A THEORETICAL INTEGRATION AND EMPIRICAL TEST OF STRATEGIC MANAGEMENT: ENVIRONMENT, STRATEGY, STRUCTURE, IMPLEMENTATION, AND PERFORMANCE IN THE HOSPITALITY INDUSTRY

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(ABSTRACT)

The main purposes of this study were to investigate the causality, congruence, and relationships among the constructs in the strategic management process. Perceived environmental certainty, organizational structure, types of strategy, types of strategy implementation, and satisfaction level with performance were selected as relevant constructs for this study.

A total of 184 responses to a survey given to top management in the hospitality industry, including restaurant and lodging firms, were analyzed. The various relationships among the constructs were hypothesized and tested by utilizing exploratory factor, confirmatory factor, and structural equation modeling analyses. The exploratory factor analysis revealed several dimensions of both strategy and strategy implementation constructs. The reliabilities, validities, and model fits of each construct and of all constructs together were assessed by utilizing confirmatory factor analysis. Finally, the various structural relationships among the constructs were tested by structural equation modeling.

Results revealed the existence of causality in the model. Results also indicated a positive relationship between perceived environmental certainty and the defender type of strategy. A negative effect of the defender type of strategy and a positive effect of the prospector type of strategy on organic organizational structure were revealed. Perceived environmental certainty had a positive effect on the collaborator type of strategy implementation. An organic organizational structure had a positive effect on the commander type of strategy implementation. A positive effect of the defender type of strategy on the commander type of strategy implementation, and the positive effect of the prospector type of strategy on the collaborator type of strategy implementation were identified. There were positive effects of the prospector type of strategy and the collaborator type of strategy implementation on the satisfaction level with performance. Finally, a positive effect of the congruence between the prospector type of strategy and the collaborator type of strategy implementation on the satisfaction level with performance was revealed.

Several hypothesized relationships were not supported: a negative effect of perceived environmental certainty on the prospector type of strategy, a negative effect of perceived environmental certainty on organic organizational structure, a positive effect of perceived environmental certainty on the commander type of strategy implementation, a positive effect of an organic organizational structure on the collaborator type of strategy implementation, a

positive effect of the defender type of strategy on the satisfaction level with performance, and a positive effect of the commander type of strategy implementation on the satisfaction level with performance.

The results of statistical analysis implied that top management in the hospitality industry did not perceive the environment as an important factor contributing to a firm's performance. In addition, top management was reluctant to change organizational structure. Also, many firms in the industry still practice a defensive strategy and strategy implementation with the traditional pyramid type of organizational structure, which does not contribute positively to a satisfaction level with performance. Finally, the prospector type of strategy and the collaborator type of strategy implementation were important contributors to the satisfaction level with performance.

In spite of some limitations, including the problems associated with generalizability, the advantages that could have been gained by a longitudinal study, the lack of some relevant variables, and subjective nature of the data, the findings of this study contribute to a better understanding of the strategic management process in the hospitality industry by revealing various relationships among the constructs in the strategic management process.

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CHAPTER I
INTRODUCTION

Introduction

This chapter provides an introduction to and justification for the research effort undertaken, of which the primary purposes are to investigate and to empirically test the various constructs in strategic management and their relationships that contribute to a firm's performance in the lodging and restaurant industries. As competition among firms in the hospitality industry becomes more intense, it is increasingly important to understand the dynamic nature of strategic management, in that it is one of the most important aspects of an organization's activities. An investigation of the factors of strategic management that contribute a firm's performance can lead to more effective strategic planning and implementation.

In this chapter, a problem statement, followed by the discussion of industries' performance, is suggested to guide the direction of study, and a brief discussion of the importance of strategic management and its components, including business environments, strategy formulation, implementation, and evaluation, is provided to address the need for the study. The study suggests an integrated theoretical model that indicates various relationships among the important constructs mentioned above. Finally, several research questions are addressed, followed by a discussion of the contribution of the study. This study should provide both researchers and practitioners with a better understanding of important aspects of strategic management that have received less attention in the hospitality industry, including the lodging and restaurant industries.

The Lodging and Restaurant Industries

According to Smith Travel Research data, the lodging industry had 47,000 properties and 3.7 million rooms, as of 1998. The total industry sales rose from $70.4 billion in 1995, to $75.4 billion in 1996. The industry average occupancy in 1997 was 66.5%, decreased by 0.9% from 67.1% in 1996, but the average room rate was expected to rise about 6%, from year to year. In recent years, the U. S. lodging industry has experienced a sharp increase in profitability, helped by a growing economy, lower financing costs, and a slowdown in the amount of new properties coming on stream (U.S. Lodging Industry, 1997). Standard & Poor Industry Surveys forecast that industry pretax profits in 1998 will exceed $14.6 billion (Standard & Poor's, 1998).

Meanwhile, overall sales for commercial eating and drinking establishments are estimated to reach $226.7 billion in 1997, up 4.4% from 1996. According to the National Restaurant Association, full-service restaurant sales totaled $100.3 billion in 1996, while the fast-food sector brought in $98.4 billion. In 1997, sales at full-service restaurants rose 4.1% to $104 billion, while fast-food sales were $103.5 billion, increased by 5.2% from 1996 (Restaurant Industry operation, 1998).

An investigation of the lodging and restaurant industries' profiles reveals several important trends, including expansion, consolidation, and acquisition. First, both of these

industries continue to expand. The level of new construction in the lodging industry has increased sharply during the past several years. For example, in 1997, the dollar value of new lodging industry construction was roughly $13 billion, compared with the $11.76 billion estimated by the U. S. Department of Commerce for 1996 (Standard & Poor's, 1998). Also, Nation's Restaurant News reported that the top 200 chains increased their store base by 4.4% in 1995, and by 3.3% in 1996, an increase that has outpaced population growth: the U. S. population has been growing at just over 1% annually for the past five years. Second, both industries will experience continuing consolidation and acquisition activities. For example, Host Marriott Corp. has been a major acquirer of equity in individual hotels, spending more than $2 billion during 1996-97 for a controlling interest in various full service hotels. Also, Standard & Poor Industry Surveys expects a continuation of the trend toward hotels becoming members of chains rather than stand-alone properties (Standard & Poor's, 1998). The situation is the same in the restaurant industry. This is because: 1) it is often cheaper to grow through acquisition than to build units, 2) costs and expenses can be spread over a larger revenue base, and 3) sheer size offers the advantages of economy of scale and size.

The two trends of oversupply and continuation of consolidation and acquisition in the restaurant and lodging industries imply the maturation of the market and increasing competition. A condition of oversupply has increased competition as new properties have came on line, resulting in losses of market share, profits, and occupancies for most restaurants and lodging companies. The continuation of consolidation and acquisitions, along with other constraints including labor shortages, increasing customer demand, and tough government regulations, indicate the turbulence and volatility of the environment. To survive and prosper in this environment, restaurant and hotel companies have the task of identifying strategies, implementing them properly, and evaluating them appropriately. In addition to these tasks, companies need to design strategic management systems which emphasize the congruence among the important components of strategic management, including the business environment, strategy itself, organizational structure, and strategy implementation, that yields better firm performance.

Statement of the Problem

Consultants and academic researchers have introduced a variety of powerful and pragmatic business strategies, or the "game plans" for firms, including Porter's (1980) competitive strategies, Miles and Snow's (1978) four types of generic business strategies, and also the strategies of total quality management, reengineering, restructuring, and so on. However, many of these strategies fail to succeed because there is a mismatch among their important elements. In other words, a strategy may not be useful if there is no viable framework to help management connect the gaps among the elements (Hambrick & Cannella, 1989). The use of a particular type of strategy does not guarantee the success of a firm. The type of strategy should be matched with an appropriate type of organizational structure and, at the same time, with a certain type of strategy implementation process, in order to yield better firm performance.

In spite of the importance of strategy and the match among the components of strategic management for the successful management of a firm in an extremely competitive business

environment, few theories and empirical studies have addressed strategic management in the hospitality industry, particularly in the hotel and restaurant sectors. Furthermore, most of the theories developed in the manufacturing industry can not be directly applied to the service industry, due to its unique characteristics. There is a lack of a commonly agreed upon theoretical framework related to strategic management systems, and furthermore, there are no studies that investigate the entirety of the relationships among the variables in strategic management in the hotel and restaurant industry. This is the most central problem that is addressed by this research.

As Tse (1988a) has indicated, the hospitality industry has adopted various strategy formulation and implementation approaches that have proven to be effective in other industries, particularly in manufacturing. Unfortunately, these efforts in general have no theoretical underpinning appropriate for the hospitality industry, and thus their effectiveness is in question. Also, there is a lack of research in the hospitality industry that investigates the relationships of the contributing constructs in strategic management holistically. A literature review of strategic management in the hospitality industry indicates this problem clearly. As shown in Table 1-1, most studies have been limited to investigations of uni-variate or bivariate relationships, rather than addressing the relationships among the variables as components of an interrelated system. For example, Schaffer (1986) investigated the relationships among environment, strategy, and performance. Dev (1988) revealed a positive relationship between the quantity of environmental scanning activity and a firm's financial performance. Recently, Murthy (1994) investigated the relationship between the selection of strategy and performance. Elwood (1991) included the implementation process as a variable in her study of strategy and performance linkages. It is true that these efforts have contributed to knowledge in the context of strategy. However, a firm's performance as a result of strategic management is determined by the comprehensive interrelationships among the variables in a strategic management system. Revealing particular or partial relationships among the contributing variables in strategic management is unable to provide the whole picture of strategic management. The contingency theory assumes that there is no one, best strategy, and that varying conditions require different strategies (Duncan, 1972; Emery & Trist, 1965; Miles & Snow, 1978). The agreement of researchers in the strategic management field suggests that a strategy must be aligned with several contingent constructs. As discussed above, very limited research has been conducted so far in examining the inter-relationships among the components of strategic management, and the impact of these relationships on firm performance. Thus, the development of a comprehensive strategic management model for the hospitality industry is strongly recommended one that includes all the important variables in strategic management, and that addresses their interrelationships.

Another problem that is addressed by this research is the prevalent use of an inappropriate method for the statistical analysis of the components of strategic management (Murthy, 1994). Most methods of statistical analysis used in terms of strategic management in the hospitality industry are uni-variate or bivariate modes, which are unsuitable for testing multiple or causal relationships. It is only through multivariate techniques that multiple relationships in strategic management can be examined adequately to obtain a more complete, realistic understanding of their relationships (Hair, Anderson, Tatham, & Black, 1995).

Table 1. 1.

Studies of Strategic Management in the Hospitality Industry

Researchers	Environment	Strategy	Structure	Implementation	Performance
Schaffer(1986)		X	X		X
West(1988)	X	X			X
Tse(1988a)		X	X		X
Dev(1988)	X	X			X
Reeves(1988)				X	
Slattery & Clark(1988)			X		
West & Olsen(1989)	X		X		
Crawford-Welch(1990)		X			X
Jones(1990)		X	X		
Elwood(1991)		X		X	
Schmelzer(1992)				X	
Murthy(1994)		X			X
Houghton(1994)		X	X		
Jogaratnam(1995)	X	X			X

The Need for the Study

The development of a strategic management paradigm for business firms has long been an important focus for academicians and practitioners (Bower, 1982; White & Hamermesh, 1981). Over the last thirty years, numerous research studies have investigated the role of the strategic management process in firms' performance. Strategic management can be said to consist of strategy formulation (the relationship of the organization to the environment), strategy implementation (the design of the internal organization to achieve its objectives), and performance evaluation. Determining the relationships among the components of strategic management and achieving an effective congruence among them are critical if the purposes of an organization are to be achieved.

Strategic management can be defined as "the art and science of formulating, implementing, and evaluating the cross-functional decisions that enable an organization to achieve its objectives" (David, 1997). The goal of strategic management is to determine the strengths and weaknesses of a firm, and then match its resources with the threats and opportunities in the environment in order to achieve long-term viability (Hofer & Schendel, 1978). As the definition implies, strategic management focuses on integrating management, finance/accounting, production/operations, research and development, information systems, and other factors, and matching them with external environmental factors in order to achieve organizational success. A number of components in the strategic management process can be categorized further into three primary components: formulation, implementation, and evaluation, as shown in Figure 1.1. This diagram represents the basic model of this study, and is derived from systems theory. Each element of the model, internal and external environment, choice of strategy, strategy implementation, and strategy evaluation, is interrelated with the others, and changes in one element alter the activities of other elements. The superior performance of a firm is determined by a good fit among the elements.

The first step in the strategic management process can be considered to be strategy formulation. This activity includes developing a business mission, identifying an organization's external environments, including opportunities and threats, determining internal environments, including strengths and weaknesses, establishing long-term objectives, generating alternative strategies, and choosing particular strategies to pursue (Olsen, Tse, & West 1998). It defines what a firm's game-plan will be to compete successfully within a specific industry. After a firm successfully formulates a strategy, the next task is to determine how to implement the developed strategy. Strategy implementation consists of a firm's establishing annual objectives, devising policies, motivating employees, and allocating resources so that formulated strategies can be executed. It also includes developing a strategy-supportive culture, creating an effective organizational structure, redirecting marketing efforts, preparing budgets, developing and utilizing information systems, and linking employee compensation to organizational performance (David, 1997). Therefore, strategy implementation is the action stage of strategic management, which enacts the formulated strategy. The final step is strategy evaluation, which means the comparison between the planning and the results of firm performance. Strategy evaluation involves examining the underlying bases of a firm's strategy, comparing expected results with actual results, and taking corrective actions to ensure that performance conforms the plans. The

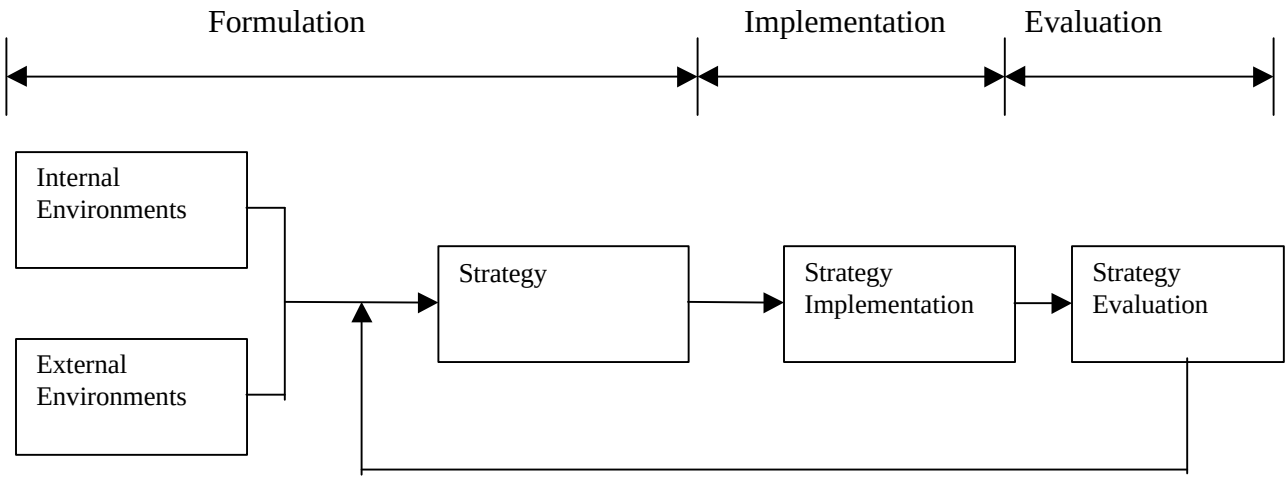

Figure 1.1. Basic Model of Strategic Management

strategic management process results in decisions that can have significant, long-lasting consequences.

Erroneous strategic decisions can inflict severe penalties and can be exceedingly difficult, if not impossible, to reverse. Even giant companies, including IBM, Sears, and Shoney (restaurant chain) experienced massive losses in profit and layoffs of employees in the 1980s and 1990s. The primary reasons for the failure of these companies could be the selection of inappropriate strategies, of unsuitable implementation approaches, or of an improper evaluation system (Solomon, 1993). Correctly aligning the organization with the environment is imperative for organizational success. It is also necessary to ensure that possible organizational capabilities, including structure, systems, and people are congruent with each other and with the strategy. Inappropriately designing the organization can have deleterious effects on performance. These ideas are supported in the literature, which suggests that an organization's ability to achieve its goals is a function of the congruence between various components of strategic management (Andrew, 1980; Beer, 1980; Galbraith & Nathanson, 1978; Lawrence & Lorsch, 1967; Miles & Snow, 1978). It has been argued that if the components fit well, then the organization will function effectively; if they fit poorly, the organization will suffer lower performance and dysfunctional consequences will result (White & Hamermesh, 1981).

The concept of congruence, defined as the existence of a good fit, or "match" among important variables in strategic management, is rooted in general systems theory, which (Buckley, 1967; Von Bertalanfly, 1968) defines a system as a set of interrelated parts. Systems arise as a consequence of the interdependence of elements, and that interdependence is based on congruent relationships. Changes in one element may necessitate changes in the other elements. The need for different "fits" or states of congruence arises because the system may face different environments which require system responses that are contingent upon the nature of environmental and subsystem interdependencies (Burns & Stalker, 1961; West, 1988).

The Proposed Model

Figure 1.2 presents the proposed model used in this study. Each component of the model was selected based on the literature review. A firm's performance generally has been considered to be the result of a strategic management process which contains all possible situations and activities, including external environment, internal factors, including a firm's size, age, and structure, strategy choice included in strategic formulation, and strategic implementation activities. However, it should be noted that it is not feasible to consider all the possible factors in this study, but rather, the model of the study concentrates on those factors that are mentioned frequently in the literature as being of significance, including external environment, organizational structure, types of strategy, types of strategy implementation, and a firm’s performance. In addition to the development of the integrated model, the factors, or variables, will be tested empirically in order to determine the relationships among them. The proposed model is somewhat different from the basic model. Organizational structure is added to the proposed model, since it has been researched extensively by researchers. Also, the external environment and type of strategy were assumed to effect each other. The interactive association between the external environment and strategy is based on the rationale that

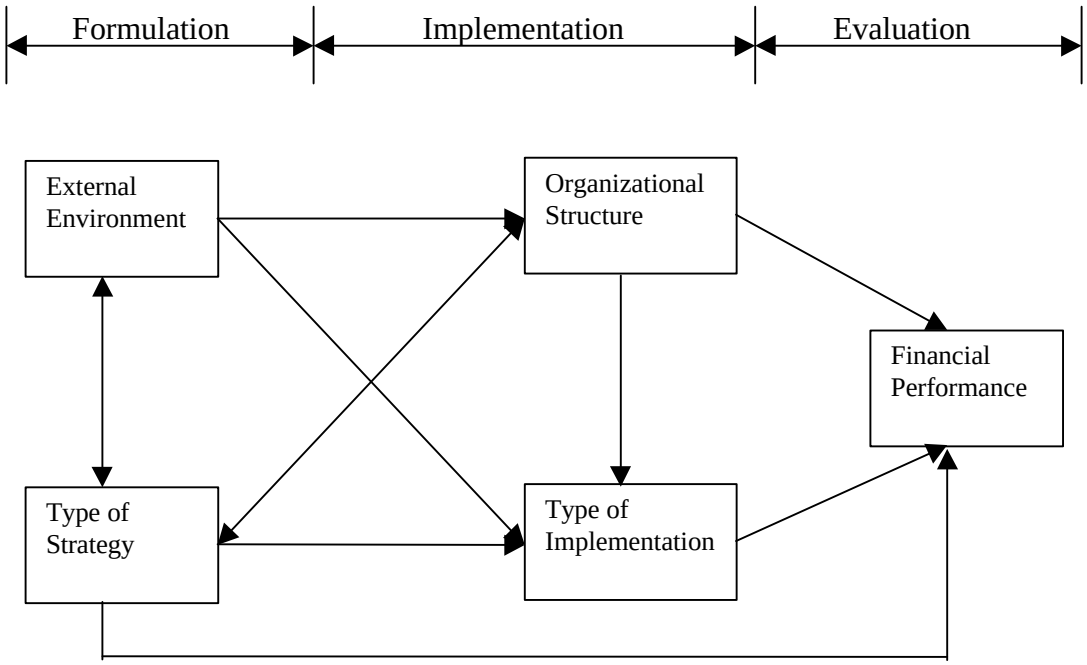

Figure 1.2. The Model of the Study (phase – I)

managers can enact their environments and choose the levels of uncertainty that they want to address (Bourgeois, 1980; Khandwalla, 1976; Weick, 1979).

Purpose of the Study

The primary purpose of this study is the development of an integrated theoretical model that articulates the relationships among the constructs that are the components of strategic management in the hospitality industry. These constructs include the external environment, organizational structure, type of strategy, type of strategy implementation, and firm performance. A further purpose of this study is the empirical testing of the hypothesized relationships among the components of the model. The specific purposes of this study are to:

1. examine certain relationships among the selected constructs concerning strategic management in the hospitality industry, including the external business environment, organizational structure, types of strategy, types of strategy implementation, and firms' performance,
2. discover whether congruence among the selected constructs yields better performance in the hospitality industry, and
3. explore causal relationships among the selected constructs.

Research Questions

To fulfill the purpose of the study, efforts are made to address the selected constructs as above. The following are the primary research questions that guide the study.

1. Is there any relationship between the external business environment and the types of strategy?
2. Does the external environment influence organizational structure, and the types of strategy implementation?
3. Do the types of business strategy influence organizational structure, the types of strategy implementation, and a firm's performance?
4. Does the organizational structure influence the types of strategy implementation?
5. Do the types of strategy implementation influence a firm's performance?
6. Is there any congruence among the constructs, which yields better firms' performance?
7. Are there any causal relationships, indicated by the model, among the selected constructs?

Overview of the Study Design

The unit of analysis of this study will be firms in the restaurant and lodging industries. This study adopts a modified Miles and Snow's (1978) strategy typology and utilizes Bourgeois and Brodwin's (1984) strategy implementation types, and applies them to the hospitality industry. The study uses a self-typing and survey instrument to gather data about the relationships among the variables of strategic management in both the lodging and restaurant industries. The questionnaires were pre-tested, and then mailed to chief executive officers and

selected members of top management in the lodging and restaurant industries. The study utilized three types of statistical analysis: Exploratory Factor Analysis (EFA), Confirmatory Factory Analysis (CFA), and Structural Equation Modeling (SEM) analysis. EFA was used as a preliminary analysis to discover the latent constructs. CFA was utilized to assess the model fit, validity, and reliability of the model. Finally, SEM analysis measured interrelationships as well as causal relationships among the constructs.

Contribution of the Study

It is hoped that this research will advance theory and practice in the area of hotel and restaurant management by discovering and empirically testing the interrelationships among the components of strategic management, including the external and internal factors mentioned above.

This study contributes to theoretical advancement in the field of strategic management by providing and empirically testing a structural model that describes strategic management and its influences on a firm's performance. The strength of this study lies in illustrating the dynamic structure of strategic management and the interactive and simultaneous characteristics of the variables in strategic management that contribute to a firm's performance. This study will also provide empirical support for the complex relationships among the components of strategic management.

From a practical standpoint, the findings of this study are of empirical value in strategic planning. Strategic planning is the continuing process of searching for better management methods or skills to yield better performance. It begins with the understanding of the process and context of strategic management. This study explores certain congruencies or matches among the constructs in strategic management. An understanding of how these constructs and their congruencies contribute to a firm's higher performance will be of benefit for the practitioners in planning and implementing strategy effectively.

Summary

Previous research findings have indicated that the success of management strategy depends in part upon the congruence between choice of business strategy and strategic implementation. It is assumed that there are certain relationships that can be identified among the components of strategic management, including business environment, organizational structure, types of strategy, types of strategy implementation, and firms' performance. However, a model of the relationships among these factors has not been formulated and tested empirically for the hospitality industry. This study suggests a comprehensive model for the strategic management process, and empirically examines the relationships, suggested in Figure 1.2, among the constructs in the process of strategic management. It is hoped that the findings of the study will be benefit in developing and exercising the strategic management process for the practitioners in the hospitality industry.

CHAPTER II
LITERATURE REVIEW

Introduction

This chapter comprises a review of the primary and related literature in the field of strategic management in the manufacturing and hospitality industries. It includes the strategic management process, which involves diagnosis, strategy formulation, strategy implementation, and evaluation. The chapter also reviews the evolution of strategy in business, definitions of strategy, strategy in the hospitality industry, and typologies of strategy. Also discussed is literature concerning the business environments as they relate to strategy, organizational structure, strategy implementation, and firm performance as relevant constructs in the strategic management process. The chapter concludes with a discussion of research on the relationships among the components of strategic management in the manufacturing as well as hospitality industries.

The Strategic Management Process

The term "strategic management" is broadly used by scholars and practitioners in the business field. As mentioned in Chapter I, strategic management is the art and science of formulating, implementing, and evaluating cross-functional decisions that enable an organization to achieve its objectives (David, 1997). Strategic management can also be said to be a consistent pattern of decisions made by an organization's management to pursue its mission and objectives (Olsen, Tse, & West, 1992). The internal and external environments of a firm influence this decision-making process heavily. Strategy formulation allows a firm to bring its resources into alignment with threats and opportunities in the environment. An extensive review of literature reveals that the strategic management process can be divided into five categories, as shown in Figure 2.1: diagnosis, formulation, choice, implementation, and evaluation. Figure 2.1, which represents the basic model for the study, is a comprehensive model of the strategic management process, and was adapted from the study of Olsen, West, and Tse (1992). However, this model proved to be too complex to be tested empirically. Thus, the model was summarized and modified as shown in Fig. 1-3, which contains all the important constructs in the strategic management process, and at the same time is more feasible to test empirically. The following section explains the various components of the strategic management process, beginning with a discussion of the nature of strategy.

Figure 2.1 Model of strategy management (PDF, 4.37K, Figure2-1.pdf).

The Evolution of Strategy in Business

The concept of strategy has been applied to military and political arenas throughout history, and has been cited by great writers such as Shakespeare, Montesquieu, Kant, Mill, Hegel, Clausewitz, Liddell Hart, and Tolstoy (Bracker, 1980). The term "strategy" is derived

from the Greek word "strategos"—the art of the General (Hart, 1967). It is defined in Webster's Dictionary (1995) as 1) "the science or art of military command as applied to the overall planning and conduct of large-scale combat operations; 2) a plan of action resulting from the practice of strategy, or 3) the art or skill of using strategies, especially in politics and business."

As the business environment became more competitive after World War II, there was a consensus among scholars and practitioners to apply the concept of strategy to the management of firms in order to improve the performance of an organization. As Ansoff (1969) argued, the movement to relate strategy and business is also partially due to the development of technology and a rapidly changing environment which creates a tough business climate for companies. Von Neumann and Morgenstern (1947) were the first modern writers to relate the concept of strategy to business; many other authors have developed concepts of business strategy during the past half-century.

Before the 1970s, the major emphases of strategy were long-term planning and effective resource allocation (Chandler, 1962). Drucker (1954) defined the concept of strategy as analyzing the present situation and changing it if necessary. Incorporated in this is discovering what one's resources are or what they should be. After the 1970's, there was a shift in the definition of strategy to include environment. Scholars began to realize the impact of environmental factors in planning and resource allocation.

McCarthy, Minichiells, and Curran (1975) defined strategy as "an analysis of the environment and selection of economic alternatives that will match the corporate resources and objectives at a risk commensurate with the profit and viability that the alternatives offer." Steiner and Miner (1977) categorized the environment as external and internal environments, and defined strategy as a company mission to achieve objectives in the external and internal environments. Mintzberg (1979) and Schendel and Hofer (1979) also referred to the environment as opportunities and threats to which a company responds.

The literature indicates that business strategy has evolved to include the following characteristics: environmental scanning, long-term planning, resource allocation, decision-making, and major goals. For the purposes of this study, strategy can be considered to be a process of decision-making for long-term planning to achieve an organization's major goals through internal and external environmental scanning that is conducted to determine opportunities and threats.

Strategy in the Hospitality Industry

The study of strategy in the hospitality industry is a recent phenomenon. As it began to be realized that there were significant differences between manufacturing and service operations (Berry, 1980; Mills & Moberg, 1982; Thomas, 1978), researchers in the hospitality industry, in the beginning of the 1980s, began to pay attention to the need for a unique strategy in their field (Reichel, 1982; Sirkis & McRace, 1982). The "different" concerns include the high degree of price elasticity of demand, the high vulnerability to socio-economic, and political trends such as recession and local citizen unrest. Reichel (1982) maintained that strategic planning may reduce environmental uncertainty, can provide a method for setting objectives, and makes it possible to

maximize coordination among an organization's units. Based upon the need for strategic planning, Reichel (1982) presented a strategic planning contingency framework for the hospitality industry. Sirkis and McRace (1982) also addressed the need for strategic planning for the hospitality industry. They stressed that there are five central principles to business strategy, and suggested four strategies relevant to food companies, including marketing, production, distribution, and distribution and harvest strategies, to be varied according to the life-cycle of the company.

In the previous section, the concept of strategic management and the evolution of strategy were reviewed briefly. The following sections will be devoted to exploring each component of strategic management, including diagnosis, formulation, implementation, and evaluation.

Diagnosis

The diagnosis area contains environmental scanning, SWOT analysis, resource analysis, and competitor analysis. Through diagnosis, a company can analyze its current situations and the internal and external business environment in which it operates. For management to direct the resources of the firm appropriately, it must have a complete and thorough understanding of the activities occurring within its operating external environments. This activity is most often referred to as environmental scanning which is conducted to configure opportunities and threats. In addition to environmental analysis, analyzing internal strengths and weaknesses along with resource analysis is also important in establishing strategy, because self-knowledge is essential to the success of developing and implementing strategy (Olsen, Tse, & West, 1992). Finally, the analysis of competitors should be conducted to respond correctly to competitors' actions. The following sections include a discussion of the business environments.

Environments

The importance of environments to the hospitality industry, as well as to the manufacturing industry, has received significant attention by researchers in the field. Many studies, including both conceptual and empirical studies, have been conducted to introduce new theories and to examine the relationship between environment and organizational performance, including financial performance, structuring, and strategic planning (Jogaratnam, 1995; West, 1988; West & Olsen, 1989). However, as reviewed in the literature, the evidence is inconclusive as to whether there is a positive relationship between environmental scanning and other variables in the strategic management process, including firm performance.

According to Duncan (1972), environment can be defined as "the totality of physical and social factors that are taken directly into consideration in the decision-making behavior of individuals in the organization that implies the relationship between environment and strategy". Selznick (1948) defines the business environment as the flows of information relevant to goal setting and attainment, and which influences decision-making through both managerial perceptions and the objective dimensions of industry structure (West, 1990). Perceiving the importance of the business environment, scholars in the field of strategic management and

organization theory have conceptualized the environment as one of the key constructs for understanding organization behavior and performance (Prescott, 1986).

Much attention has been given by researchers to categorizing the environment by its dimensions and characteristics. Broadly speaking, there are two categories of environment: the internal and external environment (Duncan, 1972). The internal environment consists of the relevant physical and social factors within the boundaries of the organization or a specific decision unit, including organizational structure, size and age of organization, organizational culture, etc., that is taken into direct consideration in the decision-making behavior of individuals in that system. On the other hand, the external environment consists of the relevant physical and social factors outside the boundaries of the organization or specific decision unit, including customers, suppliers, competitors, and regulatory groups, etc., that are taken into direct consideration (Duncan, 1972). Environments can also be categorized into their objective and perceived states (Bourgeois, 1980). The objective environment consists of the task and the general environment. The task environment includes customers, suppliers, competitors, and regulatory groups, while factors within the general environment include economic, political, social, cultural, and ecological (Dill, 1958).

Along with the efforts of trying to categorize the environment, many researchers have investigated the general characteristics or dimensions of the environment. For example, Emery and Trist (1965) suggested four types of environments (placid and randomized, placid and clustered, disturbed and reactive, and dynamic) according to the degree of interaction among the dimensions of environment such as complexity, uncertainty, and dynamism. Utterback's (1979) typology of the environment utilized the dimensions of complexity and change. Aldrich's (1979) codification of environmental dimensions—munificence, dynamism, and complexity—also has similar characteristics to those described above. Meanwhile, other authors (Dill, 1958; Osborn & Hunt, 1974; Thompson, 1967) argued that change is an important characteristic of the environment. Perrow (1967) has stressed the heterogeneity of the environment.

Several studies have been conducted to configure or verify the dimensions of the environment in the hospitality industry. For example, Olsen (1980) argued that the environment might be perceived as the power dimension, rules dimension, or rewards. Slattery and Olsen (1984) verified the notion of Child (1972a) by discovering that three characteristics of environments, including variability (frequency of change), complexity (range of environmental activities), and illiberality (threat from external factors), exist in the hospitality industry.

Perceived Environmental Uncertainty. The perceived environment, according to Weick (1979), concerns the fact that the important organizational environments are those which are enacted or created through a process of attention where, regardless of the analytical dimensions used to describe the environment, the organization responds only to what it perceives. Child (1972a) also argued that managerial perceptions and actions have a strong influence on organizational responses to the environment. Miles, Snow, & Pfeffer (1974) verified this notion by arguing that the same objective environment may appear differently to different organizations, and this may be the main reason why many studies utilizing the objective environment as a variable have been unsuccessful in predicting organizational responses.

Ireland, Hitt, Bettis, & De Porras (1987) also argued that the perceptions of the environment vary according to the types of management. This is the main reason why the perceived environment, instead of the objective environment, should be utilized as a variable to predict organizational responses to the environments. In this regard, this study chooses the perceived environment as one of the important constructs.

In addition to their efforts to define the business environment, many studies have attempted to configure the dimensions of the environment as discussed in the earlier part of this section (Child, 1972a; Duncan, 1972; Emery & Trist, 1965; Lawrence & Lorsch, 1967). The dimensions of the environment include complexity, dynamism, heterogeneity, uncertainty, munificence, and illiberality. Among these dimensions, environmental uncertainty has received a great deal of attention by the researchers, because the other dimensions are strongly related to degrees of uncertainty. Many researchers have tried to utilize environmental uncertainty for the purpose of specifying the environment's effects on the organization's strategy-making process (Duncan, 1972), and on the perceptions of strategy-makers themselves (Boulton, Lindsay, Franklin, & Rue, 1982; Bourgeois, 1978). For example, Hambrick (1982) noted that both strategy and environment are crucial contingencies for organizations. Based on this notion, Dirsmith and Covaleski (1983) and, Boulton et al, (1982) found environmental uncertainty to be related to a firm's strategic planning processes. Also, based on these results, Hrebiniak and Snow (1980) discovered interrelationships between the perception of environmental uncertainty and intra-organizational influence.

The notion of the uncertainty of the environment, defined as an inability to predict accurately what the outcomes of a decision might be (Downey & Slocum, 1975; Duncan, 1972; Schmidt & Cummings, 1976), has been a critical concept in the organization theory literature as well as in strategy literature, particularly in theories that seek relationships between organizations and their environments (Dill, 1958; Duncan, 1972; Thompson, 1967). Duncan (1972), for example, examined environmental uncertainty and held that the dimensions of the environment should be measured by the degree of the perception of organizational members. Duncan (1972) also proposed three components of uncertainty: the lack of information, not knowing the outcome of a specific decision, and the inability to assign probabilities. The study of Boulton, et al.(1982) maintained that uncertainty has an impact on the relationship between strategic planning systems and environmental characteristics.

In practice, perceived environmental uncertainty exists when decision-makers do not feel confident that they understand what the major events or trends in an environment are, or when they feel unable to assign probabilities accurately to the likelihood that particular events and/or changes will occur (Miliken, 1987). The review of literature suggests that perceived environmental uncertainty, defined by Galbraith (1977) as "the difference between the amount of information required to perform the task and the amount of information which has already been obtained," is one of the key environmental variables and is very important in explaining a firm's actions. The existing evidence, therefore, suggests the selection of perceived environmental uncertainty as one of the constructs for this study.

Studies of Environment in the Hospitality Industry. After Olsen (1980)argued the importance of the environment by stating that the environment in the hospitality industry is becoming more complex and dynamic than before, many studies followed to verify or to test empirically the importance of the environment to the hospitality industry (Jogaratnam, 1995; West, 1988; West & Olsen, 1989). Given environmental uncertainty, it has been recommended that managers in the hospitality industry scan the environment more often and precisely in order to reduce uncertainty, and to continue their success or growth. Many studies have followed to specify and to prove the positive effects of environmental scanning activities.

Slattery and Olsen (1984) conducted a study to explore the relationship between environment and organizational structure. The article focused on two relationships—objectively conceived environments and hospitality organizations, and personally assessed environments and hospitality organizations. After investigating these two relationships, the researchers identified their implications for the structure of hospitality organizations, and concluded that the task environments, including customers, suppliers, competitors, and regulatory groups, are important to the management of organizations in the hospitality industry. De Noble and Olsen (1986) conducted a study to indicate how executives in the hospitality industry perceive the volatility of the environment, and clarified the difference between executives' perceptions and objective indicators of environmental volatility.

Based on the assumption of the importance of environment to the hospitality industry (Tse, 1988b), the main focus of research has moved from the nature of the environment to the application of environmental scanning. Many researchers (Olsen, Murthy, & Teare, 1994; Tse, 1988b; West, 1990; West & Olsen, 1988, 1989), theoretically or empirically investigated methods of conducting environmental scanning and the impacts of environmental scanning on hospitality organizations. Tse (1988b) conducted an empirical study utilizing telephone interviews and surveys to investigate the practices of the strategic planning process, focusing specifically on the degree of the analysis of internal strengths and weaknesses performed by restaurant firms in the U. S. She discussed how these internal analyses are related to external environments. Although the study could not find any relationship between the internal analysis process and financial performance, due to the small sample size and the short history of strategic planning activities performed by restaurants, it provides a framework for the internal analysis of restaurants. West and Olsen (1988) also conducted an empirical study to reveal the relationship between environmental scanning and firm performance in the food service industry. Significant differences in firm performance, in terms of return on sales, return on assets, and growth in unit sales, were found between high and low levels of firms' environmental scanning. West and Olsen (1989), based on the previous research concerning environments, developed a model of the environmental scanning process for the hospitality industry. West (1990) conducted a comprehensive study revealing the various relationships among strategy, environmental scanning, and firm performance in the food service industry. He utilized Porter's (1980) generic strategy typology, and found that firms adopting a cost-leadership or differentiation strategy perform better than firms implementing a focus strategy. He also revealed that higher-performing firms engage in significantly higher levels of environmental scanning. Olsen, Murthy, and Teare (1994) reported on the perception of CEO's on environmental scanning for global hotels. The conclusion of their study indicates that the shortage of environmental scanning activities of CEO's in the hotel industry is due to two main reasons--uncertainty about

the cause and effect relationships between environmental events and firm performance, and the imperfect quality of information. Crawford-Welch (1990) investigated the relationship between strategy, environment, and performance. Finally, Jogaratnam (1995) operationalized environmental munificence in a study investigating the relationship among environment, strategy posture, and performance in the restaurant industry.

As discussed above, the importance of environments to the hospitality industry has received much attention by researchers in the field, and many studies, including both conceptual and empirical, have been conducted to introduce theories about the nature of the business environment and to examine the relationship between the environment and organizational activities, including financial performance, structuring, and strategic planning. However, as reviewed in the literature, no work has as yet been conclusive, since some studies proved the relationships while others failed to discover significant correlations. Thus, there remains a need for research in the area of the business environment and its impact on strategic management.

Organizational Structure

The way in which the various parts of an organization are arranged is usually referred to as its "structure." An organizational structure is a system of communication and authority that links people and groups together to accomplish tasks that serve an organizational purpose. As Hall (1977) noted, an organizational structure might be compared to building construction. In his notion, an organization's structure provides the foundation upon which the organization functions.

Organization structure has been the subject of studies by various researchers (Chandler 1962; Child 1972a; Fredrickson, 1986; Grinyer & Yasai-Ardekani 1980; Pugh, Hickson, Hinings, & Turner, 1968). Chandler (1962) defined structure as "the design of an organization through which an organization is administered." He stated that, "the design, whether formally or informally defined has two aspects, first the lines of authority and communication between the different administrative offices and officers and second the information and data that flow through these lines of communication and authority." In his notion, organizational structure refers to properties essentially internal to an organization, such as levels of authority, as contrasted with external or setting factors, such as an organization's location or context.

Bower (1970) stated that structure channels collaboration, allocates power and responsibility, and prescribes levels of formality and complexity. Organization theorists such as Child (1972a) define structure as the formal allocation of work roles and the administrative mechanisms to control and integrate work activity, including those that cross formal organizational boundaries. Galbraith and Nathanson (1978) view structure as "the segmentation of work into roles such as production, finance, marketing, and so on; the recombining of roles into departments or divisions around functions, products, regions, or markets; and the distribution of power across this role structure."

By structuring an organization properly, an organization maximizes its responsiveness to continuous and frequently unpredictable changes in the marketplace that are related to customers

and suppliers. Organization structure also can be thought of as comprehending the parameters that define the way an organization is assembled. It is through an organization's structure that a framework for integrating the organization's strategic plans for the allocation of its resources is achieved. Thus, an organization's structural framework can be viewed as an important element relative to its overall strategy. It represents the means through which organizational resources are employed to meet organizational objectives and the accomplishment of the organization's purpose.

Dimensions of Structure. The efforts of researchers to identify the dimensions of structure trace back to the 1940s. These efforts reached their peak during the 60s and early 70s. Based on the findings about the dimensions of structure in an organization during the 70s, the concern of researchers in the organizational structure field shifted to that of configuring a typology of structure. Typologies of structure usually reflect the degrees of each dimension (i.e., formalization, centralization, specialization, and so on) of structure.

