INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

ProQuest Information and Learning
300 North Zeeb Road, Ann Arbor, MI 48106-1346 USA
800-521-0600

UMI®

CONTEXTUAL AND SYSTEM DIMENSIONS OF STRATEGIC PLANNING IN TEXAS COLLEGES: A TEST OF THE RAMANUJAM AND VENKATRAMAN PLANNING MODEL

By
Timothy G. Staley

A DISSERTATION

Submitted to

The Wayne Huizenga Graduate School of Business and Entrepreneurship
Nova Southeastern University

in partial fulfillment of the requirements
for the degree of

DOCTOR OF BUSINESS ADMINISTRATION

2002

UMI Number: 3045255

ProQuest Information and Learning Company
300 North Zeeb Road
P.O. Box 1346
Ann Arbor, MI 48106-1346

A Dissertation
entitled

CONTEXTUAL AND SYSTEM DIMENSIONS OF STRATEGIC PLANNING IN TEXAS COLLEGES: A TEST OF THE RAMANUJAM AND VENKATRAMAN PLANNING MODEL

By
Timothy G Staley

We hereby certify that this Dissertation submitted by Timothy G. Staley conforms to acceptable standards, and as such is fully adequate in scope and quality. It is therefore approved as the fulfillment of the Dissertation requirement for the degree of Doctor of Business Administration.

APPROVED:

Charles Blackwell, DBA — Date 5/8/02
Chairperson

Edward Pierce, DBA — Date 5/16/02
Committee Member

Moshe Levin, Ph.D. — Date 5/14/02
Committee Member

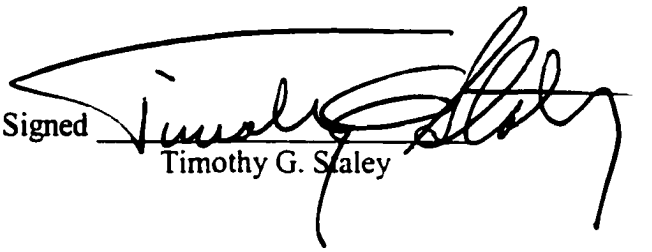
Joseph L. Balloun, Ph.D. — Date 5/14/02
Director of Research

J. Preston Jones, D.B.A. — Date 15 May 2002
Associate Dean, The Wayne Huizenga Graduate School of Business Entrepreneurship

Nova Southeastern University
2002

CERTIFICATION STATEMENT

I hereby certify that this paper constitutes my own product, that where the language of others is set forth, quotation marks so indicate, and that appropriate credit is given where I have used the language, ideas, expressions, or writings of another.

Signed 
Timothy G. Staley

ABSTRACT

CONTEXTUAL AND SYSTEM DIMENSIONS OF STRATEGIC PLANNING IN TEXAS COLLEGES: A TEST OF THE RAMANUJAM AND VENKATRAMAN PLANNING MODEL

by

Timothy G. Staley

This research extends the study first performed by researchers Vasudevan Ramanujam and N. Venkatraman in 1986. The research tests the key dimensions of planning systems divided between four system design dimensions and two contextual dimensions. This study tests their model with a population in the higher education community in Texas. Data was collected through 257 surveys based upon the original work. The surveys were mailed to top administrators in colleges, universities and institutions of higher education listed in the State's Higher Education Web site.

The first hypothesis tested for differences between the planner and non-planner, informal planner. Four of the six variables tested were significant. The second hypothesis tested the relationship between the planner and non-planner along the dimensions noted above. A majority of the variables were found to be significant. The third and final hypothesis tested the effectiveness dimension along the lines of small and colleges. This portion of the study was unable to distinguish between the size of the college.

ACKNOWLEDGEMENTS

I wish to first thank my family for their unwavering support throughout this work. My wife, Dr. Kimberly Staley, provided subtle guidance throughout and understanding when it was difficult to keep going. Our children, Matthew and Michail, were wonderfully supportive and understanding.

Also, I wish to dedicate this work to my mother Jane Robart and my late father, Rowland Kenneth Staley, from whom I learned the value of education and work.

Lastly I would like to thank Drs. David Armold and Frank Cannon, professional colleagues and friends, for their encouragement throughout.

Table of Contents

Chapter Page

LIST OF TABLES

LIST OF TABLES (Continued)

LIST OF FIGURES

CHAPTER I

INTRODUCTION

Background of the Problem

A seminal question in literature for the past several decades is the relationship of planning and performance within the firm (Miller & Cardinal, 1994). This relationship is perhaps the most extensively researched in the entire field of strategic management. It remains to this day a point of discussion and contention (Armstrong, 1982;Ansoff, 1991). The essential dichotomy exits with the earlier camp believing that planning constrains an organization, causing it to be too rigid. This argument is further refined to say that the level of change, or uncertainty, in today's business climate is too great to have such rigidity. The latter camp of researchers holds that organizations cannot operate on a trial and error basis.

As noted above, the level of change today requires an organization to plan for the future. The debate now centers about what characteristics are for central planning system effectiveness. The question of the past was simply stated: Does planning pay? While the debate continues about the nature and value of planning, academic researchers and business practitioners have attempted for several decades to correlate a firm's performance with the strategic plan and goals of the firm (Whittaker, 1996). The benefit of finding such a relationship is rather obvious as businesses spend a significant amount of time and financial resources in this elusive search (Boston & Pallot, 1997). Running parallel with this is the observation that many firms are losing their competitive edge and too often result in their demise. Competitive advantages are becoming more difficult to

maintain with the international community reaching to our backyard, and competition has reached an all time high.

Over the past two decades a model has been proposed and tested in several different segments of business. Of particular note is the ability of this model to assess the effectiveness of a firm's planning system based on several dimensions within the firm's measure for performance (Ramanujam & Venkatraman, 1986).

Purpose

The first and most specific purpose of this research is to confirm the work of the original authors, Ramanujam & Venkatraman. Secondly, is to make additional contributions to the body of knowledge surrounding the contextual dimensions of the strategic planning system and the model defined by Ramanujam and Venkatraman (1987). The population for this research is a group of public and private colleges and universities within the state of Texas to determine the extent formal strategic planning is being used and the efficacy of planning.

Model

In the mid-1980's, researchers Ramanujam, Venkatraman, and Camillus began the development of a model for strategic planning which stepped beyond the traditional question, Does planning pay? Their model also steps away from the age-old question of a firm's financial performance as related to being simply a planner or a non-planner, or informal planner as sometimes referred to. It also steps away from the uni-dimensional aspect previously taken by researchers. Researchers over the past decade have suggested

this multidimensional approach is needed to more fully address a complex issue like planning (Yasi-Ardenka and Haug, 1997; Hax and Majuluf, 1984). It was not until 1986 that a substantial theory was developed and proposed. Additionally, the prior body of research has been preoccupied with the linkage of a firm's performance as related to their planning efforts. These three authors, Ramanujam, Venkatraman, and Camillus, have set out to create a strategy planning model that addresses the multidimensional nature of planning systems. They also have developed within their model, multiple criteria for assessing the effectiveness of planning systems.

