were too few manufacturing businesses in Story County that met the criterion of between 10 and 100 employees, all manufacturing businesses that met the criterion in the two adjacent counties (Boone and Marshall) were added to the list. It appeared that there were sufficient numbers of retail and service businesses in Story County. A breakdown of the sample is listed below:

Industry	Location	Quantity
Manufacturing	Story County	20
Manufacturing	Boone County	21
Manufacturing	Marshall County	26
Retail	Story County	49
Services	Story County	43

Individual files for each business identified were then obtained and alphabetized within the three industry types. The manufacturing sample was alphabetized by county in the order listed above. It was only necessary to go outside of Story County in the manufacturing category to obtain the desired number of responses (30 per category).

A four digit identification code number was assigned to each business and corresponding questionnaire(s). The first digit indicates which industry group the business belonged to: 1 for manufacturing; 2 for retail; and 3 for service. The second and third digits identify the individual business and were assigned corresponding to their alphabetical order within each industry type. The manufacturing sample was alphabetized by county, in the order of Story, Boone, Marshall. The fourth digit indicates who was responding: 0 for the chief executive officer/top manager, or 1 for a member of the management team. If more than one management team member was completing the questionnaire, a 2, 3, etc. would be assigned as the fourth digit.

A breakdown of the sample results is listed in Table 3.1.

Table 3.1. Summary of study sample.

	Manufacturing	Retail	Services
Total Sample	67	49	43
Number Contacted	39	42	38
Number Unqualified	0	1	3
Number Completed by CEO	31	35	31
Number of Refusals	8	6	4
Number of Firms with Team Response	11	15	6
Total Number of Team Member Responses	13	19	8

The sample included duplicate files for 7 businesses; this decreased the overall sample size from 159 (as listed above) to 152. Those businesses with a duplicate file are listed as being contacted only once.

The sample also included 4 companies that had gone out of business; they were not listed as being contacted.

The number unqualified figures refer to businesses that were contacted but did not meet the specifications for participation. Businesses classified as such were not operating long enough to provide sufficient performance measures, under new management/ownership, nonprofit organizations, or not actually "small" (including 10 or more but fewer than 100 employees).

In the category of Number of Firms with Team Member Responses, management team members from 6 firms refused to respond, although they were identified by top management as involved in planning. With data obtained from 97 of 115 firms contacted, the sampling rate was 84 percent.

Because the number of businesses with team members was small, the data from the questionnaires completed by them are not analyzed in this report.

Instrument

Each CEO was called and an appointment was set to complete a questionnaire. Prior to telephone contact, letters were mailed to each CEO explaining the purpose and importance of the study, as well as assuring that any information provided would be confidential (see Appendix A). Whenever possible, the interviewer waited while the CEO completed the questionnaire. In this manner, the CEO was able to discuss the questions, their relevance to that particular firm, and clarify any possible misinterpretations of the questions. On several occasions the CEOs would discuss business activities in detail. However, due to time constraints, some CEOs preferred that the questionnaire be left with them and completed later. CEOs were asked to provide information regarding the use of strategic planning, operational planning, competitive strategy, environmental uncertainty, financial performance, and business/manager characteristics.

Strategic planning was operationalized using questions similar to those developed by Lindsay and Rue (1980). This procedure allows planning to be categorized by level of completeness. Not only is the presence or absence of a strategic plan detected, but the degree of planning can also be assessed. Those firms that are able to successively answer more detailed questions on the content of their plan are classified as utilizing strategic planning to a greater extent. Previous research indicates that small firms, if they plan at all, tend to do so on a short term basis. For this reason it was decided that a formal written plan covering one year or more and accounting for environmental factors was sufficient to qualify as a strategic plan. This is consistent with previous research (Karger and Malik 1975; Sexton and Van Auken 1982; Robinson and Pearce 1983).

Respondents were asked to indicate the existence and extent of items in their planning by answering a number of questions (see Appendix B). Firms in Class 1 had no strategic plan, Class 2 firms engaged in some strategic planning, and Class 3 had reasonably sophisticated strategic plans. The firms' degree of strategic planning was categorized into one of the three planning classes by using the following criteria:

Class 1: Firms had no written long range plan covering at least one year into the future (no to question #1).

Class 2: Firms had a written long range plan covering one year (yes to question #1); plus plan includes specification of objectives and goals (checked one or more items on question #2); plus plan includes determination of futureresources required (check one or more items on question #3); plus plan includes selection of long range strategies (checked one or more times on question #4).

Class 3: All the requirements of Class 2; plus some attempt to account for factors outside the immediate environment of the firm (checked on or more items on question #5); plus procedures for anticipating and detecting error or failure of the plan and for preventing or correcting them on a continuing basis (checked one or more items on question #6).

Firms were required to meet all the criteria for a class or they were considered part of the previous class.

Although small firm managers may not plan formally, many do plan to anticipate events in the near future. This type of operational planning is typically performed on a six to twelve month basis, and involves the functional operations of the business such as budgeting, human resources, marketing, sales, and inventory. To assess the extent of operational planning, items developed by Robinson and McDougall (1985) were used in the questionnaire. Respondents were asked to indicate to what extent each activity is part of their regular business activities (see Appendix B). Questions were combined to form five scales:

Market Planning (items 2, 3): Analyze changes among target customers; analyze major products' success.

Budget Planning (items 4, 5, 6, 7, 8): Determine advertising program and budget; minimize tax obligation; estimate borrowing needs; forecast employee compensation and benefits; review labor costs.

Human Resource Planning (items 9, 10, 11, 12, 13): Annually assess personnel; review performance standards; estimate personnel needs; assess job satisfaction; analyze training needs.

Inventory Planning (items 14, 15, 16, 17, 18): Review adequacy of minimum stock level; review adequacy of stock safety level; review and estimate order-delivery time for stock; appropriate inventory size/quantity; review storage needs.

Sales Planning (items 19, 20, 21): Estimate sales volume; set and monitor sales target; determine "break even" volume.

A scale was also built to measure total operational planning, and was computed by weighting each individual operational planning scale, and combining them. Weighting was done to balance the influence of those scales consisting of a greater number of items. Reliabilities were computed for all scales in the study.

CEOs were asked to indicate the importance of 22 different competitive tactics to their individual firm's strategy. These tactics provide measures of three business strategies developed by Michael Porter (1980). The three strategies--low cost, focus, differentiation--are regarded as "generic" strategies. The 22 item instrument used was an adaptation of one developed by Dess and Davis (1984) for manufacturing firms. Minor modifications were made in the items allowing the instrument to measure strategy across various industries. Items were scored on a five point scale with values ranging from "1 = Not at all important" to "5 = Extremely important" (see Appendix A).

Scales representing each generic strategy were developed based on managers' and expert panel members' ratings of the competitive tactics in the Dess and Davis (1984) study. The scales and items in each scale are as follows:

> Differentiation (items 10, 11, 12, 18, 20): Brand identification/service distinction; innovation in marketing techniques; controlling distribution channels; advertising; forecasting market growth.

> Cost Leadership (items 3, 4, 7, 13, 19, 20, 21): Operating efficiency;quality control, competitive pricing; procurement of raw materials/new technology; reputation within industry; forecasting market growth; innovation in manufacturing/operation process.