Social science literature on organizational structure has been an outgrowth of Weber's classic essay on bureaucracy (Weber, 1947). Weberian research was mainly concerned with distinguishing between the bureaucratic style of administration and other systems based on different types of authority, including traditional authority, charismatic authority, and rational legal authority (Blau, 1967; Hall, 1962). The bureaucratic style, the best administrative system according to Weber, is based on a rational-legal type of authority. According to this construct, increasing degrees of specialization of labor, centralization of authority, formalization and standardization of activity, and impersonality of interpersonal relations indicate increasing degrees of structure, or bureaucratization. Weber's second principle stated that a strict hierarchical system is a vital characteristic of a bureaucratic system of administration. Although, Weber did not explicitly mention the relationship between bureaucracy and centralization, the implication of his article indicates that there is a moderately negative relationship between bureaucracy and centralization. Mansfield (1973) verified this negative relationship by using the dimensions of structure as suggested by the Aston study. Investigating 82 British business organizations, Child (1972a) concluded that Weber's bureaucratic strategy of control mechanisms of standardization, formalization, and specialization permit increasing decentralization of authority. Child's study suggested that Weber's unidimensional model might provide the most viable description of bureaucratic structure in complex organizations.

On the other hand, the well-known empirical study of the Aston group has suggested that this unidimensional conception of bureaucracy is no longer useful (Pugh, Hickson, Hinings, & Turner, 1968). Based on a factor analysis of data gathered in 46 work organizations in the English Midlands, the Aston researchers concluded that organization structure could best be described by five independent underlying dimensions, including specialization, standardization, formalization, centralization, and configuration. Samuel and Mannheim (1970) also have demonstrated the potential utility of a multidimensional approach in describing organization structures in a study of 30 industrial plants in Israel. Replications of the Aston study were conducted by several researchers (Child 1972b; Grinyer & Yasai-Ardekani; 1980; Hinings & Lee 1971; Mansfield 1973; Reimann 1973). They have tried to investigate the dimensions of structure and the correlation among them. For example, Reimann (1973) investigated 19

manufacturing organizations in the United States and revealed, using factor and cluster analyses, three independent structural dimensions, including decentralization, specialization, and formalization. The results also showed that a multidimensional model of organizational structure is superior to the unidimensional Weberian model. Hall (1962) and Dalton, Todor, Spedolini, Fielding, and Porter (1980) added complexity, the amount of specialization, and the degree of personnel expertise, as additional dimensions of structure.

As revealed in the literature, ample researchers have determined many dimensions of structure. The most important trend in the studies of the dimensions of structure was the movement from an emphasis on the unidimensional characteristics of structure to multidimensional characteristics. After the Aston study, there has been an agreement among scholars that structure has multidimensional characteristics. Although there are various dimensions discussed in the literature, specialization, centralization, and formalization are the most frequently used dimensions for the measure of structures by organization theorists.

Typology of Structure. Along with determining the dimensions of structure, researchers also have tried to identify a typology of structure based on its dimensions. The structure of organizations can be categorized by two continuums: formal vs. informal, and mechanistic (bureaucratic) vs. adaptive (organic).

The most basic typology of structure is formal and informal structure (Chandler, 1962). Formal structure can be defined as the presence of formal written rules, work related procedures, organizational charts, strategies, plans, and performance measures (Hage, 1980). A useful way to look at any organization's formal structure is as a network of interconnecting groups. This process is called departmentalization (Ansoff & Bradenburg, 1971), and can be accomplished in different ways. Traditionally, the most common choices in departmentalization are the functional, divisional, hybrid (Duncan, 1979), and matrix (Lawrence, Kolodny, & Davis, 1977) structures. Each has advantages and disadvantages that can be utilized in different situations.

In functional structures, people with similar skills and performing closely related activities are placed together in formal groups. They are expected to work together to perform a critical function for the total organization. A second organizational alternative is the divisional structure. It groups together people with diverse skills and tasks, but who work on the same product, with similar customers or clients, in the same geographical region, or on the same time schedule. Hybrid structures are common in the largest organizations. They reflect attempts to address different operating contingencies, and match sub-unit structures with the specific challenges of different operating circumstances. This is often a characteristic of organizations seeking the benefits of global operations. A fourth organizational form is known as the matrix structure (Taylor, 1991). This approach uses permanent cross-functional teams to blend the technical strengths of functional structures with the integrating potential of divisional structures. This approach results in many organization members belonging to at least two formal groups at the same time. The matrix approach grew out of developments in the U. S. aerospace industry (Cullen, Victor, & Stephens, 1990). Matrix structures are often found in organizations pursuing growth strategies in dynamic and complex environments.

Meanwhile, there is often a difference between intentions and what really happens on a daily basis in organizations. Behind every formal structure typically lies an informal structure. Informal structures can be very helpful during times of change when out-of-date formal structures may limit people as they try to deal with new or unusual situations. However, informal structures also have potential disadvantages. Because they exist outside the formal authority system, the activities of informal structures may work against the best interests of the organization as a whole.

Another way to look at the structure of an organization is as a continuum from mechanistic to adaptive (Peters & Waterman, 1982). After investigating 20 manufacturing firms, Burns and Stalker (1961) concluded that two quite different organizational forms could be successful, depending on the nature of a firm's external environment. A more bureaucratic form, which Burns and Stalker called "mechanistic," thrives when the environment is stable. But, it experiences difficulty when the environment is rapidly changing and uncertain. In this dynamic situation, a much less bureaucratic form, called "organic," performed best. Mechanistic organizations are highly bureaucratic in form. They have the characteristics of centralization, many rules, precise division of labor, narrow spans of control, and formal coordination. They are described as tight structures, and display a traditional pyramid form in which decision-making follows a strict chain of command (Schermerborn, 1993).

The examples of mechanistic structure are found in Mintzberg's study (1973). Mintzberg (1973) identified three forms of mechanistic organization, including machine, professional, and divisionalized bureaucracy, which exist on a continuum. The machine bureaucracy is common to mass-production organizations such as McDonald's, whose members perform highly specialized and standardized tasks. It has a clear hierarchy of authority with a large middle-management group. Departmentalization is usually functional, and line personnel are assisted by relatively large staff components. Authority for major decisions tends to be concentrated at the top and decentralization may be minimal. The machine bureaucracy works best in a simple, stable environment. The professional bureaucracy is often found in organizations staffed by a large proportion of highly trained professional workers, such as hospitals and universities. The trained professionals work with considerable autonomy and the structure becomes decentralized as they make decisions within their areas of expertise. A large support staff is employed to assist the professionals and handle administrative affairs. Middle management is relatively small. The professional bureaucracy works well in stable but complex environments. The divisionalized bureaucracy uses a hybrid form of departmentalization, with a number of relatively autonomous internal units operating within a common organizational umbrella. Divisions, formed according to product, client, or geographic differences, operate individually as machine bureaucracies. Top management assisted by a large staff component at the corporate level coordinates these divisions. Divisionalized bureaucracies are common in large corporate enterprises, particularly conglomerates. They work best in diversified markets and with stable environments at the division level.

In her book The Change Masters, Kanter (1983) notes that the ability to respond quickly to shifting challenges in today's rapidly changing environments often distinguishes successful organizations from less successful ones. In many settings, the limits of bureaucracy in quickly adapting to rapidly changing environment are increasingly apparent, and adjustments in

organizational design are being made. Enlightened managers are helping organizations reconfigure into new forms that emphasize flexibility and speed, without losing sight of important performance objectives. The organizational design trend is toward more adaptive organizations that operate with a minimum of bureaucratic features and with cultures that encourage worker empowerment and participation (Dumaine, 1991). The organizations with adaptive or organic designs operate with more decentralized authority, fewer rules and procedures, a less precise division of labor, wider spans of control, and more personal means of coordination. They are also described as formal ways of tapping the benefits of informal structures, or networks of alliances and interpersonal relationships through which a lot of work actually gets done in most settings (Dumaine, 1991).

The framework of Mintzberg (1979) exhibits clear example of this notion. It includes two distinct forms of the adaptive organization: the simple structure and the adhocracy. The simple structure consists of one or a few top managers, few middle managers, and the non-managerial persons who do operating work. This is a lean structure common to small entrepreneurial organizations. Because of its simplicity and small size, top managers can exercise central control while still allowing others a lot of freedom in their work. The simple structure can adapt well to dynamic and changing conditions in environments that are not too complex. Operations in the adhocracy emphasize lateral relations and de-emphasize the role of hierarchy. Line-staff distinctions largely disappear as members of the adhocracy build close working relationships based on knowledge and expertise rather than authority. Highly decentralized, this organizational form uses team and network structures within which highly skilled personnel must often work together on projects and in cross-functional groups. It is best suited for organizations that depend on continued innovation for success in dynamic and complex environments.

Organizational Structure in the Service Industry. The characteristics and purposes of organizational structure in the manufacturing and the service industries are somewhat different. The technically driven view of organizational structures in the manufacturing industry is particularly questionable in the case of service industries. Service industries are less susceptible to the influence of the material and technical forces that shape the manufacturing industries. Using chemical processing as an example of a manufacturing industry, the nature of the technical process (for example, the raw materials, given techniques, and market tastes) drive companies to utilize relatively homogeneous structures, traditionally perceived as advantageous: large-scale, multi-divisional, multi-national and relatively bureaucratically organized production. The nature of production technologies seems to determine the optimal structures of firms and the industry in a given environment. The technically driven view of organizational structures is particularly questionable in the case of the service industry. Services production technology is usually based on less rigidly defined production techniques not necessarily leading to highly bureaucratized organizational forms, large scale, and multinational production (Mills & Moberg, 1982; Schaffer 1984). Service industries tend to be closer to their customers, as their products are often produced and provided on a person-to-person basis. Organizational structures of service industries are more likely, therefore, to reflect the influence of their customers, and to be shaped by that relationship (Sasser, 1976), which means that flexible or organic structure is more suitable for the service industry than a traditional bureaucratic structure.

In the hospitality industry, organizational structure has received great attention from the researchers in the field entering 1980s, because it is one of the critical components of the strategic management process, and research efforts reveal that it is directly related to a firm's performance (Tse, 1988a; West, 1988). Although research about organizational structure has a relatively long history, it is a fairly new field to the hospitality industry. Many restaurants are managed as small scale or entrepreneur types of organizations, and even in the lodging industry, small independent lodging properties are managed individually. Taking into account these facts, it is obvious why very few studies about organizational structure have been conducted in the hospitality industry before 1980s. However, as the companies' size grows and as the environments become more complex and dynamic, it is necessary to develop an effective structure for hospitality organizations to address their contemporary business situations. Following Schaffer's (1984) suggestions concerning the relationship between strategy and structure, and the importance of matching structure and strategy for the success of firms in the hospitality industry, several studies have dealt with this subject.

The beginning of research into structure in the hospitality industry was the investigation of variables that affect organizational design. Many researchers argue that the structure of an organization is affected by variables such as strategy, environment, and strategy implementation. A company trying to structure its organization without considering these variables could fail due to a mismatch of structure and variables in the strategic management process, preventing the firm from having smooth communication within an organization and decreasing its efficiency. Schaffer (1986) identified the configuration of structure according to various variables such as strategy, environment, technology, power, and firm size. He argues that determining the appropriate organizational structure for a lodging organization requires considerable thought and analysis about the variables that affect the structure. Slattery and Clark (1988) also conducted a study to determine the major variables in the corporate structure of hotels. They confirmed the findings of the Aston studies (Pugh et al., 1969), which identified important variables in corporate structure, such as size, technology, dependence, location, origin and history, ownership and control, and charter and purpose. In his work, Houghton (1994) explains organizational diversity in the hospitality industry, along with the cultural attributes of related markets. An approach based on Grid-Group analysis is outlined and a basic model linking these dimensions to strategy and organizational structure is suggested. Further, West and Olsen (1989) presented a model in which they show how structure can be utilized in the activities of environmental scanning.

The most apparent factor influencing organizational structure in the hospitality industry is the development of technology, especially information technology. As computer hard- and soft-ware develops dramatically, and as the use of computers increases, the traditional hierarchy structure in the hospitality industry is unable to handle the quantity and quality of information. In response to these information problems, management should have a structure in which the need to communicate information from individual units could be minimized, but which could handle problems created by unexpected events. Increased need for proper organizational structure to handle the problems generated by the development of information technology has stimulated researchers in hospitality to investigate information technology and how it affects organizational structure.

A body of research is developing that addresses the role of information technology in the hospitality industry, beginning with Gamble (1982) and Jones (1985) in the early 1980s, and more recently, researchers such as Durocher and Niman (1993), Collins (1995), and Cho and Connolly (1986). Durocher and Niman (1993) argue that the key for management is to strike a balance between centralized control and local autonomy to provide a uniform customer experience at all locations, while ensuring that local customer expectations are satisfied. They believe that this balance can be achieved by the proactive implementation of information technologies. Collins (1995) mentioned the need to redesign structure to take advantage of information technology. The work conducted by Cho and Connolly (1986) gives logical explanations about how to redesign organizations and what kinds of structures are suitable to implement information technology. They argued that the structure of organizations in the hospitality industry should be formal, flat, flexible, and cross-functionally oriented in order to take advantage of information technologies.

In addition to the study of the variables affecting organizational structure, several studies concerning the impact of strategy and structure on organizational performance in the hospitality industry have been conducted. Tse and Olsen's study (1988) on the impact of strategy and structure on the performance of restaurant firms found no difference in financial performance among different company structures by strategic groupings. In contrast to this study, Schaffer and Litschert (1990) investigated the impact of strategy and structure on the financial performance of lodging firms. While Tse and Olsen (1988) operationalized Porter's generic strategy, Schaffer and Litschert (1990) used Miles and Snow's (1978) strategy dimensions, such as defender, prospector, analyzer and reactor. Through the analysis of survey data, they found that within strategic types, firms that achieve internal consistency exhibited higher mean performance scores than those that did not, but the differences were not significant. Jones (1990) argues that the match between strategy and structure will enable the food-service industry to increase productivity. To extend this notion, Tse (1991) conducted an empirical analysis of organizational structure and financial performance in the restaurant industry. By using survey data and ANOVA analysis, she found that a company with a high degree of formalization, a high degree of specialization, and low centralization had the highest average percentage of return on assets and sales than companies of other structural configurations.

As indicated by several studies in the field of the hospitality industry, no conclusive research has been conducted to reveal the relationship between strategy and structure on firm performance. Researchers in the hospitality industry attribute this negative result to the difference between the manufacturing and service industries and to the misuse of research methods and statistics. Although no relationship between strategy and structure on firm performance has been found, researchers in the hospitality industry generally agree that the match between strategy and structure will increase the chances of success.

Strategy Formulation

To formulate strategy, a firm must be aware of and responsive to the external and internal environments. For management to direct the resources of a firm appropriately, it must have a complete understanding of the activities occurring within its operating environment. This

activity is most often referred to as "environmental scanning." Analysis of a firm's internal strengths and weaknesses, including resource analysis, is important because thorough knowledge in these areas is essential to the successful implementation of strategy. In addition to these factors, strategy formulation includes establishing long-term goals, generating alternative strategies, and selecting particular strategies to pursue. Strategy formulation is a future-oriented process based on current decisions. It should be viewed as a thought process, an intellectual exercise, rather than a prescribed set of processes, procedures, structures, or techniques (Steiner, 1979).

Beginning with Chandler (1962), many researchers in the strategy field have focused on determining of how various external and internal factors affect the choice of a firm's business strategy, and have found support for the proposition that organizational performance is a function of a co-alignment of environmental factors and the factors under the control of the firm (Astley & Van de Ven, 1983). Environment variables have been studied as directly determining performance or mediating the relationship between performance and other organizational variables. Researchers from the population ecology school of thought focusing on the effect of the external environment, argue that it is the single most important and determining force in organizational adaptation. In this approach, managers are viewed as reacting to stimuli thrust upon them by an environment they cannot control and often do not understand.

The strategic choice view adopts a much different perspective from that of the population ecologists. In the strategic choice view, managers are the central focus of the firm's adaptive effort. Managers are seen as being capable of understanding both the internal and external environments of the firm, as well as selectively enacting the environment in which they choose to operate (Weick, 1979). In this approach, environments are not treated as the primary cause of organizational adaptation and performance, but are given a moderating role, influencing the choices available to the strategic decision-maker. Managers are seen as positively determining the social system characteristics that will help achieve the selected strategy. This study utilizes the tradition of the population ecology school, that holds that environmental factors impact and often limit the choices available to managers.

Ackoff (1970) argued that similar organizations operating within the same industry may respond and adapt to the same environment differently based on the choice of strategy. The choice of strategy made by a firm can affect various areas in an organization, including production technology, selection of market, organizational structure, and the implementation process. Also, internal and external factors alter the choice of strategy of organizations, even though they compete in the same market (Newman, 1978). Business strategy has many dimensions to consider and is a complex phenomenon (Tse, 1988b). Because of the complexity of business strategy, it is almost impossible to empirically test the fits among various strategic management constructs or variables. Therefore, in order to test business strategy, it is suggested that researchers should select a simple business strategy type for testing, one that is theoretically stable and empirically testable in order to achieve accurate results. The choice of the organization's strategy is nothing less than the sum total of all its competitive methods. By considering the mission of the company, including structure and objectives, the organization selects its strategy. As Mintzberg and Waters (1985) note, unselected strategies are called unrealized strategies that are dropped after the "choice" step. The choice of business strategy

frequently substitutes for the whole process of strategy formulation, although the choice of strategy is a subset of strategy formulation. Thus, this study selects the choice of strategy as one of the variables, because it can also represent the strategy formulation, and because many constraints make it difficult to select strategy formulation itself as a reliable variable for empirical research. In addition, as Ackoff (1970) and Newman (1978) indicated, this study assumes that both strategy and environment are correlated, which means that both can influence each other.

There is considerable interest by researchers and managers alike as to which strategies are most effective in assisting the organization in reaching its objectives. Although everyone wants to have the best strategy, a strategy may fail if it is not selected properly. The next section is devoted to an explanation of strategy typologies, including Porter's (1980) and Miles and Snow's (1978) business strategy typologies.

A Typology of Strategies

Business strategies have many dimensions to consider, and are complex phenomena (Tse, 1988a). The multidimensional nature of business strategy frequently makes it difficult to test empirically the fits among various strategic management constructs, including environment, choice of strategy, strategy implementation, and firm performance.

During the past decades, much attention has been given to categorizing types of business strategies. The various strategy typologies developed by a number of scholars are based on the contingency theory that argues different situations require different strategies. Thus, strategy types and situations vary widely depending on the researchers' interpretation of strategy, the objectives of a firm, and the situation a firm faces (Galbraith & Schendel, 1983).

Some typologies of business strategies are presented in Table 2.1. Utterback and Abernathy's (1975) three strategies—performance maximizing, sales maximizing, and cost minimizing—are related to the functional operation of an organization. Miles and Snow's (1978) four strategies, which are discussed in more detail later in this section, are based on the rate at which an organization changes its products or markets. The business strategy typologies by Buzzell, Gale, and Sultan (1975) are based on market share performance, while Porter's (1980) three generic strategies—cost leadership, differentiation, and focus—are directly related to profitability performance. Hofer and Schendel's (1978) typology contains the notion of both profitability and market share.

Cook (1975) characterized strategies as intensive, reactive, proactive, or mediating, which are similar to the types of strategy identified in Miles and Snow's strategy typology. Glueck (1976) identified four generic strategy categories, including retrenchment, stability, growth, and combination strategies. Vesper (1979) developed four strategy types, and Wissema, Van der Pol, and Messer (1980) identified six strategy types--explosion, expansion, continuous growth, slip, consolidation, and contraction--based on market shares and positions.

Galbraith and Schendel (1983) identified, through an empirical test, business strategy types. They configured a total of 10 strategies for consumer products and industrial products.

Table 2.1.

Selected Typologies of Business Strategies

Author	Dimensions
Buzzell et al. (1975)	Building, Holding, and Harvesting
Cook (1975)	Intensive, Reactive, Proactive, and Mediating
Utterback and Abernathy (1975)	Performance maximizing, Sales maximizing, and Cost minimizing
Glueck (1976)	Retrenchment, Stability, Growth, and Combination
Hofer and Schendel (1978)	Share increasing, Growth, Profit, Market concentration and asset reduction, Turnaround, and Liquidation
Miles and Snow (1978)	Defender, Prospector, Analyzer, and Reactor
Vesper (1979)	Multiplicaiton, Monopolizing, Specialization, and Liquidation
Wissema et al. (1980)	Explosion, Expansion, Continuous growth, Slip, Consolidation, and Contraction
Porter (1980)	Cost leadership, Differentiation, and Focus
Miles (1980)	Domain defense and Domain offence
Galbraith and Schendel (1983)	For consumer products: harvest, builder, cashout, niche or specialization, climber, and continuity. For industrial products: low commitment, growth, maintenance, and niche or specialization.
Mintzberg and Waters (1985)	Intended, Unrealized, Deliberate, Emergent, and Realized strategy

For consumer products, six strategy types are identified: harvest, builder, cash-out, niche or specialization, climber, and continuity. Four strategy types identified for industrial products are low commitment, growth, maintenance, and niche or specialization. Mintzberg and Waters (1985) proposed five strategies that are derived during the strategic management process. They argued that deliberate and emergent strategies could be conceived as two ends of a continuum in the real world's strategic choices.

Studies of strategy typologies in the hospitality industry have covered broad areas (Lombardi, 1994;Taylor, 1991; Tse & West, 1992; Webster, 1994; Woods, 1994). Small (1987) and Costello and Small (1988) investigated strategy types in the restaurant industry. They developed and analyzed a typology of restaurant entrepreneurs and evaluated those factors that influence the types of restaurant enterprises they created. Based on the typology developed, they indicated that entrepreneur's strategies for solving problems and making decisions are addressed by two different approaches: systematic and intuitive. Elwood (1991) also conducted a study to develop a strategy typology of restaurant entrepreneurs. The finding of the study indicates that Smith's (1967) typology (craftsman and opportunistic) is not feasible in the restaurant industry because it is too simplistic to be useful. Rather, Miles and Snow's four generic strategies are more suitable for categorizing the strategies of restaurant entrepreneurs.

The studies of Tse and West (1992) and Taylor (1991) mainly dealt with international strategy for the hospitality industry. Tse and West's (1992) study stressed the importance of development strategies for international hospitality markets, and Taylor (1991) analyzed a Russian hotel's strengths, weaknesses, opportunities, and threats (SWOT). Woods (1994) and Webster (1994) illustrated the importance of the strategic planning process and strategy implementation in the hotel industry. Lombardi (1994) investigated the practice of strategic planning in chain restaurants. Also, studies of strategy in the hospitality industry have attempted to examine the relationships of strategy with other important factors, such as organizational structure, firm performance, implementation, and environment (Elwood, 1991; Reeves, 1988; Schaffer, 1986; Tse, 1988a; West, 1988), which are discussed in more detail later in this chapter.

Miles & Snow's and Porter's Strategy Typologies

One of the most commonly used business strategy typologies in both academic and practical fields is Miles and Snow's generic business strategy (Segev, 1989). The four strategies proposed by Miles and Snow (1978) are defenders, prospectors, analyzers, and reactors. The first three are successful types of strategies, and the last represents an unsuccessful strategy. Every firm has to make strategic choices in three broad areas: entrepreneurial, engineering, and administrative, which together form an adaptive cycle.

The defender carefully enacts and maintains an environment for which a stable form of organization is appropriate. This means that defenders define their entrepreneurial problems as how to seal off a portion of the total market in order to create a stable domain and to prevent competitors from entering its market segment by producing only a limited set of products directed at a narrow segment. Thus, defenders invest heavily in a single core technology that is highly cost-efficient. A defender's solution to its administrative problems is through a combination of structural and process mechanisms (Burns & Stalker, 1961). These mechanisms

include a top-management group heavily dominated by production and cost-control specialists, little or no environmental scanning, cost efficiency activities, functional structures characterized by an extensive division of labor, centralized control, and communications through formal hierarchical channels. The primary risk of a defender is ineffectiveness—being unable to respond to a major shift in its market environment.

Prospectors respond to their chosen environments in a manner that is almost the opposite to that of defenders. They enact a dynamic environment, and their prime capability is that of finding and exploiting new product and market opportunities. To satisfy these purposes, prospectors define their domain broadly and heavily invest in environmental scanning for potential opportunities. To serve the changing domain properly, the prospector requires a good deal of flexibility in its technology and administrative systems. Prospectors usually create multiple and prototypical technologies to maximize market opportunities and to exploit new products in order to attack new segments. The prospector's administrative task is to maintain flexibility and to facilitate organizational operations. To accomplish overall facilitation and coordination, the prospector's structure-process mechanisms must be organic (Burns and Stalker, 1961). The main risks associated with the prospectors' strategy are low profitability and over-extension of resources.

Analyzers are a unique combination of the prospector and defender types of strategies. A true analyzer is an organization that attempts to minimize risk while maximizing the opportunity for profit. The analyzer moves toward new products or markets, but only after their viability has been proven carefully. The analyzer usually develops a dual technological core to achieve and protect equilibrium between conflicting demands for technological flexibility and for technological stability. The analyzer typically has a matrix organizational structure in order to differentiate its structure and process. The analyzer's primary risks are both inefficiency and ineffectiveness if it does not maintain the necessary balance throughout its strategy-structure relationship.

The final strategy of Miles and Snow's typology is a reactor. The perpetual instability and resultant poor performance of the reactor arises from its inability to respond appropriately to its environment. This situation might have been created by an unclear definition of the firm's strategy, an inability to shape its structure and processes to fit the chosen strategy, or by maintaining a strategy that is inappropriate to a changed environment.

The work of Porter (1980) is also widely used by researchers and in practice. Porter proposed three generic strategies: overall cost leadership, differentiation, and focus, in order to achieve competitive advantage. "Stuck in the middle" represents an unsuccessful or low-profitability strategy, which is similar to the "reactor" of Miles and Snow's typology.

A cost leadership strategy is based on control. Organizations pursuing a cost leadership strategy seek lower costs than competitors by improving on the efficiency of production, distribution, and other organizational systems. The objective is to have the lowest costs in the industry and therefore achieve profits above the industry averages. This strategy requires tight cost and managerial controls, as well as products that are easy to manufacture or provide.

A differentiation strategy seeks competitive advantage through uniqueness. They try to develop goods and services that are clearly different from those made available by the competition. The objective is to attract customers who become loyal to the organization's products or services, and who are uninterested in those of competitors. This strategy requires organizational strengths in marketing, research and development, technological leadership, and creativity. It is highly dependent for its success on continuing customer perceptions of product or service quality and uniqueness.

A focus strategy is closely related to a special niche. Organizations seeking a focus strategy concentrate attention on a special market segment and try to service its needs better than competitors. The objective is to better serve the targeted market through concentration of organizational resources and expertise on a particular customer group, geographical region, or product or service line. This should also help develop strength through differentiation or cost leadership, or both.

Although Porter's and Miles and Snow's typologies are different because each stresses somewhat different aspects of business strategy, some similarities can be found between them. For example, Hambrick (1983a) suggested similar characteristics of the two typologies, in that the prospector is a kind of differentiation; the defender is another type of differentiation, or a cost leader, or both; and the reactor is "stuck in the middle." Miller (1986) argued that differentiation and prospector have the same characteristics. Both studies can be utilized in research and have their own value (Dess & Davis, 1984; Hambrick, 1983a). For example, Adam (1983), Burgelman (1983), and Hambrick (1983a) utilized Miles and Snow's typology in their studies. On the other hand, Dess and Davis (1984), Karnani (1984), Wright (1984), and White (1986) used Porter's typology for their research.

Despite the similarities between the two strategy typologies, many examples reveal the usefulness of Miles and Snow's typology in indicating the relationship between strategy, structure, environmental scanning, and performance. For example, Snow and Hrebiniak (1980) used it in a study of distinctive competence and performance. Hambrick (1983c) tested and extended Miles and Snow's typology and used it in his study of strategic awareness based on environment, strategy, power, and organizational structure. Burgelman (1983) also used the typology to relate to the strategic processes proposed by Mintzberg. To summarize, Miles and Snow's typology refers to various relationships in general among the factors in the strategic management process, while Porter's typology stresses competitive advantage and how it may be achieved.

In the hospitality industry, both Miles and Snow's and Porter's generic strategies have been utilized extensively. West (1987, 1988) and Tse (1988a) utilized Porter's generic strategy to investigate the relationship among strategy, structure, and firm performance. Tse (1988a) argued, by citing White's (1986) work, that Porter's generic strategy typology is superior to Miles and Snow's, because Miles and Snow's strategies do not clearly distinguish between strategic choices and organizational choices, which makes it impossible to test the effect upon performance of the fit between strategic choices and different organizational choices. Meanwhile, Schaffer (1986), Dev (1988), and Elwood (1991) applied Miles and Snow's typology to the lodging and restaurant industries. They argued that Miles and Snow's typology

is better than Porter's because it reveals the comprehensive relationships among strategy, environment, and organizational structure, which is not explained in Porter's formulation.

The literature of strategy in the hospitality industry, as well as in the manufacturing industry, reveals two important trends. The first is the broad acceptance of contingency theory as an approach to strategy among researchers and practitioners. As Reichel (1982) indicated, the environment surrounding a firm changes frequently, and thus the strategy should be also changed accordingly. Corporate success is often associated with a future-oriented, contingent, and systematic process of strategy formulation and implementation. Most of the literature concerning strategy in the hospitality industry indicates this notion (Tse, 1988a; West, 1988). The other important trend in strategy research in the hospitality industry is the investigation of congruencies among strategy and other important variables that are believed to affect a firm's business or performance. These may include environment, organizational structure, implementation, and others. Researchers in the hospitality industry have assumed that a match between strategy and those variables that affect a firm's performance yields better results (Schaffer, 1986; Tse, 1988a; West, 1988).

These research trends about strategy in the hospitality and manufacturing industries reflect the importance of a strategy which emphasizes a congruence with other factors in strategic management systems, including the external environment, internal environment, organizational structure, and strategy implementation. The major premise of Miles and Snow's strategy typology is that organizations should pursue product or service/market strategies that are congruent with the nature of their external and internal environments. A well-chosen and well-matched strategy, in this sense, allows an organization to successfully adapt to environmental challenges. This characteristic of Miles & Snow's strategy typology satisfies the purpose of this study, which comprises the various relationships among the factors in a strategic management system. Thus, this study adopts a modified Miles and Snow's strategy typology.

The above section has comprised a discussion of the concepts and related literature concerning a typology of strategy. The following section of this chapter discusses strategy implementation, including models and typologies of implementation.

Strategy Implementation

Strategy implementation can be considered to be the action stage of strategic management, and means mobilizing employees and managers to put planned strategies into action (Bates & Eldridge, 1980). Strategy implementation involves the action of establishing policies, annual objectives, and allocating resources so that a formulated strategy can be executed. The main strategic tasks of management include stimulating a culture that supports strategy, establishing an effective culture that matches with the strategy, creating an efficient communication system, motivating employees, and others (David, 1997).

Andrew (1980) defined strategy implementation as the accomplishment of purpose. Uyterhoeven, Ackerman, and Rosenblum (1973) and Paine and Naumes (1975) emphasize the importance of resource allocation as an important task in implementing strategy. McNichols

(1977) defined strategy implementation as "the choice of alternative organizational strategies to provide the guidelines, framework, and communication network to complete and put into effect the operating strategy." Hodgets and Wortman (1980), meanwhile, mentioned the necessity of appropriate structural systems in strategy implementation by addressing that appropriate structural units must be organized, staffed, and directed. Also, Nutt (1986) defines strategy implementation as "a series of steps taken by responsible organizational agents in planned change processes to elicit the compliance needed to install changes."

Various variables are essential to implement strategy successfully. One of these is the administration system, which includes reward systems, information systems, performance evaluation, career planning, and budgets (Galbraith & Nathanson, 1978). Another involves the critical internal factors of an organization, such as leadership, organizational culture (Andrew, 1980), and interpersonal behavior, including communication and participation (Chandler, 1962; Rumelt, 1974). A review of the literature revealed that there is little agreement about the nature of strategy implementation. However, it should be noted that the most important aspect of implementation is its relationship with or match to strategy, environment, and structure (Chandler, 1962; Rumelt, 1974).

Models of Strategy Implementation

Based on the various definitions, several models of strategy implementation have been developed, as shown in Table 2.2. Among the models, the strategy implementation models of Stonich (1982), Galbraith and Kazanjian (1986), and Peter and Waterman (1982) indicate important factors in strategy management and explain how these factors interact within a company, while the others investigate the necessary steps in strategy implementation.

Stonich (1982) argued that successful firm performance depends on implementation through the effective rationalization of the basic elements, including strategy formulation, organization structure, human resources, management processes, and corporate culture. According to Stonich (1982), effective strategy implementation requires a constant effort to match and fit together the basic elements that drive the organization. Galbraith and Kazanjian (1986) suggested five important variables, including task, structure, information and decision processes, reward systems, and people, in strategy implementation. They insisted that the choices of the five variables mentioned above should be internally consistent and also consistent with the firm's product-market strategy, and argued that structural choice follows from strategic choice and that the process is one of constant readjustment to change. Peters and Waterman(1982) suggested seven important interconnected elements, including structure, systems, style, staff, skills, strategy, and shared value, in strategy implementation.

Meanwhile, some researchers' attention to strategy implementation is focused on the process, instead of providing strategy implementation models. For example, as indicated in Table 2. 2, Le Breton (1965) provided 14 steps of strategy implementation, which can be summarized further in five processes: analysis of plan; role configuration; operational plan; data gathering and analysis; and reporting. Andrew (1980) and Alexander's (1980) strategy implementation processes also have similar steps to Le Breton's (1965) formulation. Quinn's

Table 2. 2.
Strategy Implementation Models

Author	Year	Contents
Le Breton	1965	14 Steps in the Implementation Process Receipt of approved plan Obtaining an understanding of the technical components Interpretation of ramifications of plan Determination of role of implementor Organizing implementation staff and assigning responsibility Preparation of an implementation plan Taking action and making necessary commitments Notifying organization members of the program Interpretation of operational plan to affected subordinates Instruction of subordinates in their control assignments Gathering data on process of plan Review and evaluation of data Taking corrective action when necessary Reporting progress to authorized personnel
Andrew	1980	12 Aspects of Strategy Implementation Identification of tasks Responsibility assignment Structure Information systems Implementation plan Evaluation Recruitment and reassignment Reevaluation Incentives Constraints, controls, and penalties Technique or skill to continue implementation Leadership
Stonich	1982	Factors in Strategy Implementation: Organizational Structure; Management Process; Human Resources; and Culture
Galbraith & Kazanjian	1986	Factors in Strategy Implementation: Task; Structure; Information and Decision Processes; Reward Systems; People
McKinsey (Peters & Waterman)	1982	7-S Framework: Structure; Systems; Style; Staff; Skills; Strategy; Shared Values
Quinn	1980	Logical Incremental Strategy Implementation
Alexander	1980	8 Steps Obtain necessary approval and backing Define key tasks to be done Make changes in the organizational structure Allocate the necessary resources Change how affected employees perform their jobs Establish appropriate rewards and penalties Monitor key results Take needed corrective action

(1980) typical strategy implementation steps indicate the importance of incrementalism and are highly simplified to help visualize a few basic relationships.

There are several common factors shared among the models of strategic implementation, which include organizational structures, control mechanisms, reward systems, and objectives of firms (Alexander, 1992). Organizational structure has a very high consensus among the models, because the strategy and structure relationship has been researched extensively, and organizational structure is one of the more visible and tangible aspects of strategy implementation. Control mechanisms usually cover a wide variety of topics to help a firm's implementation efforts stay on target, such as budgets, financial statements, rules, company policies, etc. Reward systems include a variety of financial and non-financial methods to help motivate human efforts towards achieving the established strategy. The final variable, frequently utilized in studies of implementation, is the firm's objectives, which are closely related to strategy and provide basic aims, goals, and directions.

Typology of Strategy Implementation

The previous section was devoted to a discussion of the models of strategy implementation that primarily consider the important factors and the processing steps of strategy implementation. In this section, a typology of strategy implementation is discussed. The development of a typology of strategy implementation has drawn a great deal of attention from researchers because it seeks to explain the important dimensions of strategy implementation and how these dimensions affect strategy implementation. Dimensions of strategy implementation are summarized in Table 2. 3.

Stonich (1982) developed a matrix with two dimensions to evaluate the strategy implementation process, including management involvement and attention to implementation issues. The vertical axis measures the degree to which the process is analytical and fact-based; the horizontal axis measures the degree to which the process is oriented toward consensus and implementation. Based on their current process of strategy formulation, companies can be positioned in one of the four quadrants—all form/no substance; business-as-usual; ivory tower; or the winning combination. He insisted that the winning combination—high attention to analysis and high management involvement—is the ideal implementation process. Stonich (1982) also developed four types of strategic changes—slow overhaul; rapid overhaul; steady at the helm; or full speed ahead--dictating different approaches to filling human resource needs. The difference from the previous strategy and the time-frame for change are major dimensions in this typology.

Alexander's (1992) typology has two dimensions, including the degree of effort by key implementors and the implementors' perception of the strategy's appropriateness. Majone and Wildavsky (1979) argued that the success of strategy implementation depends on the effectiveness of decisions and execution. Meanwhile, Bonoma's (1985) implementation typology stresses the characteristics of strategy and how the strategy is executed. He argued that when the strategy is appropriate and the execution is good, the implementation process has a great chance for success.

Table 2. 3.

Dimensions of Strategy Implementation

Authors	Dimensions
Majone & Wildavsky (1979)	Decision and execution
Stonich (1982)	Attention to analysis and fact-based Management involvement and attention to implementation
Stonich (1982)	Difference from previous strategy Time frame for change
Hrebiniak & Joyce (1984)	Implementation horizon and strategic problem size
Bonoma (1985)	Appropriateness of strategy and execution
Alexander (1992)	Degree of effort by key implementors Implementors' perception of strategy's appropriateness

Hrebiniak and Joyce's (1984) typology has two dimensions in strategy implementation: implementation horizon and strategy problem size. They insist that implementing strategy generates specific problems and costs arising from its use, and the problems and costs are related to two dimensions: the sheer magnitude of the problems being addressed, and the time available for implementation. According to the degree of the two dimensions, four cells were developed: sequential intervention; complex intervention; evolutionary intervention; or managerial interventions.

In the above section, several types of strategy implementation have been discussed. However, the majority of the strategy implementation types has not advanced significantly beyond common-sense formulations or traditional business policy or the strategic policy approaches developed at various business schools (Bourgeois & Brodwin, 1984).

In this study, a strategy implementation model proposed by Bourgeois and Brodwin (1984) is applied, for the following reasons. First, most of the currently available models in strategy implementation tend to be practitioner-oriented due to on-site observations. Thus, they become context specific and frequently lack theoretical grounding. In contrast, Bourgeois and Brodwin's model (1984) is comprehensive and based on specific assumptions. Second, the majority of the current strategy implementation models do not address the relationships with other important constructs in strategic management process, which makes those relationships impossible to hypothesize. Meanwhile, the model developed in the present study provides theoretical relationships between environment, organizational structure, strategy, and strategy implementation. Thus, hypothesis testing is possible in order to investigate the various relationships among the constructs. Finally, the model developed in this study is more prescriptive in nature than the earlier descriptive models; thus it is possible to test empirically the relationships among the constructs in the strategic management process.

Bourgeois and Brodwin's (1984) Strategy Implementation Model

Bourgeois and Brodwin's (1984) strategy implementation model consists of five models: commander; change; collaborative; cultural; and crescive. Their approach is based on the current views that treat implementation either as an issue of gaining prior group commitment through coalitional decision-making, or as a question of total organizational involvement through a strong corporate culture.

The commander model is similar to a traditional implementation type of model in the strategic management process or in business policy. It addresses the formulation of an optimum strategy and the role of CEO is that of a "rational actor." The CEO has centralized power and utilizes economic and competitive analyses to plan resource allocations in the achievement of explicit objectives. This model usually splits the firm into thinkers (strategists) and doers (implementors). Revenue or profit maximization as an outcome measure is appropriate for this model. The commander model will work best for firms in stable environments with top-down communication and mechanistic organizational structure (the less organic organizational structure). Since this model will be effective in strong competitive position, it can be matched with the reactor or defender type in strategies of Miles and Snow's typology (Parsa, 1994).

The second approach, the change model, is strongly related to strategy implementation itself. This model emphasizes how organizational structure, incentive compensation, control systems and so forth can be utilized to facilitate the execution of a strategy. The role of CEO is that of an architect, designing administrative systems to harmonize with the implementation process. Strategy outcomes are measured in terms of economic goals, and behavioral science is frequently adapted to achieve these economic goals. Given the above characteristics, this model can be matched with the analyzer type of strategy in Miles and Snow's typology.

The collaborative model concentrates on multiple inputs to a group decision in which strategy emerges as a negotiated outcome. Thus, the role of CEO is that of co-ordinator, who encourages and promotes the involvement of top management as well as employees in the decision-making process. Teamwork and decentralized organizational structure are strongly encouraged. Since this model encourages the members to generate goal consensus, it is suitable for less stable and more complex environments, where the chief executive is unable to perceive and comprehend the totality of his organization's activities. Therefore, this model can be matched with the prospector type of strategy in Miles and Snow's typology. However, a high level of organizational slack is required to install, maintain, and implement the strategy in this model.