Their model is two-fold: 1. more effective planning systems will differ from less effective ones along key design and contextual dimensions, and 2. the relative importance of these dimensions will vary depending upon the criteria of effectiveness used.

To test their model, they randomly surveyed 600 companies selected from Fortune 500 Manufacturing and Fortune 500 Service organizations. They received a response rate of 34.5 percent, where N=207. These respondents were received from both planning functions, such as planning executives, and other operating functions within the firms.

Responses were received and categorized by large organizations, mature and less mature firms, manufacturing and service firms. Respondents were asked through mailed, written surveys to respond to areas such as the extent of change over the past few years in areas of the firm, such as major planning issues, planning techniques used, obtaining corporate goals and resistance to the planning effort from within the organization. Although the survey responses may be regarded as being subjective in some areas, Dess and Robinson (1984) conclude that subjective perceptions of performance have a strong

correlation with objective measures of performances within the same period of time as the survey.

The Ramanujam and Venkatraman theoretical model consists of nine dimensions: six which represent planning system characteristics, and three which reflect planning effectiveness.

Model Construct

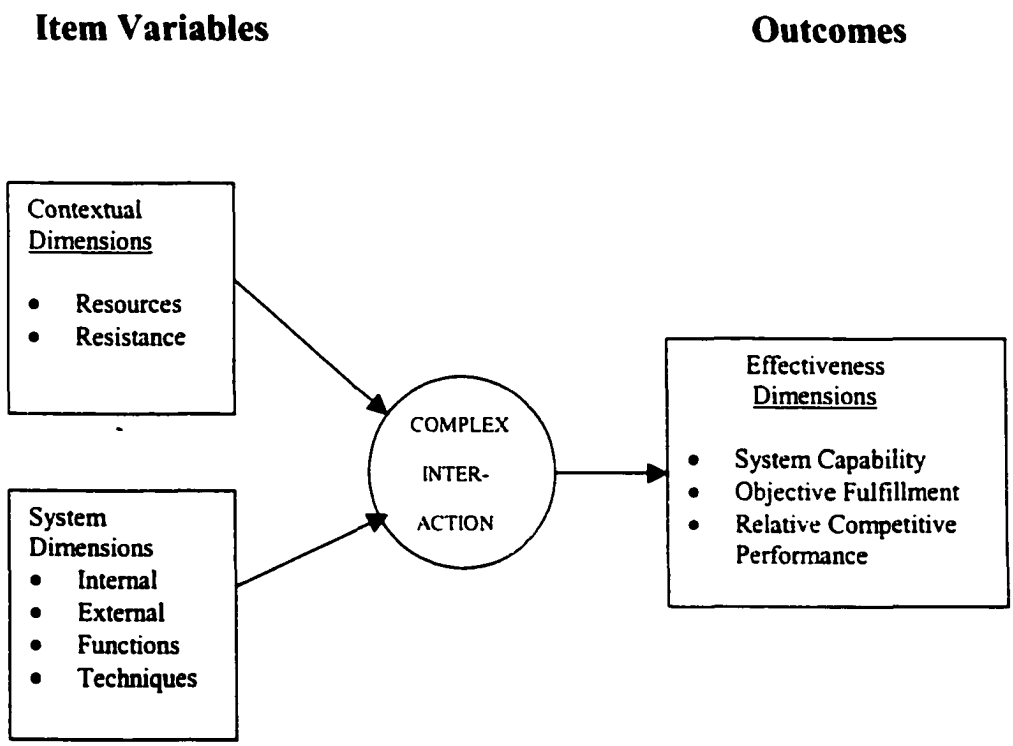


Figure One: Relationship Between

Planning System Dimensions and Planning Effectiveness

(Ramanujam and Venkatraman, 1987)

The details of the various indicators representing the dimensions and their reliability (Cronback alpha values) are contained in Appendix A. The range of values was from 0.540 to 0.871, and each one of the items-to-item correlations were positive and significant at p-levels better than $p<0.01$. The Ramanujam and Venkatraman research findings include support for the two-dimension (contextual and system) concept of planning system effectiveness.

Ramanujam and Venkatraman (1986) found that the two contextual dimensions, resistance and resources, were the most important contributors to planning effectiveness.

Ramanujam and Venkatraman (1986) ranked the dimensions in order of importance as follows: techniques, external and internal factors, and functions.

Research Problem

Strategic planning is coming back into its own (Whittaker, 1996). This first new wave of interest leaves behind the debate on the pros and cons of strategic planning (Barry, 1998; Capon, Farley & Hulbert, 1994) to examine the critical elements of an effective strategic plan. The primary problem that this research shall deal with is to expand the knowledge based on strategic planning as it pertains to the sector of higher education. In many areas of the country there exists a formal recognition for the value of planning which (McDonald-Druhm, 1997; Riely, 1997) has been directed toward public colleges (two- and- four-year institutions) to prepare and implement long-term strategic planning.

A second purpose of this research is to expand the research of Ramanujam and Venkatraman. Their theory has been tested in several areas but not within the community

of higher education. Since their work offers a new way to assess one's strategic approach and effectiveness, this research will expand the original authors work.

Perhaps the greatest contributions of this research, this author hopes, shall be defining strategic planning in multidimensional items. As the original authors noted, the traditional research in strategic planning has been limited to effectiveness in merely financial terms. Since two-year colleges are by mission non-profit, the theory has great important as colleges struggle to find greater effectiveness (Baker & Smith, 1997). Their expanded analysis contains variables that are relevant to the issues which face the higher education community.

Population

Strategic management is a concept and tool that has been in use for many decades in the private sector. The public sector has been slow to adopt this approach as noted in the Gore Report on Reinventing Government. (Vinzant, 1994). The target population for this study is the public and private colleges and universities in Texas, which number 190 as noted on the State's education Web site.

The rationale for directing this study toward academia is that colleges are facing many significant challenges as they enter the 21st century (Barker, 1997; Johnson, 1997; Taylor, 1996). These challenges are not unique to any specific area of higher education but are symptomatic of national trends. The public and legislative groups are demanding higher accountability from colleges, a greater rate of change to meet new state needs, and in reducing costs (PCT, 1997). To address these needs, colleges are developing strategic plans to help guide them through the maze of challenges. (Wallace, 1998; Sampson,

1995). Texas in particular has requested that public colleges develop strategic plans. Their ability to develop these plans well will influence future funding for their academic programs. One recent dissertation (Gross, 1992) surveyed thirteen colleges to determine how the Board of Trustees were involved in their respective campuses.

Significance of the Study

Firms today should not deny the need to improve one's performance through greater performance and effectiveness. The firm that chooses to neglect performance will soon be outperformed by their competition. Business competition is no longer restricted to local or regional areas. Rather it now includes business firms from across the globe.

Additionally, rapid environmental and technological change brings a second factor to challenge the firm. Each of these two factors brings a higher level of challenge for the firm: whether for the Fortune 500 company, a small business unit, or college.

This dissertation shall extend the empirical research on the contextual dimensions within a firm. This study will utilize the public and private college sector to expand the research and to compare the usage of strategic plans within public and private colleges.