> Focus (items 1, 9, 11, 15, 16, 17, 22): New product/service development;developing/refining existing products; innovation in marketing; serving special geographic markets; capability to provide specialty products/services; products/services in high price market segments; serving special customer groups.

A second strategy measure was included in the questionnaire. CEOs were provided descriptions of four strategies related to product and/or service development. The strategies--defender, prospector, analyzer, reactor--were developed by Miles and Snow (1978). CEOs were to indicate which strategy description most closely fit their business in comparison to other firms (see Appendix B).

The environmental uncertainty measure used was a modified version of Duncan's (1972) and Bourgeois's (1980) uncertainty measures. The instrument used a series of Likert scale items (see Appendix B) with which the CEOs were asked to determine whether they:

1. Were able to predict the reaction of 5 external factors to decisions by the firm;
2. Felt that their information was adequate to make that type ofprediction;
3. Were certain that the reactions of these factors would be important to the success or failure of their firms; and
4. Felt that these factors were important or not in influencing the firms' important decisions.

The five dimensions of uncertainty included suppliers, customers, competitors, sociopolitical forces, and technological changes. Items measuring the five dimensions of uncertainty are:

> Suppliers (items 1, 2, 3): Parts, raw materials or merchandise; equipment/technology, labor.
>
> Customers (items 4, 5): Distributors of products/services; actual users of products/services.
>
> Competitors (items 6, 7): For raw materials/merchandise; for customers.
>
> Sociopolitical forces (items 8, 9, 10): Government regulations; public/political views; relationship with unions.
>
> Technology (items 11, 12): Keeping up with new technological requirements for production; improving and developing new products/services by new technological advances.

Organizational performance was assessed using three measures. The measures were chosen on the basis of their prominence in business literature: growth in sales, number of full time employees, and after tax profits (Bourgeois 1980, 1985; Dess and Davis 1984; Hornaday and Wheatly 1986; Lawrence and Lorsch 1967). The majority of firms in the present study were not publicly held corporations and financial data were attainable by request only. Dess and Robinson (1984) have found that subjective and objective measures of performance are consistent. These authors stated that objective measures are preferred, yet argued that subjective measures, given by people in authority positions, are more readily available and strongly related with actual (objective) measures. Subjective measures can be used to substitute for objective ones.

To obtain performance data, a technique suggested by Lawrence and Lorsch (1967) was adopted. CEOs were asked to compare financial measures for 1984, 1985, and estimates for 1986 to a base year; then, estimate the percentage increase or decrease for that year using 1983, the base year, as 100. CEOs indicated the increase or decrease for each performance measure (see Appendix B). The data allowed for yearly comparisons and trends or variations, while assuring CEOs that no actual financial data would be required.

The CEOs were also asked to provide some information about their businesses and themselves. They were asked about the kind of business, diversification (number of SIC codes), business ownership, age of business, and number of full time employees. They were also asked about their position in the business (owner and top manager, top manager, or owner) and their age. In addition, CEOs were asked if they planned alone or included others in their planning. It is generally thought that larger businesses may do more planning, because they are more likely to have slack personnel resources. Management theory suggests that planning will be better if CEOs include others in it. There is no clear connection in the literature between the other business characteristics and planning or the CEO characteristics and planning, but we included these to see if they are linked to planning in small businesses.

Results

Reliabilities were computed for all scales; descriptive statistics were analyzed. To test the propositions that make up the conceptual model, zero order coefficients of correlation were computed and analyzed.

Reliabilities of Scales

Reliabilities were computed for subscales of operational planning and for the total operational planning scale. Reliabilities were also computed for the scales measuring Porter's three generic strategies and for environmental uncertainty. The reliabilities, which range from .580 to .849, are presented in Appendix C, and indicate that the items making up each scale are fairly consistent and logically combinable.

Descriptive Statistics

The frequency distribution for the strategic planning variable is given in Table 4.1. As shown, 65 firms utilize no strategic planning, 8 firms utilize some strategic planning, and 24 firms have a sophisticated level of strategic planning. As indicated, more than two-thirds of the businesses sampled utilize no strategic planning at all, while almost one-fourth of them use extensive strategic planning. No one industry type stands out as doing more strategic planning than the others.

Table 4.1. Strategic planning, by industry.

Planning	Manufacturing	Retail	Service	Overall
Class 1: No Long Range Planning	20	26	19	65
Class 2: Some Long Range Planning	2	4	2	8
Class 3: Extensive Long Range Planning	9	5	10	24
Total	31	35	31	97

CEOs indicated various reasons for not preparing a strategic plan. The reasons mentioned most often were: lack of time, lack of skills/expertise, not part of their responsibility, business being too unpredictable, and cost. Also, CEOs that do plan usually do so by themselves. These results are consistent with those reported earlier by Robinson and Pearce (1984). Only 32 CEOs included others in any type of planning, strategic or operational.

Table 4.2. CEO reasons for not planning.

Reason	Number of Times Cited
Cost	5
Skills/Expertise	12
Time	24
Not part of responsibility	7
Other	30[a]

[a]Other reasons for not planning were: plans were not appropriate for the business, the business is too small, the business is too unpredictable, the CEO had a mental plan.

Although most firms did not engage in strategic planning, most did engage in short range operational planning to some degree (Table 4.3). Of the 97 CEOs surveyed, only 16 indicated using operational planning activities to only a little extent. The reason given most often for not employing operational plans was lack of time. Firms are most involved in sales planning, and human resource planning, and least involved in inventory planning. In general, the three industries are using the different types of operational planning to similar extents. Exceptions appear in budget planning, where the service industry uses it to a greater degree than the others, and the use of inventory planning varies considerably across all industries.

Table 4.3. Standardized mean short range operational planning scores and standard deviations.

Planning	Manufacturing	Retail	Service	Overall Sample
Market	3.15 (.91)	2.80 (.99)	3.10 (1.07)	3.01 (.99)
Budget	2.78 (.77)	2.84 (.81)	3.27 (.74)	2.96 (.80)
Human Resource	3.09 (.85)	3.42 (.77)	3.52 (.79)	3.34 (.80)
Inventory	2.81 (1.13)	3.27 (.90)	2.39 (1.09)	2.85 (1.09)
Sales	3.59 (.95)	3.74 (.94)	3.39 (1.08)	3.58 (.99)
Total	3.09 (.64)	3.21 (.58)	3.16 (.57)	3.16 (.59)

[a]Mean scores range from 1 to 5, with 5 indicating the greatest extent of operational planning.

The individual operational planning activities used to the greatest extent by CEOs are estimating the sales volume and dollar sales the firm expects to reach in a period of 6 to 12 months (3.7), setting and monitoring a realistic and numerical sales target monthly and/or quarterly (3.7), annually assessing personnel capabilities (3.7), annually reviewing and setting employee performance standards (3.5), and analyzing major products on a regular basis in terms of achieving sales/profit goals (3.4) (see Appendix B).

Examination of the scales measuring competitive strategy suggests that CEOs are oriented towards an overall low cost strategy, more so than differentiation or focus (Table 4.4) In general, the businesses in the different industries value the strategies to about the same degree. There is considerable variation in the degree to which the different industries value differentiation; CEOs in manufacturing value the strategy to a lesser extent than do those in retail or service businesses.