The fourth approach, the cultural model, concentrates on the involvement of the whole organization in strategy implementation. Here, lower levels participate in the design of means to perpetuate a strategic direction, and are inculcated with a set of values, which influence work-related behavior. Thus, the role of CEO is that of coach, who encourages the team members to participate in the decision-making and implementation process. The details of a plan and its implementation are left to the individual business units. However, the economic price and the chance of a high level of organizational slack that could occur in connection with developing and nourishing such an organization are relatively high.

The final strategy implementation model of Bourgeois and Brodwin (1984) is a crescive model. In this model, top managers try to develop alternative or improved strategy or strategy implementation processes based on an examination of the existing strategy and strategy implementation. The role of the CEO is that of premise-setter and judge, who encourages managers to come forward as champions of sound strategies.

However, the five implementation types can be further categorized into two types. The commander type of strategy implementation shares common characteristics with the change and crescive types of strategy. Also, the characteristics of the collaborative and cultural types are very similar. It could be said that the two types of strategy implementation, the commander and collaborator types, out of the five models are assumed to exist in the real world. This notion will be verified by an exploratory factor analysis in the next chapter. These two representative strategy implementation types (commander and collaborator) will be a primary mainly focus in this study.

In summary, the literature on strategy implementation reveals various important factors, including time-span, scope of change, environmental challenges, strategy, and the business environments. Strategy implementation is highly related to these factors. Different firms

operationalize different implementation methods in order to maximize the effectiveness of their chosen strategies. The success of strategy implementation depends on the careful analysis of numerous factors, and on the correlation of the analysis to the plan and the process of implementation. Based on the environmental challenges and the types of strategy, an appropriate strategy implementation approach should be selected, one which is matched to the business environment and organizational structure.

Strategy Implementation in the Hospitality Industry

A limited number of studies can be found that relates strategy implementation to the hospitality industry. Most of the studies dealing with strategy implementation are conceptual or empirical case studies, which implies the need for further empirical studies. The following discussion deals with studies of strategy implementation in the hospitality industry.

Tse (1988b) examined the importance of internal analysis for successful strategy implementation in the restaurant industry. She suggested that internal analysis such as defining corporate strengths and weaknesses are the basis of formulating and implementing business strategy in the restaurant industry. Schmelzer (1992) conducted a case study to investigate the process of strategy implementation in multi-unit restaurant firms, and developed an implementation model. According to her model, several important variables affect the success of strategy implementation. These variables include the life-cycle stage of the firm, the size and geographic dispersion of the firm, manager demographics, training, primary context variables, organizational culture, organizational structure, and perceived environmental uncertainty. Also included are the primary process of information processing, planning and control, and resource allocation. Meanwhile, Reeves (1988) conducted an empirical study to reveal the effectiveness of strategy implementation, total quality management (TQM), in the restaurant industry, and addressed the importance of administration systems in implementing strategy. Parsa (1994) investigated the relationship between organizational power and its impact on strategy implementation and firm performance in hospitality franchise systems.

As indicated earlier, the studies about strategy implementation are very limited in both quality and quantity in the hospitality industry, due to the complex characteristics of implementation and the difficulty of empirical testing. However, it is true that strategy implementation is an important part of the strategic management process. There is a significant necessity to conduct research revealing various relationships between strategy implementation and other constructs in strategic management, which would make it possible to understand more fully how strategic management operates in the industry. In the following section, the evaluation of strategy, which is the final stage of strategic management, will be discussed.

Strategy Evaluation

Strategy evaluation is the final stage of strategic management. Management must be able to identify, through strategy evaluation, strategies that are not effective. Once a mal-functioning strategy is identified, management can take steps to correct the problem. Evaluation is a

necessary stage for successful strategic management because a changing environment creates new and different problems that require continuous correction.

The activities of environmental scanning, strategy formulation, decisions about what strategy to choose, strategy implementation, and evaluation of strategy often occur simultaneously and synergistically through all the hierarchical levels in an organization: corporate, business, and functional. These activities should be coordinated and brought into alignment across all hierarchical levels by fostering interactions and communication among all managers and employees. Several studies have indicated that if firms can align strategy formulation, implementation, and evaluation, they are more likely to be successful in terms of performance than those that cannot (Dev & Olsen 1989; West & Olsen 1989). The following section is devoted to an explanation of the firm performance, which is the primary object of strategy evaluation.

Firm Performance

Organization performance is central to the study of business strategy or policy (Bourgeoise & Astley, 1979; Cheng & McKinley, 1983; White & Hamermesh, 1981). For example, White and Hamermesh (1981) designed a framework to capture the determinants of organization performance. Recently, Banker, Chang, and Majumdar (1996) suggested a method to measure a firm's financial performance. However, there is considerable controversy in the literature as to what constitutes effective business performance and how it should be measured. Researchers in strategic management have raised questions about how performance should be conceptualized (Connelly, Conlon, & Deutsch, 1980; Ford & Schellenberg, 1982).

Firm performance can be measured by two criteria: efficiency and effectiveness. Efficiency, defined as the amount of output obtained from a given input, is concerned with the utilization of assets, technology, and other system components; effectiveness is defined as the ratio of output to input (Katz & Kahn, 1978). High market share related to effectiveness is associated with the strategies of market segmentation, customer service, and product breadth (Buzzell & Wiersema, 1981). Return on investment (ROI) related to efficiency is associated with the strategies of cost-consciousness, productivity, and narrowly focused products (Dubin, 1976; Fry & Zeithaml, 1982; Hall, 1977). Ford and Schellenberg (1982) actually utilized both criteria to measure firm performance. Bonoma and Clark (1988) clearly distinguish between achieving the goals necessary to arrive at effective versus efficient performance. Kotler (1991) also supports this distinction, by demonstrating that control of plans and programs is contingent on the goals of those plans and programs.

Another dilemma of firm performance is the tradeoff between short-term profit maximization and long-term competitive advantage. Implicit in a multidimensional view of performance is the idea that all organizations have goals that go beyond the traditional profit maximization goal, a view that is common in the strategy literature. Hamel and Prahalad (1989) have emphasized the importance of long-term competitive advantage by stating that sole reliance on short-term profit maximization is often a "fast trip to disaster." This idea can be illustrated by the product life-cycle concept. To achieve a long-term competitive advantage, firms must go

beyond short-term profitability and invest in other functional areas such as product development, advertising, and promotion in order to gain the market share needed to achieve high returns and competitive advantages (Vorhies, 1993). The study of Govindarajan and Gupta (1985) proved the importance of long-term performance criteria by revealing that long range criteria and subjective measures of managers' performance, combined with a "build" strategy, were associated with high performing strategic business units.

Another debate about how to measure firm performance is related to the reliability issue. Recently, some researchers (Prahalad & Hamel, 1994; Waddock & Graves, 1997) argued the importance of corporate social performance by indicating that, in the present, influences on strategic decisions come from forces that go beyond the traditional industry-based competitive forces identified by Porter (1980). According to Prahalad and Hamel (1994), changing social aspects, including customer expectations, regulatory shifts, the problem of excess capacity, and environmental concerns, have a significant influence on strategy. Thus, firm performance should be measured not only by economic aspects but also by social aspects, as mentioned by Prahalad and Hamel (1994). Some researchers have revealed the positive relationship between a firm's financial performance and social performance (McGuire, Schneeweiss, & Sundgren, 1988; Waddock & Graves, 1997; Wokutch & Spencer, 1987). However, such a multi-dimensional view of organizational performance has proved difficult to operationalize (Dess & Robinson, 1984; Kirchhoff, 1977). If it is easy to access the data of the non-financial dimensions, the use of multi-dimensional approaches to measure performance will be more reliable than uni-dimensional approaches. Otherwise, the uni-dimensional approach, often referred to as an economic measure, may be appropriate for measuring performance. Consequently, business performance, which reflects the perspective of strategic management, has traditionally been operationalized in terms of economic or financial criteria and is generally measured with respect to objectives such as sales, profits, costs, quality, and product performance.

The advantages of hard measures such as economic or financial measures of performance over soft measures have been addressed by many researchers (Campbell, 1977; Cheng & McKinley, 1983; Dalton, Todor, Spedolini, Fielding, & Porter, 1980). The biggest advantage of an economic measure is its usefulness for practitioners (Cheng & McKinley, 1983). Soft measures like readiness, existence of cohesion or conflict, self-perceptions (Campbell, 1977) are less indicative of bottom-line organizational performance (Dalton, et al., 1980). The use of hard measures increases the level of confidence in the reported relationships. Also, economic measures are more meaningful to managers than soft measures (Bourgeois, 1980). The other advantage of hard measures is the consistency with previous business policy studies that include performance as a variable (Ford & Schellenberg, 1983).

In spite of the existing debates about firm performance in terms of what should be measured and how it should be measured, many researchers agree that hard measures such as economic measures are more reasonable for use in measuring a firm's performance than are others. Examples of hard measures for measuring the variable of performance are found in many studies. Hatten and Schendel (1977) utilized return on equity in his study of the brewing industry. Rumelt (1974) used rate of growth in net sales, annual rate of growth of earnings after taxes, after tax return on invested capital, and after tax return on equity, while Schoeffler, Buzzell, and Et (1974) operationalized performance as ROI. Recently, Banker, Chang, and

Majumdar (1996) indicated that traditional measures for comparing the strategic performance across firms or over time have been return on investment and its component ratio, return on sales (ROS). Wagner (1997) utilized ROA as a performance indicator in his study of the relationship between time-based strategy, generic strategies, and performance. Busija, O'Neill, and Zeithamal (1997), and Kumar and Subramanian (1998) also utilized financial measures such as ROA, ROI, ROE, and Growth to measure firms' financial performance.

In the hospitality industry, economic measures have been widely used to estimate firms' financial performance. The performance of hospitality organizations is measured by accounting measures (ROA, ROS, and ROE), profitability (NPM), growth rate of the organization, or operational efficiency (occupancy rate and average daily rate). The selection of which of the above measures to use in a given study depends on the situation and purpose of the study.

As Schaffer and Litschert (1990) indicated, revenue and profit are important variables for measuring a firm's financial performance. They utilized the percentage of change in total revenue and the average change in operating profit to measure firm performance. Pannel, Kerr and Foster (1983) argued that percentage of change in total revenue may be viewed as a surrogate for market share, while the average percentage of income after property taxes and insurance is commonly used as a profitability measure in the lodging industry. West and Olsen (1988), West (1990), and Tse (1988a) utilized three performance measures: average return on sales (ROS), average return on assets (ROA), and average growth in unit sales. Similarly, Singh and Gu (1994) selected ROA, return on equity (ROE), and net profit margin (NPM) as the measures of performance to determine the relationship between diversification and financial performance in the foodservice industry. Occupancy percentage and average daily rate are often used to measure firm performance in the lodging industry (Damonte, Rompf, Bahl, & Domke, 1997; Taninecz, 1991) utilized these two measures to estimate the performance of hotels. Meanwhile, Jogaratnam (1995) utilized various performance criteria, including sales level, market share, cash flow, sales growth rate, return on sale, and net profit.

In the preceding sections, each component of strategic management has been reviewed. The following section will be devoted to a review of the literature on the relationships among the components of strategic management.

Relationships among the Components of Strategic Management and Hypotheses Development

The model developed in this study (Figure 1.2) shows the interrelationships of the variables that are the components of strategic management, including perceived environmental uncertainty, choice of strategy, organizational structure, strategy implementation, and performance. The proposition that there are causal relationships among the constructs in the strategic management process leads to the following hypothesis, used to test the causality in the model:

> ***Hypothesis 1****: There will be causal relationships among the constructs in the strategic management process.*

The following section comprises a discussion of the relationships between and among these constructs. The sub-headings each focus on several variables simultaneously, and it should be noted that in practice these variables are interrelated and interactive.

Environment, Strategy, and Structure

The effect of the business environment on strategy formulation and process has been of growing interest to researchers (Bourgeois, 1978; Khandwalla, 1976; Paine & Anderson, 1977). The growing importance of strategic planning recognizes the need for organizations to understand the nature of the linkages between the external environment and internal decision-making in order to achieve the most effective "fit" between them (Boulton, et al., 1982).

Several empirical studies have suggested the relationship between strategy and environment (Hambrick, 1982; Miles & Snow, 1978; Miller & Friesen, 1983). Hambrick (1982) conducted a study that revealed a positive relationship between Miles and Snow's (1978) strategy typology and environment scanning activities. Miller and Friesen (1983) discovered a positive relationship between the environmental dimensions of dynamism, hostility and heterogeneity, and the amount of analysis and innovation which characterizes strategy-making activities. The central theme of these studies is the match between strategy and the environment that increases the possibility of firms' success. Many other studies also support the significance of this relationship (Cooper & Schendel, 1976; Glueck, 1976; Rumelt, 1974) as mentioned before. Environmental scanning to acquire relevant and accurate information can reduce the risk of making faulty strategy formulation, selection, or implementation. Bourgeois's (1980) study provides a conceptual framework for the relationship between environment and strategy. He argued that there is a relationship between primary (corporate strategy) and the general environment, and also the relationship of the task environment to secondary strategy (business strategy). Duncan's (1972) study revealed the relationship between dimensions of the environment and uncertainty in decision-making. Results of the study indicated that the dynamic nature of the environment is a more important contributor to uncertainty than the complex nature of the environment, and that managers in dynamic-complex environments experience the greatest amount of uncertainty in decision-making. The study of Boulton, et al. (1982) also revealed that uncertainty has an impact on the relationship between the strategic planning system and environmental characteristics.

Another important trend in the study of environment is the study of the relationship of the environment to structure, which has been one of the primary areas of study in strategic management; several researchers have tried to demonstrate this relationship.

Dill (1958) proposed that the behavior of management depends on assumptions about the patterns of inputs from the environment and on the interpretation of these inputs. According to Dill, managerial autonomy, an important factor of organizational structure, may be influenced by the structure of the environment, by the accessibility of information about the environment, and by managerial perceptions of the meaning of environmental information.

Lawrence and Lorsch (1967) argued that environmental uncertainty causes alterations in structure, goals, time and interpersonal orientations of departments, and that this in turn requires more sophisticated procedures for achieving organizational integration. Khandwalla (1972, 1973) also indicated that the dimensions of environment—dynamism, hostility, and heterogeneity—create the need for more structural uncertainty reduction, differentiation, and integration. Burns and Stalker (1961) noted that successful firms in a stable environment tended to have mechanistic or bureaucratic structures, while successful firms in uncertain and changing environments tended to have organic or flexible structures.

Through the fifties and sixties, there was a dramatic improvement in research concerning environment and organization. Many elaborate models revealing the linkages among environment, technology, structure, and strategy were developed during this period. However, organizational theorists and business researchers recognized the importance of a comprehensive model of the linkages among environment, strategy, and structure. This is because most of the previous research has dealt with only a limited aspect of the full adjustment sequence (Miles et al., 1974). One of the efforts to extend the linkage between organization and environment is to involve the constructs of environment, strategy, and structure in one analysis.

Emery and Trist (1965) assumed that four types of environment exist according to their degrees of change and complexity: placid-randomized; placid-clustered; disturbed-reactive; and turbulent. They argued that a firm should select a proper strategy and organizational structure based on the firm's environmental type. For example, in the condition of the placid-randomized environment, a single and quite small unit with simple tactics is appropriate. In a placid-clustered environment, the objective of a firm will be optimal location, so the firm should have a strategy which is distinguished from tactics that have a hierarchical and centralized structure. Meanwhile, in a disturbed-reactive environment, a firm will be faced with competitive challenges. This situation, in turn, requires flexibility. Thus, utilizing a competitive strategy with a decentralized structure will be the most effective. Finally, the most complex and dynamic situations fall into a turbulent type of environment that generates maximum uncertainty. The authors suggested an organic matrix structure for this type of environment to reduce the degree of uncertainty. The study of Miles et al. (1974) also addressed the same issue—the importance of linkages among environment, strategy, and structure. They suggested two sets of environments: the stable or the complex environment, and recommended a defender strategy with a high degree of hierarchical structure to correspond with a stable environment. In a complex environment, the strategy of prospector with a flexible organizational structure is suggested to make effective matches among environment, strategy, and structure.

In summary, the researchers in strategic management have suggested that there are two broad kinds of external environment: the stable-simple and the complex-dynamic. The perceived certainty level of the environment is varied by the degree of the status of the environment. In the stable and simple environment, the level of uncertainty about the environment is low. Meanwhile, the level of environmental uncertainty is maximized in the complex and dynamic business environment. Thus, the defender type of strategy combined with bureaucratic or mechanistic organizational structure will be suitable to maximize the efficiency of strategy in the stable-simple environment where the degree of environmental uncertainty is low. In contrast, the prospector type of strategy, combined with an organic or a flexible organizational structure, is

the most effective to minimize the uncertainty in the complex-dynamic environment where the degree of environmental uncertainty is high (see Figure 2.2).

The above discussion about environment, strategy, and organizational structure derives the proposition that there are relationships between environment and strategy, and also the propositions that there are relationships between environment and organizational structure, and that there are relationships between environment and organizational structure. These propositions yields five hypotheses, as follows:

> ***Hypothesis 2****: There will be a positive relationship between perceived environmental certainty and the defender type of strategy.*
> ***Hypothesis 3****: There will be a negative relationship between perceived environmental certainty and the prospector type of strategy.*
> ***Hypothesis 4:*** *Perceived environmental certainty will have a negative effect on organic organizational.*
> ***Hypothesis 5:*** *The defender type of strategy will have a negative effect on organic organizational structure.*
> ***Hypothesis 6:*** *The prospector type of strategy will have a positive effect on organic organizational structure.*

Environment, Strategy, Structure, and Strategy Implementation

Frequently, the strategic management process is compared to a two-sided coin. On one side is strategy formulation, which defines what a firm's game plan will be for competing successfully within a specific industry. The other side of the coin represents strategy implementation, which takes the formulated strategy as a given and then decides how to achieve its goals. This statement implies that strategy formulation and strategy implementation are closely related, and are important constructs in the strategic management process.

Alexander (1985) argued the importance of having an implementation model for strategy by insisting that the primary reason for implementation failure in many firms is the absence of a practical implementation model that guides management's actions during strategic implementation. Without proper models, management will attempt to implement strategies without a good understanding of the multiple factors that must be addressed to make implementation successful. Noting the importance of strategy implementation, a few strategy implementation models (Galbraith & Kazanjian, 1986; Hrebiniak & Joyce, 1984; Le Breton, 1965; Nutt, 1986; Quinn, 1980; Stonich, 1982; Thompson & Strickland, 1987) have been developed during the last decade.

The scholars who have developed implementation models suggests key elements for the success of implementation, including organizational structure, task, people, reward systems, information, objectives, culture, management process, and control mechanisms. For example, Galbraith and Kazanjian (1986) suggested that implementation and the firm's subsequent performance is the result of five key elements—task, structure, people, reward systems, and information and the decision process—all of which depend on the firm's specific strategy.

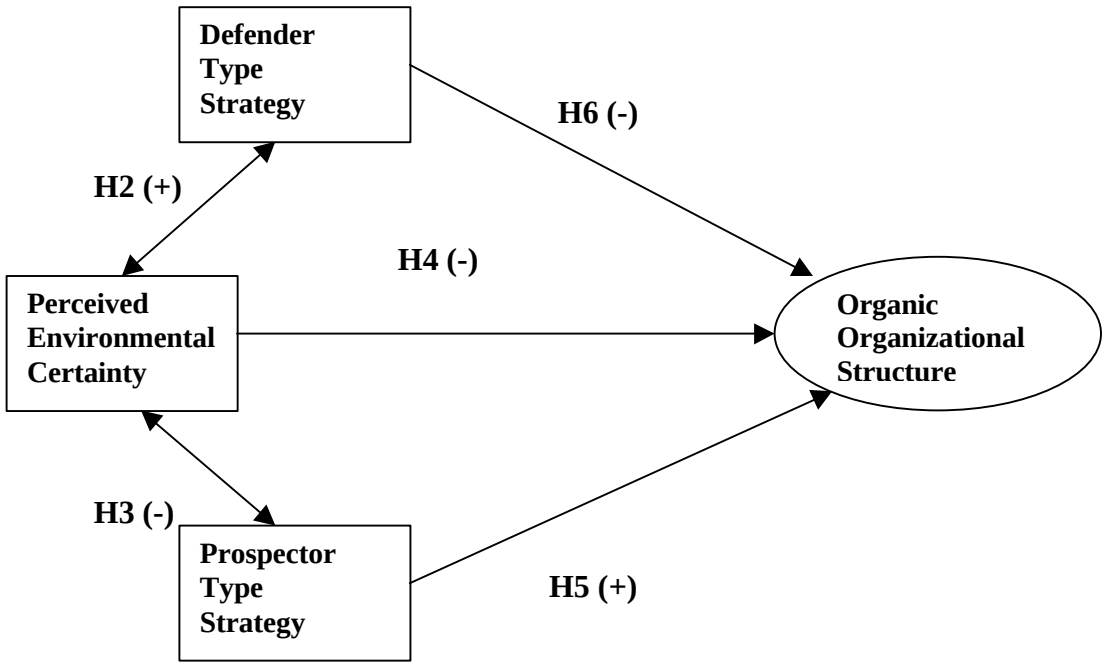

Figure 2.2. Relationships among Environment, Strategy, and Structure

Notes: Rectangle represents exogenous construct (explained by the X-indicators and influence endogenous constructs). Circle represents endogenous construct (explained by the Y-indicators, exogenous constructs, and other endogenous constructs, and simultaneously influence other endogenous constructs)

Galbraith and Kazanjian's model of implementation adequately demonstrates how strategy, implementation, and key elements involving structure, and performance are related.

Another important implementation model is that of Hrebiniak and Joyce (1984). This model has five elements of strategy formulation, including choice of strategy, primary structure, operating level objectives, operating structure, and incentives and controls. Strategy formulation and choice of strategy are the obvious precursors to implementation actions. Primary structure choices denote how the major operating units of the firm are organized. Establishing operating level objectives is the strategic and short-term objective of the major sub-units that link the model to the firm's overall strategy. Operating structure refers primarily to organization structure, but also includes such related processes as coordination within the major units. Finally, incentives and controls attempt to control performance by providing necessary individual and group rewards.

Other models of strategy implementation also address the relationships among strategy, implementation, structure, and performance. Quinn (1980) argued that the implementation process, which he empirically identified in various in-depth case studies, describes the components of strategic management simultaneously, including formulation and implementation. Stonich's (1982) model also includes strategy formulation, including environmental analysis and choice of strategy, and organizational structure in implementation. He insists that these two elements determine the effectiveness of strategy implementation and the extent to which strategic objectives are achieved. Thus, a firm that achieves a match or congruence among, environment, strategy, implementation, and structure will yield better performance than a firm that fails to match them.

In this regard, Hambrick's (1983c) study investigated the relationship between strategy implementation and environments. A few studies, such as those of Mintzberg (1973) and Miller and Friesen (1984), have tried to relate the process of strategy-making and implementing to structure and environment. Miller (1987) investigated how structure, strategy implementation, and environment are related to each other. These studies found that particular strategy implementation processes or types are matched to particular types of structures, and these combinations of strategy implementation and structures are found in certain types of environments, which are discussed in an earlier section.

The comprehensive relationships among environment, strategy, organizational structure, and strategy implementation are explicitly discussed in Bourgeois and Brodwin's (1984) conceptual study. They suggested 5 types of strategy implementation (commander, change, collaborative, cultural, and crescive) and how these types of strategy implementation are related to other constructs in strategic management. As discussed in the previous section, this study selects two types of strategy implementation instead of five.

According to Bourgeois and Brodwin's (1984) discussion, the commander type of strategy implementation is closely related to the stable and certain environment, because the model requires that accurate and timely information must be available to the strategists, or that environmental change be slow enough to allow for full information to be assimilated. In contrast, the collaborator type of strategy implementation will work best for firms in complex

and turbulent environments. Under these kinds of environments, the chief executive or division manager is unable to perceive, assimilate and comprehend the totality of his organization's activities, as well as in the external environments. The key factor to success is the minimization of uncertainty and maximization of information accuracy. This is because the model increases information accuracy by capturing information carried by executives closer to the front lines of operations and by "engaging several brains at once." The relationships among these constructs are presented in Figure 2.3. The above discussion suggests the proposition that there are relationship between environment and strategy implementation, which leads to the following two hypotheses.

> ***Hypothesis 7:*** *Perceived environmental certainty will have a positive effect on the commander type of strategy implementation.*
> ***Hypothesis 8:*** *Perceived environmental certainty will have a negative effect on the collaborator type of strategy implementation.*

The above hypotheses make explicit the relationship between organizational structure, strategy, and strategy implementation. As discussed in the previous section, environmental certainty is assumed to have a negative effect on organic structure and to have a positive effect on the defender strategy type. Since environmental certainty is proposed to have a positive relationship with the commander type of strategy implementation, it is proposed that an organic structure has a negative effect on the commander type of strategy implementation. In contrast, organic structure has a positive effect on the collaborator type of strategy implementation. These relationships are also described in the study conducted by Bourgeois and Brodwin (1984). Meanwhile, a positive relationship between environmental certainty and the defender type of strategy and a positive relationship between environmental certainty and the commander type of strategy implementation imply that there should be a positive relationship between the commander type of strategy implementation and the defender type of strategy. It is also proposed that there should be a positive relationship between the collaborator type of strategy implementation and the prospector type of strategy. Parsa (1994) also proposed that the commander model of strategy implementation could be noted in the reactor or defender type of strategy, while the collaborator model of strategy implementation could be correlated with the prospector type of strategy. The above discussion about the relationships among strategy, organizational structure, and strategy implementation generates the propositions that there are relationships between organizational structure and strategy implementation, and that there are relationships between strategy and strategy implementation. These propositions lead to the following four hypotheses.

> ***Hypothesis 9:*** *Organic organizational structure will have a negative effect on the commander type of strategy implementation.*
> ***Hypothesis 10****: Organic organizational structure will have a positive effect on the collaborator type of strategy implementation.*
> ***Hypothesis 11:*** *The defender type of strategy will have a positive effect on the commander type of strategy implementation.*
> ***Hypothesis 12:*** *The prospector type of strategy will have a positive effect on the collaborator type of strategy implementation.*

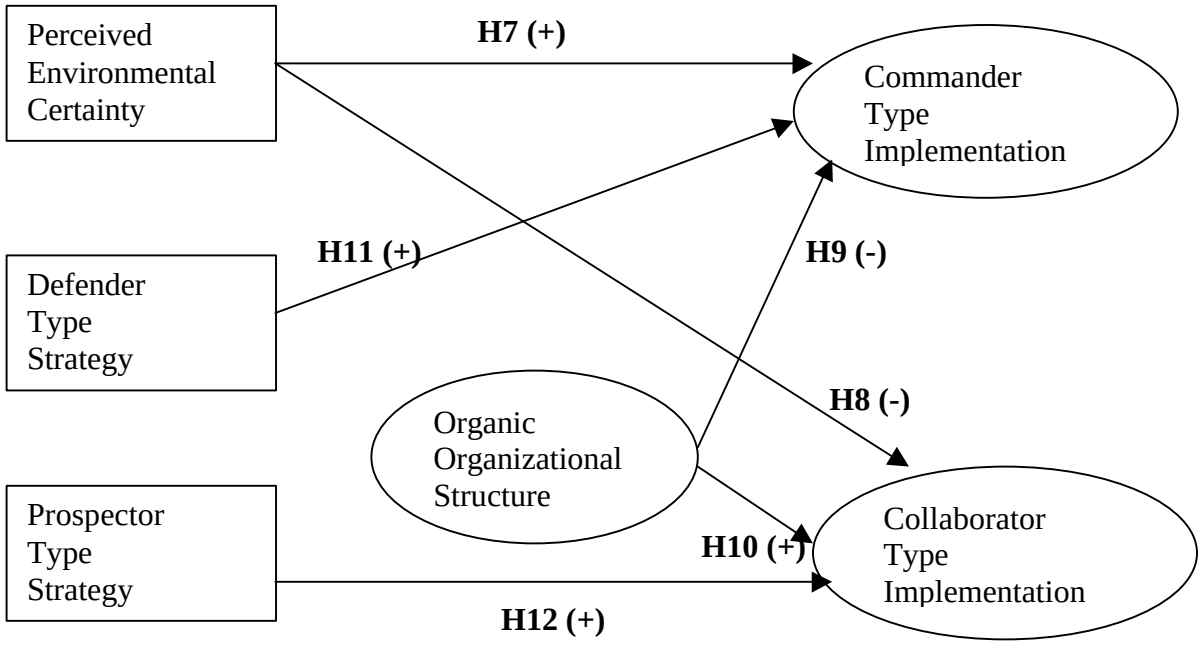

Figure 2.3 Relationships among Environment, Strategy, Structure, and Strategy Implementation

Notes: Rectangle represents exogenous construct (explained by the X-indicators and influence endogenous constructs). Circle represents endogenous construct (explained by the Y-indicators, exogenous constructs, and other endogenous constructs, and simultaneously influence other endogenous constructs)

Strategy, Strategy Implementation, and Performance

Various research efforts have attempted to demonstrate the importance of a match among the constructs of the strategic management process (Hambrick, 1983a; Miller, 1988; Rumelt, 1974). However, one of the basic assumptions of these studies is the direct effect of strategy or strategy implementation on firms' performance. Although the main efforts by researchers in the strategy field have been directed at discovering the most effective strategy in a given situation, it is naturally assumed that there is a positive relationship between strategy and performance, because the primary purpose of adopting strategy is the improvement of performance. The notion of a direct effect of strategy on performance has been proven in that strategy can be a single independent variable in explaining firms' performance (Dess & Davis, 1984; Hambrick, 1983b; Kumar & Subramanian, 1998). The same logic can be applied to strategy implementation. As discussed in an earlier section, numerous researchers have studied various aspects of strategy implementation, including dimension, typology, and the relationship with other constructs in the strategic management process (Alexander, 1992; Bonoma, 1985, Galbraith & Kazanjian, 1986; Stonich, 1982). The common assumption of these studies is the effectiveness of strategy implementation, regardless of what type of strategy implementation is used and how it is related to other variables (see Figure 2.4). The above discussion suggests the propositions that there are relationships between strategy and firm performance, and that there are relationships between strategy implementation and firm performance. These propositions generate four hypotheses, as follows:

> ***Hypothesis 13:*** *The defender type of strategy will have a positive effect on the level of satisfaction with performance.*
> ***Hypothesis 14:*** *The prospector type of strategy will have a positive effect on the level of satisfaction with performance.*
> ***Hypothesis 15:*** *The commander type of strategy implementation will have a positive effect on the level of satisfaction with performance.*
> ***Hypothesis 16:*** *The collaborator type of strategy implementation will have a positive effect on the level of satisfaction with performance.*

Congruence Among the Constructs in the Strategic Management Process

A firm's environment and its strategy, respectively, have been the focus of researchers in strategic management and industrial organizational economics as important variables to explain firms' performance. The significant impacts of environment and strategy on firms' performance have been tested and demonstrated empirically (Porter, 1980; Scherer, 1970). The efforts to demonstrate the relationship of the environment and strategy on firms' performance can be categorized into two schools of thought. One school of thought, especially in the field of industrial organizational economics, has focused on the relationship between strategy and performance and views environments as primary moderators of that relationship (Bain, 1959; Prescott, 1986; Rockart, 1979; Scherer, 1970). Bain (1959) and Scherer (1970) suggested that objective characteristics of industries such as the rates of growth and concentration levels affect both a firm's strategy and its performance. Rockart (1979) argued that industry characteristics

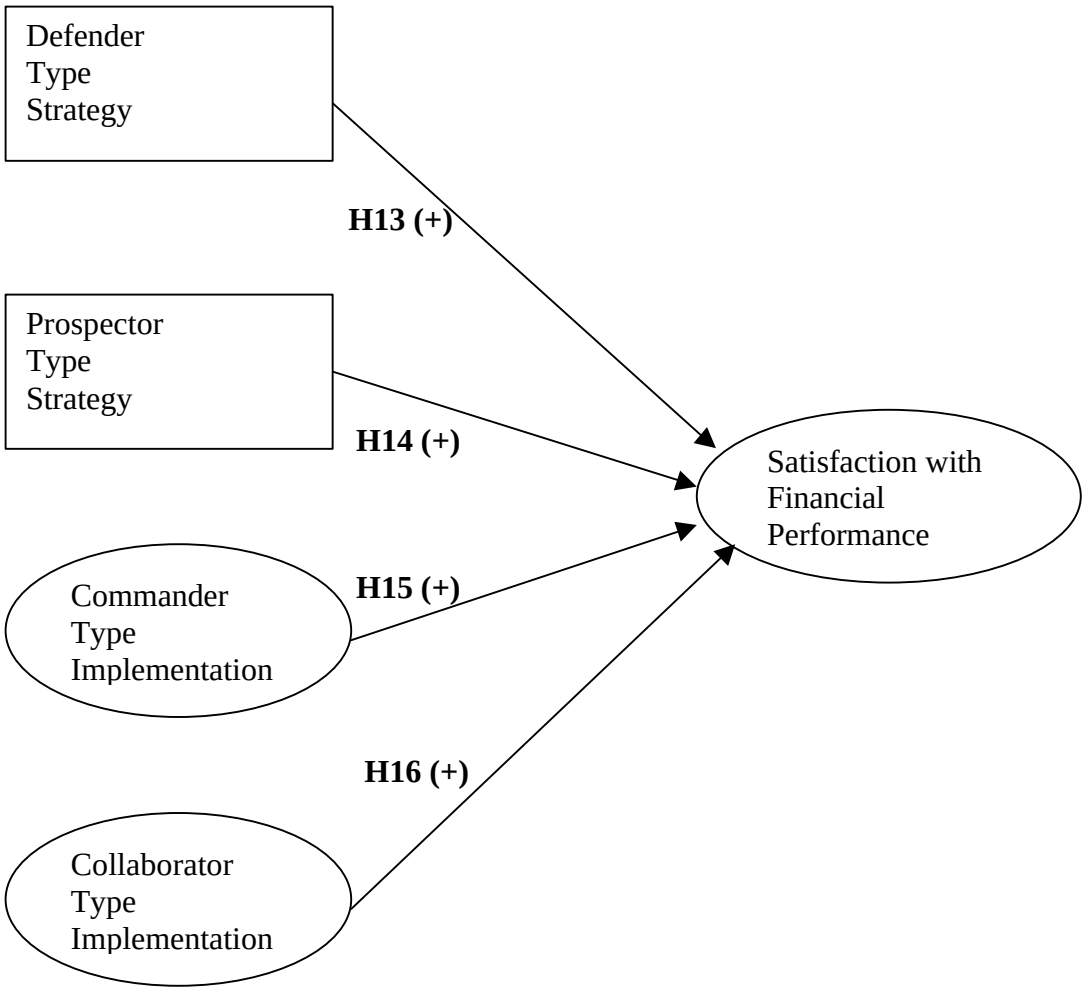

Figure 2.4. Relationships among Strategy, Strategy implementation, and Performance

Notes: Rectangle represents exogenous construct (explained by the X-indicators and influence endogenous constructs). Circle represents endogenous construct (explained by the Y-indicators, exogenous constructs, and other endogenous constructs, and simultaneously influence other endogenous constructs)

such as environmental factors determine the success of a firm's performance. This notion has been empirically tested and proven. The Profit Impact of Market Strategy (PIMS) studies proved that industry characteristics have an effect on the performance of business units. Prescott's (1986) empirical test using moderated regression analysis and subgroup analysis demonstrated that environments, as measured by the characteristics of market structures, moderate the relationship between strategy and performance. These findings have suggested that both the objective and perceived environments of an industry moderate the relationship between a business's strategy and its performance.

The other school of thought, represented by researchers in strategic management, has suggested that environment, independently or jointly with strategy, has an effect on performance. Several attempts have been made to examine the relationships among environment, strategy, and performance variables (Hambrick, 1986; Hitt, Ireland, & Stadter, 1982; Jauch, Osborn, & Glueck, 1980). For example, Bourgeois (1978) conducted a study to demonstrate the fit among strategic goals, perceived environmental uncertainty, and economic performance (return on total assets and growth) and concluded that the fit between strategic goals and perceived uncertainty yields better performance. The findings of this school of thought suggest that the characteristics of the environment influence decision-making through managerial perceptions and objective dimensions of industry structures. Thus, different environments require different strategies and the match between strategy and environment might improve firms' performance.

Both schools of thought indicate that environment is the most basic and important input to the strategic management process. Others strategic activities are frequently altered by the environmental conditions in which firms operate. The business environment in the hospitality industry has been configured as complex and dynamic (Olsen, 1980), which implies a great amount of uncertainty exist in the industry (Jogaratnam, 1995; West, 1988). Given the environmental uncertainty, it has been recommended that managers scan the environment frequently and precisely (Slattery & Olsen, 1984). Another method to reduce uncertainty is to match other strategic activities to the business environment, as was fully discussed in the previous sections. Based on the discussion and hypotheses developed in earlier sections, it is generally assumed that given the high level of environmental uncertainty, the collaborator type of strategy implementation connected with an organic structure and the prospector type of strategy will be more effective than the commander type of strategy implementation related to a mechanistic structure and the defender type of strategy. It thus, can be proposed that there is a match among the constructs in the strategic management process, yielding better firm performance. This proposition leads to the following hypothesis.

> ***Hypothesis 17:*** *The collaborator type of strategy implementation matched with an organic organizational structure and the prospector type of strategy will yield a higher level of satisfaction with performance in the hospitality industry than will be the commander type of strategy implementation connected with the less organic organizational structure and the defender type of strategy.*

The research investigating various relationships among the selected components of the strategic management process in this study, including type of strategy, perceived environmental certainty, organizational structure, type of implementation, and satisfaction with performance,

was reviewed in the previous sections. Based on the review of relevant literature, 17 hypotheses were developed for empirical testing. The next section reviews how these relationships are studied in the hospitality industry.

Relationships among the Components of Strategic Management in the Hospitality Industry

In the hospitality industry, the relationships among the components of strategic management have been a primary subject of research among researchers in this field. Schaffer (1986), Dev (1988), Tse (1988a), West (1988), Reeves (1988), Crawford-Welch (1990), Schmelzer (1992), Parsa (1994), Murthy (1994), and Jogaratnam (1995) studied the relationships among the components of strategic management. Schaffer (1986), Dev (1988), and Murthy (1994) studied the lodging industry, while the others studied the restaurant industry, except for Crawford-Welch (1990) who studied both areas. The studies of strategic management can be further divided into two primary categories. The efforts of one of these groups were devoted to determining a typology of strategy and its relationship with other components in strategic management (Dev, 1988; Jogaratnam, 1995; Murthy, 1994; Schaffer, 1986; Tse, 1988a; West, 1988). The efforts of the other group focused on strategy implementation and its relationship to other components of strategic management (Elwood, 1991; Parsa, 1994; Reeves, 1988; Schmelzer, 1992). A full review of this literature follows, although some of the studies have been briefly discussed in previous sections. First, the studies of strategy and its relationship to other components of strategic management are reviewed.

The primary purposes of Schaffer's (1986) study were to study the characteristics of competitive strategies and to reveal the strategy-structure matches and their impact on firm performance in the lodging industry. Schaffer (1986) identified five strategy types, including efficiency/quality controller, prospector-like, internalized resource controller, marketing focused analyzer, and geographic focused price leadership, using a 21-item scale developed by Dess and Davis (1984), which measures the strategic characteristics described by Miles and Snow (1978). An ANOVA test was utilized to examine the differences in performance among five strategic groups, and found no statistically significant difference between them. He further utilized four segments as a control variable, and found partial support for the performance differences across the five strategic types in each of these four industry segments.

Dev's (1988) study investigated the relationship between perceived environmental uncertainty, business strategy, and performance. He also utilized Miles and Snow's (1978) business strategy typology. He found no performance differences across the strategy types, which is much the same as Schaffer's (1986) finding. However, he discovered a significant relationship between the strategy-environment match and performance. The results of Dev's (1988) study imply that if a new variable is added to the existing variables utilized in a study such as task environments, the results of study may be changed.

In contrast to Schaffer (1986) and Dev (1988), West (1988) and Tse (1988a) utilized Porter's (1980) generic strategy typology. West (1988) studied the relationships among strategy, environmental scanning, and performance, while Tse (1988a) investigated the relationships among strategy, structure, and performance. The samples of both studies were drawn from the

restaurant industries. The hypotheses of both studies were partially supported, and the results of these studies were inconclusive in supporting a relationship between strategy and performance.

Crawford-Welch's (1990) study paralleled the previous research efforts reviewed above in terms of investigating the relationship between strategy and performance. The results of Crawford-Welch's (1990) study identified two basic strategies: defenders and prospectors. He found few significant performance differences across these two types of strategies.

Murthy (1994) also studied the relationship between strategy and performance in the lodging industry. He approached the determination of strategy types in the lodging industry somewhat differently. He developed a 105-item lodging industry-specific strategy measurement scale by reviewing the characteristics of Porter's (1980) business strategy and service management literature. By using factor analysis, he found seven strategic dimensions, including service quality leadership, technological leadership, push, cost control, pull, group channels, and cross-training. The results of empirical testing indicate that a high performance of lodging properties is associated with the strategic dimensions of push, service quality leadership, and technological leadership, and reveal that four control variables—location, segment, affiliation, and size—are also related to performance.