Statement of The Problem

The third wave of strategic planning, which began in the late 1980's, continues to draw attention to bringing a new understanding to planning system dimensions and planning effectiveness (Veliyath & Shortell, 1993). This research intends to study the

following dimensions found within strategic planning and their impact on the firm's performance. These are, 1. Resources provided for strategic planning and 2. Level of organizational resistance to strategic planning

As past research has generally found, the study intends to determine whether high performance organizations provide resources to a planning effort and if there is resistance to planning within the organization.

Hypotheses

1. Colleges classified as formal planners will perform differently from those colleges classified as non-planners, i.e. those colleges that are planners will have a higher score on the planning effectiveness scale.
2. Colleges classified as formal planners will score higher along the planning system design dimension than those colleges classified as non-planners.
3. Colleges that are classified as formal planners will score higher along the contextual dimensions than those colleges classified as non-planners.
4. Colleges classified as large will differ from smaller colleges along the systems dimensions.

Assumptions

Effectiveness of planning is not measured as a single outcome or single metric. Rather, this model assumes that the effectiveness of planning can be measured in multidimensional terms.

This research also assumes that the respondent has a good point of reference for the strategic planning work across the campus.

Reliability

The original authors based the reliability of their results using coefficient alpha along with item-to-total scale correlation. The Cronback alpha values in their study ranged from 0.540 to 0.871. All the item-to-total correlations were positive and significant at p levels better than 0.01. The original authors felt that "these assessments provide adequate support for the reliability of the measures employed" (Ramanujam & Venkatraman, 1987).

Limitations

The first limitation is that the present study is restricted to one geographical area. The results may or may not be transferable to other regions as philosophical differences in strategic planning may have regional needs that differ with local needs and competition.

This model is relatively new. It needs the test of time and additional studies to confirm or deny the present theoretical base. Further refinement will move this theory forward.

This study relies upon one person completing the survey instrument. The assumption is that the respondent has a sufficient knowledge base for the entire campus.

Definitions

Although the language within the field of strategic planning is quite consistent, practitioners may not understand or carry a common definition.

The first areas that may cause confusion are the terms strategic planning and long term planning. In this study, as in most research articles, the two terms are used interchangeably. Additionally, the term strategic management and strategic planning are used synonymously.

To avoid confusion during the research portion, this author will provide definitions for the survey respondents.

Chapter II

REVIEW OF THE LITERATURE

Introduction

The need for rethinking how one views the organization and how it achieves goals and objectives is currently underway in the literature of business and management journals. Witness a new theory of organizational knowledge, or corporate epistemology, which provides a new way of interpreting knowledge (Krogh & Koos, 1994; Grant, 1996; Spender & Grant, 1996; Camillus, 1997) that is gaining interest in journal articles. The more traditional terms of strategic planning, strategic management or long-term planning are found throughout the literature, often without drawing a distinct between the terms. Suffice it to say that each has a central theme of improving performance of an organization.

The history of strategic management is well established in the literature. Perhaps the first substantial phase of research (Ansoff et al., 1970; Thune and House, 1970; Herold, 1972; Fulmer and Rue, 1974) can be categorized into an area that seeks to find a positive correlation between a firm's performance and the respective formality of the strategic planning effort. This research set off a grand tradition (Camillus, 1975), that lasted at least until the late 1980's.

The second phase of strategic planning began in the 1980's (Kudla, 1980; Malik & Karger, 1980; Leontiades and Tezel, 1980; Wood and LaForge, 1981) which stepped beyond the question of formality to look at the basic dichotomy of the performance of planners versus non-planners. As shall be noted later, this research stimulated a great deal of follow-up research, which took many tangential paths over the years. Perhaps the most lasting part of this research

has been how one defines performance within an industry or a specific firm (Schendel & Hofer, 1979: Capon, Farley & Hulbert, 1994; Ramanujam & Venkatraman, 1987). A second classical debate that arose from this research is the seminal question: can a firm plan for the strategic nature (long term) when change is so pervasive (Bourgeois & Eisenhardt, 1988; Fiegener, 1997; Mintzberg, 1994: Schiemann & Lingle, 1997)?

The third phase (Fredrickson & Mitchell, 1984; Fredrickson, 1984; Shrader, Taylor and Dalton, 1984; Robinson & Pearce, 1983; Wood & LaForge, 1979, 1981) began to recognize the limitations of earlier research. It is this phase that has begun to expand the definition of strategic planning into a multidimensional construct.

Since the late 1980's and into the early 1990's, the field of strategic planning has come on difficult times. The environment of today's firm has evolved much more, and more quickly, than the academics have moved the field of study. The emergence of global competition, the use of Total Quality Management (TQM), re-engineering and empowerment have changed the nature of business (Prahalad & Hamel, 1986). In fact, Mintzberg (1994) notes that when business-consulting firms have adapted their business to what industry needs (implementation and efficiency), the academicians quickly followed.

Rumelt, Schendel & Teece (1991, 1994) fired a warning shot regarding the direction that strategic planning had been taking in the literature versus what was actually happening in practice. These authors note that in times of high turbulence the need for strategic management is needed more than ever.

The concept of strategic planning has been around for at least three decades. Strategic management research has essentially focused on the following relationships; strategy, environment, leadership and performance (Summer, et al., 1990). The concept of strategic planning has been a topic of interest for not only strategic management theorists, but for the organizational theorists as well (Dean & Sharfman, 1996). Strategic management has become a "buzz word" for those disciplines wishing to stress the importance of their work (Lyles, 1990). The seminal question for this research is whether or not strategic planning has an impact on an organization's performance. In nearly 20 years of research, this question remains unanswered (Armstrong, 1982; Mintzberg, 1991; Pearce, Freeman and Robinson, 1987). Authors such as Mintzberg (1990) see strategic planning as "blinders" placed on the organization. Several authors have found fault with the research methodologies and definitions taken in literature (Ramanujam and Venkatraman, 1987: Miller and Cardinal, 1994).

Planning is a business process that is common to many companies. However, except for some very special categories, such as military, government, large corporations, long-term planning has largely been an informal activity (Ackerman, 1970; Aharoni, 1966; Allison, 1970; Bower, 1970; Carter, 1971). Motivation for planning in organizations that are of medium to small size were few as they realize the requisite time, material, human resources and expertise is quite high to do a thorough job of planning (Gilmore, 1971). It is noted, however, that a few research studies have indicated that companies, irrespective of size, committed to a process of formal planning, will often outperform those which do not aggressively pursue strategic planning

(Gershefski, 1970; Thune & House, 1970; Herold, 1990; Wood & LaForge, 1979; Leontiades & Tezel, 1980; Miller & Cardinal, 1994).

Although the field of strategic management has had a bumpy ride over the past several years, it appears that the competitive realities of the 1990's (Hart & Banbury, 1994) are bringing a renewed interest to this field. The widespread use of computer technology is altering ways in which one conducts their business (Bettis & Hitt, 1995). At the extreme end of organizational and business climate change is found in the field of chaos theory. Although its essence is found in non-business systems, theorists are finding application to processes which are largely unpredictable in business organizations (Cartwright, 1991).