Individual competitive tactics (items that make up the strategies) indicated as most important to all CEOs surveyed are customer service (4.8), operating efficiency (4.6), product/service quality control (4.6), experienced/trained personnel (4.5), reputation within industry (4.4), and competitive pricing (4.0) (Appendix B).

Table 4.4. Standardized mean competitive strategy scores and standard deviations, Porter typology of strategies.

Strategy	Manufacturing	Retail	Service	Overall Sample
Overall Low Cost	3.78 (.65)	3.91 (.64)	3.79 (.56)	3.83 (.62)
Differentiation	3.01 (.96)	3.58 (.94)	3.30 (.82)	3.31 (.94)
Focus	3.45 (.62)	3.60 (.73)	3.63 (.75)	3.55 (.70)

[a]Mean scores range from 1 to 5, with 5 indicating extreme importance to the firm.

Regarding the Miles and Snow strategic typology, of the 97 CEOs interviewed, 40 considered themselves defenders, 33 were analyzers, 21 were prospectors, and 3 considered themselves reactors. It appears that the strategy chosen is dependent upon the amount of risk (product/service innovation) managers are willing to take. The defender, indicating a preference for stability, is chosen most often; analyzer, indicating moderate risk, is the second most chosen strategy. Prospectors take the greatest risk and this strategy is chosen least, except for those who stated they are "reactors" only. The service industry is the only one in which analyzers outnumber defenders.

Table 4.5. Competitive strategy: Miles and Snow typology.

Strategy	Manufacturing	Retail	Service	Overall Sample
Analyzer	10	11	12	33
Defender	14	16	10	40
Prospector	6	7	8	21
Reactor	1	1	1	3

Uncertainty scores for the elements in the environment were computed by multiplying the recoded importance of each item (1 = 0; 2 = 1; 3 = 2; 4 = 3; 5 = 4) by recoded values (5 = 1...1 = 5) indicating how well the CEOs were able to predict the reactions of elements to decisions made by their firms, and had adequate information, and by recoded values (1, 2 = 5...9, 10 = 1) indicating how certain the CEOs were that the elements would affect the success or failure of their firms. Mean uncertainty scores were computed for each cluster of elements and an overall mean score was also computed for each firm.

CEOs in the three types of industries were experiencing the most uncertainty with their customers (Table 4.6). They were also experiencing relatively more uncertainty because of competitors and because of technology. They were experiencing the least uncertainty from suppliers and from sociopolitical elements. The CEOs from service firms indicated that they were experiencing relatively more uncertainty than others. However, the standard deviations indicate that there is a wide range of uncertainty scores within each sector, with some firms experiencing low levels and some high levels of uncertainty.

Table 4.6. Standardized mean uncertainty scores and standard deviations.

Uncertainty	Manufacturing	Retail	Service	Overall Sample
Suppliers	15.05 (6.72)	17.15 (7.77)	14.51 (8.97)	16.54 (7.85)
Customers	19.85 (6.45)	19.50 (8.32)	19.67 (9.63)	19.67 (8.11)
Competitors	15.77 (7.17)	17.84 (7.48)	17.24 (7.84)	17.01 (7.47)
Sociopolitical	14.63 (8.07)	15.35 (9.86)	16.98 (9.18)	15.64 (9.06)
Technology	16.79 (7.73)	15.56 (8.92)	19.63 (8.94)	17.25 (8.65)
Overall Mean Uncertainty	15.97 (4.51)	16.07 (5.76)	17.61 (6.33)	16.54 (5.99)

[a]Mean scores range from 1 to 20 with 20 indicating the greatest amount of uncertainty.

CEOs estimated the increase or decrease in performance for the years 1984, 1985, 1986, from 1983. Overall, sales had increased a total of 21 percent over the three year period (Table 4.7). After tax profits were up 20 percent, and employment dropped 2 percent. No measures were computed for return on assets or return on sales due to missing data. Many CEOs were either unable to estimate these measures or not inclined to provide the information.

Services experienced the greatest overall increases in sales while experiencing negative growth in employment. Retail industries experienced the least increase in sales and profits, yet were able to maintain their workforce during the past three years.

Table 4.7. Percent increase in effectiveness from 1983 to 1986.

Measure	Manufacturing	Retail	Service	Overall Sample
		-- percent --		
Sales	20	15	28	21
Employment	0	0	-4	-2
Profits	25	11	24	20

Business ownership varied only slightly; 71 were corporations, 10 sole proprietorships, 10 "S" corporations, 3 limited partnerships, and a single general proprietorship. Two CEOs did not answer this question. The average age of all businesses was 23 years and the average number of employees (in full time paid equivalent) was 32.

Of the 97 CEOs completing the questionnaire, 15 owned the businesses, 34 were top managers, 46 were both owners and top managers. Two did not respond to this question. The ages of CEOs were quite varied; three CEOs were under age 25, 24 were ages 26-35, 35 were age 36 to 45, 22 were age 46 to 55, and 13 were over the age of 55.

Correlations

Correlations among past performance, strategic planning, and short range operational planning variables are presented in Table 4.8. These correlations are important for evaluating Proposition P_1, that firms experiencing increased past financial performance are more likely to plan. Two of the correlations between past performance and strategic planning are significant, 1985 sales (.172*) and 1985 employment (.195**). Note that, in this analysis, one asterisk (*) is used to indicate significance at the .10 level and two asterisks (**) to indicate significance at the

.05 level. Total short range planning is significantly correlated with all 1984 performance measures: sales (.278**), employment (.206**), and profits (.204**). Total short range planning is not significantly correlated with any 1985 performance measures.

Table 4.8. Correlations between past performance and planning.

Planning	1984 Sales	1984 Employment	1984 Profits	1985 Sales	1985 Employment	1985 Profits
Strategic	.105	.027	-.007	.172*	.195**	-.102
Total Short Range	.278**	.206**	.204**	.118	-.016	.088
Sales	-.048	.095	.010	-.041	-.132	.045
Budget	.213**	.254**	.165*	.165*	.158*	.058
Market	.241**	.242**	.255**	.157*	.081	.001
Inventory	.140*	-.043	.102	.081	-.019	.167*
Human Resource	.266**	.178**	.124	.025	-.118	-.032

* = significant at .10 level

** = significant at .05 level

Some correlations between individual short range operational planning variables and 1985 performance variables are significant. Budget planning is significantly correlated with all past financial performance except 1985 profits, while market planning is significantly correlated with all performance variables except 1985 employment and profits. Inventory planning is significantly correlated with two past performance measures, 1984 sales (.140*) and 1985 profits (.167*); human resources planning is significantly correlated with sales (.266**) and employment (.178**) in

1984. Sales planning is not significantly correlated with any past performance variables. These results do provide support for the proposition that firms experiencing increasing past financial performance are more likely to plan. It appears, however, that firms are more likely to use short range planning, particularly in budgeting and marketing, than strategic planning when experiencing increased past financial performance.

Proposition P_2 states that the greater the amount of uncertainty experienced by small firms, the more likely they are to engage in strategic and operational planning. Only two of the uncertainty variables are significantly correlated with strategic planning, uncertainty of suppliers (.135*) and customers (.170*). Several uncertainty variables are, however, significantly correlated with short range operational planning (Table 4.9).

Table 4.9. Correlations between environmental uncertainty and planning.