Jogaratnam (1995) studied the relationship between environmental munificence, strategic posture, and performance in the restaurant industry by utilizing moderated regression analysis. The results of this study indicate that both strategic posture and environmental munificence are independent predictors of performance, and there is no statistical evidence to show the role of environmental munificence on the effect of strategic posture on performance. However, the study reveals the independent and additive effects of both strategic posture and environmental munificence.

In contrast to the studies mentioned above, which focus on the context of strategy, the primary areas of interest of the following studies are strategy implementation and its relationships with other components of strategic management.

Reeves (1988) studied the relationship between managers' behavior, organizational systems, including employee training, organizational structure, performance evaluation, service quality, and rewards systems, and strategy implementation in the restaurant industry. The results of the study indicate that the strategy implementation systems that include an understanding by employees regarding the emphasis placed on service, a longer training period for new servers, and education of the owner were positively related to a firm's performance in terms of service quality for small, full-service restaurants.

Schmelzer's (1992) case study revealed various factors which affect strategy implementation in multi-unit restaurant firms. The study found that three primary context variables, organizational culture, organizational structure, and perceived environmental uncertainty; three primary process variables, information processing, planning and control, and resource allocation; and four additional variables, life cycle stage of the firm, size and geographic dispersion of the firm, manager demographics, and training, have a major effect on strategy implementation.

Finally, Parsa's (1994) study investigated strategic management in hospitality franchise systems, with an emphasis on implementation methods. Several hypotheses were utilized to test the relationship between the impact of sources of power, the strategy implementation process, and eventual performance. The results of the study indicate that implementation models affect the level of performance. Parsa argued that the match between performance objectives and the implementation model is vital to achieve the planned performance, and that performance is also affected by different sources of power.

A survey of the literature on strategic management in the hospitality industry indicates that the results of research are conflicting and inconclusive. Murthy (1994) argued that the imperfections in past studies in hospitality research about strategic management can be explained on two levels: (1) the conceptual level, including the definition of the construct of strategy itself, the unit of analysis, and the operationalization of the constructs of strategy and performance; and (2) the methodological level, including the choice of statistical techniques and the methods used to measure the variables under investigation.

Along with the other important reasons mentioned above, the view of strategy itself might make a large contribution to imperfections in the research about strategic management in the hospitality industry. As Murthy (1994) mentioned, most studies have focused on finding a unique strategy for a given set of organizational and environmental conditions (Dev, 1988; Parsa, 1994; Schaffer, 1986; Tse, 1988a; West, 1988). However, the contingency theory assumes that there is no one, best strategy, and that varying conditions require different strategies. The agreement of researchers in the strategic management field suggests that to be successful, an organization's strategy must be aligned with several contingent variables, the most important of which are internal and external environments, choice of strategy, organizational structure, and strategy implementation. In the hospitality industry, very limited research has been attempted so far in examining the inter-relationships among the components of strategic management mentioned above, and the impact of these relationships on firm performance. Further, even the limited hospitality research on the contingency relationships of strategy with other components in strategic management has examined only a bivariate fit, and no complex causal modeling has been attempted. A complex match of these components of strategic management can yield effective firm performance.

Summary

Concepts and theories of strategy have received great attention by scholars and practitioners because it is generally believed that well-formulated, well-chosen, and well-implemented strategies have positive relationships with a firm's performance. This study was conducted by keeping in mind the importance of strategy to the hospitality industry.

This chapter begins with reviews of the definition of strategy and a typology of strategy. Concepts and models of the strategic management process are presented. After reviewing the strategic management process, each of its components is investigated to present a general idea about how these components—strategy, firm performance, external factors, including the definition of environment and perceived environmental uncertainty, internal factors such as

organizational structure and strategy implementation—are portrayed in the literature. The studies of these components in the hospitality industry also are compared to determine the differences and similarities in research between the general business and the hospitality industry fields. The literature revealing the various relationships among the components of strategic management are investigated to explore how these components are related to each other in the general business and hospitality industries.

As seen in this chapter, many factors contribute to strategic management. Differences in type of strategy, implementation, structure, and perceived environmental uncertainty, might alter a firm's performance, including its performance. Researchers have investigated factors that have an impact on the successful implementation of strategy which, in turn, affects the performance of the firm. They also have attempted to discover any existing relationships among the constructs of strategic management. Although there are plenty of studies dealing with strategy in the hospitality industry, no widely accepted theoretical framework about strategic management exists. Specially, there is a lack of research revealing the various relationships among the constructs of strategic management in the hospitality industry. Table 2.4 presents the summary of literature, including the manufacturing and hospitality industries, related to this study. It summarizes how the purposes, research questions, and hypotheses are inter-related.

Table 2. 4.

Summary of Key Studies

Purposes	Research Question	Hypotheses	Key Studies	
			Manufacturing	**Hospitality**
P1	Q1	H2 H3	Miles & Snow (1978) Hambrick (1982) Bourgeois (1980)	Schmelzer (1992) Jogaratnam (1995) West (1988) Dev (1988)
	Q2	H4 H7 H8	Emery & Trist (1965) Miles et al (1974) Lawrence & Lorsch (1967) Bourgeois & Brodwin (1984)	Reeves (1988) Schmelzer (1992)
	Q3	H5 H6 H11 H12 H13 H14	Miles & Snow (1978) Hambrick (1983a) Miles, Snow, & Pfeffer (1974) Thomas & Ramaswamy (1996)	West (1988) Tse (1988) Jogaratnam (1995) Murthy (1994) Schmelzer (1992) Schaffer (1986) Dev (1988) Crawford-Welch (1990)
	Q4	H9 H10	Bourgeois & Brodwin (1984)	Schmelzer (1992) Parsa (1994)
	Q5	H15 H16	Bourgeois & Brodwin (1984) Ahire & Golhar (1996) Mintzberg & Water (1982) Alexander (1985)	Schmelzer (1992) Reeves (1988) Elwood (1991) Parsa (1994)
P2	Q6	H17	Schellenberg (1983)	Jogaratnam (1995) West (1988) Tse (1988) Dev (1988)
P3	Q7	H1	Miles & Snow (1978) Nutt (1983)	Murthy (1994) Schmelzer (1992)

CHAPTER III
METHODOLOGY

Introduction

Chapter I defined the research problem, the need for the study, the purpose of the study, and the contribution of the study. Chapter II presented a survey of the literature that lays the groundwork for this study. This chapter begins with a discussion of the research questions and hypotheses. A discussion of the theoretical model follows. Then, there is a discussion of how the constructs and variables involved in each construct were selected and operationalized in the model for the investigation of the relationships among environmental certainty, organizational structure, types of strategy, types of strategy implementation, and performance. Data collection methods, including the sample population and sampling procedure, and the survey instrument are presented, specifically. Finally, the discussion of statistics utilized in this study is provided.

Research Questions and Hypotheses

The purposes of this study, as stated in chapter I, were to examine certain relationships among selected constructs of strategic management in the hospitality industry, to discover their congruence, and to explore causal relationships among the selected variables. To fulfill the purposes of this study, several research questions are addressed as follows:

1. Is there any relationship between the external business environment and the types of strategy?
2. Does the external environment influence organizational structure, and the types of strategy implementation?
3. Do the types of business strategy influence organizational structure, the types of strategy implementation, and a firm's performance?
4. Does the organizational structure influence the types of strategy implementation?
5. Do the types of strategy implementation influence a firm's performance?
6. Is there any congruence among the constructs which yields better firms' performance?
7. Are there any causal relationships, indicated by the model, among the selected constructs?

Based on the stated purpose and the research questions, this research is guided by a number of underlying propositions. First, that there are certain direct relationships among the constructs. Second, that there are certain indirect relationships, in which a construct influences another construct through mediate construct, and causal relationships among the constructs. Finally, certain congruencies among variables are related to higher performance. From these underlying propositions, the following seventeen hypotheses are derived. The discussion about how these hypotheses are derived was fully presented in Chapter II. The specific diagrams of the hypotheses in the research are shown in Figure 3.1.

Hypothesis 1: There will be causal relationships among the constructs in the strategic management process.

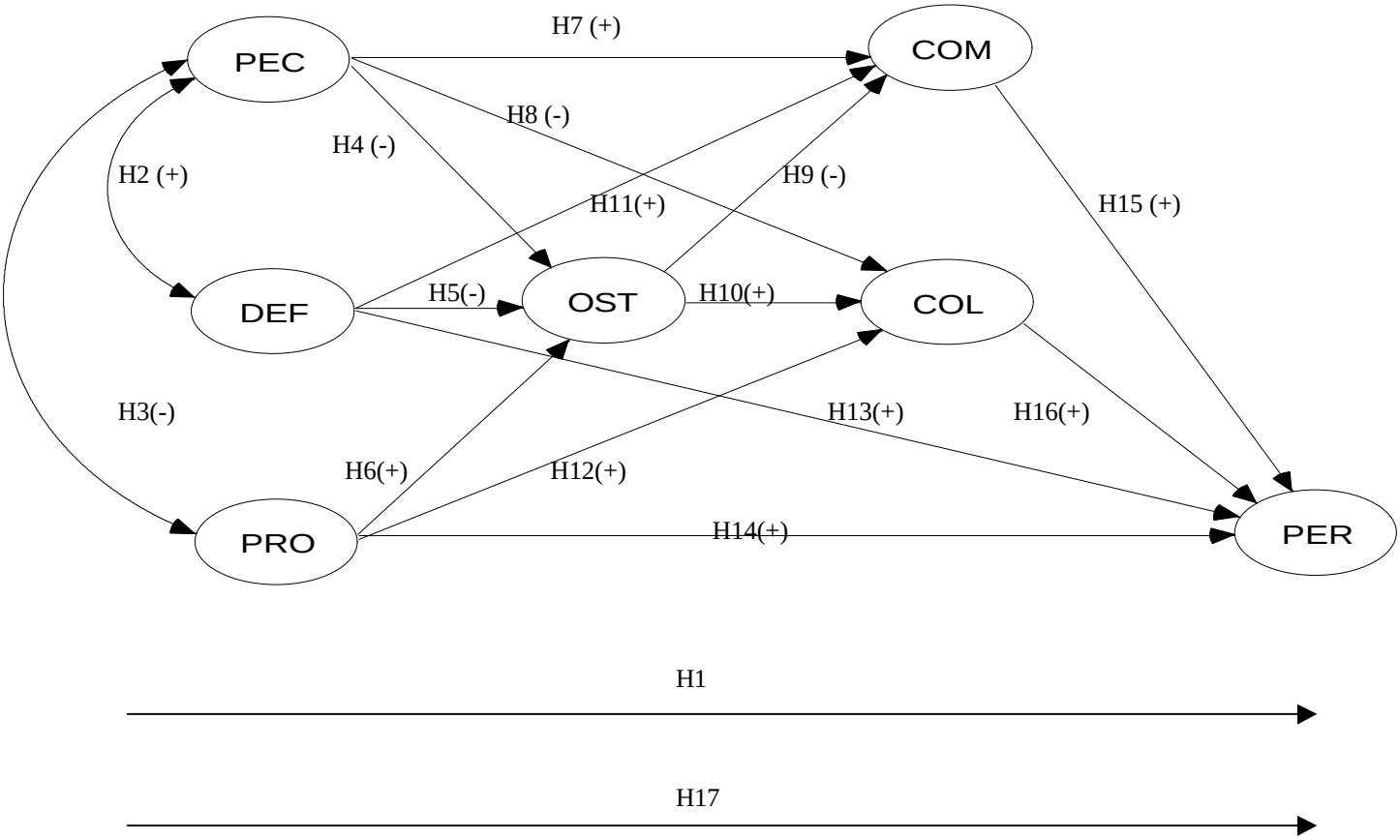

Figure 3.1. Hypotheses of the Study
Notes: H1-Causal Relationship; H17-Congruence; PEC-Perceived Environmental Certainty; DEF-Defender Type of Strategy; PRO-Prospector Type of Strategy; OST-Organizational Structure; COM-Commander Type of Strategy Implementation; COL-Collaborator Type of Strategy Implementation; and PER-Satisfaction with Performance.

Hypothesis 2: There will be a positive relationship between perceived environmental certainty and the defender type of strategy.

Hypothesis 3: There will be a negative relationship between perceived environmental certainty and the prospector type of strategy.

Hypothesis 4: Perceived environmental certainty will have a negative effect on organic organizational structure.

Hypothesis 5: The defender type of strategy will have a negative effect on organic organizational structure.

Hypothesis 6: The prospector type of strategy will have a positive effect on organic organizational structure.

Hypothesis 7: Perceived environmental certainty will have a positive effect on the commander type of strategy implementation.

Hypothesis 8: Perceived environmental certainty will have a negative effect on the collaborator type of strategy implementation.

Hypothesis 9: Organic organizational structure will have a negative effect on the commander type of strategy implementation.

Hypothesis 10: Organic organizational structure will have a positive effect on the collaborator type of strategy implementation.

Hypothesis 11: The defender type of strategy will have a positive effect on the commander type of strategy implementation.

Hypothesis 12: The prospector type of strategy will have a positive effect on the collaborator type of strategy implementation.

Hypothesis 13: The defender type of strategy will have a positive effect on the level of satisfaction with performance.

Hypothesis 14: The prospector type of strategy will have a positive effect on the level of satisfaction with performance.

Hypothesis 15: The commander type of strategy implementation will have a positive effect on the level of satisfaction with performance.

Hypothesis 16: The collaborator type of strategy implementation will have a positive effect on the level of satisfaction with performance.

Hypothesis 17: The collaborator type of strategy implementation matched with an organic organizational structure and the prospector type of strategy will yield higher level of satisfaction with performance in the hospitality industry than will be the commander type of strategy implementation connected with the less organic organizational structure and the defender type of strategy.

Research Framework

The main purpose of this study is to develop and test a theoretical model that represents the elements of strategic management contributing to a firm's performance. The model presented in Figure 1.2 (phase-I) illustrates the interrelationships among the basic constructs in the study. The model, illustrated in Figure 3.2 (phase II), is formulated by integrating the relationships derived from a study of the literature and is also adapted from Olsen, et al.'s (1992) model as indicated in the literature review, and indicates interrelationships among the constructs selected for the study. It also presents the variables that belong to each construct.

The lodging and restaurant industries were selected for the study for methodological and practical reasons: (1) the restaurant and lodging industries are recognized as major industries in the hospitality field; (2) these industries provide a diverse set of strategic management types that create varying degrees of responses; and (3) the interest of the researcher.

Operationalization of Constructs

Figure 3.2 presents the constructs and variables utilized in this study. The constructs must be defined and measured appropriately to yield valid empirical test results concerning their relationships. The constructs include perceived environmental uncertainty, organizational structure of the firm, two types of strategy, two types of strategy implementation, and firm performance. In this study, the ultimate dependent or endogenous construct is the firm's performance. Three mediate endogenous constructs are organizational structure and two types of strategy implementation, including commander and collaborator types of strategy implementation. It is assumed that two of these three mediate endogenous constructs, two types of strategy implementation, will influence a firm's performance. The exogenous constructs for the study are perceived environmental uncertainty and two types of strategy (defender and prospector), which are believed to influence the mediate endogenous constructs as well as the ultimate endogenous construct. The model proposes that perceived environmental uncertainty and types of strategy affect organizational structure and types of strategy implementation. One of the mediate endogenous constructs, organizational structure, is assumed to have an effect on the other endogenous constructs, two types of strategy implementation. Finally, this model assumes that both the types of strategy and the types of strategy implementation directly influence the ultimate dependent variable of firm performance. The following sections of this chapter comprise a discussion of the definitions and measurements of the constructs, as well as variables belonging to each construct.

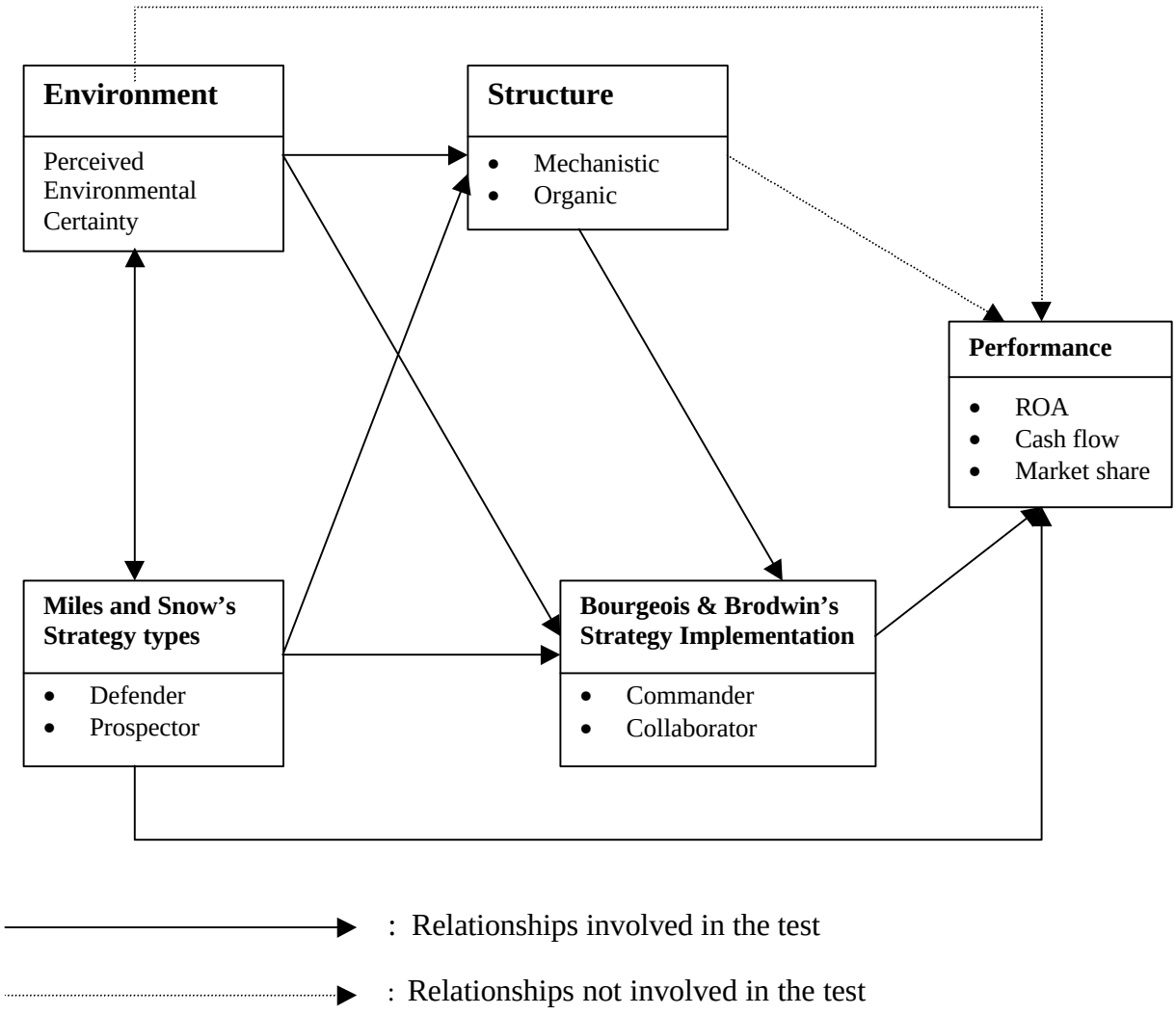

Figure 3.2. Model of the Study (phase II)

recognized as major industries in the hospitality field; (2) these industries provide a diverse set of strategic management types that create varying degrees of responses; and (3) the interest of the researcher.

Exogenous Constructs

Perceived Environmental Uncertainty.

The business environment, as defined by Selznick (1948), can be said to be all events, including physical and social factors, that could influence the business or the decision-making behavior of individuals in an organization (Duncan, 1972). The business environment can be categorized into internal and external environments, as discussed in Chapter II. Both internal and external environments can be objective, or perceived according to whether the decision-makers in an organization consider them in their strategic planning (Bourgeois, 1980). Perceived environmental uncertainty is important in an investigation of the relationships among the components of strategic management, because the dimensions of environment, including complexity, dynamism, heterogeneity, munificence, and illiberality are closely related to degrees of uncertainty, and the perceptions of the environment vary according to the types of management.

Perceived environmental uncertainty (PEU) is measured in this study by using the modified PEU instrument for the hospitality industry, which was originally developed by Miles and Snow (1978). Examples of the use of their instrument can be found in the literature. Elenkov (1997) adapted the Miles and Snow PEU instrument in his investigation the relationship between strategic uncertainty and environmental scanning. In the hospitality industry, Dev (1988) and Schmelzer (1992) utilized environmental uncertainty in their studies of the linkages among environment, strategy, and performance. The reliability of the scale has been shown by Ireland et al. (1987), using a coefficient alpha test.

Some researchers (e.g., Buchko, 1994; Tosi & Slocum, 1984) have suggested that the use of multidimensional measures is highly consistent with the PEU construct and thus the use of multi-item sub-scales may be an important improvement over many of the idiosyncratic measures used in prior research. Therefore, the instrument used in this research contains six scales, composed of 25 items, that measure perceived uncertainty in six major dimensions of a firm's external environment: (1) suppliers of raw materials and parts; (2) competitors' behavior; (3) customers; (4) financial/capital markets; (5) government regulatory agency actions; and (6) behavior of labor. Managers were asked to evaluate the predictability of each item, which is related to future events of the environment on a seven-point Likert-type scale. Means from each of the six scales were obtained for further analysis. The next section is devoted to explaining the organizational structure and how to measure it.

Types of Strategy

Although it is very important to measure strategy in a valid and reliable manner, there is no universally accepted operational measure for strategy because of the differences in the

research vocabulary underlying disciplines in the field of strategic management (Ginsberg, 1984). Despite the lack of a universally accepted operational measure for the strategy, the literature reveals that several attempts have been made to measure the construct of strategy (Anderson & Zeithaml, 1984; Miller & Friesen 1983; Woo & Cooper, 1980).

The two commonly referenced business strategy typologies are those proposed by Porter (1980), and Miles and Snow (1978). Each of these business strategy typologies has its own strengths. As mentioned in the literature review, Miles and Snow's (1978) typology of strategies constitutes a comprehensive investigation of the relationships between strategic management and internal organizational features (Hambrick, 1983a), and is thus particularly appropriate for use in this study. This study will use a modified Miles & Snow' (1978) business strategy typology, which is applicable to the hospitality industry. As was fully discussed in Chapter II, Miles and Snow (1978) identified behavior patterns of competing firms within an industry as four generic strategy types: defenders, prospectors, analyzers, and reactors.

The operational measures of Miles & Snow's typology have been developed and empirically tested by Snow and Hrebiniak (1980). They introduced four methods, investigator inference, self-typing, external assessment, and objective indicators, to measure organizational strategies. As they have stated, each method of measuring strategy has its unique advantages and disadvantages. To reduce the disadvantages and to increase validity and reliability, they recommended utilizing more than one method. Dev (1988), Elwood (1992), and Crawford-Welch (1990) utilized a combination of the self-typing method and a survey instrument to measure Miles and Snow's strategy typology, and proved both the validity and the internal consistency of the instrument using Cronbach's alpha test. However, utilizing more than two methods makes the questionnaire too lengthy, which may decrease the response rate. Since the validity and reliability of a survey instrument to measure Miles & Snow's strategy typology have been proved by various researchers (Crawford-Welch, 1990; Dev, 1988; Hrebiniak, 1980), this study utilizes only a survey instrument method.

To measure strategy, a survey instrument originally employed by Dess and Davis (1984), and modified by Dev (1988), is used. The portion of the survey instrument relating to strategy also contains 23 questions to be rated on a 7-point Likert scale according to how important each of the items is to the firm's overall strategy in the hospitality industry.

Mediate Endogenous Constructs

Organizational Structure

One organizational component considered in this study is organizational structure, defined as "a collection of people in a division of labor working together to achieve a common purpose or common direction (David, 1997)." The dimensions and determinants of organizational structure have received extensive coverage in organization theory, and a number of structural dimensions have been identified and described in Chapters I and II of this study. It is important to note that research concerning organizational structure is not the same as research on organizational structuring. Campbell, Bownas, Peterson, and Dunnette (1974) distinguished

the difference between the structural qualities of an organization and the structuring characteristics of an organization. According to their definition, the structural qualities of an organization are its physical characteristics such as size/sub-unit size, span of control, flat/tall hierarchy, and administrative intensity, which are treated as tools that can be used in strategy implementation. Structuring refers to policies and activities that prescribe or restrict the behavior of organization members, such as specialization, formalization, and centralization. These dimensions are the crux of the definition of structure from the viewpoint of organization theorists. The structural measures are similar to the notion of configuration as it is used in business policy. This study utilizes only the concept of structuring, because both organization theorist and business strategists agree that the concept of structuring represents the core of organizational structure, while the structure itself is the sub-concept of strategy implementation.

For the purpose of this study, the structural characteristics of a firm are viewed as a continuum from mechanistic to organic design, as shown in Figure 3.3. Mechanistic organizations are highly bureaucratic in form. They typically operate with more centralized authority, many rules and procedures, a precise division of labor, narrow spans of control, and formal means of coordination (Schermerborn, 1993). Organic organizations have much in common with adaptive and flexible systems. They operate with more decentralized authority, fewer rules and procedures, less precise division of labor, wider spans of control, and more personal means of coordination (Schermerborn, 1993).

However, the literature concerning organizational structuring reveals that three apparent dimensions of organizational structure decide the degree of either mechanistic or organic structure. The three dimensions that were commonly researched are: 1) centralization; 2) formalization; and 3) specialization. Centralization refers to the locus of decisions about structure (Pugh, Hichson, Hinings, & Turner, 1968). The traditional pyramid form of organization may give an impression of a highly centralized structure. It can be measured in terms of the amount of participation in decision-making at lower organizational levels (Aiken & Hage, 1968). Formalization is the degree to which the norms, rules, and regulations are explicit to its members (Hage & Aiken, 1967). It can be measured by the extent to which rules, procedures, communication methods, and regulations are written and distributed (Pugh et al, 1968). Specialization, which is similar to complexity, is concerned with the division of labor, the distribution of official duties among a number of positions, and the degree of personal expertise within an organization (Pugh et al, 1968). It is measured by assessing the existence of different functional activities, including advertising, personnel hiring and training, purchasing and inventory control, financial resource management, operations and quality control, research and development, and administrative procedures (Tse, 1988a).

Many researchers have utilized the three dimensions of structure mentioned above. For example, Reimann (1973), Schellenberg (1983), Fredrickson (1986), and Miller and Droge (1986) in the manufacturing industry, and Schaffer (1986) and Tse (1988a) in the hospitality industry have utilized these dimensions of structure in their studies. These measures are extended to the hotel and restaurant industries to measure the degree of structure among firms by developing a continuum from mechanistic to organic designs that involves three dimensions of structure. The specific method utilized to measure this construct is discussed in the section

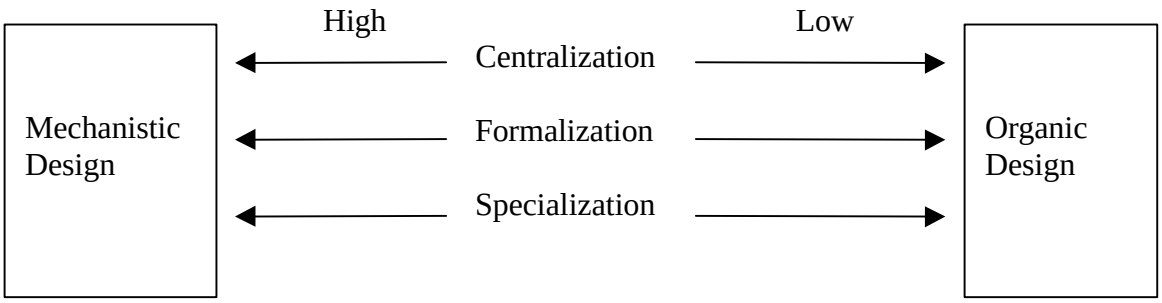

Figure 3.3. Continuum of Organizational Structure.

concerning the survey instrument. In the next section, two mediate endogenous variables utilized in this study are identified and the process of operationalization will be explained.

Types of Strategy Implementation

Implementation is an administrative task in which top management selects adequate tools in order to operationalize strategy. Strategy implementation involves the tasks of developing a strategy-supportive culture, creating an effective organizational structure, redirecting marketing efforts, preparing budgets, developing and utilizing information systems, and linking employee compensation to organizational performance (David, 1997). Thus, it generally involves major or minor changes in structure, systems, controls, and power and decision-making centers within the firm (Miller & Friesen, 1984).

As discussed in Ch II, this study utilizes Bourgeois and Brodwin's (1984) strategy implementation typology, which consists of five types of strategy implementation: commander; change; collaborative; cultural; and crescive types.

Bourgeois and Brodwin's model (1984) is comprehensive and based on specific assumptions. Also the model is so prescriptive in nature that the relationships among the constructs in the strategic management process are explicitly presented. Thus it is possible to test empirically the relationships among strategy implementation and other constructs in the strategic management process.

To measure strategy implementation, this study will utilize a survey instrument approach. The survey instrument containing 29 questions to be rated on a 7-point Likert scale was developed by reviewing the descriptions of each strategy implementation type. These 29 questions reflect the five strategy implementation types and ask the respondents' perception of how important each of the items or questions is to the firm's overall strategy implementation in the hospitality industry.

As mentioned before, organizational structure and type of strategy implementation comprise the mediate endogenous constructs in this research. The ultimate dependent construct of firm performance is discussed in the following section, and also the method used to measure firm performance.

Ultimate Endogenous or Dependent Construct

Performance

In measuring firm performance, as discussed in Chapter II, there are dilemmas about efficiency versus effectiveness, short-term profit maximization versus long-term competitive advantage, and taking a uni-dimensional view versus a multi-dimensional view of performance (Connolly, Conlon, & Deutsch, 1980; Ford & Schellendberg, 1982). Generally, the choice of

performance measures depends on the purpose and context of the research. Performance has generally been conceptualized and measured by various schemes, depending on factors such as research questions, disciplinary focus, and data availability.

In this study, the economic or financial performance of a firm, as discussed in Chapter II, is assessed by three measures: average percentage of return on assets, cash flow, and market share. By measuring three performance-related variables, this study is able to assess multi-dimensional view of performance. Also, both effectiveness and efficiency are measured by ROA and growth rate respectably. Finally, the debate about short-term and long-term competitive advantages are satisfied by measuring ROA and cash flow for short-term, and growth rate for long-term competitive advantage.

This performance data was collected for the three years 1995 through 1997, inclusive. The respondents were asked to indicate the degree of their firm's performance satisfaction level for the last three years in comparison to their key competitors. Performance data were self-reported by the respondents because it was expected that acquiring performance (financial) data through a secondary data set would be severely restricted and difficult to obtain. Objective financial data are not generally publicly available, and owners are known to be very sensitive about releasing any performance-related data (Dess & Robinson, 1984). However, the performance of the public firms included in the sample population of the study were compared to a secondary data set to increase accuracy.

As mentioned in the beginning of this chapter, it is important to define and measure the variables properly to have reliable and valid results. Efforts have been made to define the variables and arrive at measurement methods through investigations of previous research done in both the manufacturing and service industries. Table 3.1 presents the summary of operationalization of constructs utilized in this study. In the following section, data collection methods are presented, followed by a discussion of the survey instrument and the statistical analysis used in this research.

Data Collection Methods

As McGrath, Martin, and Kulka, (1982) stated, there are various distinguishable research methods, including field experiments, laboratory experiments, judgment tasks, and computer simulation. Each research method has unique advantages and disadvantages. The critical factor in selecting a research method is to maximize generalizability, control over variables, and existential realism. To satisfy these objectives with regard to the given hypotheses and conditions, a population-sampling method was utilized in this study. The advantage of the sample survey method is to maximize effective sampling of the population units to be studied, thus maximizing population generalizability. The disadvantages of the sample survey method are relatively low levels of precision and the realism of the context (McGrath et. al., 1982). In the following section, the method of sample and data selection is discussed.

Sample Size and Selection

Firms in the USA that engage in the hotel and restaurant business, including conglomerates and independents, were selected as the relevant unit of analysis. However, due to the limitations of time and finances, it was not feasible to select a target population which was representative of the entire population of units in the United States' hospitality industry, which is perceived as extremely diverse and heterogeneous (Crawford-Welch, 1990; Dev, 1988; Tse, 1988a). For the purpose of this study, two separate sample pools were utilized for the hotel and restaurant industries.

For the hotel industry, the sample was randomly selected from The Infotrac Data Base. A section of SIC 7011 in the Infotrac Database represents the hotels and motels, which can be described as commercial establishments, known to the public as hotels, motor hotels, motels, or tourist courts, primarily engaged in providing lodging, or lodging and meals, for the general public. Hotels which are operated by membership organizations and open to the general public are included in this category. The database contains 886 lodging companies' profiles.

For the restaurant industry, a section of SIC 5812 (eating places) in Infotrac Database was utilized. It represents establishments primarily engaged in the retail sale of prepared food and drinks for on-premise or immediate consumption. Caterers and industrial and institutional food service establishment are also included in this industry. This database contains 2,015 profiles of restaurant companies, including strategic business units and independents. The primary disadvantage of the sample pools is the limited generalizability of the study across other industries.

The statistical technique (structural equation modeling) that is the primary technique in this study required approximately 200 responses. Crawford-Welch (1990) indicates that the response rates of past studies conducted in the context of the hospitality industry varied from 10.5 percent (Dev, 1988) to 30.7 percent (West, 1988; Tse, 1988a). The expected response rate was 10-15%, which means that approximately a 2000 target sample size was required. A total of 2000 firms (1400 from restaurants and 600 from lodging firms) were drawn from the sample pools, and 2000 questionnaires were sent. The actual response rate is fully discussed in the next chapter.

Data Collection Process

The primary data collection for this study was through mailed questionnaires to be completed by the top management, including chief executive officers or presidents of each strategic business unit (independents or a strategic business unit of conglomerates), in the sample and by selected members of the top management teams in each business unit who are involved in strategy formulation activities. The mailing included a cover letter, a questionnaire, and a postage-paid return envelope. The questionnaire contained questions which sought information concerning how the recipients perceive their business environments, what business strategies these firms employ, their company structures, their strategy implementation approaches and financial performance, and finally, operational profiles of the companies,

Table 3.1.

Summary of Operationalization of Constructs

Kind	Constructs	Theory	Measurement	Survey Questions
Exogenous	Perceived Environmental Certainty	Miles & Snow (1978)	6 Scales (25 items) • Suppliers • Competitors • Customers • Financial Markets • Regulatory Agencies • Employment	Q5
	Strategy	Miles & Snow (1978) Dess & Davis (1984)	3 Scales (23 items) • Defender • Prospector • Analyzer	Q6
Endogenous	Organizational Structure	Tse (1988) Pugh et al (1968)	3 Scales (6 items) • Centralization • Formalization • Specialization	Q4
	Strategy Implementation	Bourgeois & Browdin (1984)	5 Scales (29 items) • Commander • Changer • Collaborator • Cultural Type • Crescive Type	Q7
	Performance	Bourgeois (1980)	3 Scales (3 items) • Return on Assets • Cash Flow • Market Share	Q8

including the age and size of firm. The cover letter, along with the questionnaire, indicated the nature of the research, a request for cooperation, and an outline of benefits to their organization, which included a summary of the study results.

To increase the response rate, Dillman's (1978) "Total Design Method" was applied. Two weeks after the questionnaires were mailed to the respondents, a reminder postcard was sent, followed by a re-mailing of the entire package to those organizations that did not respond three weeks after the initial mailing.

Reliability and Validity of Survey Questionnaire

Reliability and validity are central issues in the measurement of variables. Both concern how concrete measures, or indicators, are developed for constructs (Neuman, 1994). It is virtually impossible to achieve perfect reliability and validity; rather they are ideals researchers strive for.

Reliability deals with an indicator's dependability, which means that the information provided by indicators does not vary as a result of the characteristics of the indicator, instrument, or measurement device itself. There are three types of reliability, including stability, representative, and equivalence reliability.

Stability reliability concerns time. It addresses the question of whether the measure delivers the same answer across different time periods. Usually, stability reliability is examined by the test-retest method. Due to the limitations of time and financial resources, stability reliability could not be examined in this study. Representative reliability concerns sub-populations. It addresses the question of whether the measure delivers the same answer across different sub-populations. Representative reliability was addressed in this study by using two sub-populations: the lodging and restaurant industries. The proposed model was replicated for two selected industries: the lodging and restaurant industries. Finally, equivalence reliability concerns multiple indicators. It addresses the question of whether the measure yields consistent results across different indicators. Reliability is addressed in this study by using Cronbach's alpha statistical test.

Validity refers to the degree of fit between a construct and indicators, or how well the conceptual and operational definitions mesh with each other (Neuman, 1994). Two types of measurement validity, face and content validities, were checked in this study.

Face validity is a judgment by a specialist group that the indicator really measures the construct. This study addresses face validity by acquiring information about the questionnaire from faculty and graduate students who are familiar with strategic management and the hospitality industry. Content validity addresses the question of whether the full content of a definition is represented in a measure. To achieve content validity, a multi-trait multi-method is utilized (Churchill, 1979; Farh, Hoffman, & Hegarty, 1984). To address the content validity issue, the main variables of the study are measured by several attributes. Also the data acquired by direct mailing are compared to secondary data such as published materials and annual reports.

Pre-test of Survey Instrument

The purposes of the pre-test (Conant & Mokwa,1986) are to ensure that the instrument measures what was intended for the study, to check reliability, and to improve the quality of the questionnaire. Prior to undertaking the primary survey, a pre-test was conducted using 10 lodging and 10 restaurant organizations in Blacksburg and Roanoke, Virginia. The questionnaire was mailed and respondents were asked to complete it and to provide additional feedback on matters relating to content, wording, comprehension, and appropriateness of questions (see Appendix E and F for the cover letter and questionnaire of pre-test). The first draft of the questionnaire was the subject of extensive discussion so as to acquire a broad perspective of the strategy instrument. Additionally, faculty and graduate students in the department of Hospitality and Tourism Management at Virginia Tech who are familiar with strategic management were involved in the pre-test to add their input to the survey instrument. The input from the pre-test was reflected in the final version of the survey instrument. Two lodging and three restaurant organizations returned the questionnaire. Additionally, faculty and graduate students completed four questionnaires. The respondents in the pre-test indicated that the original questionnaire is too lengthy and some of question are difficult to understand. Based on the recommendations of the respondents in the pre-test, the final version of questionnaire was developed (see Appendix D). Some lengthy questions about strategy and strategy implementation (questions 8 and 12) were eliminated from the questionnaire. Also, the questions about organizational structure and strategy implementation were modified. The questions about firm information and performance also were modified and shorten.

Survey Instrument

A questionnaire was used to collect data, which was structured in terms of its question format, question order and layout, and length. Variables were measured to discover their relationship to firm performance through self-typing by respondents. The discussion of each aspect of measurement for variables was described in each section of questions. One set of coded surveys for both restaurant organizations and lodging organizations was developed and was pre-tested, as described earlier in this chapter. The works of Dess and Davis (1984), Schaffer (1986), Tse (1988a), and Crawford-welch (1990) provided the framework for this questionnaire. The questionnaire consists of 6 sections. The purposes and other details about the questions was discussed, as follows.

Firm Information

This section is designed to acquire demographic profiles of the respondents and companies. The primary purpose of these questions is to gain information on the internal variables used in this study. Question 1 indicates the position of respondents, which ensures the appropriateness for this study of the individual who completes each questionnaire. The purpose of question 2 was to gather information on the age of the firm. Question 3 is designed to acquire information on the size of the firm. It was anticipated that these questions provide general information about the respondents.

Question 1

Please state your title _____.

Question 2

Please state the year your company began to operate_____ .

Question 3

Please state below the information about your company.

	1995	1996	1997
a. The number of employees in your company	_____	_____	_____
b. Annual Sales ($)	_____	_____	_____

Organizational Structure

As described in an earlier section, organizational structure is operationalized by measuring three dimensions: specialization, centralization, and formalization. Each dimension of organizational structure has two items.

Items (a) and (b) were designed to gain information concerning the degree of centralization within an organization, while items (c) and (d) measure the degree of specialization. The last two items (e) and (f) were developed to measure the degree of formalization within an organization. The lower the score, the more centralized, specialized, and formalized the company structure, which implies the more mechanistic organizational structure. The higher the score, the less centralized, specialized, and formalized the company structure, which implies the more organic organizational structure.

Question 4.

Please indicate the extent to which you consider each of the following items to be close to the characteristics of your firm's organizational structure. (Circle the most appropriate number)

(a) Centralized decision-making	1	2	3	4	5	6	7	Decentralized decision-making
(b) Many rules and procedures	1	2	3	4	5	6	7	Few rules and procedures
(c) Precise division of labor	1	2	3	4	5	6	7	Open division of labor
(d) Narrow spans of control	1	2	3	4	5	6	7	Wide spans of control
(e) Formal coordination	1	2	3	4	5	6	7	Informal coordination
(f) Impersonal corporate culture	1	2	3	4	5	6	7	Personal corporate culture

Perceived Environmental Uncertainty

Question 5 was modified from the survey instrument of Miles and Snow (1978) for application to the hospitality industry, and was designed to measure the perception of environmental uncertainty of managers in the hospitality industry. The question consists of 6

items—suppliers, competitors, customers, financial/capital market, government regulations, and employment. Each item has its sub-items. The total number of sub-items is 25. Respondents were asked to rate each sub-item, and the average score of each item was calculated. Then, the average scores of each item were utilized for the further analysis. A low score is positively related to the unpredictable or uncertain environment.