The Value and Efficacy of Strategic Planning

The very nature or substance of strategic planning has been around for many years. Although a debate persists over its efficacy, researchers and executives continue to be proponents for its use (Miller & Cardinal, 1994). Others see strategic planning as a process which provides the structure for a more rational approach to strategic choice in ones business environment (Henry, 1979).

Many managers define strategic planning as that which will require either large amounts of time and/or money. Definitions for strategic planning vary, not only because of one's position on the topic but the context of its application. Authors Grinyer, Al-Bazzaz and Yasai-Ardekani (1986) find that it aids the manager's ability to integrate and control aspects of the firm. Camillus (1975) approached this idea from a coordination aspect. Another approach finds a

group of researchers defining it as a process of thinking which enables a firm to adapt so that the firm's objectives are in concert with the environment (Ansoff, 1991; Armstrong, 1982).

In a more concrete manner, writer David (1993) defines strategy as " the art and science of formulating, implementing, and evaluating cross-functional decisions that enable an organization to achieve its objectives." Whatever definition is appropriate, strategic planning is an approach to organizational theory, which brings together the relationship of environment, leadership and performance (Summer, et al., 1990).

The importance of strategic planning or formalized planning (Shank, Nibloch & Sandalls, 1973) or decision-making processes (Shrivastava & Grant, 1985) has been a point of discussion for many years. Is it effective? As authors Miller and Cardinal (1994) note, many recognized theorists support the general notion that planning produces better results than non-planning. Perhaps part of the issue at hand is that one's intuitive position is that strategic planning provides a positive benefit to the firm. However, they also write that other theorists counter with the idea that strategic planning is dysfunctional at worst and irrelevant at best, Mintzberg's (1990) and that "blinders" are placed on an organization with the very action of planning.

Examples of strategic planning at its worst include the decision by Penn Central to focus on the national level of railroad business rather than localized routes. The energy crisis of 1973 (Mintzberg, 1994), or the Chrysler organizational decision in the mid-1970's to continue producing newly styled large automobiles while the Japanese and European auto makers were

producing, and selling small autos at a much higher rate than the American makers. Chrysler later dropped their large car focus in 1977 (Hall, 1977).

Is strategic planning successful in meeting the objectives of the firm (Venkatraman & Ramanujam, 1987)? Organizational theorists have suggested that strategic planning processes are often, at best, semi-rational as the limit to longer term knowledge or forecasting information is extended. Is the plan one develops flexible enough to change with external or internal environmental shifts (Eppink, 1978)? And how does one balance creativity in management science theory throughout the organization with more practical applications that have worked (Shank et. al., 1973)? Koch (1976) refers to planning as collective volunteerism. In many examples, decisions based upon strategic plans are not well understood or widely agreed upon in the organization (Hambrick & Schecter, 1983; Mintzberg & McHugh, 1985). This idea develops around the idea that most people will go to great extremes to avoid the potential downfall of a plan or company when their livelihood is at risk.

Firm Size

Firm size has often been a confounding component in the debate over efficacy and appropriateness to firm size. As the size of the firm increases, so does the management distance between top management and its employees. Aram and Cowen (1990) find that strategic planning leads an organization to adaptive thinking, and that this is a benefit for small firms as they guard their vulnerabilities through avoidance of errors. Small firms have an inherent liability to failure due to their limited resource base (Bruderl & Schussler, 1990). Large firms have an entirely different set of issues. Their very size dictates an approach of coordination and

developing strategy. Traditionally, the large firm included a division of strategists or planners. This tended to centralize the process of creating strategic plans and increased the level of complexity (Chandler, 1962; Bower, 1970). In fact, a much more formalized process is required for the large firm (Hage & Aiken, 1969).

Centralized Versus Decentralized

Kukaalis (1991) found a positive relationship between the staff specialist and performance. Many companies disbanded the centralized (Veliyath, 1992) approach and opted for a company-wide involvement in the creation of strategic planning efforts. Galpin (1997) found examples in current firms that the decentralized approach to strategy has aided a grassroots commitment to the firm's strategy. Some current theorists, however, have inveighed for a return to the centralized approach of strategic making at the headquarter level (Hasperlaugh, 1982). Writers Bourgeois and Bodwin (1984) find this to be a troubling trend. An alternative to complete centralization or decentralization is the creation of strategic planning groups throughout the organization composed of key firm managers (Bates & Dillard, 1992). Hiam (1993) describes a slightly different approach of using a process that deals with smaller strategic decision units dispersed throughout the organization.

In more recent years some researchers have indicated that the process of long-term planning itself may be as, or more, important than the very content of one's strategic management plan. Author Quinn (1981) notes that in large organizations the more important part of corporate

planning systems is the improvement to the process instead of the actual outcome. The focus one gains from merely the thought processes of strategic planning has the potential to make one a more informed and effective manager. As Hall (1977) noted two decades ago, the premise is that the way a person manages the organization will have a larger impact on planning effectiveness than will the sophistication of the formal planning effort. Whatever one believes about strategic planning, it is the responsibility of senior top management to set the tone and direction to ensure a greater likelihood of effectiveness (Mintzberg, 1994). The involvement by the CEO has been noted to add two distinct benefits (Ramanujam & Venkatraman, 1987). First, the quality of the process is increased, and second, it sends an explicit message across the entire organization that strategic planning is valued. Effective and well-structured plans at the top can unleash creativity and energy throughout the organization. Ill-defined, haphazard guesswork or poorly structured plans (Armstrong, 1991) can result in problems across the organization.

There is no single or homogenous theory involving the very concept of strategic planning. While many theorists support the notion (Ansoff, 1991), there are many other theorists that see significant folly with strategic planning (Mintzberg, 1993). Mintzberg inveighs at the concept that we are living in turbulent times (Ansoff, 1965), or in the Age of Discontinuity (Emery & Trist, 1965). Several problems exist as one begins to study strategic planning. First and foremost is the debate regarding the efficacy of strategic planning and the practical business environment. While the use of strategic planning appears to be on the increase with more and more companies participating, positive benefits resulting from strategic planning are by no

means assured (Allen, 1985). Research on this particular area has received moderate attention over the years. Research that has been conducted has mainly been with large organizations with vast resources to contribute to their plan (Ackerman, 1970; Aharoni, 1966; Bower, 1970; Carter, 1971). Analysis of small firms using formal strategic planning has had even less attention (Gilmore, 1971). Furthermore, there appears to be no process or systematic understanding of why formalized planning activities affects the overall performance of corporations (Camillus, 1975). As Cameron (1986) notes that despite the ambiguity and confusion that surrounds performance, the construct of organizational effectiveness is central to the organizational sciences and should not be overlooked in theory or research. Theories of organizational effectiveness usually seek to define high and low performance. Organizational effectiveness is therefore the seminal dependent variable (Ramanujam & Venkatraman, 1987).

Evaluating the performance of the strategic planning process, either through the analysis of the outcome, or merely the process itself can be accomplished in several ways, as noted in Figure Two. A goal-centered approach is a common construct. Steiner (1979) refers to this as a measurement against purpose.