	Uncertainty					
Planning	Overall	Suppliers	Customers	Competitors	Socio-political	Technology
Strategic	.091	.135*	.170*	.129	-.118	-.014
Total Operational	.266**	.256**	.026	.279**	.117	.241**
Sales	.154*	.149*	-.013	.278**	-.124	.153*
Budget	.217**	.196**	-.014	.247**	.084	.214**
Market	.221**	.170**	-.032	.163*	.222**	.270**
Inventory	.141	.240**	.084	.165*	.042	.017
Human Resources	.074	.065	-.040	.019	.127	.129

* = significant at .10 level

** = significant at .05 level

Supplier uncertainty is significantly correlated with budget planning (.196**), market planning (.170**), inventory planning (.240**) and sales planning (.149*), as well as total short range planning (.256**). Uncertainty regarding competitors is significantly correlated with all operational planning, with the exception of human resource planning. Uncertainty of technology is significantly correlated with all types of operational planning except inventory and human resource. Sociopolitical uncertainty is significantly correlated only with market planning (.222**) and customer uncertainty is not significantly correlated with any type of operational planning. Not a single uncertainty variable is significantly associated with human resource planning. These results support the proposition that firms facing environmental uncertainty engage in planning, although planning tends to be operational rather than strategic.

Correlations between the planning variables and Porter's (1980) competitive strategies are presented in Table 4.10. Correlations between the planning variables and Miles and Snow's (1978) product market domain selection strategies are presented in Table 4.11.

Table 4.10. Correlations between planning and competitive strategy, Porter typology.

	Planning						
Competitive Strategy	Strategic	Total Operational	Budget	Market	Inventory	Human Resource	Sales
Low Cost	-.023	.530**	.378**	.345**	.252**	.340**	.365**
Differentiation	-.221**	.406**	.312**	.171**	.258**	.182**	.355**
Focus	-.074	.300**	.239**	.178**	.148*	.204**	.244**

* = significance at .10 level

** = significance at .05 level

Table 4.11. Correlations between planning and competitive strategy, Miles and Snow typology.

	Planning						
Competitive Strategy	Strategic	Total Operational	Budget	Market	Inventory	Human Resource	Sales
Defender	.115	-.188**	-.166*	-.100	-.037	-.185**	-.097
Prospector	-.045	.206**	.162*	.124	.112	.158*	.122
Analyzer	-.036	.064	.083	.074	-.003	-.001	-.004
Reactor	-.123	-.131	-.142*	-.212**	-.151*	.148*	-.005

* = significance at .10 level

** = significance at .05 level

Only one of Porter's competitive strategies (differentiation) is significantly correlated with strategic planning, and this is negatively correlated. All of the operational planning variables are correlated with the competitive strategies. The more operational planning that takes place, the more likely Porter's strategies will be used.

Strategic planning is not significantly correlated with any of the Miles and Snow strategies. Total operational planning and each of the individual types of operational planning are significantly correlated with the product/market selection strategies. Defenders are less likely to engage in budget planning or human resource planning. In addition, total operational planning is significantly (and negatively) correlated with the defender strategy (-.188**). Reactors are less likely to engage in budget, market, or inventory operational planning. Prospectors are more likely than others to engage in budget and human resource planning, and this strategy is positively correlated with total operational planning (.206**).

These results provide considerable support for the third proposition:. Firms that do more operational planning are more likely to develop competitive strategies. However, no support was provided for the importance of strategic planning's link with strategies.

The final proposition states that the development of a competitive strategy is associated with increased financial performance. The results in Tables 4.12 and 4.13 provide some minimal support for this proposition.

Table 4.12. Correlations between competitive strategy and estimated financial performance for 1986, Porter typology.

	Strategy		
Performance	Low Cost	Differentiation	Focus
1986 Sales	-.031	.084	.004
1986 Employment	.073	.112	.118
1986 Profits	.054	.178*	.012

* = significance at .10 level

Table 4.13. Correlations between competitive strategy and estimated financial performance for 1986, Miles and Snow typology.

	Strategy			
Performance	Defender	Prospector	Analyzer	Reactor
1986 Sales	-.208**	-.001	.245**	-.094
1986 Employment	-.156*	.014	.201**	-.140*
1986 Profits	-.049	-.042	.124	-.109

* = significance at .10 level

Only one of Porter's competitive strategies is significantly correlated with performance (differentiation). More of the Miles and Snow strategies are significantly correlated with performance in 1986. Defenders have relatively lower sales and employ fewer people than they did in the base year. Reactors also have fewer employees. Analyzers, on the other hand, report higher sales and higher employment than they had during the base year. None of the strategies was significantly correlated with profits. In summary, the fourth proposition received some support, e.g., businesses that have a strategy have greater projected financial performance.

Porter (1980) has indicated that the competitive strategies that he described are discrete and that businesses should not engage in more than one discrete strategy at a time or they would be stuck in the middle of the strategies and not be effective. This may be happening with these small businesses. The strategies are positively correlated, with the average inter-strategy correlation being .546. In other words, the more they use any one competitive strategy, the more they use the others, too.

To determine if there were differences in the correlations between strategy use and financial performance by industry, the correlations for manufacturing, retail, and service businesses were computed separately. These are presented in Tables 4.14 and 4.15.

Table 4.14. Correlations between competitive strategy and financial performance by industry, Porter typology.

		Strategy		
Performance	Industry	Low Cost	Differentiation	Focus
1986 Sales	Manufacturing	.056	-.017	.153
	Retail	.291*	.064	-.185
	Service	-.179	.211	-.016
1986 Employment	Manufacturing	.091	.182	.332**
	Retail	.292*	.076	.039
	Service	-.157	.026	-.108
1986 Profits	Manufacturing	.289*	.236	.104
	Retail	.199	.117	.042
	Service	-.147	.266*	-.041

* = significant at .10 level

** = significant at .05 level

Table 4.15. Correlations between competitive strategy and financial performance by industry, Miles and Snow typology.

		Strategy			
Performance	Industry	Defender	Prospector	Analyzer	Reactor
1986 Sales	Manufacturing	-.382**	.068	.434**	-.224
	Retail	-.051	.070	.021	-.069
	Service	-.187	-.066	.240	.000
1986 Employment	Manufacturing	-.343**	.218	.298**	-.310**
	Retail	-.100	-.035	.138	-.005
	Service	.097	-.282*	.146	.041
1986 Profits	Manufacturing	.008	.021	.079	-.258*
	Retail	.227	-.177	-.100	.015
	Service	-.164	-.076	.227	.000

* = significance at .10 level

** = significance at .05 level

The low cost strategy is significantly associated with both sales and employment in retail businesses, and with profits in manufacturing. Differentiation is significantly correlated with profits in service businesses and focus with employment in manufacturing.

The defender strategy is negatively (and significantly) correlated with sales and employment in manufacturing. The analyzer strategy is positively (and significantly) correlated with sales and employment in manufacturing. The reactor strategy is negatively (and significantly) correlated with employment and profits for manufacturing. It appears from these results that the strategies developed by Miles and Snow are relatively effective in aiding an understanding of manufacturing businesses, but perhaps less so for other businesses.

Importance of CEOs' and Firms' Characteristics

Are past performance and environmental uncertainty really the most important correlates of operational planning? Are operational planning and strategies really important? Or are the characteristics of the CEOs who were studied and their firms really more important?