Question 5.
Please rate the ability of the following sectors to predict the future behavior of each of the environmental factors. (Circle the most appropriate number)

	Unpredictable						Predictable
Suppliers:							
(a) Their price changes…..……..	1	2	3	4	5	6	7
(b) Quality changes…….	1	2	3	4	5	6	7
(c) Design changes …….	1	2	3	4	5	6	7
(d) Introduction of new materials or components……	1	2	3	4	5	6	7
Competitors' actions:							
(e) Their price changes…..……..	1	2	3	4	5	6	7
(f) Product/service quality changes……	1	2	3	4	5	6	7
(g) Product/service design changes……	1	2	3	4	5	6	7
(h) Introduction of new products……	1	2	3	4	5	6	7
Customers:							
(i) Their demand for existing product/service……	1	2	3	4	5	6	7
(j) Demand for new products/services……...	1	2	3	4	5	6	7
The financial/capital market:							
(k) Interest rate changes:							
1. Short-term debt……	1	2	3	4	5	6	7
2. Long-term debt……	1	2	3	4	5	6	7
(l) Changes in financial system available:							
1. Short-term debt……	1	2	3	4	5	6	7
2. Long-term debt……	1	2	3	4	5	6	7
(m) Availability of credit:							
1. Short-term debt……	1	2	3	4	5	6	7
2. Long-term debt……	1	2	3	4	5	6	7
Government regulatory agencies:							
(n) Changes in laws or agency policies on pricing……..	1	2	3	4	5	6	7
(o) Changes in laws or agency policies on product/service standards or quality……..	1	2	3	4	5	6	7
(p) Changes in laws or policies regarding financial practices	1	2	3	4	5	6	7
(q) Changes in labor laws or policies……	1	2	3	4	5	6	7
(r) Changes in laws or policies affecting marketing and distribution methods…….	1	2	3	4	5	6	7
(s) Changes in laws or policies on acceptable accounting procedures……	1	2	3	4	5	6	7
Employment:							

(t)	Changes in wages, hours, and working conditions…….	1	2	3	4	5	6	7
(u)	Changes in turnover rate……..	1	2	3	4	5	6	7
(v)	Changes in grievance procedures……	1	2	3	4	5	6	7

Business Strategy

Question 6 was developed to determine the types of strategy employed by the restaurant and lodging companies examined. It was modified from the work of Dev (1988), which empirically tested Miles and Snow's (1978) strategy typology. This question consists of 23 variables, which represent the characteristics of each strategy. Respondents were asked to circle the degree of importance of each item. A high score is positively related to the importance of the item to the strategy.

Question 6

Please indicate the extent to which the following items represent the competitive behavior of your firm over the most recent three years with 1 = Not at all and 7 = To a great extent. (Circle the most appropriate number)

		Not at all						To a great Extent
a.	Focusing on specific markets/segments……..	1	2	3	4	5	6	7
b.	Cost control…….	1	2	3	4	5	6	7
c.	Training and development of employees……	1	2	3	4	5	6	7
d.	Building reputation in local communities……	1	2	3	4	5	6	7
e.	Monitoring customer satisfaction……	1	2	3	4	5	6	7
f.	Providing high service level……	1	2	3	4	5	6	7
g.	Controlling quality of products/services…….	1	2	3	4	5	6	7
h.	Responding to changing market conditions before competitors……	1	2	3	4	5	6	7
i.	Developing new products/services……..	1	2	3	4	5	6	7
j.	Maintaining low inventories……	1	2	3	4	5	6	7
k.	Providing a variety of products/services…….	1	2	3	4	5	6	7
l.	Being price competitive……..	1	2	3	4	5	6	7
m.	Testing new market ideas and methods……..	1	2	3	4	5	6	7
n.	Serving a variety of markets/segments……	1	2	3	4	5	6	7
o.	Controlling material/supply sources……	1	2	3	4	5	6	7
p.	Using loans to finance projects……	1	2	3	4	5	6	7
q.	Providing customized services……	1	2	3	4	5	6	7
r.	Introducing innovative service methods…….	1	2	3	4	5	6	7
s.	Maintaining operational efficiency…….	1	2	3	4	5	6	7
t.	Searching for new markets/opportunities……	1	2	3	4	5	6	7
u.	Keeping track of competition……..	1	2	3	4	5	6	7
v.	Regular renovation/refurbishment……..	1	2	3	4	5	6	7
w.	Conducting consumer research……	1	2	3	4	5	6	7

Strategy Implementation

Question 7 was designed to provide the necessary information to measure strategy implementation. The 29 items were developed from the descriptions of Bourgeois and Brodwin's (1984) five types of strategy implementation. Respondents were asked to circle the degree of importance of each item to the strategy implementation activities within their firms. A high score is positively related to the importance of the item to the strategy implementation for the firm.

Question 7.

Please indicate the extent to which the following items or statements represent the characteristics of strategy implementation of your firm over the most recent three years with 1 = Not at all and 7 = To a great extent. (Circle the most appropriate number)

	Not at all						To a great extent
a. CEO's insulation from personal biases and political influences……	1	2	3	4	5	6	7
b. Power and complete information of CEO……..	1	2	3	4	5	6	7
c. The role of CEO is that of co-ordinator……	1	2	3	4	5	6	7
d. The role of CEO is that of rational actor……..	1	2	3	4	5	6	7
e. The role of CEO is that of architect……..	1	2	3	4	5	6	7
f. The role of CEO is that of coach……...	1	2	3	4	5	6	7
g. The role of CEO is that of premise-setter and judge…….	1	2	3	4	5	6	7
h. Strategic position of company……	1	2	3	4	5	6	7
i. Optimization of strategy…….	1	2	3	4	5	6	7
j. Economic & competitive analysis (i.e., experience curve, growth/share matrices, and industry analysis)……..…….	1	2	3	4	5	6	7
k. Sizeable planning staff……	1	2	3	4	5	6	7
l. Downward communication…….	1	2	3	4	5	6	7
m. Upward communication……	1	2	3	4	5	6	7
n. Lateral communication…….	1	2	3	4	5	6	7
o. Systems of organization, including structure, compensation, control systems, and planning system……	1	2	3	4	5	6	7
p. Applying behavioral science technologies (i.e. human resources)…	1	2	3	4	5	6	7
q. Goal consensus……...	1	2	3	4	5	6	7
r. Group decision-making at senior levels…….	1	2	3	4	5	6	7
s. Multiple inputs to a group decision……	1	2	3	4	5	6	7
t. Brainstorming…….	1	2	3	4	5	6	7
u. Shared goals between organization & its participants……	1	2	3	4	5	6	7
v. Participation of lower level employees in decision-making……	1	2	3	4	5	6	7
w. A set of values……	1	2	3	4	5	6	7
x. Corporate culture for unity of organization……	1	2	3	4	5	6	7
y. Utilizing the exiting strategic implementation models……	1	2	3	4	5	6	7
z. Development of strategic alternatives……	1	2	3	4	5	6	7
aa. Openness of the organization to new & discrepant information…….	1	2	3	4	5	6	7
bb. Manipulate systems & structures……	1	2	3	4	5	6	7
cc. Accurate & timely information……	1	2	3	4	5	6	7

Firm Performance

Question 8 was designed to ask the respondents about their satisfaction level with the firm's financial performance in comparison to their competitors over the three year period, 1995-1997. Average return on assets, cash flow, and market share were provided by the CEO, top management, or president who will reported the information through the self-typing approach.

Question-8.
Please indicate the degree of your firm's performance for the last three years in the following areas in comparison to your key competitors with 1 = Highly dissatisfied and 7 = Highly satisfied. (Circle the most appropriate number)

	Highly dissatisfied						Highly satisfied
a. Return on assets (Net operating income before tax and interest/total assets)……..	1	2	3	4	5	6	7
b. Cash flow (Difference between revenues and expenses for current operating period) ……	1	2	3	4	5	6	7
c. Market share (Your company's share of the market relative to all competing companies)……..	1	2	3	4	5	6	7

Statistical Analysis

This study adapts three main types of statistical analysis: Exploratory Factor Analysis (EFA), Confirmatory Factor Analysis (CFA), and Structural Equation Modeling (SEM). Actually, CFA is a part of SEM analysis. However the object of using CFA is to access the reliability and validity of the model, while the SEC is utilized to discover the existence of relationships among the constructs in the model. Therefore, these two statistical analyses are separately discussed in this study.

The main purpose of EFA is to examine the underlying patterns or relationships for a large number of variables and to determine whether or not the information can be condensed or summarized in a smaller set of factors or components with a minimum loss of information (Hair, Anderson, Tatham, & Black, 1995). The factors or components can be used in the further statistical analysis. The use of EFA in this study was also to explore some dimensions or factors in the constructs of type of strategy and type of strategy implementation. Miles and Snow's (1978) strategy typology consists of four types of theoretical strategy. However, the results of empirical tests in the hospitality industry as well as in the manufacturing industry do not match with the theoretical viewpoint. In other words, the types of strategy may vary according to industry. Furthermore, no studies were conducted to verify the Bourgeois and Brodwin's (1984)

five strategy implementation types. For this reason, principal exploratory factor analysis will be conducted for both constructs of strategy and strategy implementation by utilizing varimax rotation.

In exploratory factor analysis, the objective is to discover the dimensions of constructs. In a confirmatory factor analysis, the investigators have knowledge about the factorial nature of the variables. So the CFA makes it possible to confirm the factorial nature of the variables. The purposes of CFA in this study were to check the reliability and validity of the model and to measure how the latent constructs are measured in terms of the observed variables. Therefore, this study utilized CFA for each construct and then all constructs together.

Finally, Structural Equation Modeling (SEM) was utilized to examine a series of dependence relationships simultaneously. SEM was conducted by using LISREL program developed by Joreskog & Sorbom in 1993. SEM provides a straightforward method of dealing with multiple relationships simultaneously while providing statistical efficiency, and it develops a more systematic and holistic view of problems by assessing their relationships comprehensively, and further, can provide a transition from exploratory to confirmatory analysis (Hair, et al., 1995). The characteristics of SEM enable a researcher to test a series of relationships constituting a large-scale model, a set of fundamental principles, or even an entire theory, which is one of the purposes of this study. SEM also was used to discover causal relationships. Usually, SEM utilizes ordinary least square regression to measure the proposed causal relationships among a set of variables (Billings & Wroten, 1978). Through SEM, one can evaluate a system of non-manipulated variables and infer causal relationships. The match between the purposes of this study and the characteristics and advantages of SEM leaded to selects SEM as a primary statistical technique to investigate the hypotheses developed in this study.

Summary

The design of the strategic management process model was presented in this chapter, which is based on extensive review of the relevant literature in the hospitality industry as well as in the manufacturing industry. The hypotheses and research framework were discussed. Then, a discussion of how the constructs and variables was selected and operationalized for the investigation of the relationships among the constructs were provided. The descriptions of data collection methods, sampling procedure, and the survey instrument were followed. Finally, this chapter illustrated the statistical analysis techniques. The results of statistical analysis and hypotheses testing are presented in the following chapter.

CHAPTER IV
RESULTS

Introduction

In the previous chapter, the methodology, constructs, and variables assigned to each construct utilized in this study were discussed. This chapter presents the characteristics of the sample and the descriptive statistics of variables. A discussion of the validity and reliability of the instrument and data is offered. This is followed by an examination of the results of the tests of the hypotheses and the models. The final model, derived through the use of the LISREL program, will be provided. Finally, a summary of the results is presented.

Data collection

As discussed in Chapter III, the firms chosen to be included in this study were randomly selected from a database of about 3000 lodging and restaurant firms. A detailed account of this database was provided in the sample selection discussion in Chapter III.

Two thousand firms were randomly selected from a list of three thousand firms engaged in lodging and restaurant businesses. The survey questionnaire was sent twice to 2,000 randomly selected hospitality firms (see Appendix A and B for cover letters). In the first mailing, 92 firms participated and returned the survey. In the second mailing, the same survey questionnaire was sent to the same population again with postcards to remind them, because the number of responses was not sufficient to analyze the data (See Appendix C for the follow-up postcard). In this phase, 110 firms returned the survey (See Appendix D for the questionnaire). A total of 202 firms participated and returned the survey through the two data collection processes, for a response rate of 10.1 percent. Among the total responses, 18 responses were removed due to missing data or incomplete responses. Thus, the final sample size for the study was 184 (9.2%), which is close to the minimum level of the sample size for an SEM statistical analysis.

Non-respondents Bias

In an effort to determine whether the non-respondents were from the same population, or if they were statistically different from the responding firms, non-respondents bias test was conducted by comparing the early and late respondents on demographic and performance data for restaurant and lodging firms. For restaurant firms, a comparison of the early and late respondents revealed that these groups did not differ on the number of employees ($F=.000$, $p > .990$), annual sales ($F=.003$, $p > .003$), ROA ($F=3.973$, $p > .051$), and cash flow ($F=1.380$, $p > .019$). Only the satisfaction level with market share was different between the early and late respondents ($F=5.860$, $p < .019$). For lodging firms, a comparison of the early and late respondents revealed that these groups did not differ on the ROA ($F=3.447$, $p > .071$), cash flow ($F=.359$, $p > .552$), and market share ($F=1.135$, $p > .293$). The results of the test which examined demographic characteristics and performance data suggest that there were not statistically significant differences between the early and late respondents for both restaurant and lodging

firms. The similarities between the early and late respondents indicate the absence of response bias.

Sample Characteristics

The sample in this study exhibited a wide diversity of size, age, and sales revenue, and involved major firms in the hospitality industry. The following discussion compares several major characteristics of the sample firms and the respondents. Table 4.1 summarizes the demographics of the sample firms and the respondents.

Two thirds of the respondents were engaged in the restaurant industry (65.6 %), because the target sample population of the restaurant industry is twice as large as that of the lodging industry. Most of the respondents (83.2 %) were top executives (CEO, President, Owner, or Vice President), who were directly involved in strategic decision-making. The rest of the respondents (16.8 %) were also occupied in a high level of positions in their companies so that they could affect, either directly or indirectly, the decision-making process in the company.

This sample does not distributed normally in terms of number of year the company in operation. Of this sample, 110 (61.4 %) began their businesses since 1970. It is important to note that the phenomenon indirectly indicates the high turnover rate of businesses in the hospitality industry. The firm's size (the number of employee) varies from 3 to 107000. More than half of them (57.7 %) fell into the category of 10 to 500 employees. The volume of sales ($Million) also varies from 0.2 to 5800. The sales volume of most respondents (74.4 %) fell into the category of 1 to 100 million dollars.

Finally, the study examined the mean difference between lodging and restaurant firms in terms of several important constructs, including perceived environmental certainty, organizational structure, and the satisfaction level with performance. Analysis was conducted by using F-test. No significant difference was found in perception of environment for supplier, competitor, the financial market, government regulation, and employment between two groups. However, A significant difference was found between two groups for customer, $F = 8.953$; $p < .003$. Restaurant firms scored significantly higher on customer than did lodging firms. For three items (formalization, specialization, centralization) in organizational structure, no statistically significant difference was found ($F=1.934$, $p > .166$; $F=.697$, $P > .405$; $F=.100$, $p > .753$). Further, a comparison of the satisfaction level with performance revealed that two groups did not differ on ROA ($F=.171$, $p > .680$), cash flow ($F=.830$, $p > .363$), and market share ($F=.079$, $p > .779$). The results of this analysis which examined the mean difference between lodging and restaurant firms revealed that there were not any discernible differences between two groups.

The above discussion compared the demographic characteristics of firms, including their types of business, age, size, and volume of sales. Regarding these characteristics, it appears that the sample firms included in this study represent the population of the hospitality industry, especially the lodging and restaurant industries. The next section concerns measurement issues, including reliability and validity.

Table 4.1

Demographic Characteristics of Data

Characteristics	Frequency	%	Minimum	Maximum	Mean
Business					
Lodging	63	34.4			
Restaurant	120	65.6			
Position					
CEO/President	118	64.1			
Owner	18	9.8			
Vice President	11	6.0			
Director	6	3.3			
General Manager	23	12.5			
Functional Manager	5	2.7			
Other	3	1.6			
Year the company to operate					
Before 1920	8	4.5			
1920 -1929	5	2.8			
1930 -1939	8	4.5			
1940 -1949	11	6.2			
1950 -1959	10	5.6			
1960 -1969	27	15.0			
1970 -1979	25	14.0			
1980 -1989	40	22.4			
1990 -Current	45	25.0			
Size (# of employees)			3.0	107000	2531
Less than 10	12	6.9			
10 -99	58	33.1			
100 -499	43	24.6			
500 -999	20	11.4			
1000 -9999	35	20.0			
10000 -49999	7	2.9			
More than 50000	2	1.1			
Sales in 1997 ($Million)			.2	5800	125.6
Less than 1	19	11.3			
1 -4.99	46	27.4			
5 -9.99	18	10.7			
10 -99.99	61	36.3			
100 -499.99	16	9.5			
500 -999.99	4	2.4			
More than 1000	4	2.4			

Reliability and Validity

Reliability means that the information provided by the indicators does not vary as a result of the characteristics of the indicator, instrument, or measurement. Validity, on the other hand, refers to how well the conceptual and operational definitions mesh with each other (Neuman, 1994). This section discusses the methods used to assess reliability and validity for the constructs used in this study, and then presents the results.

Reliability

Reliability can be assessed using several approaches. One is inter-rater reliability. This reliability can be assessed by the split-half reliability measure extended from the inter-rater correlation. Thus, split-half reliability was used in this study to assess inter-rater reliability in the stage of EFA. These approaches will be fully discussed in the statistical analysis section.

The next approach in assessing reliability in this study was internal consistency, or the extent to which the components of a test are correlated with one another. Often the internal consistency of a construct is assessed using Cronbach's Coefficient alpha, which is based on item intercorrelations. Calculating the coefficient alpha along with the item-to-total correlation for each item assesses the overall reliability of the scale. It is generally suggested that the item having a coefficient alpha above .70 is acceptable for research, and that the item having a coefficient alpha below .3 is unacceptable and therefore should be deleted from the research (Churchill, 1979; Nunnally, 1978). The reliability of each item in this study was assessed by the CFA. Indicator reliability indicates the reliability of each item. If the indicator reliability is extremely low, the item will be deleted from the construct.

The final method for assessing the reliability of each construct was the composite reliability and variance extracted measures. Composite reliability is a measure of the internal consistency of the construct indicators, depicting the degree to which they "indicate" the common latent construct. More reliable measures provide the researcher with greater confidence that the individual indicators are all consistent in their measurements. A commonly used threshold value for an acceptable composite reliability is .70. The variance extracted measures was also utilized to assess the construct reliability, and is a complementary measure to construct reliability. This measure reflects the overall amount of variance in the indicators accounted for by the latent construct. Higher variance extracted values occur when the indicators are truly representative of the latent construct. A commonly accepted critical value for an acceptable variance extracted measure is .50 (refer to Table 4.15). The formulas to calculate composite reliability and the variance extracted are presented in the section about statistical analysis.

We should note that reliability does not ensure validity, which is the extent to which the indicators accurately measure what they are supposed to measure. The next section is devoted to a discussion of the various validities assessed in this study.

Validity

Generally, there are several aspects that one must address in assessing the measurement quality of the constructs used in a study, including reliability and validity.
Four validity issues are assessed in this study: face, convergent, discriminant, and nomological validities. The face validity of a measurement refers to its theoretical meaningfulness, or the extent to which the items used in measuring a construct are theoretically meaningful and acceptable, and the observational meaningfulness, or the extent to which the items used are understandable empirically. Those issues have been thoroughly discussed in the instrument development section in Chapter III.

Convergent validity, on the other hand, refers to extent to which several items purporting to measure one construct indeed converge. Convergent validity, in this study, is assessed by reviewing the t-tests for the confirmatory factor loadings. Statistically significant t-tests for all confirmatory factor loadings indicate effective measurement of the same construct (Anderson & Gerbing, 1988). The statistics for the convergent validity are presented in the analysis sections.

Discriminant validity refers the ability to discriminate among different traits. Discriminant validity, in this study, is assessed through the exploratory factor analysis (EFA) analysis. There should be an enough loading difference (.30) between two valid factors. The statistics for discriminant validity are presented in the section of EFA.

Finally, nomological validity refers the sound logical flow of the model. For example, there should be no chi-square difference between the measurement model and structural model. This issue is fully discussed in the section of analysis.

The confirmatory factor analysis (CFA) procedures, as exemplified by Joreskog and Sorbom' work in LISREL (1989), provide a systematic approach to the assessment of several aspects of construct validity, including convergent validity. The following are the actual results generated by the methods mentioned above. These analyses were applied to questionnaire items related to perceived environmental uncertainty, organizational structure, types of strategy, types of strategy implementation, and the satisfaction level with firm performance.

Analysis

The analysis in this study consisted of three major steps. First, exploratory factor analysis was conducted on the important constructs of the study in order to reduce the number of variables and to uncover the latent variables. Second, confirmatory factor analysis was conducted to test reliability and validity, as well as the model fit of the measurement model. Finally structural equation modeling was conducted by utilizing the LISREL program to test the hypotheses of the study. The data for LISREL can be raw data, covariance matrix, covariance matrix and means, correlation matrix, correlation matrix and standard deviation, and correlation matrix, standard deviations, and means. The most frequently used data formats for the LISREL are covariance matrix and correlation matrix. According to Joreskog and Sorbom, the general rule is that the covariance matrix should be analyzed. However, if the correlation matrix with

standard deviations is entered, the LISREL program automatically computes the covariance matrix. Thus, this study utilized the correlation matrix with standard deviations as input data for the analysis. The correlation matrix with standard deviations is presented in appendix G.

Exploratory Factor Analysis

There are, broadly speaking, two kinds of factor analyses: exploratory and confirmatory. Exploratory factor analysis is mainly used to explore empirical data to discover and detect characteristic features and interesting relationships without imposing any definite model on the data. Confirmatory factor analysis is utilized to build a model assumed to describe, explain, or account for the empirical data in terms of relatively few parameters. Most studies are to some extent both exploratory and confirmatory, and utilizing both factor analyses in the same study is highly recommended because a hypothesis which has been suggested by mainly exploratory procedures should subsequently be confirmed or disproved by obtaining new data and subjecting these to more rigorous statistical techniques (Joreskog & Sorbom, 1993).

When conducting both factor analyses in a study, one should be careful about the selection of data sets. Several researchers (Chin, 1998; Cudeck, & Browne, 1983; Joreskog & Sorbom, 1993) recommended not using the same data set for the EFA and CFA. If CFA is conducted using the data set already utilized in EFA, the research knows about the structure of the data set. The researcher may follow a process of changing and re-estimating the model until it fits the data. Thus, the final model is often mistakenly believed to be correct (Chin, 1998). The best way to correct this problem is the test of the cross-validation (Cudeck, & Browne, 1983). Cudeck and Browne (1983) suggested collecting another independent data sample for the cross-validation test. If it is not feasible, the researcher may split the data sample randomly into the calibration and validation sub-samples and compute a cross-validation index (CVI) by measuring the distance between the unrestricted variance/covariance matrix obtained from the validation sample and calibration sample. However, if it is not possible to split the sample data (i.e. the size of data sample is not large enough), Cudeck and Browne (1989) suggested using a single sample estimate of the expected value of the cross-validation index (ECVI). Due to the sample size, it was not possible to split the sample in half and run EFA on half of the sample, and CFA on the other half. Therefore, an ad hoc method was developed that will give tentative results. This method utilized half of the data for the EFA, and the entire data set for the CFA. Because the CFA is contaminated by using half of the data for the EFA, the ECVI is also computed to get a single sample estimate. The formula to compute the ECVI is

$$ECVI = F\,[S, \Sigma(\theta^*)] + (2p/n-1),$$

where $F[S, \Sigma(\theta^*)]$ is the minimum value of the fitting function for the hypothesized structure, p denotes the number of model-implied parameters to be estimated, and n is the sample size. The value of ECVI for this study was 2.12, while the 90 percent confidence interval for ECVI was between 1.99 and 2.35. Since the value of ECVI for this study (2.21) was within the range of 1.99 and 2.35, it is concluded that the nature of the data did not influence the nature of the model.

In this study, two primary constructs, strategy and strategy implementation, were analyzed by exploratory factor analysis, because of the inconclusive dimensions of both constructs. Some researchers in the hospitality industry have tried to dimensionalize the strategy construct. However, the results are unconvincing. For example, Dev (1988) did not find any strategy dimensions, while Crawford-Welch (1990) found two strategy types. Furthermore Elwood (1991) successfully found four Miles and Snows' strategy types. In the case of strategy implementation, no empirical research has been conducted that reveals strategy implementation dimensions.

Corresponding to the above discussion, a separate exploratory principle components factor analysis, using a varimax rotation (SPSS program) was performed, with the first half of the survey responses, on each construct of strategy and strategy implementation in order to reduce number of variables and to discover the relevant latent variables for the study (see Table 4.2 for Strategy, Table 4.3 for Strategy Implementation). The specific descriptions of strategy factors and strategy implementation factors are presented in Table 4.4 (Strategy) and Table 4.5 (Strategy Implementation).

To determine the appropriateness of factor analysis, the Kaiser-Meyer-Olkin (KMO)' measure of sampling adequacy and Bartlett's test of Sphericity were performed (see Table 4.2a and Table 4.3a). The values of KMO were .793 for the strategy index and .820 for the strategy implementation index, which were sufficient for further analysis. Also the Bartkett's Tests of Sphericity revealed significance at levels of .001 for both indices. These results indicated that the variables or items in both indices must be related to each other for the factor analysis to be appropriate.

In this study, 23 strategy items and 29 strategy implementation items were analyzed separately with the 1.0 eigenvalue. The results revealed 3 strategy related factors with 16 items (see Table 4.4). These are Factor I (S 06=Providing high service level; S 05=Monitoring customer satisfaction; S 07=Controlling quality of products/services; S 03=Training and development of employees; S 04=Building reputation in local communities; S 17=Providing customized services), Factor II (S 09=Developing new products/services; S 08=Responding to changing market conditions before competitors; S 13=Testing new market ideas and methods; S 20=Searching for new markets/opportunities; S 21=Keeping track of competition; S 23=Conducting consumer research), and Factor III (S 10=Maintaining low inventories; S 17=Providing customized services; S 14=Serving a variety of markets/segments; S 02=Cost control). The results also revealed 4 strategy implementation related factors with 19 items (see Table 4.5). These are Factor I (I 09=Optimization of strategy; I 08=Strategic position of company; I 10=Economic & competitive analysis; I 02=Power and complete information of CEO; I 01=CEO's insulation from personal biases and political influences; I 29=Accurate & timely information; I 15=Systems of orgaization), Factor II (I 03=The role of CEO is that of co-ordinator; I 06=The role of CEO is that of coach; I 07=The role of CEO is that of premise-setter and judge; I 05=The role of CEO is that of architect), Factor III (I 20=Brainstorming; I 19=Multiple inputs to a group decision; I 21=Shared goals between organization & its participants; I 18=Group decision-making at senior levels; I 22=Participation of lower level employees in decision-making), and Factor IV (I 26=Development of strategic alternatives; I 28=Manipulate systems & structures; I 27=Openness of the organization to new & discrepant

information). Factors and items were eliminated if they failed the following test: (a) individual items must have a minimum factor loading of .40 (convergent validity), (b) items must display a .30 loading difference with any other valid factor (discriminant validity), (c) factors must have at least 3 items, (d) the anti-image correlation for each item must exceed 0.50, and, (e) indices formed from factors must have Cronbach's alpha reliability scores of 0.60 or greater (Churchill, 1979).

From the SPSS solution, three strategy factors met the acceptance criteria with eigenvalues of 1.0 or greater. These three dimensions explained 56.65% of the variance with a reliability of 0.683. The three factors are termed defender (Factor I), prospector (Factor II), and analyzer (Factor III). The reliabilities of these three dimensions ranged from 0.647 to 0.830 (see Table 4.2a).

As shown in Table 4.2b, the first factor explained 21.8% of variance after the varimax rotation, and consisted of 6 items with a factor loading range from 0.57 to 0.87. Factor 1 is named as a defender because it closely resembles the defender strategy of Miles and Snow's (1978) typology, which is very quality oriented and tries to maintain a high level of service to protect the business from competitors. The second factor explained 21.45% of variance, and consisted of 6 items. Factor loadings ranged from 0.49 to 0.82. Factor 2 is termed as a prospector. The items in factor 2 represent the prospector strategy of Miles and Snow's (1978) typology, which is more innovation oriented and focuses on new and various markets, ideas, and products. The last factor consisted of 4 items accounting for 13.4 % of variance with factor loadings ranging from 0.62 to 0.80. The characteristics of factor 3, cost control and efficiency, represent the analyzer strategy of Miles and Snow's typology. However, this study did not consider this type of strategy as a relevant construct. Therefore, this factor was eliminated from the further analysis.

Meanwhile, the SPSS solution revealed four factors from the strategy implementation items, although the model of Bourgeois and Brodwin (1984) suggested five strategy implementation types. As shown in Table 4.3a and Table 4.3b, these four factors, the commander type (Factor I), the change type (Factor II), the collaborative type (Factor III), and the crescive type (Factor IV) explained 55.98% of variance altogether, with a reliability of 0.832. The reliability of each dimension varied from 0.675 to 0.845.

As shown in Table 4.3b, the first factor consisted of the six items, accounting for 16.4% of variance, with factor loadings ranging from 0.67 to 0.83. The selected items of this strategy implementation type represented the commander type of strategy implementation of Bourgeois & Brodwin (1984). This type concentrates on the centralized power of the CEO, the optimization of strategy, accurate information, and maximization of economic and competitive analysis. The second factor (change type) explained 15.3% of variance, and consisted of five items. The factor loadings ranged from 0.59 to 0.72. This factor concerns the characteristics of the change type of strategy implementation such as systems of organization and various roles of CEO. The third factor (collaborative type) explained 15.3 % of variance. It consisted of five items with factor loadings ranging from 0.65 to 0.83. This factor is termed a collaborative type because it concentrates on the collaboration of members in an organization for decision-making. The final factor (crescive type) explained 9.0 % of variance with three items. The factor loadings

Table 4.2a
Exploratory Factor Analysis for Strategy

KMO Adequacy	.793
Bartlett's Test of Sphericity	.000
Reliability of Construct	.683

Factors	Eigenvalues	% of variance explained	Cumulative variance (%)	Reliability
1	3.489	21.804	21.804	.825
2	3.432	21.450	43.254	.830
3	2.143	13.393	56.647	.647

Table 4.2b

Rotated Factor Martrix

Factor Name	Variables	Factor 1	Factor 2	Factor 3
Defender	S 06	**.871**	-.126	.048
	S 05	**.786**	-.101	-.015
	S 07	**.740**	-.124	.326
	S 03	**.719**	-.076	.268
	S 04	**.597**	-.181	.325
	S 17	**.574**	.054	.016
Prospector	S 09	-.083	**.820**	-.017
	S 08	.121	**.803**	.027
	S 13	-.143	**.781**	-.059
	S 20	.023	**.754**	-.116
	S 21	-.187	**.719**	.132
	S 23	-.125	**.487**	-.171
Analyzer	S 10	-.109	.011	**.798**
	S 17	.252	.211	**.624**
	S 14	.181	-.177	**.619**
	S 02	.253	-.154	**.618**

Notes: The bold numbers represent variables belonging to each factor. The description of variables is presented in Table 4.4.

Table 4.3a

Exploratory Factor Analysis for Strategy Implementation

KMO Adequacy			.820	
Bartlett's Test of Sphericity			.000	
Reliability of Construct			.832	
Factors	**Eigenvalues**	**% of variance explained**	**Cumulative variance (%)**	**Reliability**
1	3.615	16.432	16.432	.845
2	3.366	15.298	31.730	.807
3	3.356	15.255	46.985	.823
4	1.979	8.995	55.980	.675

Table 4.3b

Rotated Factor Martrix

Factor Name	Variables	Factor 1	Factor 2	Factor 3	Factor 4
Commander	I 09	**.830**	-.018	.156	.001
	I 08	**.816**	.022	.115	.045
	I 10	**.761**	.110	.041	-.097
	I 02	**.726**	.125	-.130	-.060
	I 01	**.707**	-.237	-.143	-.014
	I 29	**.669**	-.110	-.014	.231
Change Type	I 15	.087	**.722**	.120	.081
	I 03	-.040	**.717**	.053	.121
	I 06	-.145	**.697**	.289	.162
	I 07	-.107	**.669**	.019	.189
	I 05	.001	**.591**	.381	.095
Collaborator	I 20	.002	.106	**.833**	-.020
	I 19	.001	.031	**.828**	.209
	I 21	.055	.337	**.688**	.154
	I 18	-.020	.263	**.675**	.108
	I 22	-.010	.114	**.654**	.104
Crescive Type	I 26	.085	.135	.041	**.791**
	I 28	.020	.192	.130	**.685**
	I 27	-.049	.310	.243	**.667**

Notes: The bold numbers represent variables belonging to each factor. The description of variables is presented in Table 4.5.

Table 4.4

Description of Strategic Factors from the Factor Analysis

Factors & Items	Description
Factor 1	
S 06	Providing high service level
S 05	Monitoring customer satisfaction
S 07	Controlling quality of products/services
S 03	Training and development of employees
S 04	Building reputation in local communities
S 17	Providing customized services
Factor 2	
S 09	Developing new products/services
S 08	Responding to changing market conditions before competitors
S 13	Testing new market ideas and methods
S 20	Searching for new markets/opportunities
S 21	Keeping track of competition
S 23	Conducting consumer research
Factor 3	
S 10	Maintaining low inventories
S 17	Providing customized services
S 14	Serving a variety of markets/segments
S 02	Cost control

Table 4.5
Description of Strategy Implementation Factors from the Factor Analysis

Factors & Items	Description
Factor 1	
I 09	Optimization of strategy
I 08	Strategic position of company
I 10	Economic & competitive analysis
I 02	Power and complete information of CEO
I 01	CEO's insulation from personal biases and political influences
I 29	Accurate & timely information
Factor 2	
I 15	Systems of organization
I 03	The role of CEO is that of co-ordinator
I 06	The role of CEO is that of coach
I 07	The role of CEO is that of premise-setter and judge
I 05	The role of CEO is that of architect
Factor 3	
I 20	Brainstorming
I 19	Multiple inputs to a group decision
I 21	Shared goals between organization & its participants
I 18	Group decision-making at senior levels
I 22	Participation of lower level employees in decision-making
Factor 4	
I 26	Development of strategic alternatives
I 28	Manipulate systems & structures
I 27	Openness of the organization to new & discrepant information

ranged from 0.67 to 0.79. The main interest of this type of strategy implementation is in increasing the effectiveness of the current strategy implementation processes by developing alternative strategy implementation process and by adopting new information. Among the four factors, the first (commander type) and the third (collaborative type) were adopted as latent variables for further analysis in this study.

Thus far, the results of the EFA have been discussed. Through the EFA, 3 factors for strategy and 4 factors for strategy implementation were derived. The discussion now turns to the measurement model, by which the reliability, validity, and model fit of constructs are assessed. The next section explores the measurement model for each construct to assess the model fit, the validity, and the reliability of each construct.

Measurement Model

Structural equation modeling has two distinctive components: structural and measurement (Loehlin, 1992). The structural model specifies the relationships among the latent constructs, and the measurement model specifies the relationship of the latent constructs to the observed variables. The purpose of the measurement model, a necessary and preliminary step of structural equation modeling, is to describe how well the observed indicators serve as a measurement instrument for the latent constructs. In other words, the measurement model provides the reliability and validity of the study.

The measurement models were tested using the LISREL program, and descriptions and results of each model are presented in tabular form. As Joreskog and Sorbom (1993) recommended, the measurement model for each construct was estimated first. There are three means of correcting the situation where the goodness of fit index indicates that the model does not fit the data well. The first solution is simply to delete one of the indicators where the error variance is correlated with the other error variance of the indicator. The second solution is to make a composite of the two indicators of which error variances are correlated. The third solution is to make a connection between the two error variances. In this case, there should be a reasonable explanation for why these two indicator errors are correlated. In this study, the first solution was adapted to solve the problem of poor fit. After estimating each construct, the measurement model for all the constructs without constraining the covariance matrix of the constructs was estimated. To estimate the measurement model, confirmatory factor analysis (CFA) was utilized for each construct and all the constructs together. The number of indicators for each construct varied from 3 to 6. Also, the fit of the model was checked by several model goodness of fit indices (chi-square, GFI, AGFI, RMSR, and CFI) to increase reliance (Bagozzi & Yi, 1988; Hair, Anderson, Tatham, & Black, 1995). The next section comprises an exploration of the estimation of the measurement model for each construct.

CFA for Perceived Environmental Certainty (PEC)

The original measurement model of PEC consists of 6 indicators. Table 4.6a presents the results of the CFA for the PEC. It contains the completely standardized loading (construct validity), the reliability of each indicator, the error variance, and several goodness of fit statistics.

Most of the fit statistics indicate that the model is acceptable, except for the chi-square (chi-square = 25.17 with 9 *df*; GFI = .95; AGFI = .89; CFI = .94; RMSR = .051). Thus, the model was modified according to the recommendation of the modification index, which indicates that the errors of the third and fourth indicators were significantly correlated. Therefore, the E4 indicator was deleted to decrease the value of chi-square in order to increase the model fit.

The results of the estimation of the modified PEC measurement model are shown in Table 4.6b. Every model fit index indicates a good fit with the data (chi-square = 6.06 with 5 *df*; GFI = .99; AGFI = .96; CFI = .99; RMSR = .028). The completely standardized loading estimates ranged from .55 to .70, with all t-values being significant at the $p<0.05$ level. Meanwhile, the error variances ranged from .51 to .70. The squared multiple correlations (SMC), reliability of indicators ranged from .30 to .49. The results of the estimation of the modified PEC measurement model indicated a good fit with 5 indicators (suppliers, E1; competitors, E2; customers, E3; regulatory agencies, E5; and employment, E6), and therefore this model was accepted for further analysis.

CFA for the Defender Type of Strategy

The original measurement model for this construct consisted of 6 indicators. Table 4.7a presents the results of CFA for the defender type of strategy. All of the goodness of fit statistics indicated that the model was acceptable, except for the chi- square (chi-square = 25.17 with 9 *df*; GFI = .95; AGFI = .89; CFI = .94; RMSR = .051). The modification index revealed that the errors of D4 and D5 were correlated significantly. Furthermore, the reliability of D6 (.18) was very low. Thus, D4 and D6 were deleted from the measurement model.

The results of the estimation of a new model without D4 and D6 are shown in Table 4.7b. Every model fit index was acceptable (chi-square = 6.11 with 2 *df*; GFI = .98; AGFI = .9s; CFI = .98; RMSR = .029). The completely standardized loadings of each indicator are very high, ranging from .64 to .80. The t-values of all completely standardized loadings were significant at the $p<0.05$ level. Meanwhile, the error variances ranged from .36 to .59. The squared multiple correlations (SMC) for the indicators ranged from .41 to .64, which meant that the reliability of each indicator was acceptable. The results of the estimation of the modified measurement model indicated a good fit with 4 indicators, including training and development of employees (D1), building reputation in local communities (D2), monitoring customer satisfaction (D3), and controlling quality (D5).

CFA for the Prospector Type of Strategy

The EFA revealed that the prospector type of strategy contained 6 indicators. The results of the CFA for this construct are presented in Table 4.8a. Only the levels of chi-square and AGFI were not acceptable, which meant a moderate lack of fit between the data and the hypothesized model (chi-square = 26.59 with 9 *df*; GFI = .95; AGFI = .89; CFI = .95; RMSR = .045). The modification index indicated that the errors of P1 and P2 were highly correlated.

Table 4.6a
CFA for Perceived Environmental Certainty

Item	Standardized Loading[a]	Indicator Reliability	Error Variance	Fit Statistics
E 1	.62	.38	.62	Chi-square with 9 *df* = 25.17
E 2	.67	.44	.56	(p=.003)
E 3	.62	.38	.62	RMSR = .051
E 4	.61	.37	.63	GFI = .95
E 5	.57	.33	.67	AGFI = .89
E 6	.68	.46	.54	CFI = .94

Note: [a]All t-tests were significant at p<.05

Table 4.6b
CFA for Modified Perceived Environmental Certainty

Item	Standardized Loading[a]	Indicator Reliability	Error Variance	Fit Statistics
E 1	.67	.44	.56	Chi-square with 5 *df* = 25.17
E 2	.63	.40	.60	(p = .30)
E 3	.55	.30	.70	RMSR = .051
E 5	.61	.37	.63	GFI = .95
E 6	.70	.49	.51	AGFI = .89
				CFI = .94

Notes: [a]All t-tests were significant at p<.05
E1: Suppliers
E2: Competitors' actions
E3: Customers
E4: The financial/capital market
E5: Government regulatory agencies
E6: Employment

Table 4.7a
CFA for the Defender Type of Strategy

Item	Standardized Loading[a]	Indicator Reliability	Error Variance	Fit Statistics
D 1	.69	.47	.53	Chi-square with 9 *df* = 23.41
D 2	.60	.35	.65	(p=.0053)
D 3	.70	.49	.51	RMSR = .04
D 4	.88	.77	.23	GFI = .96
D 5	.80	.64	.36	AGFI = .90
D 6	.42	.18	.82	CFI = .97

Note: [a]All t-tests were significant at p<.05

Table 4.7b
CFA for the Modified Defender Type of Strategy

Item	Standardized Loading[a]	Indicator Reliability	Error Variance	Fit Statistics
D 1	.73	.53	.47	Chi-square with 2 *df* = 6.11
D 2	.64	.41	.59	(p = .05)
D 3	.74	.54	.46	RMSR = .029
D 5	.80	.64	.36	GFI = .98
				AGFI = .92
				CFI = .98

Notes: [a]All t-tests were significant at p<.05
D1: Training and development of employees
D2: Building reputation in local communities
D3: Monitoring customer satisfaction
D4: Providing high service level
D5: Controlling quality of products/services
D6: Providing customized services

Also, the reliability of P6 (.18) was very low. Therefore, the P1 and P2 indicators were eliminated from the construct of the prospector type of strategy in order to decrease the chi-square and thus to increase the goodness of fit.