Approach	Description	Supporting Literature
Goal centered	analysis of outcome	Steiner (1979) King (1983)
Comparative judgment	system to system comparison	
Normative judgment	actual versus a theoretical construct	King (1983) Ansoff (1975)
Improvement judgment	analysis and correlation of factors imposed for perspective change	

Figure 2
Various Strategic Planning Approaches

(Adapted from Venkatraman & Ramanujam, 1987)

Bourgeois and Bodwin (1984) have described the method of process modeling as outdated and pedestrian. This is a belief held by other authors for several decades (Andrews, 1971; Drucker, 1954). Authors Oliva, Day, DeSarbo (1987) described an approach to measuring performance based on a map theory. Such maps can be generated for specific industries. The purpose of such strategy maps are to explicitly link performance measures with performance. Chakravarthy (1982) conceptualized the linkage between strategy and organizational structure and found a positive correlation to firm performance.

Measures of Performance and Effectiveness

While many people feel an intuitive link between planning and performance, few have been able to document, at least in a consistent manner, an explicit way to define it. Part of this difficulty comes from the fact that defining measures of performance is quit difficult (Goold & Quinn, 1990). This can then lead the CEO to be distrustful of the entire measurement system (Ouchi, 1979). Atkinson and McCrindell (1997) find that linking performance measurements to strategic planning requires the additional work of identification and specification of contracts between the organization and its stakeholders. The drive for this ultimately rests with the desire to achieve operational effectiveness, which means one has the possibility to outperform rivals (Porter, 1980).

Before an analysis of performance can be seriously undertaken, an overview of strategic planning systems is warranted. Figure 3 indicates the six dimensions of strategic planning.

Dimension	Description	Supporting Literature
Use of planning techniques	To provide structure to ill-defined strategic problems	Grant & King (1982) Hax & Majluf (1984)
Internal facets	Organizational specific, e.g., past performance, strengths, weaknesses	Veliyath (1992) Hart & Quinn (1993) Camillus & Venkatraman (1984) Bates & Dillard (1992)
External facets	Opportunities, threats, and environmental trends	Elenkov (1977) Jennings & Seaman (1994) Thomas (1980) Hitt & Tyler (1991) Burgelman (1991)
Functional coverage and Integration	Extent of coverage given to different functional areas across organizations;	Chakravarthy & Doz (1992), Hitt, Ireland & Palia(1980)
Resources provided	Support from top management, numbers of planners, overall organizational commitment	Mintzberg (1994) Gross (1992) Schulze (1994) Fredrickson & Mitchell (1984)
Resistance to planning	overall resistance to planning function	Lyles & Lenz (1982) Steiner (1979)

Figure 3
Six Dimensions of Planning

(Adapted from Ramanujam and Venkatraman, 1987)

Control

Strategy is the long-term analog of control (Anthony, 1985). The relationship of strategy and control has seemingly evolved very little over the past two to three decades, until just recently. Perhaps the single largest boost has occurred within the quality movement, which is evident in many sectors worldwide (Ittner & Larcker, 1997). Their study revealed that organizations using quality principles more often than not found strategic control issues to be beneficial in achieving desired outcomes.

One of the newer areas of study is the manipulation of control to bring a change in one's strategic direction. Change to a firm's structure and control systems is now considered appropriate as strategic decisions are presumed to be well understood and widely supported (Bourgeois & Brodwin, 1984). A preponderance of literature describes control as being appropriate to the input side of a system or process rather than on outputs (Reed & Buckley, 1988). This is also very consistent with the quality, or continuous improvement work that continues across firms internationally.

The aspect of control is also a function of the number of inputs one must deal with. As this number increases, so does the need for control. There is another interesting aspect of control that has been made by Merchant (1984). He approaches control from the aspect of keeping a firm moving toward its goals while not being detracted from employees wishing to pursue activities that may be counter productive for the firm at large. Implicit in this statement is the need for clear and cogent communications across the firm.

It is assumed that control systems contain important levers, or action points, which may be used to direct evolutionary change (Simons, 1994). Boureous and Eisenhardt (1988) write that these levers or triggers are both very important and lead to effective decision-making in high velocity environments. Latham (1984) perhaps sums up this area best by stating that the achievement of one's goals and plans does not occur in a serendipitous manner.

Change and Discontinuities

The fundamental issue behind change is the dynamic nature of business plans today. The challenge is for a firm's strategy to remain in alignment with their strategic actions (Burgelman & Grove, 1996). As Hart and Banbury (1994) note, the competitive business climate today demands a direct approach of efficiency, quality, and cycle time. They note the following in Figure 4.

Issue	Author
* efficiency, quality cycle time	Stalk and Hout (1990)
* strategic flexibility	Cartwright (1991)
* social-environmental issues	Schmidheiny (1992)

Figure 4:
Key Elements in Competitive Business Climates

The need for planning has been developed into a problem situation. The concept of surprise or change has been around for many centuries (Mintzberg, 1991). First, some critical events, however, have cast a new light on this concept (Ansoff, 1965). These include, the Middle East petroleum crisis (c.1970's), the automotive industry's inability to react in a timely manner to first the European auto makers and specifically to the Japanese. (Enid, 1986) Secondly, United States congressional mandates for automotive safety are all timely examples of change and one's ability to react to the change. The recession of 1974-75 caused many planners to renew their interest in planning and to clamor for even more advanced means to improve the quality and sophistication of the planning effort (Hall, 1977; Hampton, 1987). The personal computer surge of the mid-1980s has advanced this interest to ever higher levels (Ansoff, 1986). The information systems used to implement strategy through formal planning, control, and incentives is to a large degree yet unexplored (Mintzberg, 1987). These are just two examples of unanticipated change and the discontinuity many corporations and businesses are now experiencing.

Anticipated change, or at least flexibility to change, are vital as companies are forced to deal with these strategic discontinuities. Those theorists that subscribe to a decentralized approach to strategy development also find that in particularly turbulent environments, responsibility for following change and anticipating its impact must be shared throughout the firm (Chakaravarthy, 1997). Fiegener's (1997) research confirmed the findings of Bourgeois and Eisenhardt (1988) that in dynamic and changing environments, change is best handled by greater staff involvement. Recent work has been done at an international level to reinforce the need for organizations to be

flexible, particularly in the hyper-competitive nature of technology related businesses (Bamford & Phelps, 1996).

Change has many characteristics. Eppink (1978) writes about three prominent types of change as follows:

REVERSIBLE CHANGE: Changes (X) that occur over an extended period of time, are random in nature but occur around a stable mean, seasonal changes in the sale of college textbooks.