To determine the importance of CEOs' characteristics and the characteristics of their firms, correlations were computed between relevant variables and the variables used to assess the conceptual model. The ages of the CEOs were used in the analysis. CEOs who included other managers in their planning were coded 1 and those that did not were coded 0, and this variable was used, too. The ages of the firms, number of employees, diversification (number of SIC codes), and actual sales for the year 1985 were used. The sales data and SIC codes were obtained from Dunn and Bradstreet Market Identifier Files.

In general, the characteristics of the CEOs and their firms are poor correlates of the study variables. But there are some interesting exceptions. These significant correlations resulted. Larger firms do more market planning and projected greater profits for 1986. Older firms do less sales planning and do less total operational planning. None of the other correlations with CEOs' and firms' characteristics was significant. The variables used in the conceptual model are better correlates of planning, strategy use, and firm performance than the characteristics of the CEOs who participated in the study or the characteristics of their firms.

Summary

The size of the firms studied ranged from 10 to 100 employees with the mean size being 32 employees. Only about one-third have a strategic plan. Nearly all of the firms use operational planning, but do relatively more sales and human resources planning than other kinds of operational planning.

The CEOs typically felt that both strategic and operational planning were important. When asked why they did not engage in more planning, they most frequently stated that they did not have time, did not have the expertise, that planning wasn't really part of their responsibility, that planning was not fruitful because businesses are too unpredictable, or that they thought that planning cost too much. These reasons for not planning are consistent with previous research (Robinson and Pearce 1984).

Strategic planning was not significantly correlated with past financial performance and with perceived environmental uncertainty. Those firms that have performed best recently, and whose CEOs are experiencing environmental uncertainty, are most likely to engage in operational planning.

CEOs in all industries are experiencing most uncertainty with their customers. They are experiencing about equal uncertainty from competitors and from new technology. Sociopolitical forces are the source of the least uncertainty. Overall, services are experiencing more uncertainty than retail or manufacturing firms. There is great variability in uncertainty within business sectors.

When asked to choose from the product/market domain selection strategies of Miles and Snow (1978), only a few stated that they are mere reactors. About 40 percent stated that they were defenders. About 33 percent were analyzers and about 20 percent were prospectors. The analyzers were performing better than others, and the reactors and defenders were performing least well.

The CEOs stated that their firms were using a mix of the competitive strategies described by Porter (1980). The indicators of focus, differentiation, and cost reduction were positively correlated, meaning that the typical firm was using some aspects of each strategy, which is unfortunate because Porter has stated that businesses that do this are really stuck in the middle and do not have a coherent strategy.

Operational planning was positively correlated with the Porter strategies. However, the Porter strategies were poorly correlated with project performance for 1986.

The product/market domain selection strategies described by Miles and Snow (1978) were also positively correlated with operational, but not strategic, planning. Those that planned more were more likely to be prospectors and least likely to be reactors or defenders.

Analyzers projected the greatest sales and employment for 1986. Reactors and defenders expected to perform less well. This was especially true for manufacturing firms.

Finally, CEOs' and firms' characteristics were found to be weakly correlated with the variables used to assess the conceptual model.

Model Viability and Conclusions

The statistical analyses performed on the data obtained from 97 small firms provided a means to evaluate the proposed relationships of our conceptual model. There is evidence to support propositions P_1 and P_2: firms experiencing increased past financing performance are more likely to plan and, as environmental uncertainty increases, planning will also increase. The type of planning utilized by small firms, however, appears to be short range operational much more than strategic planning.

Because strategic planning is long range, it may be less appropriate for small businesses. Ackelsberg (1985) has suggested that formal planning may be dysfunctional, and that formality deters the flexible response of firms facing a volatile environment. Robinson et al. (1986) found that small firm managers considered operational planning more important than strategic planning, and over 85 percent of the firms he studied did not systematically practice strategic planning. Small businesses are closer to the environments in which they operate, perhaps allowing them to assess the environment more readily than large firms. If environmental changes occur quickly, these require immediate action on the part of managers. Long range strategic plans may become archaic, and operational plans, by their nature, may permit firms to act and react in a timely and effective fashion.

Small firms clearly lack resources that large firms enjoy. They do not have the time, money, or expertise found in large firms. Perhaps the costs of strategic planning simply exceed the benefits for the small firm. Also, the benefits of planning for next month are often more obvious to management than those for next year; a small firm having a bad month may not even be around next year.

Strategic planning aside, past performance and environmental uncertainty appear linked to operational planning. Increased past financial performance may allow managers to allocate some resources (time, money) needed for planning. Firms experiencing poor performance may have fewer resources to allocate to the planning effort, and planning may decrease or be ignored altogether. Management must respond to changing environmental conditions causing uncertainty. The results suggest that managers respond to uncertainty by increasing operational planning, as hypothesized. Planning provides a means for management to reduce uncertainty and hopefully reduce the risk of failure for actions taken by small firms.

There is strong evidence supporting proposition P_3, that development of a competitive strategy increases with planning. Again, however, this pertains only to operational planning. Strategic planning is poorly correlated with competitive strategy.

Each type of operational planning is significantly associated with competitive strategy. The rationale given for the proposition was that the development of a specific strategy requires a logical and rational decision making process on the part of management. Firms engaged in somewhat detailed planning activities are more likely to develop consistent actions (strategy) for realizing the objectives they desire to meet.

It should be noted that the Porter strategic typology (low cost, differentiation, focus) consists of competitive means utilized to realize goals that firms intend to accomplish. Some tactics the strategies are composed of tend to be functional or "operational" (i.e., innovation in manufacturing, maintain high inventory levels). This may explain why the relationship between operational planning and strategy is strong while the relationship between formal planning and strategy is weak.

Evidence supporting the proposition that development of competitive strategy leads to increased performance is minimal for Porter's competitive strategies. These results are not consistent with some previous studies, which found evidence supporting the strategy/performance relationship proposition. With regard to Porter's competitive strategies, it should be noted that the firms sampled engage to some degree in multiple strategies. Correlations between the strategy scales (average correlation between strategies = .546) are positive. Firms that do not commit themselves to a single strategy may not be able to gain a competitive edge, and this results in strategic mediocrity and below average performance.

Use of the product/market domain selection strategies described by Miles and Snow was significantly correlated with projected firm performance. This is consistent with other studies. Analyzers projected greater firm performance, and defenders and reactors less. There was no significant correlation between selection of the prospector strategy and projected firm performance. It might be that the choice of an appropriate niche in the market may be a relatively more important decision than the choice of competitive strategies after the domain/market selection has been made.

A second point deserving attention is the time frame of the study. The effects of planning and strategy implementation may not be experienced immediately and readily measurable. Exactly how long it takes for an implemented strategy to affect performance is unknown. This may be especially true for strategic planning. Longitudinal research is needed to address this question.

APPENDIX A

Letters to CEOs Explaining Study

April 1986

Dear Mr./Ms.

We would like to take this opportunity to tell you about a new business project at ISU and hope very much that you will participate.

Increasingly, managers in large corporations recognize that planning can pay dividends. A number of books focus on planning in large corporations. Managers and business specialists now think that it would be very helpful to know more about planning in small and medium size businesses, too.

In this ISU project, that has been funded by the North Central Center for Rural Development, we hope to work with a sample of business managers in central Iowa in order to learn about planning in manufacturing, retail, and service businesses.