After the elimination of P1 and P6 from the model, the chi-square was decreased from 26.59 to 3.15. The rest of the fit index also indicated a good fit of this model with GFI = .99, AGFI = .96, CFI = .99, RMSR = .021 (see Table 4.8b). The completely standardized loading estimates ranged from .64 to .78, with all t-values being significant at $p<0.05$. The error variances ranged from .40 to .59. The squared multiple correlations (SMC) for the indicators ranged from .41 to .60, which means that the reliability of each indicator is acceptable. The results of the estimation of the modified measurement model indicated a good fit with 4 indicators. The four indicators were: developing new products and services (P2), testing new market ideas (P3), searching for new markets (P4), and keeping track of competition (P5).

CFA for Organizational Structure

Six indicators were adopted to estimate organizational structure, including decision-making, rules and procedures, division of labor, spans of control, coordination, and corporate culture. The CFA for organizational structure are presented in Table 4.9a. Two kind of goodness of fit indices indicated that the model did not fit well (chi-square with 9 degree of freedom = 23.02; RMSR = .057). The modification index indicated that the errors of S1 and S4 were highly correlated. Since S1 had a bigger error and a lower completely standardized loading than S4, S1 was deleted from the model. Also, the reliability of S6 (.10) was so low that it, also, was dropped from the model.

After the elimination of S1 and S6 from the model, the chi-square was decreased from 23.02 with 9 degrees of freedom to 2.54 with 2 degrees of freedom. The rest of the fit index also confirmed the good fit of this model with GFI = .99, AGFI = .97, CFI =1.00, RMSR = .023 (see Table 4.9b). The completely standardized loading estimates ranged from .53 to .67, with all t-values being significant at $p<0.05$. The error variances ranged from .54 to .72. The reliability (SMC) for each indicator varied from .28 to .46, which indicated a marginal acceptance. The four indicators selected in this measurement model were rules and procedures (S2), division of labor (S3), spans of control (S4), and coordination among the members in an organization (S5).

CFA for the Commander Type of Strategy Implementation

Through EFA, a total of 6 indicators were assigned to the construct of the commander type of strategy implementation. The results of the CFA for this construct with six indicators are presented in Table 4.10a. Among the fit indices, chi-square and AGFI did not meet a satisfactory level (chi-square = 29.45 with 9 *df*; GFI = .95; AGFI = .87; CFI = .95; RMSR = .049). As a following sequence, two indicators, CM1 and CM5, were eliminated in the measurement model to decrease the value of chi-square.

Table 4.8a

CFA for the Prospector Type of Strategy

Item	Standardized Loading[a]	Indicator Reliability	Error Variance	Fit Statistics
P 1	.76	.58	.42	Chi-square with 9 *df* = 26.59
P 2	.81	.66	.34	(p=.0016)
P 3	.72	.53	.47	RMSR = .045
P 4	.67	.45	.55	GFI = .95
P 5	.66	.43	.57	AGFI = .89
P 6	.42	.18	.82	CFI = .95

Note: [a]All t-tests were significant at p<.05

Table 4.8b
CFA for the Modified Prospector Type of Strategy

Item	Standardized Loading[a]	Indicator Reliability	Error Variance	Fit Statistics
P 2	.78	.60	.40	Chi-square with 2 *df* = 3.15
P 3	.74	.55	.45	(p = .21)
P 4	.71	.50	.50	RMSR = .021
P 5	.64	.41	.59	GFI = .99
				AGFI = .96
				CFI = .99

Notes: All t-tests were significant at p<.05
P1: Responding to changing market conditions before competitors
P2: Developing new products/services
P3: Testing new market ideas and methods
P4: Searching for new markets/opportunities
P5: Keeping track of competition
P6: Conducting consumer research

Table 4.9a
CFA for Organizational Structure

Item	Standardized Loading[a]	Indicator Reliability	Error Variance	Fit Statistics
S 1	.54	.29	.71	Chi-square with 9 *df* = 23.02
S 2	.65	.42	.58	(p=.0062)
S 3	.62	.38	.62	RMSR = .057
S 4	.62	.38	.62	GFI = .96
S 5	.59	.34	.66	AGFI = .90
S 6	.32	.10	.90	CFI = .93

Note: [a]All t-tests were significant at p<.05

Table 4.9b
CFA for Modified Organizational Structure

Item	Standardized Loading[a]	Indicator Reliability	Error Variance	Fit Statistics
S 2	.67	.46	.54	Chi-square with 2 *df* = 2.54
S 3	.66	.44	.56	(p = .28)
S 4	.53	.28	.72	RMSR = .023
S 5	.63	.39	.61	GFI = .99
				AGFI = .97
				CFI = 1.00

Notes: [a]All t-tests were significant at p<.05
S1: Decision-making
S2: Rules and procedures
S3: Division of labor
S4: Spans of control
S5: Coordination
S6: Corporate culture

The elimination of CM 1 and CM5 decreased the chi-square from 29,45 to 1.71, and increased the AGFI from .87 to .98, which indicated that the model was acceptable (see Table 4.10b). The rest of the fit index also indicated a good fit of this model with GFI = 1.00, CFI = 1.00, and RMSR = .013. The completely standardized loading estimates ranged from .56 to .87, with all t-values being significant at $p<0.05$. The error variances ranged from .24 to .69. The squared multiple correlations (SMC) for the indicators ranged from .31 to .76, which meant that the reliability of each indicator is acceptable. The results of the estimation of the modified measurement model indicated a good fit, with 4 indicators. The four indicators were: power of the CEO (CM2), strategic position of company (CM3), optimization of strategy (CM4), and accurate and timely information (CM6).

CFA for the Collaborative Type of Strategy Implementation

Through EFA, originally, 5 indicators were assigned to the construct of the collaborative type of strategy implementation. The results of the CFA for this construct with five indicators are presented in Table 4.11a, with chi-square = 29.45 with 5 *df*; GFI = .97; AGFI = .90, CFI = .97; RMSR = .040. The results of the CFA for the collaborative type of strategy implementation indicated that the error variance of CL5 was very high in comparison with the rest of indicators. Thus, the indicator of CL5 was deleted from the measurement model of this construct.

The elimination of CL5 decreased the chi-square from 16.12 to 6.71 with the p-value of .035, which is a slightly low to meet the criteria of p=.05. However, the rest of the fit index provided a satisfactory level of goodness of fit for this model (GFI = .98; AGFI = .91; CFI = .98; RMSR = .027). The completely standardized loading estimates ranged from .67 to .82, with all t-values being significant at $p<0.05$. The error variances varied from .33 to .55. The indicator reliability (SMC) ranged from .45 to .67, which meant that the reliability of each indicator was acceptable. The results of the estimation of the modified measurement model indicated a good fit, with 4 indicators. The four indicators were: group decision-making (CL1), multiple input to a group decision (CL2), brainstorming (CL3), and shared goals among participants (CL4).

CFA for the Satisfaction Level with Performance

The results of the CFA for the satisfaction level with financial performance with three indicators, return on assets (PER1), cash flow (PER2), and market share (PER3), are presented in Table 4.12. The model was saturated, so the fit was perfect. The completely standardized loadings varied from .66 to .85, with all t-values significant at $p<.05$, while the error variances ranged from .27 to .57. The indicator reliability ranged from .43 to .73.

So far, the measurement models of each construct were estimated. Through the analysis, 10 indicators were deleted for their error relationship with other indicators, or their low reliability. Finally, 7 constructs with 28 indicators were derived from 7 constructs with 38 indicators. These are Environment (E1, E2, E3, E5, and E6), Defender (D1, D2, D3, and D4), Prospector (P2, P3, P4, and P5), Structure (S2, S3, S4, and S5), Commander (CM2, CM3, CM4, and CM6), Collaborator (CL1, CL2, CL3, and CL4),and Performance (PER1, PER2, and PER3).

Table 4.10a
CFA for the Commander Type of Strategy Implementation

Item	Standardized Loading[a]	Indicator Reliability	Error Variance	Fit Statistics
CM 1	.59	.35	.65	Chi-square with 9 *df* = 29.45
CM 2	.62	.38	.62	(p=.00054)
CM 3	.83	.70	.30	RMSR = .049
CM 4	.85	.72	.28	GFI = .95
CM 5	.66	.43	.57	AGFI = .87
CM 6	.61	.37	.63	CFI = .95

Note: [a]All t-tests were significant at p<.05

Table 4.10b
CFA for the Modified Commander Type of Strategy Implementation

Item	Standardized Loading[a]	Indicator Reliability	Error Variance	Fit Statistics
CM 2	.56	.31	.69	Chi-square with 2 *df* = 1.71
CM 3	.87	.76	.24	(p = .42)
CM 4	.85	.72	.28	RMSR = .013
CM 6	.61	.37	.63	GFI = 1.00
				AGFI = .98
				CFI = 1.00

Notes: [a]All t-tests were significant at p<.05
CM1: CEO's insulation from personal biases and political influences
CM2: Power and complete information of CEO
CM3: Strategic position of company
CM4: Optimization of strategy
CM5: Economic & competitive analysis
CM6: Accurate & timely information

Table 4.11a
CFA for the Collaborator Type of Strategy Implementation

Item	Standardized Loading[a]	Indicator Reliability	Error Variance	Fit Statistics
CL 1	.68	.46	.54	Chi-square with 5 *df* = 16.12
CL 2	.80	.64	.36	(p=.0065)
CL 3	.77	.60	.40	RMSR = .040
CL 4	.70	.49	.51	GFI = .97
CL 5	.57	.33	.67	AGFI = .90
				CFI = .97

Note: [a]All t-tests were significant at p<.05

Table 4.11b
CFA for the Modified Collaborator Type of Strategy Implementation

Item	Standardized Loading[a]	Indicator Reliability	Error Variance	Fit Statistics
CL 1	.71	.50	.50	Chi-square with 2 *df* = 6.71
CL 2	.82	.67	.33	(p = .035)
CL 3	.76	.57	.43	RMSR = .027
CL 4	.67	.45	.55	GFI = .98
				AGFI = .91
				CFI = .98

Notes: [a]All t-tests were significant at p<.05
CL1: Group decision-making at senior levels
CL2: Multiple inputs to a group decision
CL3: Brainstorming
CL4: Shared goals between organization & its participants
CL5: Participation of lower level employees in decision-making

Table 4.12
CFA for the Satisfaction Level with Performance

Item	Standardized Loading[a]	Indicator Reliability	Error Variance	Fit Statistics
PER 1	.85	.73	.27	The model is saturated.
PER 2	.85	.73	.27	The fit is perfect.
PER 3	.66	.43	.57	

Notes: [a]All t-tests were significant at $p<.05$
PER1: Return on assets
PER2: Cash flow
PER3: Market share

All t-value of completely standardized loadings of indicators were significant at least at the p<.05 level, which indicated a sound construct validity. Finally, most of the indicators' reliability indicated a reasonable level of above .30. The next section is devoted to discussion of the overall measurement model.

Overall Model fit for the Original Measurement Model

In the previous section, the model fits for the individual measurement models were estimated. As a result of the CFA, 7 constructs and 28 indicators were identified, as shown in Figure 4.1. The next step was to estimate the model fit for the overall measurement model in order to portray the degree to which the specified indicators represent the hypothesized constructs. In this section, the overall measurement model with 7 constructs and 28 indicators was assessed by CFA. Three types of overall model fit measures were utilized in this study, as shown in Table 4.14: (1) Absolute goodness-of-fit measures; (2) incremental fit measures; and (3) parsimonious fit measures.

An absolute fit index directly assesses how well on a priori model reproduces the sample data (Rick, 1995). The fit index consists of several fit statistics such as chi-square, non-centrality parameter (NCP), goodness of fit index (GFI), standardized root mean square residual (RMSR), and root mean square error of approximation (RMSEA). The first measure is the likelihood ratio chi-square statistic. The value of chi-square (500.06 with 329 degree of freedom) was statistically significant at p=.01; thus, it failed to support the null hypotheses of indifference between predicted and actual matrices. Also, the value of GFI (.84) did not meet the critical level of .90. The RMSR of this measurement model (.065) also did not provide a satisfactory level of .05 or less. The RMSEA had a value of .053, which fell just inside the acceptable range of .08 or less. The last measure, NCP, is used in comparisons among alternative models. Therefore, it was not considered in this study. All of the absolute fit measures indicated that this fit of the model was too poor to continue the analysis, which meant that the structural and measurement models would be invalid.

Although, the absolute fit index did not fall within an acceptable level, an investigation of other fit indices such as incremental and parsimonious fit was necessary to ensure the acceptability of the model from different perspective. Incremental fit measures include chi-square of the null model, adjusted goodness of fit index (AGFI), normed fit index (NFI), and non-normed fit index (NNFI). An incremental fit index measures the proportionate improvement in fit by comparing a target model with a more restricted, nested baseline model (Rick, 1995). The null model is hypothesized as a single-factor model with no measurement error. The chi-square value of the null model was 2256 with 378 degree of freedom. Tucker-Lewis measure (or NNFI) and NFI were .90 and .78 respectively. Only NNFI exceeded the recommended level of .90. The next measure was the AGFI value of .80, which did not exceed the recommended level of .90. Most of the results of the incremental fit measures, as shown in Table 4.14, did not exceed the recommended level, and thus failed to provide evidence of a good fit of the original measurement model.

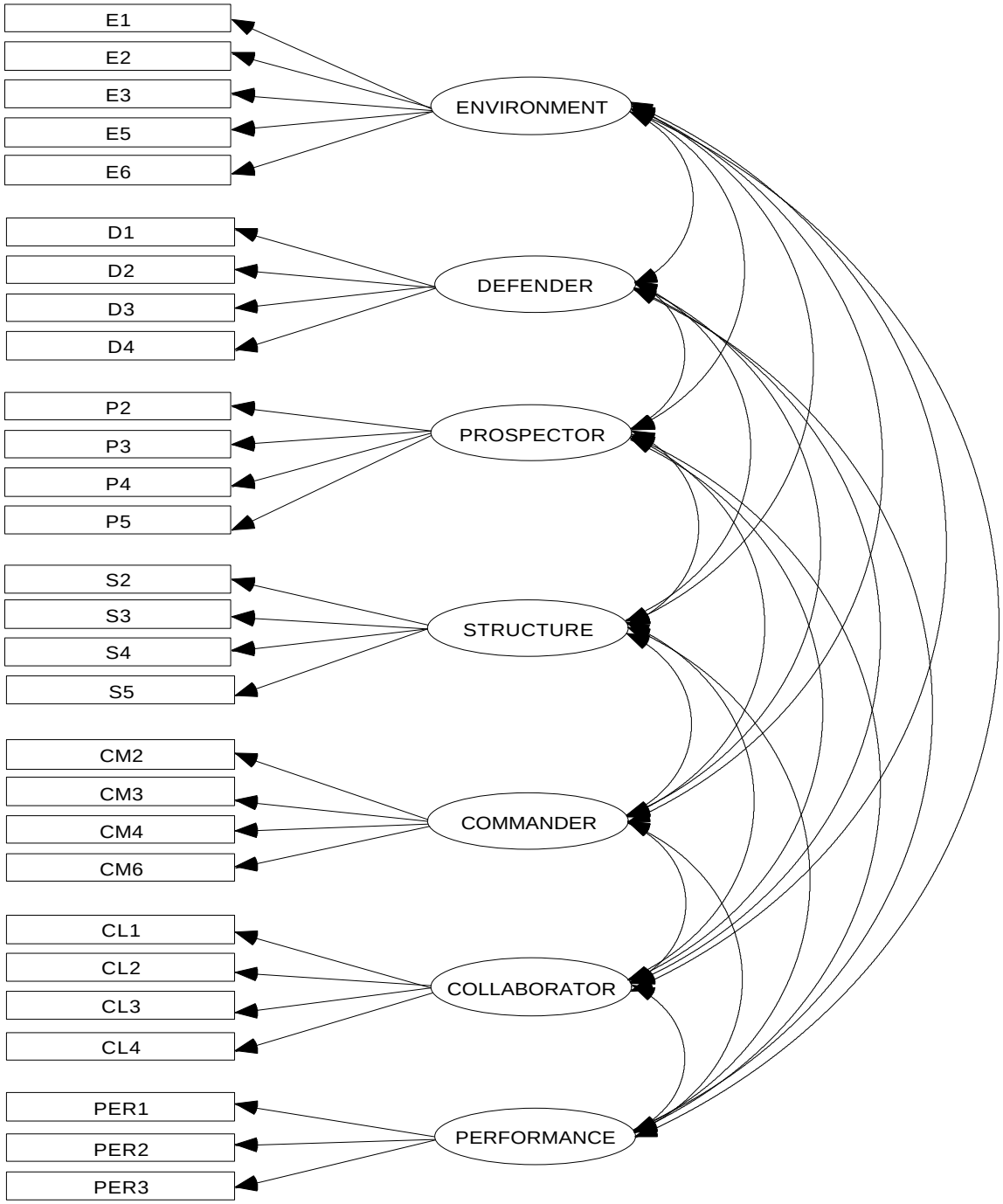

Figure 4.1. Diagram for the Original Measurement Model

Table 4.13
Description of Indicators

Indicators	Description
E1	Suppliers
E2	Competitors' actions
E3	Customers
E5	Government regulatory agencies
E6	Employment
D1	Training and development of employees
D2	Building reputation in local communities
D3	Monitoring customer satisfaction
D4	Providing high service level
P2	Developing new products/services
P3	Testing new market ideas and methods
P4	Searching for new markets/opportunities
P5	Keeping track of competition
S2	Rules and procedures
S3	Division of labor
S4	Spans of control
S5	Coordination
CM2	Power and complete information of CEO
CM3	Strategic position of company
CM4	Optimization of strategy
CM6	Accurate & timely information
CL1	Group decision-making at senior levels
CL2	Multiple inputs to a group decision
CL3	Brainstorming
CL4	Shared goals between organization & its participants
PER1	Return on assets
PER2	Cash flow
PER3	Market share

Table 4.14
Goodness-of-fit Measures for the Original Measurement Model

Measures	Goodness-of-fit Statistics
Absolute Fit Measures	
Chi-square	500.06 with 329 df (p=.00)
NCP	171.06
GFI	.84
RMSR	.065
RMSEA	.053
Incremental Fit Measures	
Chi-square of null model	2255.79 with 378 df
AGFI	.80
NNFI	.90
NFI	.78
Parsimonious Fit Measures	
PNFI	.68
PGFI	.68
CFI	.91
IFI	.91
RFI	.75
Normed chi-square	1.52

Notes: NCP = Non-Centrality Parameter; GFI= Goodness of Fit Index; RMSR = Standardized Root Mean Square Residual; RMSEA = Toot Mean Square Error of Approximation; AGFI = Adjusted Goodness of Fit Index; NNFI = Non-Normed Fit Index; NFI = Normed Fit Index; PNFI = Parsimony Normed Fit Index; PGFI = Parsimony Goodness of Fit Index; CFI = Comparative Fit Index; IFI = Incremental Fit Index; RFI = Relative Fit Index.

Finally, parsimonious fit measures consist of the parsimony normed fit index (PNFI), the parsimony goodness of fit index (PGFI), the comparative fit index (CFI), the incremental fit index (IFI), and the relative fit index (RFI). These measures provide a basis for comparison between models of differing complexity and objectives by evaluating the fit of the model versus the number of estimated coefficients needed to achieve that level of fit. One applicable measure for evaluating a single model is the normed chi-square measure (chi-square/degree of freedom). The value of normed chi-square (1.52) fell within limits for this measure. Also, the value of CFI and IFI (.91 and .91 respectively) met the critical level of .90. The other measures, including PNFI, PGFI, and RFI are utilized only for inter-model comparisons. The results of estimating parsimonious fit measures support will be given for model parsimony.

A review of the three types of overall measures of fit revealed an inconsistent pattern of support for the overall model as proposed. Only the parsimonious fit measures supported model parsimony, while the absolute and incremental fit measures failed to support the soundness of the original measurement model. Therefore, the various measures of overall model goodness-of-fit failed to support the notion that the original measurement model was valid and reliable. The results indicated that the original measurement model did not represent the hypothesized constructs. Thus, it was impossible to conduct further analysis of structural modeling. Rather, a modification of the overall measurement model was indicated in order to have more sound results of the overall model fit measures (Rick, 1995).

Overall Model Fit for the Modified Measurement Model

The previous section was devoted to estimating the overall motel fit for the original measurement model. The results of the estimation were too poor to accept the original measurement model. Thus, the original measurement model was revised according to the review of the modification index. The review of the modification index indicated that several error variances of indicators were statistically significantly related. This situation suggested that if the indicators, of which error variances were correlated to other error variances of the indicators, were eliminated, the model fit would be improved. Thus, four indicators, including E5, D2, CM2, and CL3 were deleted from the original measurement model (due to the related error variance to other indicators' error variance) to improve the model fit. Figure 4.2 represents the new measurement model after the modification, which has 7 constructs and 24 indicators. These are Environment (E1, E2, E3, and E6), Defender (D1, D3, and D4), Prospector (P2, P3, P4, and P5), Structure (S2, S3, S4, and S5), Commander (CM3, CM4, and CM6), Collaborator (CL1, CL2, and CL4), and Performance (PER1, PER2, and PER3).

The overall model fit was re-estimated for the modified measurement model. The overall model fit was also assessed by three types of measures, including absolute goodness-of-fit measures, incremental fit measures, and parsimonious fit measures. The results of these measures are presented in Table 4.15.

The first measure is the likelihood ratio chi-square statistics in the absolute goodness-of-fit measures. The value of chi-square (248.55 with 233 degree of freedom) was not statistically significant at p=.23, by which the null hypotheses are accepted. This statistic indicated strong

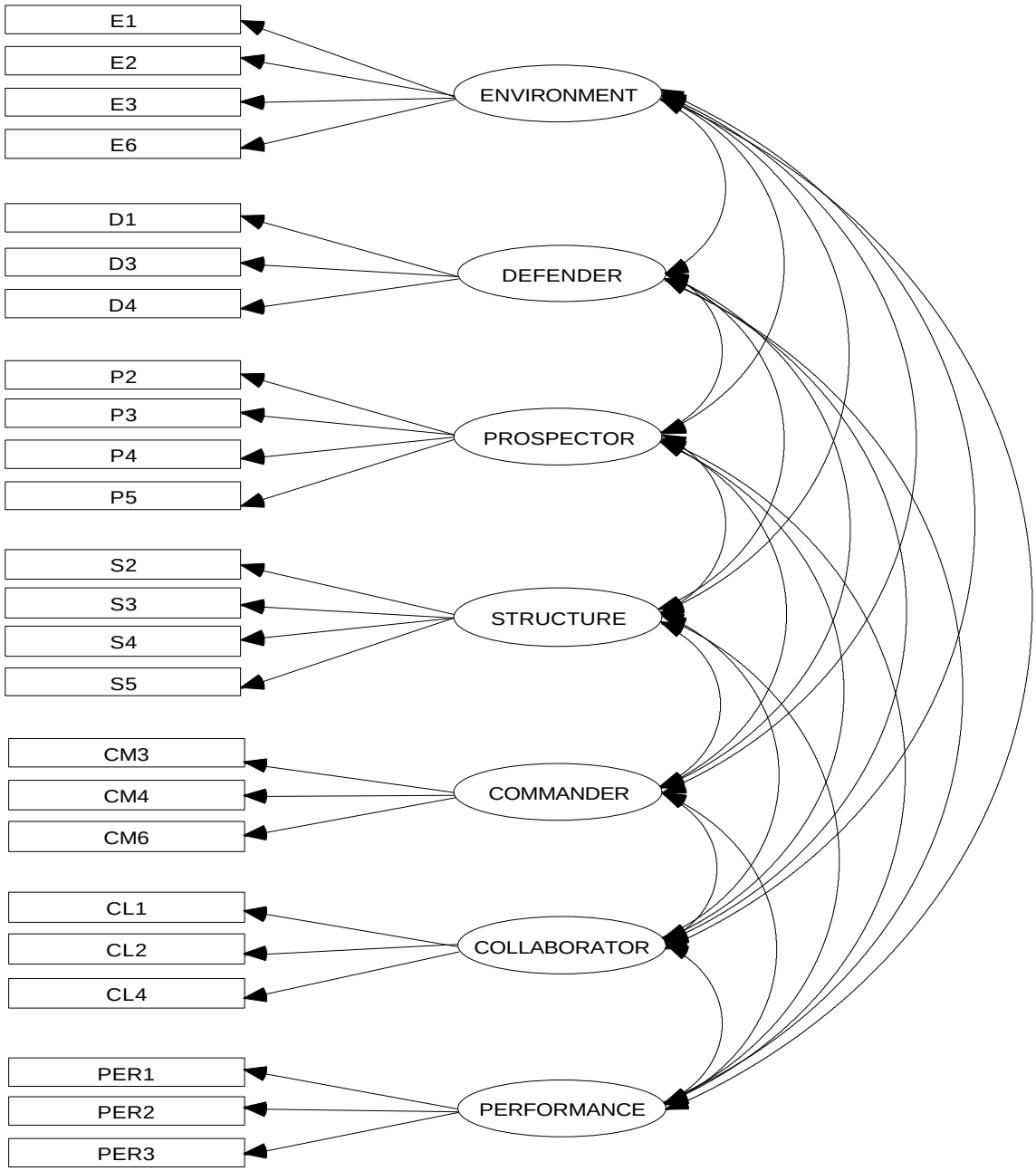

Figure 4.2. Diagram for the Modified Measurement Model
Note: Refer to Table 4.13 for the names of indicators

Table 4.15
Goodness-of-fit Measures for the Modified Measurement Model

Measures	Goodness-of-fit Statistics
Absolute Fit Measures	
Chi-square	248.55 with 233 df (p=.23)
NCP	15.55
GFI	.90
RMSR	.053
RMSEA	.019
Incremental Fit Measures	
Chi-square of null model	1744.47 with 276 df
AGFI	.87
NNFI	.99
NFI	.86
Parsimonious Fit Measures	
PNFI	.72
PGFI	.70
CFI	.99
IFI	.99
RFI	.83
Normed chi-square	1.67

Notes: NCP = Non-Centrality Parameter; GFI= Goodness of Fit Index; RMSR = Standardized Root Mean Square Residual; RMSEA = Toot Mean Square Error of Approximation; AGFI = Adjusted Goodness of Fit Index; NNFI = Non-Normed Fit Index; NFI = Normed Fit Index; PNFI = Parsimony Normed Fit Index; PGFI = Parsimony Goodness of Fit Index; CFI = Comparative Fit Index; IFI = Incremental Fit Index; RFI = Relative Fit Index.

support for believing that the differences between the predicted and actual matrices were not significant, indicative of an acceptable fit. Moreover, the value of GFI (.90) was just within the acceptable range for application of this measure. The RMSR (.053) did not meet the critical value of .05 or less, but was at a marginal acceptance level. Finally, the value of RMSEA (.019) was acceptable. All of the absolute fit measures indicated that the model could be accepted with confidence.

The next goodness-of-fit assessed the incremental fit of the model in comparison to a baseline or null model. The chi-square of the null model was 1744.47, with 276 degrees of freedom. The value of NNFI (.99) exceeded the recommended level of .90 or above. However, the values of AGFI (.87) and NFI (.86) were close to the recommended level of .90; thus, they were marginally acceptable.

Finally, the goodness-of-fit of the model was measured by parsimonious fit measures. The computed value of normed chi-square (1.67) fell within limits for this measure. Thus, it was acceptable. Also the values of CFI (.99) and IFI (.99) exceeded the critical value of .90.

The above three goodness-of fit measures indicated that there was no reason to reject the modified measurement model, so it was acceptable. It was concluded by the results of overall fit measures that the model fit well and represented a reasonably close approximation of the population.

Measurement Model Fit (Validity and Reliability)

The discussion in the previous section revealed that the fit of the overall model was acceptable. Having assessed the overall model, each of the constructs was evaluated separately by examining the completely standardized loadings, indicator reliability, error variance, the construct reliability, and variance extracted (see Table 4.16). Also, the descriptive statistics for the indicators utilized in the study were briefly reviewed (see Appendix H). Finally, the relationships among the constructs were reviewed in this section.

First, the t-values associated with each of the completely standardized loadings (validity) exceeded the critical value (2.58) at p=.01 significant level. The statistically significant t-values of each completely standardized loading indicated that all variables were significantly related to their specified constructs, and verified the posited relationships among indicators and constructs. Therefore, it is concluded that the modified measurement model is valid, and there was no reason to delete the indicators which had extremely low loadings and to re-estimate the model.

The descriptive statistics (means and standard deviations) obtained for the indicators in the modified measurement model are presented in Appendix H. The mean values of every indicators were toward the higher end of the scale. The high values of means of perceived environmental certainty indicate that the top management in the hospitality industry perceives the environment as stable and simple. Also, the high values of means of organizational structure indicate that the top management in the hospitality industry practice organic organizational structure. Furthermore, the high values of means of the satisfaction level with performance

Table 4.16
CFA for the Modified Measurement Model

Construct	Indicator	Standardized Loading[a]	Indicator Reliability	Error Variance	Construct Reliability	Variance Extracted
Perceived Environmental Certainty	E1	.79	.62	.38	.76	.44
	E2	.58	.33	.67		
	E3	.65	.43	.57		
	E6	.64	.42	.58		
Defender Type of Strategy	D1	.72	.52	.48	.81	.58
	D3	.76	.57	.43		
	D4	.81	.65	.35		
Prospector Type of Strategy	P2	.80	.63	.37	.82	.54
	P3	.74	.55	.45		
	P4	.72	.52	.48		
	P5	.65	.42	.58		
Organizational Structure	S2	.69	.47	.53	.77	.45
	S3	.61	.37	.63		
	S4	.67	.45	.55		
	S5	.72	.52	.48		
Commander Type of Implementation	CM3	.90	.80	.20	.83	.63
	CM4	.82	.67	.33		
	CM6	.63	.40	.60		
Collaborator Type of Implementation	CL1	.80	.64	.36	.79	.55
	CL2	.77	.60	.40		
	CL4	.66	.43	.57		
Satisfaction With Performance	PER1	.87	.75	.25	.84	.65
	PER2	.86	.74	.26		
	PER3	.66	.44	.56		

Notes: [a]All t-values are significant at $p<0.01$

E1: Suppliers
E2: Competitors
E3: Customers
E6: Employment
D1: Employee training
D3: Customer satisfaction
D4: High service
P2: Developing new products/services
P3: Testing new market ideas/methods
P4: Searching for new market/opportunity
P5: Keeping track of competition
S2: Rules and procedures
S3: Division of labor
S4: Span of control
S5: Coordination
CM3: Strategic position of company
CM4: Optimization of strategy
CM6: Accurate/timely information
CL1: Group decision-making
CL2: Multiple inputs to a group decision
CL4: Shared goal among the employees
PER1: Return on assets
PER2: Cash flow
PER3: Market share

indicate that the top management in the hospitality industry is generally satisfied with firm's performance. However, the means of indicators related to strategy and strategy implementation do not provide relevant information about the constructs and indicators because those two constructs are factor analyzed. Finally, the standard deviations indicate that there was sufficient variation in the data.

The evaluation of the measurement model next moved to the issue of reliability. The indicator reliability and construct reliability are assessed in the study. As shown in Table 4.16 all the indicator reliability exceed the minimum level of reliability of .3. The construct reliability and variance extracted to check whether the specified indicators were sufficient in their representation of the constructs. The construct reliability was computed by the following formula:

$$(\Sigma \text{ Li})^2 / (\Sigma \text{ Li})^2 + \Sigma \text{var (Ei)},$$

where Li = standardized factor loading and Var (Ei) = error variance associated with the indicator. The results of the computation of the construct reliability are provided in Table 4.16, and loadings are completely standardized. The construct reliability of all 7 constructs (.76, .81, .82, .77, .83, .79, and .84) exceeded the recommended level of .70.

The variance extracted estimates the amount of variance due to the underlying factor in relation to the amount of variance due to measurement error, and is calculated by the following formula:

$$\Sigma \text{ Li}^2 / \Sigma \text{ Li}^2 + \Sigma \text{var (Ei)}.$$

The computation of variance extracted (.44, .58, .54, .45, .63, .55, and .65) indicated that 5 out of 7 constructs exceeded the recommended level of .50. However the values of variance extracted of two constructs (.44 for PEC and .45 for STR) were close to .50. These results indicated that the construct reliability of the model was acceptable.

Finally, the correlation matrix of constructs indicated that 13 out of 21 correlations among the constructs were statistically significant at p=.01, at least. This result implied that there could be a strong relationship among the constructs, which is one of the preliminary conditions for structural equation modeling (see Table 4.17).

So far, the discussion of how the measurement model was estimated, measured, and evaluated has been provided. As a result of the overall model fit analysis, the original measurement model was rejected. Through the modification process, a modified measurement model was presented and was proved to be an acceptable measurement model in terms of not only the model fit, but also the validity and reliability for drawing theoretical inferences. The next section is devoted to examining the structural model based on the measurement model.

Table 4.17
Correlation among the constructs

	PEC	DEP	PRO	OST	COM	COL	PER
PEC	1.00						
DEP	.40***	1.00					
PRO	-.10	-.28***	1.00				
OST	-.22**	-.35***	.30***	1.00			
COM	.36***	.65***	-.33***	-.47***	1.00		
COL	.25**	.10	.40***	.11	.14	1.00	
PER	-.01	-.05	.38***	-.03	-.05	.41***	1.00

Notes: ** p<0.01
*** p<0.001
PEC: Perceived Environmental Certainty
DEF: Defender Type of Strategy
PRO: Prospector Type of Strategy
OST: Organizational Structure
COM: Commander Type of Strategy Implementation
COL: Collaborator Type of Strategy Implementation
PER: Level of Satisfaction with Performance

Structural Model

The Initial Theoretical Structural Model

Figure 4.3 presents the initial theoretical structural model, which specifies the latent variables and completely standardized path coefficients among them. This model consists of 7 latent variables, 4 beta paths (effects of endogenous on endogenous constructs), 9 gamma paths (effects of exogenous on exogenous constructs), and 3 phi paths (relationships between exogenous and exogenous constructs).

The review of three goodness-of-fit measures indicated that the initial theoretical model was acceptable (see Table 4.18). However, the significant chi-square difference test between the measurement model and the theoretical model indicated that the initial theoretical model was not successful in accounting for the observed relationships among the latent constructs (Anderson & Gerbing, 1988). The first step undertaken was the measurement of the model fit. The chi-square of this model was 259.05, with 234 degrees of freedom. The p-value (.13) indicated that this model was not statistically significant, which indicates the acceptance of the model. The GFI was .90, which was acceptable. The RMSEA (.024) was within the limits. The RMSR (.056) was slightly over the critical value of .05, but could be accepted marginally. The incremental fit measures (AGFI, .87; NNFI, 98; and NFI, .85) also indicated that the model was acceptable. In addition, the parsimonious fit measures (CFI, 98; IFI, 98; RFI, 82; and Normed chi-square, 1.107) generated satisfactory levels for accepting the model with a good fit. These results indicated that the theoretical model fit the data well.

The next step undertaken in this study was the test of the chi-square difference between the theoretical model and the modified measurement model in order to check whether the theoretical model was successful in accounting for the observed relationships among the latent variables (nomological validity). The chi-square difference value was calculated by subtracting the chi-square of the measurement model from that of the theoretical model. The difference of degree of freedom was also achieved by subtracting the degree of freedom of the measurement model from that of the theoretical model. The chi-square difference between the two models was 10.5 with 1 degree of freedom. (see Table 4.19). Since it was significant at $p<.01$ (critical value is 6.63), the null hypotheses, no difference between the two models, was rejected. It is inferred from the result that the theoretical model was different from the measurement model; thus the theoretical model failed to explain the relationships among latent constructs. Therefore, the initial theoretical model did not achieve an acceptable fit to the data. Although the goodness-of-fit measures provided an acceptable level of results, the theoretical model was rejected because it violated nomological validity.

Revised Structural Model

The review of the initial theoretical structural model revealed that the t-values of some completely standardized coefficients were not statistically significant (see Figure 4.3). These include the paths of environment to commander, environment to structure, defender to performance, structure to collaborator, and commander to performance.

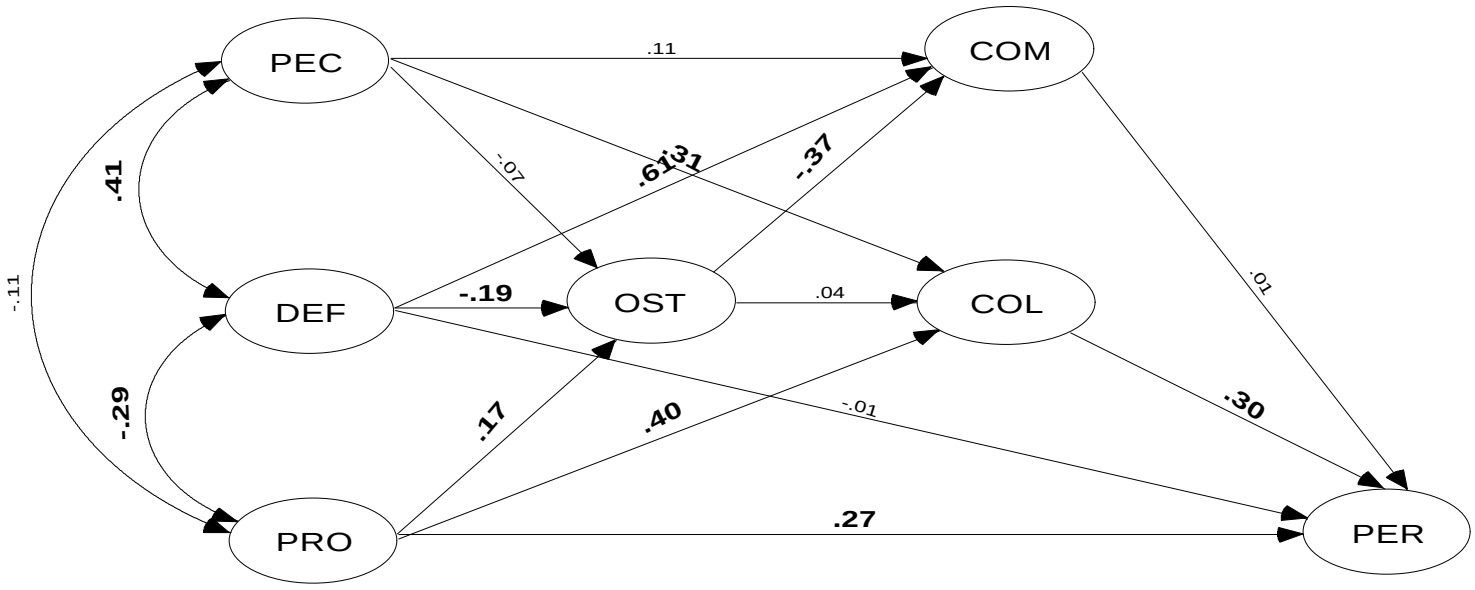

Figure 4.3. Theoretical Structural Model

Notes: Bold number indicates that the standardized path coefficient is statistically significant at p=0.05. H1-Causal Relationship; H17-Congruence; PEC-Perceived Environmental Certainty; DEF-Defender Type of Strategy; PRO-Prospector Type of Strategy; OST-Organizational Structure; COM-Commander Type of Strategy Implementation; COL-Collaborator Type of Strategy Implementation; and PER-Satisfaction with Performance.

Table 4.18
Goodness-of-fit Measures for the Theoretical Structural Model

Measures	Goodness-of-fit Statistics
Absolute Fit Measures	
Chi-square	259.05 with 234 df (p=.13)
NCP	25.05
GFI	.90
RMSR	.056
RMSEA	.024
Incremental Fit Measures	
Chi-square of null model	1744.47 with 276 df
AGFI	.87
NNFI	.98
NFI	.85
Parsimonious Fit Measures	
PNFI	.72
PGFI	.70
CFI	.98
IFI	.98
RFI	.82
Normed chi-square	1.107

Notes: NCP = Non-Centrality Parameter; GFI= Goodness of Fit Index; RMSR = Standardized Root Mean Square Residual; RMSEA = Toot Mean Square Error of Approximation; AGFI = Adjusted Goodness of Fit Index; NNFI = Non-Normed Fit Index; NFI = Normed Fit Index; PNFI = Parsimony Normed Fit Index; PGFI = Parsimony Goodness of Fit Index; CFI = Comparative Fit Index; IFI = Incremental Fit Index; RFI = Relative Fit Index.