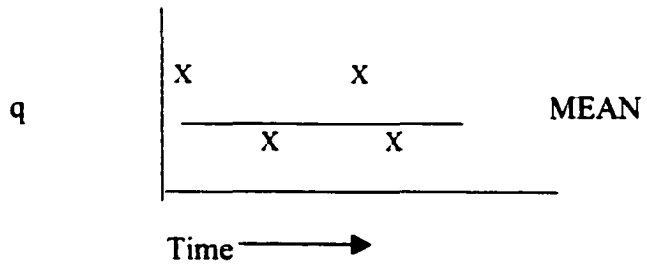
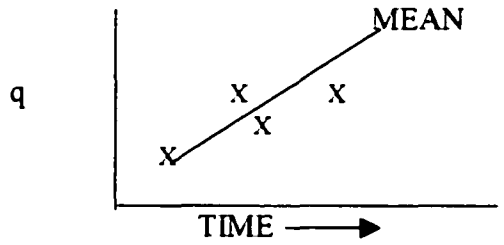


Figure 5
Undetermined Change versus Time

IRREVERSIBLE: Change (X) which, over time, indicates a trend for an evolving mean. The significance is that this change represents a permanent change in the mean, e.g. new computer processor technology.



q= quantity measured

Figure 6
Significant Change over Time

The third type of change is strategic change. This is developed from a further refinement of irreversible change. Eppink (1978) defines change as a strategic change if there is a high degree of unfamiliarity around it, where the organization has no specific experience and therefore no routine answer ready to tackle this strange change.

The concept of turbulence is different in nature than change as noted above. Schon and Nutt (1974) define turbulence as "the perception of the absence of clear and stable paths." The diagram in figure 5 indicates implicitly that change, although present, is gradual in nature. Turbulence, by its very nature, is change that is more dramatic and causes planners and

strategists problems as they attempt to react to the change that is non-periodic in nature. Authors Ansoff and Sullivan (1993) studied in fine detail the level of success a company may experience within a turbulent environment by measuring a few performance gaps. The diagram in Figure 7 diagram is adapted from their study.

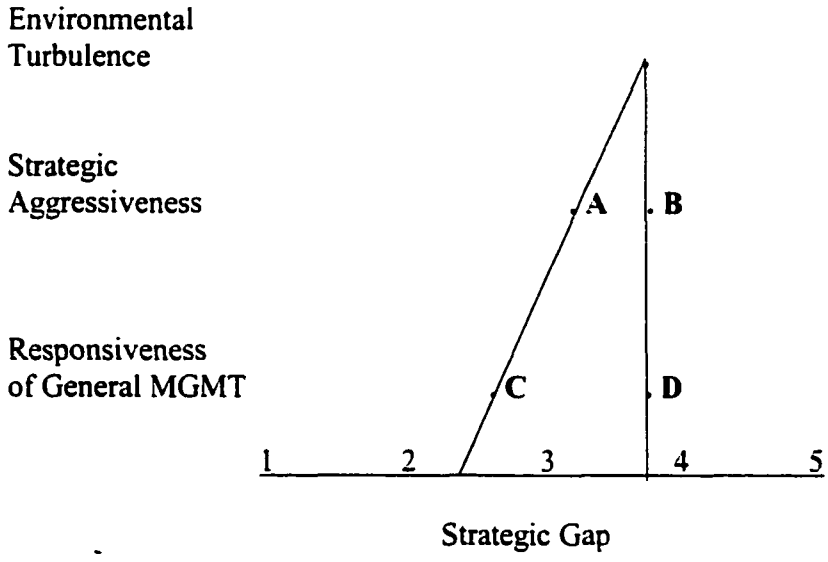


Figure 7
Performance Gap Analysis

By measuring the three factors above (turbulence, aggression and responsiveness), an organization can determine the magnitude of the gap (points A to B, C to D) and how much out of alignment a company is with regard to their environment. This notion of a gap is quite interesting. There is a current stream of knowledge that only the strongest survive and that the presence of the gap means trouble. Drucker (1991) states that the only firms that survive are on

the two extremes. Those that set the standard and those that serve in a speciality area. The in-between position is neither desirable or viable.

A contemporary example of the former is the Microsoft Corporation, and of the latter, Dell Computers.

On a more practical side, research has been conducted to categorize change, or uncertainty, to the following areas shown in Figure 8. (Elenkov, 1997):

1. Customer sector	4.technology
2. economic	5. political/legal
3. competitor	6. socio-cultural

Figure 8
Categories of Change

These categories represent, from most influential to lowest, those categories which represent the highest levels of strategic uncertainty and thus represent the highest likelihood for required change at some point in time.

As Mintzberg (1993) notes, that most change in the business environment is not turbulent in nature, but rather they are changes that played havoc with one's carefully laid plans. Perhaps Mintzberg and others are correct. Maybe the reaction to dramatic change from turbulence is

merely an American phenomenon. A feeling developed after the years between 1920's and 1970's of relative stability and growth in the business world. The dramatic changes noted in the earlier 1970's because of oil price changes and Japanese management style came from organizations with significant strategic planning driving them; not from some unknown or unanticipated phenomenon. This next example, currently underway, hopes to reverse the cycle of unanticipated change. The telecommunications industry is using a technique referred to as scenario planning (Henderson, 1997) to explore possible future environments and determine whether or not its strategic plans will be appropriate in the coming years.

A review of international articles indicates that many in the international academy are far less focused on instability but are reviewing the precepts of planning and change on a more rational level. (Hamilton & Shergill, 1992)

Social scientists have also taken great interest in the idea of turbulence (Stacy, 1993). This new area of study is grounded in the chaos theory which attempts to reconcile unpredictability; believing that human organizations are changing, living and dynamic nonlinear systems, just as are nature's systems (Cartwright, 1991). The roots of chaos theory are found in the physical sciences. With this concept, the belief in long-term planning may give way to new reference points. Some of these new points are described in Figure 9.

TODAY'S FRAME OF REFERENCE	A NEW FRAME OF REFERENCE
1. Long term future is predictable to some extent.	1. Long term future is unknowable
2. Visions and plans are central to strategic management	2. Dynamic agendas of strategic issues are central to effective strategic management.
3. Vision: single shared organization-wide intention A picture of a future state	3. Challenge: multiple aspirations stretching and ambiguous. Arising out of current ill- structured and conflicting issues with long term consequences.
4. Strongly shared cultures.	4. Contradictory counter cultures.
5. Decision making as purely experimental process based on intuition and reasoning	5. Decision making as exploratory, logical, analytical process

Figure 9
Changes in Reference Points Over the Years

(Adapted from Stacey, 1993)

Strategic Surprise

The concept of change is quite important when it impacts a corporate strategic point of reference. One definition of strategic surprise indicates a change to what was expected to either an opportunity (a potentially positive deviation) or to a threat (a potentially negative deviation), (Ansoff, 1975). In order to avoid a misunderstanding, Drucker (1954) suggests that management has no choice but to anticipate the future. It is at this point however, that Drucker splits away from many other writers because he also suggests that management attempt to mold the future. This is a rather tall and ambitious order in a sea of change where many businesses find themselves. This concept can be expanded into the greater and more often referenced analytical process of determining strengths, weakness', opportunities and threats, SWOT analysis, which has been in classical management science for years. The process of performing a SWOT analysis in practice is often less rational than one would hope or believe to be true in management science (Sawy, 1984). Far from the SWOT process being viewed as a panacea, authors Hill and Westbrook (1997) see this approach as one in need of a large overhaul. For a further discussion of this concept see Stevenson (1976) and Rothschild (1979).

Strategic Framework

The evaluation of one's strategy in today's business climate finds it ever more difficult to plan.

The time frame that an organization must plan against may well determine the probability of success. One useful comparison is the high-tech company that may do well to forecast

and plan out for three years while the military may easily prepare a fifteen-year plan. In general, the greater the time frame or the higher technology-based application, the less effective the outcome is likely to be.