You will be contacted by Professors Charles L. Mulford, Sociology and Industrial Relations, and Charles B. Shrader, Management Department. They will explain more about this study. We hope that you will fill out a short questionnaire for us and permit one or more members of your management team to complete an even shorter form of the questionnaire.

We understand that you will receive a summary of the key results after the study is completed. You will also be invited to attend a free seminar on business planning. Of course, your responses will be confidential and nothing you say will ever be associated with you or your business. The results will be analyzed on a computer in aggregate form only.

The results from this project will be used to develop planning seminar materials and in the preparation of a guide for business managers interested in improving their firm's planning. Once again, we ask for your cooperation. This project will only succeed if you cooperate. Please feel free to call Professors Charles L. Mulford (294-9897) or Charles B. Shrader (294-8105) if you have any questions.

Cordially,

Dr. Charles B. Handy
Dean and Professor of
Business College
Iowa State University

Dr. Daniel J. Zaffarano
Vice President for Research
and Dean of Graduate College
Iowa State University

May 5, 1986

Dear

We are writing in reference to the letter sent to you by Deans Handy and Zaffarano about a new project on business planning. We are the managers of this research project. Our goals are to learn about formal and informal planning in small and medium size businesses. A random sample of 150 businesses from Central Iowa was scientifically selected for this project. We will be completing this study with manufacturing, retail, and service businesses.

A short questionnaire has been developed that will take you only about 20-25 minutes to complete. We will have one of our project team members stop by at your convenience and leave the questionnaire. This person will either wait while you complete the questionniare, or if you prefer, return at an agreed-upon time and pick it up. We are also interested in the perceptions of those who may plan with you. We would like to have permission to leave an even shorter version of the questionnaire with one or more members of your "management team." They could either complete the short questionnaire while at work or do it during their off hours and mail it to us, whichever you prefer. We will show you a copy of this questionnaire, too, so you will know about it.

We want to assure you that your responses will remain <u>absolutely confidential</u>. Nothing that anyone says will ever be associated with that person or with any business. The results will be recorded on a computer and analyzed in an aggregate form. The code number at the top of the questionnaire will assist us with our recordkeeping until all of the questionnaires have been returned. No one will be able to associate the name of any particular business with any code number.

We will use the results to design seminars on planning for managers in small and medium businesses. We will also prepare a planning guide for managers. Your cooperation will aid in our development of these seminars and the guide. Your participation will aid in the economic development of this state.

You will also benefit directly from participating in the study. First, we will provide you with a summary of key results. You will be able to learn about the formal and informal planning activities in other businesses. In addition, you will be invited to attend a seminar on planning skills at no cost to your firm.

You will be telephoned soon by Julie Cramer, or Hugh Hansen, or Tim Harrison. They will stop by to see you with the questionnaires. We think that this is a very important project. But we can't complete the work without your important contribution. We very much hope that you will help us. Please feel free to call either of us if you have questions.

Most Cordially,

Charles L. Mulford
Sociology and Industrial
Relations Program
Iowa State University
294-9897

Charles B. Shrader
Business Management
College of Business
Iowa State University
294-8105

cc: Charles B. Handy, Dean
Daniel J. Zaffarano, Dean and Vice President

APPENDIX B

Summary of Responses to

Items on Questionnaire

No. ________
5/86 ________
Date ________

A STUDY OF BUSINESS PLANNING

CHARLES MULFORD, SOCIOLOGY AND INDUSTRIAL RELATIONS CENTER
BRAD SHRADER, MANAGEMENT DEPARTMENT, COLLEGE OF BUSINESS

SECTION I. FORMAL AND INFORMAL PLANNING

First we would like to ask you some questions about long range planning in your business. Please indicate the existence and extent of these factors in your long range planning.

1) Does your company prepare a written long range plan covering more than one year?
33 yes 64 no Exactly what time period does the plan cover?
3 (average)
(If no to question 1, or if written plan covers less than one year, skip questions 2 - 6, and go to question 7.)

2) Does your long range plan include quantified objectives for any of the following?

	Yes	No
earnings	28	68
return on investment	19	78
capital growth	18	79
share of the market	14	83
sales/earnings ratio	20	77

3) Does your long range plan include the following pro forma (future) financial statements?

	Yes	No
balance sheet	21	76
cashflow analysis	20	77
income statement	26	71

4) Does your long range plan include plans and budgets for the following?

	Yes	No
hiring and training key management personnel	18	79
plant expansion	15	82
equipment acquisition	25	72
research and development	8	89
advertising	20	77

5) Does your long range plan specifically attempt to identify any of the following factors?

	Yes	No
political developments	7	90
personal family incomes	5	92
social currents	8	89
non product technological breakthroughs	8	89
labor/personnel attitudes	13	84
national economic trends	17	80

(over please)

6) Does your long range plan contain procedures for anticipating or detecting differences between your plan and actual performance and for preventing or correcting these differences? 7 yes 25 no If yes, how frequently is this done?

weekly or less	2
monthly	10
quarterly	8
semi-annually	10
annually	10
every 1-3 years	0

7) How important do you feel long range planning is to your business?

NOT AT ALL IMPORTANT	NOT VERY IMPORTANT	SOMEWHAT IMPORTANT	VERY IMPORTANT	EXTREMELY IMPORTANT	Average
1	2	3	4	5	3.7

8) If your business does not prepare a long range plan, please indicate the reason:

Cost	5
Skills/Expertise	12
Time	24
Not part of your responsibility	7
Other - specify	30

Other - specify:
- not appropriate for our business
- no need to prepare a plan
- business is too small
- business too unpredictable
- have mental plan

9) If your business does not prepare a formal written long range plan, do you have an informal method of anticipating future events and planning?
11 yes 55 no Please elaborate.

10) Does your business use any of the following outside consultants?

	Yes	No
Small Business Administration Advising Center	6	91
University Extension Advisor	3	94
Personal acquaintances	28	99
Other - specify	31	66

Other - specify:
- trade association
- board members
- accountant
- nat./state assoc.

11) If you were going to learn more about long range planning, where would you prefer to go for information?

Small Business Administration	14	Other - specify:
Small Business Development Centers	20	- trade association
Colleagues	37	- corporate staff
University Extension	28	- nat./state association
Friends	13	- consultant
Other - specify	29	- accountant
		- continuing education classes

SECTION II. OPERATIONAL PLANNING

Please indicate (by circling the appropriate number) to <u>what extent</u> of each of the following activities is part of your business's <u>regular activities</u>.