Table 4.19

Chi-square Tests for Model Comparison

Comparison	df Difference	Chi-square Difference
Measurement Model vs. Theoretical Model	1	10.5*
Theoretical Model vs. Revised Model	2	.01
Revised Model vs. Measurement Model	3	10.51

Notes: * significant at p<.01

Chi-square of measurement model = 248.55 with 233
Chi-square of theoretical model = 259.05 with 234 degree of freedom
Chi-square of revised model = 261.61 with 236 degree of freedom

Among 5 paths which are nonsignificant, 2 paths (from commander to performance and from defender to performance) were deleted from the model, since the completely standardized coefficients of those paths exhibited the lowest level (.01 and -.01 respectively). As a result, the revised model was estimated with 7 latent variables, 3 beta paths, 8 gamma paths, and 3 phi paths (see Figure 4.4). The results of the goodness-of-fit measures for the revised model and chi-square difference tests are presented in this section.

The results of goodness-of-fit measures yielded a similar pattern to those for the initial theoretical model, as shown in Table 4.20. All of the three measures indicated that the revised structural model was acceptable. The chi-square of this model was 259.06 with 236 degrees of freedom. The p-value (.14) indicated that this model was not statistically significant, therefore it was acceptable. The GFI was .90, which was also within an acceptable range. The RMSEA (.023) was within acceptable limits. The RMSR (.056) was slightly over the critical value of .05, but could be accepted marginally. The incremental fit measures (AGFI, .87; NNFI, 98; and NFI, .85) also indicated that the model was acceptable. In addition, the parsimonious fit measures (CFI, 98; IFI, 98; RFI, 83; and Normed chi-square, 1.098) generated satisfactory levels to accept the model with a good fit. These results indicated that the revised structural model fits the data well.

Two chi-square difference tests were conducted. The first chi-square difference test was performed to see whether the theoretical model and the revised model were different. The second test was conducted to check the difference between the revised model and the measurement model. The results of these tests were not statistically different at p=.01 level. The first test was related to the theoretical and the revised models. The chi-square difference between the two models was .01, with 2 degrees of freedom. (see Table 4.19). Since it was nonsignificant at p<.01 (critical value is 9.21), the null hypotheses, no difference between the two models, was accepted. It was inferred from the result that the revised model was not different from the theoretical model. In this case of no difference between two models, the parsimony model was selected. Since the revised model was a parsimonious model of the theoretical model, the revised model was accepted (Hull, Lehn, and Tedlie, 1991). It should be noted that usually the parsimony model fits the data less well than the nest model because the former has fewer parameters than the latter. However, this is not the case in this study, because the contribution of the two deleted parameters to the model was extremely small. Thus, the goodness-of-fit measures for the two models were almost identical.

A second chi-square difference test between the revised model and the measurement model was conducted to check the nomological validity. The chi-square difference between the two models was 10.51, with 3 degrees of freedom. The difference was not statistically significant at p=.01 (critical value=11.35). Thus, the null hypothesis, no difference between two models, was not rejected. It was concluded that the revised model and the measurement model was not different, and the revised model was nomologically valid. In summary, these two chi-square difference tests indicated that the causal relationships described in the revised model successfully explained the observed relationships among the latent variables. Thus, the revised structural model was accepted as the final model.

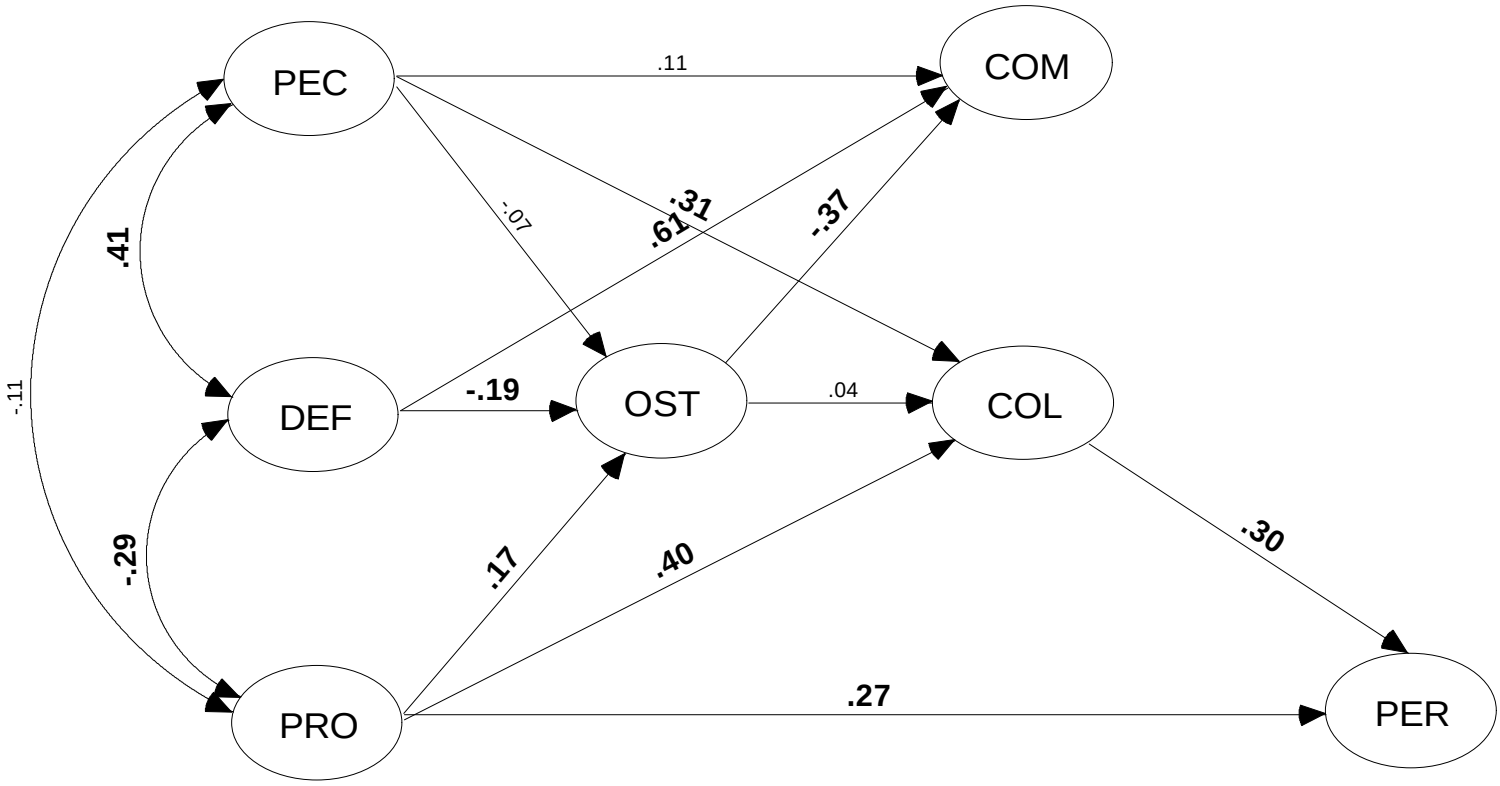

Figure 4.4. Modified Structural Model

Notes: Bold number indicates that the standardized path coefficient is statistically significant at p=0.05. H1-Causal Relationship; H17-Congruence; PEC-Perceived Environmental Certainty; DEF-Defender Type of Strategy; PRO-Prospector Type of Strategy; OST-Organizational Structure; COM-Commander Type of Strategy Implementation; COL-Collaborator Type of Strategy Implementation; and PER-Satisfaction with Performance.

Table 4.20
Goodness-of-fit Measures for the Revised Structural Model

Measures	Goodness-of-fit Statistics
Absolute Fit Measures	
Chi-square	259.06 with 236 df (p=.14)
NCP	23.06
GFI	.90
RMSR	.056
RMSEA	.023
Incremental Fit Measures	
Chi-square of null model	1744.47 with 276 df
AGFI	.87
NNFI	.98
NFI	.85
Parsimonious Fit Measures	
PNFI	.73
PGFI	.71
CFI	.98
IFI	.98
RFI	.83
Normed chi-square	1.098

Notes: NCP = Non-Centrality Parameter; GFI= Goodness of Fit Index; RMSR = Standardized Root Mean Square Residual; RMSEA = Toot Mean Square Error of Approximation; AGFI = Adjusted Goodness of Fit Index; NNFI = Non-Normed Fit Index; NFI = Normed Fit Index; PNFI = Parsimony Normed Fit Index; PGFI = Parsimony Goodness of Fit Index; CFI = Comparative Fit Index; IFI = Incremental Fit Index; RFI = Relative Fit Index.

The review of the squared multiple correlations of the revised model revealed that perceived environmental certainty, the defender type of strategy, and the prospector type of strategy, explained 17% of the variance in organizational structure. Meanwhile, 50 % of the variance in the commander type of implementation was explained by perceived environmental uncertainty, the defender type of strategy, and organizational structure. Also, three constructs, including perceived environmental uncertainty, the prospector type of strategy, and organizational structure, accounted for 24 % of the variance in the collaborator type of implementation. Finally, 20 % of the variance in performance satisfaction was explained by the collaborator type of implementation and the prospector type of strategy (see Table 4.21).

As shown in Table 4.22 and Figure 4.4, 15 paths are involved in the revised structural model. Among them, 9 completely standardized coefficients of paths are statistically significant at least at the $p<.05$ level. This result indicates that at least 9 hypotheses are supported statistically. The next section is devoted to a discussion of the hypotheses testing results in this study.

Hypotheses Testing

The hypotheses developed in this study were tested by utilizing structural equation modeling (SEM). The effects of exogenous to endogenous constructs, endogenous to endogenous constructs, as well as the relationships among exogenous constructs can be tested in SEM simultaneously. In this study, 3 exogenous variables (including perceived environmental certainty, the defender type of strategy, and the prospector type of strategy) and 4 endogenous variables (organizational structure, the commander type of implementation, the collaborator type of implementation, and the satisfaction level with performance) were selected and examined, in terms of the relationships or effects among them. The Figure 4.4 indicated the direction and magnitude of the effects and relationships among the constructs. Also, Table 4.23 presents the summary of results of hypotheses testing. The following section is devoted to examining the hypotheses testing of this study.

Hypothesis 1: *There will be causal relationships among the constructs among the constructs in the strategic management process.*

To test the existence of causal relationship indirectly, two measurement models were compared: the correlated and uncorrelated measurement models. The correlated measurement model assumes that the constructs are correlated with each other, while the uncorrelationed measurement model assumes that there is no relationship among the constructs. Two models were tested separately and goodness-of-fit statistics showed that the uncorrelated model did not fit the data adequately. The chi-square for the uncorrelated model was 466.61, with 254 degrees of freedom ($p = .00$). Thus, it failed to indicate the adequacy of data fit. Meanwhile, the chi-square of the correlated model was 248.55, with 233 degrees of freedom. The p-value was .23, which indicated that some perceptions were shared, and thus there are correlations among the constructs. The results of CFA for two models indirectly implied that there are causal relationships among the constructs.

Table 4.21

R^2s and Errors of Endogenous Constructs

Endogenous Constructs	Squared Multiple Correlations	Errors of Endogenous Constructs
Organic Structure	.17	.54
Commander	.50	.67
Collaborator	.24	.75
Performance	.20	.88

Table 4.22
Results of SEM Analysis

Hypothesis	Path			Standardized Coefficient	t-value
H2	Environment	with	Defender	.41	5.27**
H3	Environment	with	Prospector	-.11	-1.21
H4	Environment	to	Structure	-.07	-.95
H5	Defender	to	Structure	-.19	-2.26*
H6	Prospector	to	Structure	.17	2.28*
H7	Environment	to	Commander	.11	1.26
H8	Environment	to	Collaborator	.31	3.47**
H9	Structure	to	Commander	-.37	-3.15**
H10	Structure	to	Collaborator	.04	.32
H11	Defender	to	Commander	.61	6.05**
H12	Prospector	to	Collaborator	.40	4.23**
H13	Defender	to	Performance	.-01a	-.10[a]
H14	Prospector	to	Performance	.27	2.64**
H15	Commander	to	Performance	.01a	.08a
H16	Collaborator	to	Performance	.30	2.96**

Notes: [a] Inferred from the theoretical model
* $p<.05$
** $p<.01$

However, the associations in a SEM are necessary but not sufficient evidence of causal relations. In other words, a model can be consistent with a series of causal hypotheses, although the data on which the model is based might be equally consistent with other causal hypotheses (Rick,1995). Thus, the results of the SEM should be interpreted indifferently from those of ANOVA or multiple regression. Yet, if the study from which those variables arise is designed appropriately and logically, then a causal interpretation of directional paths may be meaningful (Martin, 1987).

Hypothesis 2: *There will be a positive relationship between perceived environmental certainty and the defender type of strategy.*
Hypothesis 3: *There will be a negative relationship between perceived environmental certainty and the prospector type of strategy.*

Hypotheses 2 and 3 investigate the relationship between perceived environmental certainty and types of strategy. Since these two constructs are exogenous, it is assumed that there is no directionality between two constructs, rather, the relationships between the two constructs were hypothesized. Perceived environmental certainty was measured by four indicators, including suppliers, competitors, customers, and employment. The defender type of strategy was measured by three indicators (employee training, customer satisfaction, and high level of service), while the prospector type of strategy was measured by four indicators (development of new products & services, testing new market ideas & methods, searching for new market & opportunities, and keeping track of competition).

The results of the SEM analysis indicated that H2 was supported. Perceived environmental certainty and the defender type of strategy are positively related. This result indicates that if the top managers perceive the business environment as stable and predictable, they tend to practice the defender type of strategy. The structural coefficient of .41 and the t-value of 5.27 were significant at the $p<.01$ level.

However, H3 was not supported. There is no relationship between perceived environmental certainty and the prospector type of strategy. The structural coefficient of -.11 and t-value of –1.21 were not statistically supported at the $p= .05$ level. From this analysis it appears that perceived environmental uncertainty does not lead to a higher impact of the prospector type strategy and vice versa.

These findings confirm the argument of Schmelzer (1992) who insists the existence of relationship between strategy and perceived environmental certainty in the hospitality industry, although this study only revealed the relationship between perceived environmental certainty and the defender type of strategy.

Hypothesis 4: *Perceived environmental certainty will have a negative effect on organic organizational structure.*

Hypothesis 4 is related to the relationship between perceived environmental certainty and an organizational structure. The organic organizational structure was measured by four indicators, including rules and procedures, division of labor, span of control, and coordination.

The results of statistical analysis did not support H4. The structural coefficient (-.07) and t-value (-.95) associated with these two constructs were not significant at the p = .05 level. Thus, the degree of perceived environmental certainty was not found to impact organizational structure. The results of hypothesis test were not coincide with the argument of Schmelzer (1992).

Hypothesis 5: *The defender type of strategy will have a negative effect on organic organizational structure.*
Hypothesis 6: *The prospector type of strategy will have a positive effect on organic organizational structure.*

Hypotheses 5 and 6 were developed to test the relationships among the types of strategy and organizational structure. The results of SEM analysis indicated that H5 was supported. The test statistics (completely standardized path coefficient = -.19, t-value = -2.26) were significant at the p<.05 level. The result of the test indicated that the higher the characteristics of the defender type strategy in an organization, the lower the organic organizational structure.

H6 was also supported. The completely standardized coefficient of .17 and t-value of 2.28 were statistically significant at the p<.05 level. Thus, it is proved that the stronger the characteristics of prospector type of strategy, the stronger the characteristics of organic organizational structure.

Two primary studies were conducted to investigate the relationships between strategy and organizational structure in the hospitality industry, and the results of these studies were inconclusive. Tse (1988) investigated the relationships between two constructs, and found no relationships. Schmelzer (1992) suggested the existence of certain effects of strategy on organizational structure by conducting a case study. The results of this study confirmed the argument of Schmelzer (1992), but did not coincide with the results of Tse's (1988) study. The disagreement of research results between Tse's (1988) and this study can be explained by the selection of constructs and measurement of constructs. For example, in contrast to this study, Tse (1988) utilized Porter's (1985) business typology. Also, she measured three dimensions of organizational structure (formalization, centralization, and specialization) separately, and tested the relationships between each type of strategy and each dimension of organizational structure. In contrast, this study measured organizational structure as single construct and tested the effects of each strategy on organizational structure.

Hypothesis 7: *Perceived environmental certainty will have a positive effect on the commander type of strategy implementation.*
Hypothesis 8: *Perceived environmental certainty will have a negative effect on the collaborator type of strategy implementation.*

Hypotheses 7 and 8 tested the relationships among perceived environmental certainty and types of strategy implementation. As stated earlier, two types of strategy implementation were utilized in this study: the commander and collaborator types of strategy implementation. The commander type of strategy implementation was measured by three indicators, including the

strategic position of the company, the optimization of strategy, and accurate and timely information, while the collaborator type of strategy implementation was measured by group decision-making, multiple inputs to a group decision, and shared goals among the employees.

The result of SEM analysis did not support H7. Perceived environmental certainty was found to have a statistically non-significant effect (structural coefficient =.11, t-value = 1.26) on the commander type of strategy implementation at the p = .05 level. This result indicated that when a firm selected the commander type of strategy implementation, it does not care about environmental uncertainty.

In contrast to the result of the statistical testing of H7, H8 was supported. The completely standardized path coefficient for the effect of perceived environmental certainty on the collaborator type of strategy implementation was .31, with a t-value of 3.47, which is statistically significant at the p<.01 level. However, the sign of the path indicated a positive effect of perceived environmental certainty on the collaborator type of strategy implementation, which is contrary to expectations. This result indicates that if top managers feel comfortable with the business environment, they are likely to adopt a collaborator type of strategy implementation.

The results of this study confirmed the insistence of Schmelzer (1992) who argued that there are certain relationships between perceived environmental certainty and strategy implementation in the hospitality industry.

Hypothesis 9: *Organic organizational structure will have a negative effect on the commander type of strategy implementation.*
Hypothesis 10: *Organic organizational structure will have a positive effect on the collaborator type of strategy implementation.*

Hypotheses 9 and 10 were developed to test the relationships among organizational structure and types of strategy implementation. These hypotheses tested whether organic organizational structure effects the commander and collaborator types of strategy implementation.

The results of statistical analysis supported H9. The completely standardized coefficient for the path between organizational structure and the commander type of strategy implementation was -.37, with a t-value of –3.15. It was statistically significant at p<.01, which indicates that an organic organizational structure has a negative effect on the commander type of strategy implementation. Conversely, the less organic organizational structure has a positive effect on the commander type of strategy.

In contrast to the result of H9, H10 was not supported. The t-value of .32 indicates that the coefficient of path (.04) was not statistically significant at p=.05. Thus, it is inferred from the test that an organic organizational structure has no effect on the collaborator type of strategy implementation.

The results of above hypotheses testing coincided with the insistences of Schmelzer (1992) and Cho (1996) who argued that there are certain relationships between organizational

structure independently or interactive with perceived environmental certainty and strategy implementation. Thus, the results of hypothesis testing along with the previous studies (Schmelzer, 1992 and Cho, 1996) confirmed that organizational structure is an important antecedent construct of strategy implementation in the hospitality industry.

Hypothesis 11: *The defender type strategy will have a positive effect on the commander type of strategy implementation.*
Hypothesis 12: *The prospector type strategy will have a positive effect on the collaborator type of strategy implementation.*

Hypotheses 11 and 12 tested the relationships among types of strategy and types of strategy implementation. This study tested the effects of the defender type of strategy on the commander type of strategy implementation and the effects of the prospector type of strategy on the collaborator type of strategy implementation. However, the cross tests, relationships between the defender of strategy and the collaborator type of strategy implementation, and between the prospector type of strategy and the commander type of strategy implementation, were not hypothesized.

H11 was supported by the results of statistical analysis. The completely standardized structural coefficient was .61, with a t-value of 6.05. Thus, the test was significant at the $p<.01$ level. This result implies that the increase in the characteristics of defender type of strategy in an organization is associated with the increase in the characteristics of the commander type of strategy implementation.

H12 was also supported at the $p<.01$ level. The completely standardized path coefficient was .40, with a t-value of 4.32. This result indicates that the prospector type strategy has a positive effect on the collaborator type of strategy implementation.

There has been no study investigating the relationships between strategy and strategy implementation in the hospitality industry. However, the results of this study revealed the existence of the relationships between strategy and strategy implementation in the hospitality industry.

Hypothesis 13: *The defender type of strategy will have a positive effect on the satisfaction level with performance.*
Hypothesis 14: *The prospector type of strategy will have a positive effect on the satisfaction level with performance.*

Hypotheses 13 and 14 were derived to test the effects of types of strategy on the level of performance satisfaction. The satisfaction level with firms' performance was measured by three indicators, including return on assets, growth rate, and cash flow.

It appears that hypothesis 13 was not supported. The test with the completely standardized path coefficient of .-01 and t-value of -.10 was not statistically significant at $p=.05$, which implies no relationship between the defender type strategy and the level of satisfaction with performance.

In contrast to the result of the H11 test, H12 was supported. The completely standardized path coefficient was .27, with a t-value of 2.64. It was statistically significant at the $p<.01$ level. This result indicates that the satisfaction level with performance depends on the degree of the prospector type of strategy. The stronger the characteristics of prospector type strategy, the more satisfaction about the results of financial performance.

Many studies conducted to investigate the relationships between strategy and performance in the hospitality industry (Crawford-Welch, 1990; Dev, 1988; Jogaratnam, 1995; Murthy, 1994; Shaffer, 1986; Tse, 1988; West, 1988). The results of these studies are inconclusive. Some of the research (Crawford-Welch, 1990; Jogaratnam, 1995; Murthy, 1994; West, 1988) including this study revealed the relationships between strategy and performance, while the others (Dev, 1988; Shaffer, 1986; Tse, 1988) did not find the relationships between two constructs. This inconclusive result can be explained by the fact that strategy is the complex phenomenon and it is diversely related to other constructs in the strategic management process. To accurately test the effect of strategy on performance, the other constructs in the strategic management process, including environment, structure, and strategy implementation should be considered simultaneously.

Hypothesis 15: *The commander type of strategy implementation will have a positive effect on the satisfaction level with performance.*
Hypothesis 16: *The collaborator type of strategy implementation will have a positive effect on the satisfaction level with performance.*

Hypothesis 15 and 16 were developed to test the effects of types of strategy implementation and the level of performance satisfaction. The result of hypothesis testing failed to support H15. The completely standardized path coefficient with t-value of .01, inferred from the original theoretical structural model, was not statistically significant at the $p=.05$ level. Thus, it was concluded that the commander type of strategy implementation has no effect on the satisfaction level with performance.

H16 was supported. The completely standardized coefficient .30 and the t-value was 2.96 , which is statistically significant at $p<.01$. This result indicated that the collaborator type of strategy implementation has a positive effect on the satisfaction level with performance.

The results of this study were consistent with the argument of Parsa (1994) who insisted that the type of strategy implementation alter the performance of firms in the hospitality industry. As proved by hypothesis testing, the satisfaction level with performance is positively effected by the collaborator type of strategy implementation.

Hypothesis 17: *The collaborator type of strategy implementation matched with an organic organizational structure and the prospector type of strategy will yield higher satisfaction with performance than will the commander type of strategy implementation matched with the less organic organizational structure and the defender type of strategy.*

H17 was indirectly supported. There is no way to statistically test the hypothesis 17 with SEM, because there was no direct effect of the commander type of strategy implementation on the satisfaction level with performance. However, comparing the magnitude and the statistical significance of path coefficients can indirectly prove hypothesis 17. The path coefficient from the prospector type of strategy to the satisfaction level with performance (.27) was statistically significant, while the path coefficient from the defender type of strategy to the satisfaction level with performance (.-01) was not significant statistically. Also the path coefficient from the collaborator type of strategy implementation on the satisfaction level with performance (.30) was statistically significant, while the path coefficient from the commander type of strategy implementation on the satisfaction level with performance (.08) was not significant statistically. However, the statistical analysis failed to support the effect of organic organizational structure on the collaborator type of strategy implementation. Thus, it can be concluded that the collaborator type of strategy implementation combined with the prospector type strategy will yield higher satisfaction level with performance than will the commander type of strategy implementation combined with the defender type of strategy in the hospitality industry, where the level of perceived environmental uncertainty is high. Since there has been no study revealing the congruence among the constructs in the hospitality industry, the results of this study provide the framework of congruencies among the constructs in the strategic management process, and explain how these congruencies are related to the firm performance.

Summary

This chapter examined the results of the statistical analyses performed on the data provided by top management in the hospitality industry. Several data-related issues, including data collection, sample characteristics, and validity and reliability were discussed.

Three statistical analyses were then conducted, with different purposes. First, EFA was conducted to determine the dimensions of the strategy and strategy implementation constructs. CFA then followed to test the fit of the model and to test the validity and reliability of each indicator and construct. Finally, SEM was conducted to investigate each of the 17 hypothesis provided in the study. The analysis supported 11 hypotheses (2 of them were partially supported) out of 17 hypotheses. The summary of the hypotheses testing was presented in Table 4.23. The next chapter discusses these results in detail, including their implications, limitations of the study, and suggestions for future research.

Table 4.23

Summary of Study Results

Hypothesis	Description of Hypothesis	Conclusion
H1	There will be causal relationships among the constructs.	Accepted
H2	Positive relationship between perceived environmental certainty and the defender type of strategy.	Accepted
H3	Negative relationship between perceived environmental certainty and the prospector type of strategy.	Rejected
H4	Negative effects of perceived environmental certainty on organic organizational structure.	Rejected
H5	Negative effects of the defender type of strategy on organic organizational structure.	Accepted
H6	Positive effects of the prospector type of strategy on organic organizational structure.	Accepted
H7	Positive effects of perceived environmental certainty on the commander type of strategy implementation.	Rejected
H8	Negative effects of perceived environmental certainty on the collaborator type of strategy implementation.	Accepted *
H9	Negative effects of organic organizational structure on the commander type of strategy implementation.	Accepted
H10	Positive effects of organic organizational structure on the collaborator type of strategy implementation.	Rejected
H11	Positive effects of the defender type strategy on the commander type of strategy implementation.	Accepted
H12	Positive effects of the prospector type strategy on the collaborator type of strategy implementation.	Accepted
H13	Positive effects of the defender type strategy on the satisfaction level with performance.	Rejected
H14	Positive effects of the prospector type strategy on the satisfaction level with performance.	Accepted
H15	Positive effects of the commander type of strategy implementation on the satisfaction level with performance.	Rejected
H16	Positive effects of the collaborator type of strategy implementation on the satisfaction level with performance.	Accepted
H17	The collaborator type of strategy implementation matched with an organic structure and the prospector type of strategy will have a greater effect on the satisfaction level with performance than the commander type of strategy implementation matched with a mechanistic structure and the defender type strategy.	Accepted

Note: *. The completely standardized path coefficient was statistically significant, but the sign was opposite to the hypothesized direction.

CHAPTER V
DISCUSSION AND CONCLUSIONS

Introduction

This final chapter presents a discussion of the results of this research concerning the strategic management process and how its constructs influence each other, including the constructs of perceived environmental certainty, types of strategy, types of implementation, organizational structure, and firms' performance. Then, the implications derived from the statistical analyses and findings are provided. Finally, the limitations of the study, as well as suggestions for future research, are presented.

Discussion

This study was conducted in order to test a proposed strategic management process model and the various relationships among the constructs of the model. Several statistical analysis techniques were utilized, including EFA, CFA, and SEM. A total of seven constructs were selected, including perceived environmental certainty, the defender type of strategy, the prospector type of strategy, organizational structure, the commander type of strategy implementation, the collaborator type of strategy implementation, and the satisfaction level with performance. To examine the relationships among the constructs, 17 hypotheses were developed and tested. The results of hypotheses testing were discussed in the previous chapter. The implications of the results are discussed in detail in this section.

Perceived Environmental Certainty and Types of Strategy

It was hypothesized that perceived environmental certainty has a positive relationship with the defender type of strategy and has a negative relationship with the prospector type of strategy. The hypothesized relationships between perceived environmental certainty and types of strategy have been studied by many researchers (Dirsmith & Covaleske, 1983; Duncan, 1972; Emery & Trist, 1965; Miles & Snows, 1978). The statistical analysis in this study only supported a positive relationship between the defender type of strategy and perceived environmental certainty. These results implied that if the top managers perceive their business environments, including suppliers, competitors, customers, and employment, as stable and simple, the likelihood of adopting the defender type of strategy increases in the firm. In other words, if the top management feels that the business environments are predictable, they are likely to focus on protecting their markets and customers from competitors by providing higher service levels, higher level of customer satisfaction, and employee training programs. This phenomenon is explained by the fact that top management in a predictable environment is not willing to take the risk associated with searching for new markets or opportunities. Thus, it is proved that the principal strategy of firms in stable, simple, and predictable environments is not expansion by searching for new markets or opportunities but, efficiency achieved by providing higher service levels or product quality.

However, in contrast to firms in the hospitality industry that implement the defender type of strategy, firms adopting the prospector type of strategy were not concerned with the degree of environmental certainty. One of the possible explanations for this situation is the fierce competition found in the hospitality industry. For example, in the fast food market, the only feasible strategy is growth or expansion by developing new markets or taking a market share from competitors, regardless of how environments are perceived.

Perceived Environmental Certainty and Organizational Structure

A hypothesis was developed to test the negative effect of perceived environmental certainty and an organic organizational structure. The results of statistical analysis failed to support this hypothesis, which implies that perceived environmental certainty has no effect on organic organizational structure.

Dill (1958), Burn and Stalker (1961), Lawrence and Lorsch (1967), and Miles and Snow (1978) suggest that a firm in a stable and simple environment should utilize the less organic organizational structure (centralized, formalized, and specialized) in order to maximize efficiency, while a firm in a complex and dynamic environment should adopt an organic organizational structure (decentralized, less formalized, and less specialized) in order to minimize the degree of environmental uncertainty. Also, organizations facing more uncertain external environments will require greater internal differentiation among subsystems, while organizations facing certain external environments will require less differentiation among subsystems. The result of hypothesis testing did not coincide with this argument, especially in the hospitality industry.

There may be three possible implications of the result of no effect of perceived environmental certainty on organic organizational structure. One of the possibilities is that the degree of environmental certainty may not be important to top management; the results of hypothesis testing supported this notion. The other possibility is the dynamic nature of the business environment. Usually, the business environment changes frequently. However, it requires a great amount of time, effort, and expense on the part of the firm to change its organizational structure. Thus, this discrepancy between environmental change and organizational structure makes it difficult for a firm to change its organizational structure to catch up with the changing environment. The final possibility is that the top management is naturally reluctant to utilize an organic organizational structure, regardless of how they perceive the environment, because an organic organizational structure implies a decrease in the top management's power. These three possibilities may explain the result: "no effect of perceived environmental certainty on an organic organizational structure."

Types of Strategy and Organizational Structure

Two hypotheses were utilized to test the relationships between types of strategy and organizational structure. One hypothesis described a negative effect of the defender type of strategy on organic organizational structure, and the other relationship is the positive effect of the

prospector type of strategy on an organic organizational structure. Both hypotheses were supported in the research. The results of the SEM analysis coincide with the argument of Miles et al. (1974), Miles and Snow (1978), Schaffer (1986), Tse (1988a), and West (1988). When an organization pursues the defender type of strategy, this choice should be based on the premise that little significant change will be occurring in the external environment. Strategic objectives are likely to center on achieving operating efficiencies and cost leadership. To best support strategy and objectives, the organization's structure should provide for a great degree of certainty in the relationship between operations and plans. This is most typically found with a bureaucratic organization using more mechanistic design alternatives.

When strategy is growth oriented (a prospector type of strategy), the situation as a whole becomes more complex and uncertain. Strategic objectives are likely to include the needs for innovation and flexible responses to changing competition in the environment. Operations and plans are likely to require considerable change over time. The most appropriate structure is one that can facilitate and support the inevitable modifications. This will likely require more decentralization, as found in adaptive organizations using organic design alternatives. Therefore, the results of the SEM analysis support that a firm utilizing the less organic organizational structure is likely to adopt the defender type of strategy; a firm utilizing an organic organizational structure is likely to adopt the prospector type of strategy. These results also imply that the defender type of strategy will be more successful when supported by mechanistic design alternatives; the prospector type of strategy will be more successful when supported by organic design alternatives.

Perceived Environmental Certainty and Types of Strategy Implementation

It was hypothesized that there is a positive effect of perceived environmental certainty on the commander type of strategy implementation, and there is a negative effect of perceived environmental certainty on the collaborator type of strategy implementation. These two hypotheses are derived from the argument of Hambrick (1983a), Bourgeois and Brodwin (1984), and Miller (1987). In particular, Bourgeois and Brodwin (1984) insisted that the commander type of strategy implementation, which focuses on strategic position, optimization of strategy, and accurate & timely information, be matched with a predictable environment, because the strategists in this model need to assimilate complete, accurate, and timely information, which is available only in a relatively stable and predictable environment. In contrast, under a complex and unpredictable environment, top management is unable to perceive and assimilate all of the information. Top management needs to have frequent communication with front line managers in order to capture as much information as possible. Thus, the firm in a complex and unpredictable environment should adopt the collaborator type of strategy implementation which focuses on group decision-making, multiple inputs to group decisions, and shared goals among employees.

However, the above is not the case in the hospitality industry. The results of the SEM analysis failed to support a positive effect of perceived environmental certainty on the commander type of strategy implementation. This result indicates that a firm adopting the commander type of strategy implementation does not consider environmental certainty as an

important factor. Furthermore, the negative effect of perceived environmental certainty on the prospector type of strategy implementation is inversely supported. In contrast to the hypothesis, there is a positive effect of perceived environmental certainty on the prospector type of strategy implementation. Bourgeois & Brodwin (1984) indicated that information access is an important variable in distinguishing between the commander and collaborator types of strategy implementation. However, the result of the SEM analysis implies that time is a more critical factor in the relationship between types of strategy implementation and perceived environmental uncertainty. Usually, the collaborator type of strategy implementation takes more time for decision-making and for executing decisions than does the commander type of strategy implementation. Thus, the collaborator type of strategy implementation is suitable for a stable environment where the speed of change is slow, and the preliminary condition of the collaborator type of strategy implementation is multiple inputs to group decisions, which requires enough time to complete. This is a possible explanation for why there was a positive effect of perceived environmental certainty on the collaborator type of strategy implementation.

Organizational Structure and Types of Strategy Implementation

Bourgeois and Brodwin (1984) and Miller (1987) argued that there is a negative relationship between the commander type of strategy implementation and an organic organizational structure, and that there is a positive relationship between the collaborator type of strategy implementation and an organic organizational structure. To test these relationships, two sets of hypotheses were derived. One of the hypotheses described a negative effect of an organic organizational structure on the commander type of strategy, and the other described a positive effect of an organic organizational structure on the collaborator type of strategy. Only a negative effect of an organic organizational structure on the commander type of strategy was supported by the SEM analysis.

The results of the statistical analysis revealed several important notions of top management about the relationship between organic organizational structure and strategy implementation. A firm adopting the less organic organizational structure is not willing to utilize the collaborator type of strategy implementation. The utilization of the collaborator type of strategy implementation implies the delegation of centralized power to the lower level of chain of command. This means giving up a mechanistic (the less organic) organizational structure, which may yield inefficiency. Thus, top management in a firm adopting the less organic organizational structure is reluctant to select the collaborator type of strategy implementation. Meanwhile, a firm utilizing the collaborator type of strategy implementation was not affected by the types of organizational structure. This indirectly indicates that organizational structure is not a critical factor in the strategic management process in the hospitality industry. Also, this implies that changing an organizational structure is not an easy task for firms. Top management in the hospitality industry perceives changing organizational structure as a time- and effort-consuming task. Thus, although top management perceives a discrepancy between the type of structure and the type of strategy implementation, top management is unwilling to change organizational structure.

Types of Strategy and Types of Strategy Implementation

Although there has been no empirical study testing the relationships among types of strategy and types of strategy implementation, some authors have argued for a positive relationship between the defender type of strategy and the commander type of strategy implementation, and between the prospector type of strategy and the collaborator type of strategy implementation. Two hypotheses were developed to test the positive effect of the defender type of strategy on the commander type of strategy implementation, and the positive effect of the prospector type of strategy on the collaborator type of strategy. The results of hypotheses testing supported both hypotheses. Thus, it is concluded that a firm adopting the defender type of strategy which focuses on employee training, customer satisfaction, and a high level of service, is likely to utilize a commander type of strategy implementation which focuses on optimization of strategy, strategic position, and accurate and timely information. Meanwhile, a firm adopting the prospector type of strategy which focuses on testing and searching for new markets, developing new products and services, and keeping track of competition, has a higher likelihood of utilizing the collaborator type of strategy implementation, which focuses on group-decision making, multiple inputs to group decisions, and shared goals among employees.

Types of Strategy and the Satisfaction Level with Performance

One of the basic assumptions of the studies of strategy is the positive contribution of strategy to a firm's performance, regardless of the type of strategy utilized. This notion has been tested empirically by many researchers (Dess & Davis, 1984; Hambrick, 1983b; Kumar & Subramanian, 1998; Tse, 1988a; West, 1988), although the results of these studies have not been conclusive. To test the relationship between strategy and firms' performance, two hypotheses were developed. In this study, it was hypothesized that the defender type of strategy would have a positive effect on the satisfaction level with performance in terms of growth rate, return on assets, and cash flow. Also, the positive effect of the prospector type of strategy on the satisfaction level with performance was hypothesized.

Among two hypotheses, only one hypothesis, the positive effect of the prospector type of strategy on the satisfaction level with performance, was supported by the statistical analysis. This result indicated that top management in the hospitality industry satisfied with a firm's performance when the firm utilizes the prospector type of strategy. This findings was not consistent with Tse's (1988a) and Schaffer's (1986), in that they found no differences in performance of restaurant and lodging firms grouped according to their competitive strategies. The reason why their result was different from the result found in this study could be due to the different methods used to measure the constructs. For example, this study measured management's satisfaction level with performance, while their studies measured actual financial performance. The other possible reason could be the types of industries from which the sample was drawn. The sample population of this study was the hospitality industry, including both restaurant and lodging firms, while the sample population of their study was restaurant firms or lodging firms respectively. These differences might contribute to the different findings.

The results of this study also revealed the importance of congruence among the constructs in the strategic management process. As many researchers (Jogaratnam, 1995; Olsen, 1980; West, 1988) have indicated, the business environment in the hospitality industry is complex and dynamic, which implies that the prospector type of strategy is more suitable than the defender type of strategy in order to yield better firm performance.

In sum, the results of this study verified the positive impact of strategy on performance. In addition, it was revealed that, in the hospitality industry, the prospector type of strategy is more effective than the defender type of strategy, since the path coefficient from the prospector type of strategy to the satisfaction level with performance was much greater than that from the defender type of strategy to the satisfaction level with performance as shown in Chapter IV.

Types of Strategy Implementation and the Satisfaction Level with Performance

Although there have been no empirical tests to investigate the relationship between strategy implementation and performance, many researchers (Alexander, 1992; Bonoma, 1985; Galbraith & Kazanjian, 1986; Stonich, 1982) have argued for the positive effect of strategy implementation on firms' performance. Based on their argument, a positive relationship between strategy implementation and firms' performance was proposed in this study. Two hypotheses were developed to test this proposition. One tested the positive effect of the commander type of strategy implementation on the satisfaction level with performance. The other tested the positive effect of the collaborator type of strategy implementation on the satisfaction level with performance. The results of hypothesis testing supported only the positive effect of the collaborator type of strategy implementation on the satisfaction level with performance.

These results reveal that the collaborator type of strategy implementation is more effective than the commander type of strategy implementation in terms of the satisfaction level with performance in the hospitality industry. A possible explanation for this finding coincides with the discussion in the previous section. Because the environment in the hospitality industry is uncertain, the collaborator type of strategy implementation is more suitable for the industry in reducing the degree of uncertainty. This notion is consistent with the argument of Bourgeois and Brodwin (1984).

Congruence among the Constructs

One of the most important propositions in this study was the existence of congruence among the constructs in the strategic management process. With respect to the hospitality industry, it was hypothesized that the collaborator type of strategy implementation matched with an organic organizational structure and the prospector type of strategy will yield a higher satisfaction level with performance in the hospitality industry than will the commander type of strategy implementation connected with the less organic organizational structure and the defender type of strategy.

The results of the statistical analysis revealed that there were no direct or indirect effects of the defender type of strategy and the commander type of strategy implementation on the satisfaction level with performance. Although there were positive effects of the defender type of strategy on the commander type of strategy implementation, a negative effect of the defender type of strategy on an organic organizational structure, and a negative effect of an organic organizational structure on the commander type of strategy implementation were discovered. There were both direct and indirect effects found of the prospector type of strategy and the collaborator type of strategy implementation on the satisfaction level with performance. However no effect of an organic organizational structure on the collaborator type of strategy implementation was found, and a positive effect of perceived environmental certainty on the collaborator type of strategy implementation was found, making it impossible to fully accept the hypothesis. Therefore, it could be concluded that the hypothesis was partially supported. This conclusion implies that the collaborator type of strategy implementation matched with the prospector type of strategy will yield a higher level of satisfaction with performance in the hospitality industry than will be the commander type of strategy implementation connected with the defender type of strategy. The role of organizational structure, in term of its contribution to the satisfaction level with performance, matched with types of strategy or strategy implementation, was not critical.

Implications of the Research Findings

So far, based on the findings of the statistical analysis, various relationships among the constructs have been discussed. These findings present a framework for understanding the strategic management process in the hospitality industry. Theoretical frameworks, revealing certain factors or the various relationships that may influence a firm's performance, were hypothesized and tested empirically. As discussed in the previous section, the analysis of the strategic management process revealed several important implications of the practice of strategic management in the hospitality industry.