A practical example of this is described below from a company's profit projections over a five-year period of time.

Company-projected profits for 1971 as planned in their four prior 5-year documents is shown in Table One. (Shank, et. al. 1973):

Table 1
Time Lag in Planning Future Earnings

Year of Plan	PROJECTED PROFITS IN 1971
five-year plan done in 1966	$ 60 Million
five-year plan done in 1967	$ 50 Million
five-year plan done in 1969	$ 36 Million
1971 budget prepared in 1970	$ 16 Million

Shank and the others point out a very real problem that exists between time and customer/resource capacity. This is an inverse relationship because as time increases the firm's knowledge about its own capacity or opportunities shrink (Brown, 1997). Taking this a bit further is the concept of co-alignment of these opportunities and resources,

which ultimately will greatly influence firm performance (Segars, 1994). This provides further evidence that the planning system efficacy is a multi-dimensional construct.

Pit Falls to Strategic Planning

With all that has been written, attempted, and revised, strategic planning is far from being a routine process. In fact, this is probably why the topic persists in academic journals in many disciplines. Recently this was put in perspective as shown in Figure10.

1. Petty competitor clashes while ignoring the longer-term needs (battle versus war)
2. failing to anticipate challenges, brought in by future events
3. too close alliance on present day associations while missing the most important entity, the member
4. excessive reliance on opinions
5. excessive reliance on hearsay
6. strategic plans that have no explicit benefits
7. coordination/integration of staff
8. overlooking limitations of management

Figure 10
The Eight Pit Falls of Strategic Planning

Frustrations To The Conceptual Approach of Strategic Planning

McConkey (1988) lists the following factors, Figure 11, that have increased the level of difficulty in planning an order of magnitude or two:

1. Increased complexity in today's business climate.
2. Increased difficulty in forecasting the future with any sense of accuracy.
3. Increased number of variables.
4. The rate of obsolescence
5. Increased competitive environment from across the world
6. The increased speed at which decisions must now be made.

Figure 11
Levels of Difficulty in Long Term Planning

Opportunities for positive changes are not to be considered a panacea in the realm of dealing with change. Phantom, or false opportunities, are perhaps more prevalent than expected or one would wish. Michael M. Robert (1985) suggests that four questions should be reviewed to separate true opportunities from phantom opportunitiesas shown in Figure 12.

1. Does the opportunity violate the corporate mission?
2. Is the opportunity counter to the current strategy of the organization?
3. Does the opportunity require the organization to learn an entirely new business?
4. Does the opportunity fit the current financial plan of the organization?

Figure 12
Phantom Versus Real Opportunities

The actual analysis of internal threats and opportunities includes a review of the following areas in Figure 13.

* Management values and capabilities;
* Performance of management systems;
* Stockholder orientations;
* Employee perspectives; and
* Organizational culture.

Figure 13
Internal Elements of Review

(Higgins & Vincze, 1989)

The analysis of external threats and opportunities is quite expanded in comparison to the above list (Diffenbach, 1983). Risk is an important factor in strategic management that is similar in many ways to strategic surprise. Researchers in this area are showing increased awareness to the importance of the concept of risk at the strategic level (Collins

& Ruefli, 1992). Over the last decade and one-half business organizations have been drawn into additional areas of responsibility. The term frequently used to capture this constituency is the stakeholder. Stakeholder covers one which actually own stock (stockholder), to political and social activists. One concept of strategy which addresses these specific stakeholder concerns is issues management (Chase, 1977). " Strategic issues are developments or trends emerging from an organization's internal or external environment that are perceived to have the potential to significantly affect the organization's strategy, performance, or survival (Ottensmeyer & Dutton, 1989).

Goals For Planning

Corporations have many different motivations or goals for planning. Management may wish the planning effort to reflect practical judgments based on what is likely or possible. Additionally, management wants the planning process to reflect assertive and creative parts in its final planning document (Shank, et al. 1973).

One of the benefits of the process behind strategic management is that it usually keeps an employee/manager from becoming mired in the detail and timing of operational issues (Richards, 1986).

Capabilities of effective strategic management systems are many. Some of the more common elements are listed in Figure 14.

1. Ability to anticipate surprise
2. Adds flexibility to adapt to unanticipated change
3. Ability to identify key problem areas
4. Ability to identify new business opportunities
5. Enhance/create new generation of ideas
6. Provide managerial motivation
7. Enhance management control
8. Aids organizational learning
9. Integration of diverse functions and operations
10. Enhance organization communications

Figure 14
Benefits of Strategic Management

(adapted from Venkatraman & Ramanujam, 1987)

Organizations differ widely in their approach to setting goals in the strategic planning process. The broad category of planning serves a large host of objectives for specific companies.

One concept of planning is that the prime focus of developing a plan is better internal co-ordination, communication, and motivation toward overall organizational goals." (Rossotti).

Seven common (Camillus, 1975) purposes of planning are as shown in Figure 15.

1. Mind stretching
2. The development of broad strategies and long term policies
3. The development of action plans and operating programs
4. The development of a framework or reference for the annual operating budget
5. The development of a framework in the minds of senior management
6. Management development
7. Internal communication and co-ordination

Figure 15
Planning Purposes

Positive Results From Planning

Camillus (1975) lists the following outcomes or consequences derived from formal planning, as shown in Figure 16.

1. Activity of planning becomes required as part of normal work.
2. The process involves more staff in the process than before.
3. The process ensures that staffers consider all relevant facts.
4. The process ensures that all operate on the same common, explicitly identified assumptions.
5. The process can result in explicitly stated and widely accepted decisions taken by the organization.
6. The process provides the basic core for an organizational understanding for future changes

Figure 16
Formal Planning Outcomes

Micro Theory Building

Almost all discussions, theories and research have focused upon the organizational level, or macro perspective. Rajagopalan, Rasheed, and Datta (1993) note that only five studies reflect a perspective of macro and micro levels in planning (Cray, et. al., 1991; Butler, et. al., 1991; Fredrickson & Iaquinto, 1989; Schilit & Paine, 1987; Wooldridge & Floyd, 1990).

The design of strategic planning systems is receiving increased attention in academic research. Few theorists have examined the link between characteristics of strategic plan processes and firm and organizational environment characteristics (Kukalis, 1991).

Large-scale (macro) studies have often focused upon the performance difference between firms with and firms without formal planning systems. Studies have rarely adequately distinguished between performance-related characteristics of the planning

process and the planning situation associated with performance from firm to firm (Armstrong, 1982).

The decline of large organizations, the increase in the number of small businesses, coupled with a business climate of fast and continuous change creates a very real need for formalized planning by small businesses.

New Directions

As noted earlier, the status of strategic planning has evolved greatly over the past decade. Perhaps the single greatest contribution to this change has been through technological advances. The integration of microcomputers into products and services (Bettis & Hitt, 1995) are dramatically altering the pattern in which one does business. Today new approaches to business are required that allow for maximum flexibility. There are now new rules for business that often require change every few years.

In a summary fashion, Krogh, Roos and Slocum (1994) provide the following list of strategic management signals, shown in Figure 17.