Activities	TO A VERY LITTLE EXTENT	TO A LITTLE EXTENT	TO SOME EXTENT	TO A GREAT EXTENT	TO A VERY GREAT EXTENT	$\bar{X}$
			Market Planning			
1) Forecasting on a regular basis future economic and business conditions in your market area for a period of six to twelve months and assessing their probable impact on your sales	1	2	3	4	5	2.9
2) Analyzing on a regular basis the possible changes that will take place within a year or less among your target customers (i.e. need, location, size, and income)	1	2	3	4	5	3.1
3) Analyzing major products on a regular basis in terms of acheiving sales and profit goals	1	2	3	4	5	3.4
			Budget Planning			
4) Determining ahead of time advertising needs for a period of six to twelve months and planning an advertising program and budget	1	2	3	4	5	2.7
5) Consideration of several possible tax alternatives, developing a plan to minimize the business's tax obligation on an annual basis	1	2	3	4	5	2.8
6) Estimating future short range borrowing needs and sources and costs of money at least a month ahead	1	2	3	4	5	2.7
7) Forecasting total annual compensation and the cost of other employee benefits	1	2	3	4	5	3.3
8) Reviewing and setting labor cost standards at least once a year	1	2	3	4	5	3.1

(over please)

	TO A VERY LITTLE EXTENT	TO A LITTLE EXTENT	TO SOME EXTENT	TO A GREAT EXTENT	TO A VERY GREAT EXTENT
			Human Resource Planning		
9) Annually assessing personnel capabilities	1	2	3	4	5
10) Annually reviewing and setting employee performance (productivity) standards	1	2	3	4	5
11) Estimating personnel needs for a period of six to twelve months ahead on a regular basis	1	2	3	4	5
12) Determining factors of discontent and developing a specific annual action plan to improve job satisfaction	1	2	3	4	5
13) Analyzing training needs annually	1	2	3	4	5
			Inventory Planning		
14) Periodically reviewing the adequacy of the minimum inventory level for each major item	1	2	3	4	5
15) Monitoring the adequacy of stock safety level at least once a year	1	2	3	4	5
16) Reviewing and estimating the time required between placing the order and receiving the shipment for each item at least once a year	1	2	3	4	5
17) Ordering the proper inventory size (i.e. economic order quantity) on a regular basis	1	2	3	4	5
18) Periodically reviewing your storage needs	1	2	3	4	5
			Sales Planning		
19) Estimating what sales volume and dollar sales your firm expects to reach in a period of six to twelve months	1	2	3	4	5
20) Setting and monitoring a realistic and numerical sales target you shoot for on a monthly and/or quarterly basis	1	2	3	4	5
21) Determining at which sales volume your store will break even	1	2	3	4	5

22) If you do not use any of these operational planning activities (1-21) to some extent please indicate why:

Cost	1
Time	5
Difficult to use	1
Other - specify	9

Other - specify:
- not applicable to our operation

23) How important do you feel operational planning is to your business?

NOT AT ALL IMPORTANT	NOT VERY IMPORTANT	SOMEWHAT IMPORTANT	VERY IMPORTANT	EXTREMELY IMPORTANT	Average
1	2	3	4	5	4.0

Now we would like to ask you about your business tactics/strategy.

SECTION III. COMPETITIVE TACTICS/STRATEGY

COMPETITIVE TACTICS. Indicate how important each of the following competitive tactics to your company's strategy by using the following scale.

NOT AT ALL IMPORTANT 1 2 3 4 5 EXTREMELY IMPORTANT

Focus (F); Cost Leadership (CL); Differentiation (D)

			(circle the number that applies)					$\bar{x}$
F	1.	new product/service development	1	2	3	4	5	4.0
F	2.	customer service	1	2	3	4	5	4.8
CL	3.	operating efficiency	1	2	3	4	5	4.6
D	4.	product/service quality control	1	2	3	4	5	4.6
CL	5.	experienced/trained personnel	1	2	3	4	5	4.5
D	6.	maintain high inventory levels	1	2	3	4	5	2.3
CL	7.	competitive pricing	1	2	3	4	5	4.0
CL	8.	broad range of products/services	1	2	3	4	5	3.5
CL	9.	developing/refining existing products/services	1	2	3	4	5	3.8
D	10.	brand identification/service distinction	1	2	3	4	5	3.4
D	11.	innovation in marketing techniques and methods	1	2	3	4	5	3.6
	12.	control of channels of distribution	1	2	3	4	5	2.8
CL	13.	procurement of raw materials/new technology	1	2	3	4	5	2.8
CL	14.	minimizing use of outside financing	1	2	3	4	5	3.5
	15.	serving special geographic markets	1	2	3	4	5	3.0

								$\bar{X}$
F	16.	capability to provide specialty products/ services	1	2	3	4	5	3.6
F	17.	products/services in high price market segments	1	2	3	4	5	3.0
D	18.	advertising	1	2	3	4	5	3.3
D	19.	reputation within industry	1	2	4	4	5	4.4
LC	20.	forecasting market growth	1	2	3	4	5	3.3
CL	21.	innovation in manufacturing/operation processes	1	2	3	4	5	3.0
F	22.	serving special customer groups	1	2	3	4	5	3.6

<u>STRATEGIES</u>. Which <u>one</u> of the following descriptions most closely fits your organization compared to other firms in the industry? (Please consider your division or company as a whole and note that none of the types listed below is inherently "good" or "bad.") Check only the <u>one</u> that most applies.

<u>40</u> Type 1 "Defenders" — This type of organization attempts to locate and maintain a secure niche in a relatively <u>stable</u> product or service area. The organization tends to offer a more <u>limited range</u> of products or services than its competitors, and <u>tries to protect</u> its domain by offering higher quality, superior service, lower prices, and so forth. Often this type of organization is not at the forefront of developments in the industry -- it tends to ignore industry changes that have no direct influence on current areas of operation and concentrates instead on doing the best job possible in a limited area.

<u>21</u> Type 2 "Prospectors" — This type of organization typically operates within a <u>broad</u> product-market domain that undergoes periodic redefinition. The organization values being "first in" in new product and market areas even if not all of these efforts prove to be highly profitable. The organization responds <u>rapidly</u> to early signals concerning new areas of opportunity, and these responses often lead to a new round of competitive actions. However, this type of organization may not maintain market strength in all areas it enters.

<u>33</u> Type 3 "Analyzers" — This type of organization attempts to maintain a stable, limited line of products or services, while at the same time moving out quickly to follow a carefully selected set of more promising "first in" with new products or services. However, by carefully monitoring the actions of major competitors in areas compatible with its stable product-market base, the organization can frequently be "second in" with more <u>cost-efficient</u> products or services.

<u>3</u> Type 4 "Reactors" — This type of organization does not adhere to a designated product-market orientation. The organization is usually not as aggressive in maintaining established products and markets as some of its competitors, and chooses not to take as many risks as other competitors. Rather, the organization responds in those areas where environmental pressures require it.

SECTION IV. UNCERTAINTY AND THE ENVIRONMENT

I. With this part of the questionnaire, we would like to determine how much uncertainty you and your firm are facing. Looking at the following environmental factors, how important of a consideration do you feel they are in influencing the outcome of important decisions that are made by your business's top management team?

EXTERNAL ENVIRONMENT	NOT IMPORTANT AT ALL	ONLY A LITTLE IMPORTANT	SOMEWHAT IMPORTANT	CONSIDERABLY IMPORTANT	EXTREMELY IMPORTANT	$\bar{X}$
			Suppliers			
1. The suppliers of parts, raw materials, or merchandise.	1	2	3	4	5	3.4
2. The supplier of equipment/technology.	1	2	3	4	5	3.0
3. The supply of labor.	1	2	3	4	5	3.4
			Customers			
4. Distributors of your products/services.	1	2	3	4	5	3.2
5. Actual users of your products/services.	1	2	3	4	5	4.5
			Competitors			
6. Competitors for your supply of raw materials/merchandise	1	2	3	4	5	2.6
7. Competitors for your customers.	1	2	3	4	5	4.1
			Socio-political			
8. Government regulations controlling your industry.	1	2	3	4	5	3.3
9. The public's political views and attitudes toward your industry.	1	2	3	4	5	3.1
10. Your firm's relationship with unions.	1	2	3	4	5	1.8
			Technology			
11. Keeping up with new technological requirements in your industry in the production of goods/providing services.	1	2	3	4	5	3.6
12. Improving and developing new products/services by implementing new technological advances in your industry.	1	2	3	4	5	3.3

II. Looking at the same environmental factors, how often do you feel:

A) you are able to predict the reaction of the various factors to decisions made by your firm?