The first implication that should be noted is that the contribution of the environment to the strategic management process is relatively low in the industry. The statistical analysis revealed only limited effects of perceived environmental certainty on the strategic management process. Although many researchers address the importance of business environments to the industry (Jogaratnam. 1995; Olsen, 1980; West, 1988; West & Olsen, 1989), practitioners do not perceive the environment as an important factor contributing to the firm's performance. This top management perception of the environment may endanger its business performance in the long run, because of the discrepancies among what is happening in the real world, what the customer wants, and what the firm is actually doing. The possible solution to this dilemma is to invest more on R & D (West, 1988) that enables a firm to scan the internal and external environments more correctly and continuously.

The second implication is the top management's perception of organizational structure as difficult to change. The statistical analysis indicated no effects of perceived environmental certainty on an organic organizational structure, and of an organic organizational structure on the collaborator type of strategy implementation. Also, the value of the path coefficient from the

prospector type of strategy to an organic organizational structure was relatively low (.17). These results revealed that although the top management realized the growing importance of an organic structure that enables the firm to respond flexibly to a complex and uncertain environment, top management is reluctant to change organizational structure. Top management may be reluctant to delegate centralized power to lower level managers. Also, changing an organizational structure is changing a fundamental feature of the firm, which requires a great amount of money, time, and effort. Furthermore, there is no certainty that a changed structure will yield better efficiency and firm performance. In addition, top management is always interested in short-term profitability, whereas changing a firm's structure is generally a long-term based task. These reasons can explain why top management is reluctant to change the firm's structure. It is true that for many years, the foundations of organizational structure have rested on the traditional "pyramid" form of organization, or a mechanistic organization. However, the many pressures in the contemporary environment are also bringing about changes. There are simply too many things happening too fast for the old-fashioned pyramid to keep up with the changes. Under pressure for change, organizational structures are becoming increasingly less rigid, with an emphasis on employee involvement and customer service. As a part of this trend, many organizations are finding that they can operate with shorter chains of command, larger spans of control, less unity of command, more delegation and empowerment, decentralization, and reduced staff components. Firms in the hospitality industry should follow this trend to survive in the complex and dynamic modern environment.

A third implication of this study is that many firms in the hospitality industry still practice defensive strategies and strategy implementation with a traditional mechanistic or pyramid type of organizational structure. The results of the statistical analysis revealed strong relationships among the defender type of strategy, the less organic organizational structure, and the commander type of strategy implementation, although these relationships did not contribute to the satisfaction level with performance. As revealed by the statistical analysis, these systems had no effect on the satisfaction level with firm performance. As discussed above, the increasing complexity and rates of change in today's environment are bringing ever more pressing challenges to bear on traditional management systems. More organic and flexible management systems are required for the hospitality industry.

A fourth implication of this study is the effectiveness of the prospector type of strategy and the collaborator type of strategy implementation for better firms' performance. The effect of the collaborator type of strategy implementation on the satisfaction level with performance was .30. In addition, the total effect of the prospector type of strategy on the satisfaction level with performance was .39, which is very high. The statistical analysis implies that a high portion of the satisfaction level of a firm's performance is explained by the collaborator type of strategy implementation alone or combined with the prospector type of strategy. Thus, it could be concluded that top management utilizing the prospector type of strategy combined with the collaborator type of strategy implementation is more satisfied with performance than is top management utilizing the defender type of strategy with the collaborator type of strategy implementation. The prospector type of strategy and the collaborator type of strategy implementation were more effective than the defender type of strategy and the commander type of strategy implementation. These results imply that firms focusing on developing new products & services, testing new market ideas & methods, searching for new markets & opportunities, and

keeping track of competition were more effective in terms of their satisfaction level with performance than firms concentrating on employee training, customer satisfaction, and a higher level of service. Also, firms focusing on group decision-making, multiple input to group decisions, and shared goals among employees were more effective in terms of the satisfaction level with performance than firms concentrating on the strategic position of the company, optimization of strategy, and accurate/timely information.

Limitations and Suggestions for Future Research

As McGrath et al. (1982) stated, every study has inherent limitations. This study also has limitations, which are discussed here. One of the limitations is related to the generalizability of the results. The study utilized Infortrac Database, which contains 3000 profiles of hotel and restaurant companies. Due to time and budget constraints, it was not feasible to select a sample population which was representative of the entire population of units in the United States' hospitality industry. Thus, it is difficult to say that the database represents the whole population of the hospitality industry. The response rate for this study was 10.1 %, which is fairly low. In addition, the sample size was not large enough for SEM analysis to be effective. Finally, this study is industry specific. These four facts indicate that the study has a limitation in its generalizability to other populations. Generalizability can be achieved by repeating measures across different contexts. Thus, it is recommended that the model developed in this study be replicated in other studies in future research.

The second limitation of this study is the absence of longitudinal characteristics, which would make it possible to analyze the potential time-lag between utilizing strategy, adopting strategy implementation, and final firm performance. This type of study might reflect ongoing transformations that could influence the relationships among the constructs. Involving longitudinal characteristics in future research may produce better and more significant findings.

The third limitation of this study is the lack of some relevant variables. Some important variables such as information technology may have an effect on the strategic management process. In addition, the constructs of strategy and strategy implementation selected for this study were traditional. New strategy and strategy implementation concepts, including total quality management, restructuring, reengineering, or i-engineering, are emerging. Selecting those new concepts may reflect modern strategies and strategy implementation trends, and may yield more relevant study results. Including these variables in future research could achieve a better understanding of the strategic management process model.

The final limitation of this study is the subjective nature of some data. For example, the performance of a firm was measured by the top management's satisfaction level. Utilizing objective financial data combined with a longitudinal study may provide a better understanding of the relationships among antecedent constructs and the ultimate dependent construct of firms' performance.

In spite of these specified limitations, this study has made valuable contributions to the understanding of the strategic management process, the relationships among the constructs in it,

and the specific constructs contributing the higher level of performance satisfaction. The findings of this study will be of benefit in planning and implementing strategy effectively for the practitioners.

Summary

This study has made valuable contributions to the understanding of the strategic management process in the hospitality industry by exploring the relationships among perceived environmental certainty, types of strategy, organizational structure, types of strategy implementation, and firms' performance. Based on the statistical analysis of the study, several implications were presented. In spite of the careful design of the study, some limitations were noted, including the problem of generalizability, the cross-sectional nature of the study, the lack of some relevant variables, and the subjective characteristics of the data. Suggestions for future study to overcome the limitations were provided.

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APPENDIX A

First Wave Cover Letter

Virginia Tech
VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

College of Human Resources and Education

Department of Hospitality and Tourism Management
362 Wallace Hall (0429), Blacksburg, Virginia 24061
(540) 231-5591, Fax (540) 231-3919

Dear President

I would like to express my sincere appreciation in advance for your cooperation in completing the enclosed survey. My name is Yongsub Kwock, and I am a Ph.D. candidate in the Department of Hospitality and Tourism Management at Virginia Polytechnic Institute and State University. Currently, I am conducting a study which investigates the relationship between business strategy and various aspects of business organization. The main focus of the study is to examine certain strategy-related aspects of business organization which contribute to the higher firms' financial performance.

In this packet, you will find a survey which is sent to only a select group of firms, and therefore, your answers are very important to the study. The success of this study depends largely on your participation and on your completing the survey in its entirety.

To make responding to this survey as convenient as possible, I am providing a pre-addressed, postage-paid return envelope for your use. You can be assured that any information you provide is intended for academic research only and will be kept strictly confidential. In addition, the research results will be reported in aggregate terms so that no information about individual firms will be identified. **In recompense for your time and effort, a summary report of the study results will be provided to you.**

This questionnaire should be completed by you, the Chief Executive Officer, or President of your firm, and please send the questionnaire back to me as soon as possible after completing it. If for some reasons this is not possible, then the questionnaire should be completed by the next senior officer in your firm's chain of command. Several of the questions ask for information you may not have immediately available. If this is the case, please estimate this information, to the best of your ability. If you have any questions feel free to contact me at (540) 961-9210 or to send e-mail at ykwock@vt.edu.

Thank you again for your time and cooperation.

Sincerely

Yongsub Kwock, Ph.D. candidate

Eliza C. Tse, Ph.D.
Professor of Hospitality and Tourism Management

APPENDIX B

Second Wave Cover Letter

Virginia Tech
VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

College of Human Resources and Education
Department of Hospitality and Tourism Management
362 Wallace Hall (0429), Blacksburg, Virginia 24061
(540) 231-5515 Fax (540) 231-8215

Dear: President

Recently a questionnaire seeking the relationship between business strategy and various aspects of organization was mailed to you. The main focus of the study is to examine certain strategy-related aspects of organization, which contribute to the higher firm's financial performance. However, we have not yet received your completed questionnaire.

The large number of questionnaire returned is very encouraging. But, our ability to study accurately the strategic management process in the hospitality industry depends on you and others who have not yet responded. Your experience and insights are extremely important to the success of this study.

The strategic management process is crucial to business success. Unfortunately, this process is not well understood. Our study is the first of this type. Therefore, the results will be of particular interest to top executives. The usefulness of our study totally depends on how accurately we are able to examine this important process.

If your questionnaire has been misplaced, a replacement copy is enclosed. May I urge you to complete and return it before 25th, December 1998. In recompense for your time and efforts, a summary report of the study results will be provided to you. If you have any questions feel free to contact me at (540) 961-9210 or to send e-mail at ykwock@vt.edu.

Your contribution to the success of this research project is greatly appreciated.

Most sincerely,

Yongsub Kwock, Ph.D. candidate

Eliza C. Tse, Ph.D.
Professor of Hospitality and Tourism Management

APPENDIX C

Follow-Up Postcard

Virginia Tech
VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY
Department of Hospitality and Tourism Management (0429)
Blacksburg, Virginia 24061

NON-PROFIT ORG.
U.S. POSTAGE
PAID

27

Dear President,

Recently a questionnaire seeking your firm's practices about the strategic management was mailed to you. If you have already completed and returned the questionnaire, please accept our sincere thanks. If you have not completed and returned the survey, please do so today. This survey is being administeted to a random sample of the firms in the hospitality industry, so it is essential that your responses be included if the results are to represent accurately the practice of strategic management of the firms in the hospitality industry.

Your responses are vital in helping us understand and improve the strategic management in the hospitality industry. Thank you for your cooperation.

Yongsub Kwock
Ph. D Candidate

Eliza C. Tse, Ph. D
Professor of Hospitality and Tourism Management

APPENDIX D

Survey Questionnaire

Question 1

Please state your title _____.

Question 2

Please state the year your company began to operate_____ .

Question 3

Please state below the information about your company.

	1995	1996	1997
a. The number of employees in your company	_____	_____	_____
b. Annual Sales ($)	_____	_____	_____

Question 4.

Please indicate the extent to which you consider each of the following items to be close to the characteristics of your firm's organizational structure. (Circle the most appropriate number)

(a) Centralized decision-making	1	2	3	4	5	6	7	Decentralized decision-making
(b) Many rules and procedures	1	2	3	4	5	6	7	Few rules and procedures
(c) Precise division of labor	1	2	3	4	5	6	7	Open division of labor
(d) Narrow spans of control	1	2	3	4	5	6	7	Wide spans of control
(e) Formal coordination	1	2	3	4	5	6	7	Informal coordination
(f) Impersonal corporate culture	1	2	3	4	5	6	7	Personal corporate culture

Question 5.
Please rate the ability of the following sectors to predict the future behavior of each of the environmental factors. (Circle the most appropriate number)

	Unpredictable						Predictable
Suppliers:							
(a) Their price changes…..……..	1	2	3	4	5	6	7
(b) Quality changes…….	1	2	3	4	5	6	7
(c) Design changes …….	1	2	3	4	5	6	7
(d) Introduction of new materials or components……	1	2	3	4	5	6	7
Competitors' actions:							
(e) Their price changes…..……..	1	2	3	4	5	6	7
(f) Product/service quality changes……	1	2	3	4	5	6	7
(g) Product/service design changes……	1	2	3	4	5	6	7
(h) Introduction of new products……	1	2	3	4	5	6	7

Customers:

(i) Their demand for existing product/service……	1	2	3	4	5	6	7
(j) Demand for new products/services……...	1	2	3	4	5	6	7

The financial/capital market:

(k) Interest rate changes:							
3. Short-term debt……	1	2	3	4	5	6	7
4. Long-term debt……	1	2	3	4	5	6	7
(l) Changes in financial system available:							
3. Short-term debt……	1	2	3	4	5	6	7
4. Long-term debt……	1	2	3	4	5	6	7
(m) Availability of credit:							
3. Short-term debt……	1	2	3	4	5	6	7
4. Long-term debt……	1	2	3	4	5	6	7

Government regulatory agencies:

(n) Changes in laws or agency policies on pricing……..	1	2	3	4	5	6	7
(o) Changes in laws or agency policies on product/service standards or quality……..	1	2	3	4	5	6	7
(p) Changes in laws or policies regarding financial practices	1	2	3	4	5	6	7
(q) Changes in labor laws or policies……	1	2	3	4	5	6	7
(r) Changes in laws or policies affecting marketing and distribution methods…….	1	2	3	4	5	6	7
(s) Changes in laws or policies on acceptable accounting procedures……	1	2	3	4	5	6	7

Employment:

(t) Changes in wages, hours, and working conditions…….	1	2	3	4	5	6	7
(u) Changes in turnover rate…….	1	2	3	4	5	6	7
(v) Changes in grievance procedures……	1	2	3	4	5	6	7

Question 6

Please indicate the extent to which the following items represent the competitive behavior of your firm over the most recent three years with 1 = Not at all and 7 = To a great extent. (Circle the most appropriate number)

	Not at all						To a great Extent
(a) Focusing on specific markets/segments……..	1	2	3	4	5	6	7
(b) Cost control…….	1	2	3	4	5	6	7
(c) Training and development of employees……	1	2	3	4	5	6	7
(d) Building reputation in local communities……	1	2	3	4	5	6	7
(e) Monitoring customer satisfaction……	1	2	3	4	5	6	7
(f) Providing high service level……	1	2	3	4	5	6	7
(g) Controlling quality of products/services…….	1	2	3	4	5	6	7

(h) Responding to changing market conditions before competitors……	1	2	3	4	5	6	7
(i) Developing new products/services……..	1	2	3	4	5	6	7
(j) Maintaining low inventories……	1	2	3	4	5	6	7
(k) Providing a variety of products/services…….	1	2	3	4	5	6	7
(l) Being price competitive……..	1	2	3	4	5	6	7
(m) Testing new market ideas and methods……..	1	2	3	4	5	6	7
(n) Serving a variety of markets/segments……	1	2	3	4	5	6	7
(o) Controlling material/supply sources……	1	2	3	4	5	6	7
(p) Using loans to finance projects……	1	2	3	4	5	6	7
(q) Providing customized services……	1	2	3	4	5	6	7
(r) Introducing innovative service methods…….	1	2	3	4	5	6	7
(s) Maintaining operational efficiency…….	1	2	3	4	5	6	7
(t) Searching for new markets/opportunities……	1	2	3	4	5	6	7
(u) Keeping track of competition……..	1	2	3	4	5	6	7
(v) Regular renovation/refurbishment……..	1	2	3	4	5	6	7
(w) Conducting consumer research……	1	2	3	4	5	6	7

Question 7.

Please indicate the extent to which the following items or statements represent the characteristics of strategy implementation of your firm over the most recent three years with 1 = Not at all and 7 = To a great extent. (Circle the most appropriate number)

	Not at all						To a great extent
(a) CEO's insulation from personal biases and political influences……	1	2	3	4	5	6	7
(b) Power and complete information of CEO……..	1	2	3	4	5	6	7
(c) The role of CEO is that of co-ordinator……	1	2	3	4	5	6	7
(d) The role of CEO is that of rational actor……..	1	2	3	4	5	6	7
(e) The role of CEO is that of architect……..	1	2	3	4	5	6	7
(f) The role of CEO is that of coach……...	1	2	3	4	5	6	7
(g) The role of CEO is that of premise-setter and judge…….	1	2	3	4	5	6	7
(h) Strategic position of company……	1	2	3	4	5	6	7
(i) Optimization of strategy…….	1	2	3	4	5	6	7
(j) Economic & competitive analysis (i.e., experience curve, growth/share matrices, and industry analysis)……..…….	1	2	3	4	5	6	7
(k) Sizeable planning staff……	1	2	3	4	5	6	7
(l) Downward communication…….	1	2	3	4	5	6	7
(m) Upward communication……	1	2	3	4	5	6	7
(n) Lateral communication…….	1	2	3	4	5	6	7
(o) Systems of organization, including structure, compensation, control systems, and planning system……	1	2	3	4	5	6	7
(p) Applying behavioral science technologies (i.e. human resources)…	1	2	3	4	5	6	7
(q) Goal consensus……...	1	2	3	4	5	6	7
(r) Group decision-making at senior levels…….	1	2	3	4	5	6	7
(s) Multiple inputs to a group decision……	1	2	3	4	5	6	7
(t) Brainstorming…….	1	2	3	4	5	6	7
(u) Shared goals between organization & its participants……	1	2	3	4	5	6	7
(v) Participation of lower level employees in decision-making……	1	2	3	4	5	6	7

(w) A set of values…… 1 2 3 4 5 6 7
(x) Corporate culture for unity of organization…… 1 2 3 4 5 6 7
(y) Utilizing the exiting strategic implementation models…… 1 2 3 4 5 6 7
(z) Development of strategic alternatives…… 1 2 3 4 5 6 7
(aa) Openness of the organization to new & discrepant information……. 1 2 3 4 5 6 7
(bb) Manipulate systems & structures…… 1 2 3 4 5 6 7
(cc) Accurate & timely information…… 1 2 3 4 5 6 7

Question-8.

Please indicate the degree of your firm's performance for the last three years in the following areas in comparison to your key competitors with 1 = Highly dissatisfied and 7 = Highly satisfied. (Circle the most appropriate number)

	Highly dissatisfied						Highly satisfied
(a). Return on assets (Net operating income before tax and interest/total assets)……..	1	2	3	4	5	6	7
(b). Cash flow (Difference between revenues and expenses for current operating period) ……	1	2	3	4	5	6	7
(c). Market share (Your company's share of the market relative to all competing companies)……..	1	2	3	4	5	6	7

APPENDIX E

Pre-Test Cover Letter

VIRGINIA TECH
VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Department of Hospitality and Tourism Management

Dear:

I would like to express my sincere appreciation in advance for your cooperation of completing the enclosed survey. My name is Yongsub Kwock, a Ph.D. candidate in the department of Hospitality and Tourism Management at Virginia Polytechnic Institute and State University. Currently I am conducting a study which investigates the relationship between business strategy and various aspects of organization. The main focus of the study is to examine certain strategy related aspects of organization which contribute to the higher firm's financial performance.

In this packet, you will find a survey which is sent to only a select group of firms, therefore, your answers are very important to the study. The success of this study depends largely on your participation and a survey that is filled out completely.

To make responding to this survey as convenient as possible, I am providing a pre-addressed, postage-paid return envelope for your use. Yon can be ensure that any information you provide is intended for academic research only and will be kept strictly confidential. In recompense for your time and efforts, a summary report of the study results will be provided to you.

This questionnaire should be completed by you, the Chief Executive Officer, or President of your firm, and please send it back to me as soon as possible after completing the questionnaire. If for some reason this is not possible, then it should be completed by the next senior officer in your firm's chain of command. Several of the questions ask for information you may not have at your fingertips. If this is the case, please estimate this information, to the best of your ability. If you have any questions feel free to contact me at (540) 961-9210 or to send e-mail at ykwock@vt.edu.

Thank you again for your time and cooperation.

Sincerely

Yongsub Kwock, Ph.D. candidate

Eliza C. Tse, Ph.D.
Professor of Hospitality and Tourism Management

APPREDIX F

Pre-Test Questionnaire

I. FIRM INFORMATION

1. Please state your title _____.
2. Please indicate below the segment in which your company operates

For restaurants	For lodging firms
_____Fast food	_____Budget
_____Dinner House/Theme	_____Mid-scale
_____Family/Coffee Shop	_____Luxury
_____Cafeteria	_____Other(Please Specify)
_____Other (Please Specify)	

3. Please state the below the information about your company.
   A). The number of employees in your company _____.

   For restaurant firms

   B). The number of units in your company _____ .

   For lodging firms

   C). The number of rooms in your company _____.
4. Please state the year your company begin to operate_____ .

II. Organizational Structure

5. Please indicate all of the following activities that are dealt with exclusively by at least one full time individual (check as many as appropriate):

A)_____Public relations, advertising or promotion
B)_____Personnel hiring and training
C)_____Purchasing control
D)_____Inventory control
E)_____Financial resource management
F)_____Operations
G)_____Quality control
H)_____Research and development
I)_____Administrative procedures
J)_____Legal and insurance requirements

6. Please indicate below the lowest level in your firm with the authority to make the following decisions.

Assign a score of 6 if the level is above president/CEO (i.e., board of directors, owners);
Assign a score of 5 for CEO or president;
Assign a score of 4 for functional manager (i.e., V.P, of Marketing, Finance, etc);
Assign a score of 3 for a multi-unit manager, such as regional/district manager;
Assign a score of 2 for a unit manager or general manager;
Assign a score of 1 for a sub-unit manager (i.e., assistant manager, dining room supervisor, etc.)

Decisions concerning

	Level
A) The number of unit production workers required	1 2 3 4 5 6
B) Overtime to be worked at units	1 2 3 4 5 6
C) Hiring and firing of employees	1 2 3 4 5 6
D) Marketing expenditures	1 2 3 4 5 6
E) Expansion into new markets	1 2 3 4 5 6
F) New advertising and promotion programs	1 2 3 4 5 6
G) Allocation of resources (finance, human resources, etc)	1 2 3 4 5 6

7. Please indicate below whether the following documents are used in your firm by the listed individuals. (Please check one for all items)

A). Employee handbooks with policies regarding security, working conditions, etc., are given to:
(a)_____No one (b)_Only a few persons (c)_____Many (d)____All

B). An organization chart is given to:
(a)_____No one
(b)_____Chief executive only
(c)_____Other top executives
(d)_____Division or department heads
(e)_____All supervisors

C). Written job descriptions have been developed for:
(a)_____No one
(b)_____Direct production workers or clerical staff
(c)_____Unit managers and supervisors
(d)_____Multi-unit managers
(e)_____Corporate functional managers
(f)_____Chief executive

D). Your firm has
(a)Written mission statements/corporate philosophy
(b)Written manual of procedures and fixed rules for unit's daily operations
(c)Written operating instructions for unit production workers

E). If your firm has written manuals of procedures and rules, they are
(a)Utilized at the corporate level only
(b)Utilized by all levels in the organization including individual hotel/restaurant units.

F). How freqently are review of individual restaurant/hotel performance conducted?
(a)__Annually (b)_____Semi-quarterly (c)__Quarterly (d)__Monthly

III. Perceived Environmental Uncertainty

8. Please rate below the characteristics of the behavior or various sectors on the degree of their predictability about each external environment in the future.

	Predictable						Unpredictable
A) Suppliers:							
(a) their price changes are	1	2	3	4	5	6	7
(b) quality changes	1	2	3	4	5	6	7
(c) design changes	1	2	3	4	5	6	7
(d) introduction of new materials or components	1	2	3	4	5	6	7
B) Competitors' actions:							
(e) their price changes are	1	2	3	4	5	6	7
(f) product/service quality changes	1	2	3	4	5	6	7
(g) product/service design changes	1	2	3	4	5	6	7
(h) introduction of new products	1	2	3	4	5	6	7
C) Customers:							
(i) their demand for existing product/service is	1	2	3	4	5	6	7
(j) demand for new product/service	1	2	3	4	5	6	7
D) The financial/capital market:							
(k) interest rate changes:							
1. short-term debt	1	2	3	4	5	6	7
2. long-term debt	1	2	3	4	5	6	7
(l) changes in financial instruments available:							
1. short-term debt	1	2	3	4	5	6	7
2. long-term debt	1	2	3	4	5	6	7

(m) availability of credit:								
1. short-term debt	1	2	3	4	5	6	7
2. long-term debt	1	2	3	4	5	6	7
E) Government regulatory agencies:								
(n) changes in laws or agency policies on pricing are	1	2	3	4	5	6	7
(o) changes in laws or policies on product/service standards or quality	1	2	3	4	5	6	7
(p) changes in laws or policies regarding financial practices	1	2	3	4	5	6	7
(q) changes in labor laws or policies	1	2	3	4	5	6	7
(r) changes in laws or policies affecting marketing and distribution methods	1	2	3	4	5	6	7
(s) changes in laws or policies on acceptable accounting procedures	1	2	3	4	5	6	7
F) Actions of employees:								
(t) changes in wages, hours, and working conditions	1	2	3	4	5	6	7
(u) changes in turnover rate	1	2	3	4	5	6	7
(v) changes in grievance procedures	1	2	3	4	5	6	7

IV. Business Strategy

9. Please indicate the extent to which you consider the each of the following items to be important to your firm's overall strategy with 1 = Unimportant and 7=Extremely important.

	Unimportant						Extremely Important
Focusing on specific markets/segments	1	2	3	4	5	6	7
Cost control	1	2	3	4	5	6	7
Training and development of employees	1	2	3	4	5	6	7
Building reputation in local communities	1	2	3	4	5	6	7
Monitoring customer satisfaction	1	2	3	4	5	6	7
Providing high service level	1	2	3	4	5	6	7
Controlling quality	1	2	3	4	5	6	7
Responding to changing market conditions before competitors	1	2	3	4	5	6	7
New product/service development	1	2	3	4	5	6	7
Maintaining low inventories	1	2	3	4	5	6	7
Providing a variety of goods/services	1	2	3	4	5	6	7
Being price competitive	1	2	3	4	5	6	7
Testing new market ideas and methods	1	2	3	4	5	6	7
Serving a variety of markets/segments	1	2	3	4	5	6	7
Controlling material/supply sources	1	2	3	4	5	6	7
Using loans to finance projects	1	2	3	4	5	6	7
Providing special services	1	2	3	4	5	6	7
Introducing innovative service methods	1	2	3	4	5	6	7
Maintaining operational efficiency	1	2	3	4	5	6	7
Searching for new markets/opportunities	1	2	3	4	5	6	7
Keeping track of competition	1	2	3	4	5	6	7
Regular renovation/refurbishment	1	2	3	4	5	6	7
Conducting consumer research	1	2	3	4	5	6	7

10. Descriptions below represent four general types of business strategy. Please select only one of the descriptions that is most closely matches your firm's strategy. (None of the types listed below is inherently "good" or "bad.")

Type 1. _____

This type of company attempts to maintain a stable and limited line of services, while at the same time moving out quickly to follow a carefully selected set of the more promising new developments in the market. The business is seldom "first-in" with new facilities or services. However, the firm can frequently be "second-in" with a more cost efficient facility or service by carefully monitoring the actions of competitors in areas compatible with its stable customer/service base.

Type 2. _____

This type of company does not appear to have a consistent product-market orientation. The company is usually not as aggressive in maintaining established products and markets as some of its competitors, nor is it willing to take as many risks as other competitors. Rather, the company responds in those areas where it is forced to by environmental pressure.

Type 3. _____

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

Type 4. _____

This type of company attempts to locate and maintain a secure niche in a relatively stable product or service area. The company tends to offer a more limited range of products/services than its competitors, and it tries to protect its domain by offering higher quality, superior service, lower prices, and so forth. Often this type of company 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.

V. Strategy Implementation

11. Please indicate the extent to which you consider each of the following items to be close to the characteristics of your firm's latest strategy implementation.

Strategic problem	Small	1	2	3	4	5	6	7	Large
Implementation horizon	Short	1	2	3	4	5	6	7	Long
Importance of change	Unimportant	1	2	3	4	5	6	7	Important
Focus of implementation	Early stage	1	2	3	4	5	6	7	Later stage
Focus of implementation	Personnel matter	1	2	3	4	5	6	7	Organization
Suboptimization	Unimportant	1	2	3	4	5	6	7	Important
Dependencies among the components of implementation	Loose	1	2	3	4	5	6	7	Tight
Connection of several actions in implementation	Loose	1	2	3	4	5	6	7	Tight
Environment	Simple	1	2	3	4	5	6	7	Complex

12. The descriptions below represent four types of strategy implementation. Please select only one of the descriptions that most closely matches your firm's latest strategy implementation.
(None of the types listed below is inherently "good" or "bad.")

Type 1._____

This type of implementation is utilized when the strategic problem is small and the implementation horizon is long. Usually such changes are not recognized as changed at all but rather simply as differences in the way in which things are done over time. Because the size of the problem is small, your company focuses on the latter stages of the implementation model and often are personnel- related, as the emphasis is on incentives, controls, and

motivations. This type of implementation is effective as long as there are no major shifts in strategy and the organization has elaborated basic operating structures consistent with the strategic plan.

Type 2._____

This type of implementation occurs when the size of the strategic problem is small, but the time available to implement the strategy is short. This can occur due to minor shifts in the business environments that require adjustment, but for which evolutionary implementing are undesirable due to the short time frame and cost of suboptimization.

Type 3._____

This type of implementation occurs when the size of a strategic problem is large, but the implementation horizon is long enough to allow several components of the implementation model to be implemented sequentially. Planning for such interdependencies recognizes that any significant strategic change will involve change in several areas. In such cases, concerned action is required to avoid suboptimization, for new slack is unavailable or too costly an alternative.

Type 4._____

This type of implementation occurs when the size of strategic problems is large and the implementation horizon is too short to allow sequencing of implementation activities. In this case, your company's decision about any one aspect of implementation both depends upon and influences decisions in all other areas. Because of this reciprocal dependence, coordination by plan is impossible, and generally more costly face-to-face mechanisms are necessary. Your company may establish task forces for implementing strategy to accommodate the higher needs for information processing arising from mutually interdependent activities.

VI. Firm performance

13. Please state below your company's financial information.

	1995	1996	1997
A).Net operating income before tax and interest ($)	_____	_____	_____
B).Annual sales ($)	_____	_____	_____
C).Total assets ($)	_____	_____	_____
D).Total number of units	_____	_____	_____

Please add below any comments you wish to make.

APPENDIX G

Correlation Matrix for the CFA and SEM

Correlation Matrix for the Analysis

	E1	E2	E3	E4	E5	E6	D1	D2	D3	D4	D5	D6	P1
E1	1.00												
E2	.41	1.00											
E3	.31	.41	1.00										
E4	.29	.45	.51	1.00									
E5	.40	.41	.33	.27	1.00								
E6	.51	.40	.39	.39	.41	1.00							
D1	.25	.15	.19	.20	.19	.11	1.00						
D2	.16	.26	.25	.25	.17	.06	.53	1.00					
D3	.24	.08	.25	.17	.19	.25	.53	.42	1.00				
D4	.18	.10	.26	.23	.10	.16	.56	.50	.62	1.00			
D5	.20	.15	.18	.22	.11	.14	.55	.44	.52	.74	1.00		
D6	.22	.15	.26	.29	.02	.19	.31	.29	.35	.38	.27	1.00	
P1	-.09	.04	-.03	-.13	-.24	-.09	-.02	-.07	-.03	.03	.04	.04	1.00
P2	-.01	-.13	-.07	-.17	-.26	-.09	-.19	-.24	-.17	-.16	-.05	-.04	.67
P3	-.01	-.12	-.04	-.08	-.27	-.17	-.15	-.26	-.22	-.25	-.22	.01	.51
P4	-.08	-.16	.05	.00	-.23	-.12	-.12	-.10	-.06	-.10	-.16	.02	.46
P5	-.02	-.01	.01	-.16	-.06	.01	-.08	-.15	-.14	-.25	-.29	-.10	.53
P6	.01	-.03	-.03	-.04	-.11	-.07	-.13	-.26	-.13	-.25	-.29	-.15	.26
S1	-.01	-.03	-.14	-.07	-.09	.08	-.06	-.21	-.14	-.29	-.30	-.08	.21
S2	-.02	-.19	-.12	-.17	-.09	-.03	-.14	-.10	-.06	-.09	-.22	-.08	.13
S3	-.10	-.15	-.07	-.26	-.01	.05	-.18	-.20	-.15	-.10	-.18	-.14	.09
S4	-.12	-.01	-.11	-.10	-.13	.02	-.15	-.27	-.16	-.19	-.27	-.11	.12
S5	-.14	-.09	-.14	-.23	-.13	-.09	-.19	-.05	-.27	-.18	-.22	-.24	.17
S6	-.01	-.04	-.08	-.07	-.18	.01	-.07	-.03	-.10	-.13	-.22	.05	.21
Co1	.13	.00	.04	.04	.22	.11	.13	.11	.18	.10	.20	.05	-.36
Co2	.00	.00	.00	.10	.01	-.06	.25	.18	.19	.16	.25	.22	-.16
Co3	.28	.14	.16	.22	.20	.22	.45	.34	.40	.48	.54	.33	-.07
Co4	.27	.12	.11	.23	.20	.15	.36	.31	.35	.39	.50	.36	-.07
Co5	.15	.10	.00	.14	.11	-.04	.15	.12	.17	.20	.38	.19	-.17
Co6	.24	.10	.17	.05	.23	.19	.32	.24	.40	.39	.42	.27	-.13
Cl1	.12	.11	.14	.06	-.12	.04	.04	.01	.05	.03	-.04	.23	.29
Cl2	.24	.14	.09	.15	-.08	.15	.07	-.06	.07	.05	-.04	.23	.21
Cl3	.09	.10	.01	.11	-.06	-.04	.01	-.06	.02	.01	.00	.16	.17
Cl4	.11	.09	.11	.10	-.18	.01	.12	-.04	.01	.11	.07	.18	.41
Cl5	.07	.01	.07	.11	-.04	.01	.01	-.07	.03	.01	-.05	.29	.06
Pe1	-.03	-.14	.06	.05	-.11	-.08	-.04	-.10	-.01	.02	.02	.04	.27
Pe2	.02	-.16	.02	.01	-.11	-.05	-.03	-.08	-.03	-.04	-.06	.00	.23
Pe3	.06	-.08	.11	.08	.07	-.04	-.12	-.08	-.07	-.07	-.15	.04	.16
SD	**1.05**	**1.30**	**1.26**	**1.18**	**1.50**	**1.16**	**1.24**	**1.35**	**1.21**	**1.11**	**1.20**	**1.62**	**1.51**

	P2	P3	P4	P5	P6	S1	S2	S3	S4	S5	S6	Co1	Co2
P2	1.00												
P3	.60	1.00											
P4	.54	.50	1.00										
P5	.47	.46	.50	1.00									
P6	.27	.40	.31	.36	1.00								
S1	.21	.34	.07	.14	.29	1.00							
S2	.15	.13	.06	-.01	.08	.31	1.00						
S3	.16	.04	.01	.06	.02	.26	.42	1.00					
S4	.24	.22	.13	.06	.17	.45	.39	.36	1.00				
S5	.24	.09	.08	.12	-.02	.26	.43	.44	.28	1.00			
S6	.23	.30	.17	.17	.14	.30	.14	.14	.25	.16	1.00		
Co1	-.36	-.31	-.41	-.33	-.16	-.01	-.15	-.08	.18	-.24	-.21	1.00	
Co2	-.26	-.18	-.24	-.17	-.19	-.33	-.34	-.33	-.23	-.37	-.15	.51	1.00
Co3	-.25	-.19	-.19	-.14	-.16	-.23	-.21	-.19	-.34	-.22	-.12	.46	.47
Co4	-.21	-.13	-.19	-.21	-.17	-.25	-.24	-.17	-.33	-.27	-.08	.45	.50
Co5	-.14	-.12	-.24	-.15	-.01	-.33	-.20	-.23	-.26	-.28	-.25	.44	.50
Co6	-.22	-.27	-.22	-.17	-.20	-.28	-.22	-.13	-.28	-.15	-.09	.41	.33
Cl1	.17	.26	.30	.25	.17	.20	.01	-.09	.07	.02	.25	-.14	.03
Cl2	.12	.19	.21	.17	.19	.14	.04	.06	.12	.07	.23	-.18	-.07
Cl3	.15	.16	.18	.07	.12	.21	.09	.11	.08	.06	.28	-.05	-.08
Cl4	.22	.26	.21	.24	.15	.13	.03	.05	.04	.03	.21	-.13	.03
Cl5	.03	.01	.08	-.07	.05	.11	.07	.04	-.01	.02	.27	-.12	-.12
Pe1	.25	.17	.26	.18	.06	.11	.04	.05	.02	-.08	.07	-.08	-.12
Pe2	.26	.20	.30	.26	.13	.10	-.01	.00	-.03	-.12	.17	-.07	-.07
Pe3	.13	.13	.19	.15	.03	.12	.03	.08	-.02	.00	.00	-.08	-.20
SD	**1.49**	**1.63**	**1.45**	**1.38**	**1.67**	**1.65**	**1.31**	**1.33**	**1.47**	**1.30**	**1.37**	**1.76**	**1.42**

	Co3	Co4	Co5	Co6	Cl1	Cl2	Cl3	Cl4	Cl5	Pe1	Pe2	Pe3
Co3	1.00											
Co4	.74	1.00										
Co5	.50	.57	1.00									
Co6	.55	.50	.37	1.00								
Cl1	.11	.05	-.06	-.08	1.00							
Cl2	.11	.08	-.01	.05	.61	1.00						
Cl3	.06	.15	.11	-.10	.49	.62	1.00					
Cl4	.13	.13	.10	.03	.48	.51	.56	1.00				
Cl5	.02	.09	.08	.09	.30	.44	.47	.48	1.00			
Pe1	-.03	-.04	-.06	-.10	.28	.25	.30	.33	.13	1.00		
Pe2	.01	.00	-.03	-.04	.28	.18	.16	.21	.05	.73	1.00	
Pe3	-.08	-.06	-.06	-.11	.22	.17	.26	.16	.11	.56	.56	1.00
SD	**1.28**	**1.39**	**1.52**	**1.26**	**1.26**	**1.18**	**1.29**	**1.29**	**1.59**	**1.23**	**1.30**	**1.25**

Note:
E: Perceived Environmental Certainty
D: Defender Type of Strategy
P: Prospector Type of Strategy
S: Organizational Structure
Co: Commander Type of Strategy Implementation
Cl: Collaborator Type of Strategy Implementation
Pe: Satisfaction with Performance
SD: Standard Deviation

Appendix H

Descriptive Statistics for Indicators

Descriptive Statistics for Indicators

Constructs	Indicators	Minimum	Maximum	Mean	Standard Deviation
Percieved Environmental Certainty	E1	1.75	6.75	4.39	1.06
	E2	1.00	7.00	4.14	1.31
	E3	1.00	7.00	4.85	1.27
	E6	1.00	6.33	4.30	1.16
Defender Type of Strategy	D1	2.00	7.00	5.35	1.24
	D3	2.00	7.00	5.63	1.22
	D4	2.00	7.00	5.98	1.11
Prospector Type of Strategy	P2	1.00	7.00	4.71	1.50
	P3	1.00	7.00	4.71	1.64
	P4	1.00	7.00	5.01	1.45
	P5	2.00	7.00	4.75	1.39
Organizational Structure	S2	1.00	7.00	4.05	1.32
	S3	1.00	7.00	3.98	1.34
	S4	1.00	7.00	4.29	1.48
	S5	1.00	7.00	4.04	1.31
Commander Type of Strategy	CM3	1.00	7.00	5.20	1.28
	CM4	1.00	7.00	4.97	1.39
	CM6	2.00	7.00	5.25	1.27
Collaborator Type of Strategy	CL1	1.00	7.00	5.16	1.27
	CL2	1.00	7.00	5.22	1.19
	CL4	1.00	7.00	5.05	1.30
Stisfaction Level wih Performance	PER1	1.00	7.00	4.52	1.24
	PER2	1.00	7.00	4.50	1.31
	PER3	1.00	7.00	4.71	1.25

Notes:
E1: Suppliers
E2: Competitors
E3: Customers
E6: Employment
D1: Employee training
D3: Customer satisfaction
D4: High service
P2: Developing new products/services
P3: Testing new market ideas/methods
P4: Searching for new market/opportunity
P5: Keeping track of competition
S2: Rules and procedures
S3: Division of labor
S4: Span of control
S5: Coordination
CM3: Strategic position of company
CM4: Optimization of strategy
CM6: Accurate/timely information
CL1: Group decision-making
CL2: Multiple inputs to a group decision
CL4: Shared goal among the employees
PER1: Return on assets
PER2: Cash flow
PER3: Market share

Vita

Yongsub Kwock, son of Mr. Dong-Hwan and Mrs.Woo-Ji Lee, was born October 19, 1964 in KyungSang-Do, Korea. He attended public schools in Seoul, Korea and graduated from Whimoon High School in Seoul, Korea. He received his undergraduate degree in International Trade from Kyung-Hee University on February, 1991, in Seoul, Korea. During undergraduate studies, he finished three years of military service in Korea. After finishing military service, he was employed by Namchun Korean Restaurant in Korea for two years as a general manager. He married Kyung-Ju Kim in November, 1991 in Seoul, Korea, and has two sons, Jae-Woo and Jae-Ho.

In August, 1992, he attended the MBA program at Ball State University in Muncie, Indiana and completed the program in May, 1995. During the period of his graduate program, he was employed by the Department of Business Administration at Ball State University as a graduate assistant.

In August, 1995 he started the Ph. D. program in the Department of Hospitality and Tourism Management at Virginia Tech. His major research areas are strategic management, organizational structure, and strategy implementation. While attending the Ph. D program, he was employed by Virginia Tech as a research assistant.