B) the information your firm has on the various factors is adequate to make decisions concerning them?

1 = NEVER 2 = SELDOM 3 = OCCASIONALLY 4 = FAIRLY OFTEN 5 = ALWAYS

(circle the appropriate number in each column for each factor)

EXTERNAL ENVIRONMENT	A ABLE TO PREDICT					$\bar{x}$	B INFO. ADEQUATE					$\bar{x}$
1. The suppliers of parts, raw materials, or merchandise.	1	2	3	4	5	3.5	1	2	3	4	5	3.5
2. The supplier of equipment/ technology.	1	2	3	4	5	3.2	1	2	3	4	5	3.4
3. The supply of labor.	1	2	3	4	5	3.7	1	2	3	4	5	3.7
4. Distributors of your products/ services.	1	2	3	4	5	3.5	1	2	3	4	5	3.4
5. Actual users of your products/ services.	1	2	3	4	5	3.6	1	2	3	4	5	3.4
6. Competitors for your supply of raw materials/merchandise.	1	2	3	4	5	3.0	1	2	3	4	5	3.1
7. Competitors for your customers.	1	2	3	4	5	3.6	1	2	3	4	4	3.4
8. Government regulations controlling your industry.	1	2	3	4	5	2.6	1	2	3	4	5	2.8
9. The public's political views and attitudes toward your industry.	1	2	3	4	5	3.0	1	2	3	4	5	3.0
10. Your firm's relationship with unions.	1	2	3	4	5	3.0	1	2	3	4	5	3.3
11. Keeping up with technological requirements in your industry in the production of goods/providing services.	1	2	3	4	5	3.4	1	2	3	4	5	3.5
12. Improving and developing new products/ services by implementing new technological advances in your industry.	1	2	3	4	5	3.3	1	2	3	4	5	3.3

III. Sometimes, these environmental factors will have far-reaching consequences for your organization. How sure are you of how each of the factors will affect the success or failure of your business?

(Circle the number that matches your level of sureness.)

EXTERNAL ENVIRONMENT

	UNSURE									SURE	$\bar{X}$
1. The suppliers of parts, raw materials, or merchandise.	1	2	3	4	5	6	7	8	9	10	7.3
2. The supplier of equipment/ technology.	1	2	3	4	5	6	7	8	9	10	6.9
3. The supply of labor.	1	2	3	4	5	6	7	8	9	10	7.4
4. Distributors of your products/ services.	1	2	3	4	5	6	7	8	9	10	6.7
5. Actual users of your products/ services.	1	2	3	4	5	6	7	8	9	10	8.0
6. Competitors for your supply of raw materials/merchandise.	1	2	3	4	5	6	7	8	9	10	5.8
7. Competitors for your customers.	1	2	3	4	5	6	7	8	9	10	7.1
8. Government regulations controlling your industry.	1	2	3	4	5	6	7	8	9	10	5.3
9. The public's political views and attitudes toward your industry/ firm.	1	2	3	4	5	6	7	8	9	10	5.4
10. Keeping up with new technological requirements in your industry in the production of goods/providing services.	1	2	3	4	5	6	7	8	9	10	6.7
11. Improving and developing new products/services by implementing new technological advances in your industry.	1	2	3	4	5	6	7	8	9	10	6.8
12. Your firm's relationship with unions.	1	2	3	4	5	6	7	8	9	10	5.6

(over please)

IV. Finally, estimate the total amount of uncertainty that you feel your business i experiencing. Circle the appropriate amount on the scale below.

NONE				SOME			MUCH		Average
1	2	3	4	5	6	7	8	9	5.0

SECTION V. PERFORMANCE MEASURES

In the table we would like you to indicate the change from a year to year basis of five performance indicators: sales, number of full-time employees, after tax profits, return on sales, and return on assets for your business. Considering the base year 1983 as 100, indicate the change in each of the financial measures from year to year. For example, if sales in the second year (1984) were 5% above the first, you would put 105 in the second column; if sales were 5% below the first year you would put 95 in the second column, and so forth. Based on performance so far, please estimate 1986 performance. (If you were not in business in 1983, please use your first year in business as your base year.)

	1983	1984	1985	1986
Sales	100	110	112	121
Number of full time employees	100	102	100	98
After tax profits	100	109	122	119
Return on sales	100	106	107	112
Return on assets	100	104	104	104

Please indicate on a scale of 1 to 5 the importance you attach to each of the above measures of economic performance.

	NOT AT ALL IMPORTANT	VERY LITTLE IMPORTANCE	SOMEWHAT IMPORTANT	VERY IMPORTANT	EXTREMELY IMPORTANT	$\bar{X}$
Sales	1	2	3	4	5	4.5
Number of full-time employees	1	2	3	4	5	3.2
After tax profits	1	2	3	4	5	4.5
Return on sales	1	2	3	4	5	4.1
Return on assets	1	2	3	4	5	3.6

SECTION VI. BUSINESS DESCRIPTION

1) Position of the person completing this questionnaire:

owner and top manager	46
top manager	34
owner	15
no response	2

2) Age of business: 23 years (average)

3) Kind of business:

manufacturing	21
retail	37
wholesale	7
service	44
other	5

4) Age of person completing this questionnaire:

under 25	3
26-35	24
36-45	35
46-55	22
over 55	13

5) Business ownership:

sole proprietorship	10
general proprietorship	1
limited partnership	3
corporation	71
s corporation	10

6) Number of employees in full-time paid equivalent: 32 employees (average)

Check if you would like a summary of the key results of this study:
____ yes ____ no

THANK YOU FOR YOUR COOPERATION.

APPENDIX C

Reliabilities of Scales Analyzed

Operational Planning

<u>Scale---Budget Planning</u> (BUDPLN) Reliability = .580

Items: 4, 5, 6, 7, 8

<u>Scale---Human Resources Planning</u> (HRPLN) Reliability = .849

Items: 9, 10, 11, 12, 13

<u>Scale---Inventory Planning</u> (INVPLN) Reliability = .842

Items: 14, 15, 16, 17, 18

<u>Scale---Sales Planning</u> (SALEPLN) Reliability = .730

Items: 19, 20, 21

<u>Scale---Market Planning</u> (MARKPLN) Reliability = .784

Items: 2, 3

<u>Scale--Total Short Range</u> (TOTSRP) Reliability = .700

Competitive Strategy

<u>Scale---Differentiation</u> (DIFF) Reliability = .761

Items: 10, 11, 12, 18, 20

<u>Scale---Overall Low Cost</u> (LOW$) Reliability = .692

Items: 3, 4, 7, 13, 19, 20, 21

<u>Scale Focus</u> (FOCUS) Reliability = .689

Items: 1, 9, 11, 15, 16, 17, 22

Environmental Uncertainty

<u>Scale--Overall Uncertainty</u> (OVUNC) Reliability = .756

Items: 1-12

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