ITEM	SOURCE
Information technology, new organizational forms	Sproull and Kiesler (1991)
Technology	Kodama (1993)
New manufacturing forms	Drucker (1990)
Competitive Alliances	Hamel, Doz and Prahalad (1988)

Figure 17
Strategic Management Indicators

Chapter III

METHODOLOGY

Overview

This research seeks to test the key dimensions of planning systems based on the work of Ramanujam & Venkatraman (1987); four System Design Dimensions and two Contextual Dimensions. Additionally, this author intends on establishing baseline data of planning systems within the higher education community.

Data has been collected through the survey used in the original study. Minor changes were made to the survey to provide a match in selected words to provide a fit to the higher education community. The survey also collected data regarding the size of the college and the extent to which long-term planning is used.

The survey was directed to three people in the senior administrative level of the college executive in charge of planning. The sample was randomly selected from Texas colleges and universities.

Variables

The variables for this research are the measures for planning systems that are within the three main areas of the study by Ramanujam and Venkatraman (1987). The three main areas, Contextual Dimensions, System Design Dimensions and Effectiveness Dimensions, form their planning system model.

The original survey instrument was modified slightly. After modification, the survey was reviewed by top administrators from several colleges in Texas and elsewhere. These reviewers represented financial, operations, and instruction to ensure that the

modifications are both appropriate to their profession and that the survey modifications are well understood.

The Contextual and System Design Dimensions represent the broad category of Planning Characteristics. The System Design Dimensions include the variables: attention to internal facets to an organization, such as a firm's recent performance and an analysis of one's strengths and weaknesses, attention to external facets through the use of environmental scanning techniques. Functional coverage reviews the level to which a college provides campus-wide input to planning while integrating the different areas into a general perspective. The use of scientific techniques is central to planning, problem solving, and problem definition to provide a structure at a strategic level for problems facing the higher education community. The original authors work found Planning System Characteristic dimensions cover six areas that were noted earlier. The first two dimensions are found in a category noted as Contextual Dimensions. Two dimensions are in this category. They are as follows: 1. Resources provided to the planning function, and 2. Resistance to planning.

The first two dimensions, Resources and Resistance, in the original research, emerged as the most important elements to planning effectiveness. The authors report that each dimension contributed approximately 26 percent to the explained variance. The conclusion drawn is that planning systems have little to no value to an organization within an environment of resistance to planning. Also, firms that provide little or no resources to the planning system seldom have a successful long-term plan.

The definition of Resources Provided for Planning is, the degree of organizational support in the form of number of planners, involvement of top management in planning and the overall time allotted to planning. Resources are characterized as tangible and intangible. The list above indicates examples from both areas. Both categories carry a cost. This is important and often explains why a firm may neglect these activities.

Resistance to planning is thought of as the need to recognize and overcome organizational opposition to planning. It also recognizes the need to move the firm beyond this position of resistance and to create a positive atmosphere for cultivating the planning function in the organization. It is a measure of the level or emphasis on strategic planning within the organization. It also measures the level of involvement of line managers in the strategic planning effort. As a final measure, the survey determines the level of acceptance of the outputs of the strategic planning work by senior management. Resistance to the planning effort can be direct opposition to the planning process, or neglect of the planning output such as planning documents which are to operationalized by a variety of managers and staff. Resistance can also be manifested in subtle ways, such as displaying or providing a negative influence within one's sphere of influence within the organization.

The research by Ramanujam and Venkatraman (1987) indicated that the reliability, as measured by the Cronbach Alpha (CA) were as shown in Table 2.

Table 2
Original Cronbach Alpha Scores

Constructs	C.A.
Resistance to Planning	0.614
Resources Provided	0.597

The next category of dimensions is the Systems Design Dimensions. This category, along with Contextual Dimensions, forms the overall section of planning entitled Planning Characteristics. The authors have synthesized this list from the general strategic management literature. This is important as this approach to analysis provides for the first time the recognition that strategic planning has a multi-dimensional nature. These systems are ingrained into the context of the organization. It is important to note that these elements or dimensions of planning have been distilled from the greater body of research. Also, and perhaps more important, these dimensions are relatively within the control of the management of the firm. Through discriminant analysis a distinction will be made as to which dimensions within Planning Characteristics are more and less effective.

The first element within the System Design Dimension is the Attention to Internal facets. This will be a measure of the degree to which a firm places emphasis on internal organizational factors such as these shown in Figure 18:

- Past performance
- Analysis of Strengths
- Analysis of Weaknesses

Figure 18
Key Organizational Factors

The deliberate nature of strategic planning requires the planners to assess their recent historical performance along with analysis of their current position. Throughout this analysis there should be an effort to highlight one's strengths and weaknesses. This work is absolutely vital to the success of one's strategic planning effort. Failure to adequately address these areas will place the firm in a tenuous competitive position. A balanced approach to both strengths and weaknesses is required to assure a full disclosure or audit. Authors Ramanujam and Venkatraman found the Cronbach alpha reliability factor to be 0.540 for this construct. They used a five-point interval scale ranging from significantly less emphasis to significantly more emphasis.

The next construct is attention to external facets. This is a measure of the level to which a firm monitors their external environment. Perhaps one of the more important aspects of this is that a firm should attempt to adapt to environmental pressures and needs. The survey resulted in a reliability coefficient of 0.613. The survey instrument measured responses on a five-point interval scale. The ranges were from significantly less emphasis to significantly more emphasis on items including general trends and

conditions within the economy and business overall. It also recognized regulatory issues, which are very important to the higher education community. As noted earlier, international competition is also an important aspect in planning and this is captured in this section. Additionally, supplier and technological trends are measured in this area.

The next construct within System Design Dimensions is Functional Coverage and Integration. This is an area that measures the degree or level of emphasis a firm accords to various functional areas of planning. Different types of firms vary their emphasis depending on their competitive position within their industry. Some firms will emphasize customer service, product differentiation, price and volume. It is regarded that a balanced emphasis on most all the areas is important to firms that see general management as a key to their success. The original author's research indicates a reliability factor of 0.772. The same five-point scale was used to measure one's marketing function, operations/manufacturing function, finance, personnel, purchasing/procurement, research and development, technology and the computer/MIS function.

The final construct in this section is Techniques. This construct measures the use of analytical techniques and methodologies used to help the manager deal with problem identification and strategic decision making. This area also measures one's degree or the extent to which the overall planning process may be characterized as formal. The survey, using the same five-point interval scale, measured the use of techniques such as BCG, PIMS, financial models, zero-based budgeting, PERT/CPM. A reliability coefficient of 0.834 was obtained.

Outside of resources provided to the planning function and resistance to the planning function, use of techniques has the highest criterion (canonical weight, or coefficient of variables in the canonical variate) as a prediction and also had the highest percentage of explained variance.

The second of two characterizations is Planning Systems Effectiveness. This is a measure of effectiveness with the three overall sections; System Capability, Objective Fulfillment and Relative Competitive Performance. Effectiveness variables were all measured by a five-point Likert scale, ranging from much improvement to much deterioration. The twelve items captured in this area are listed in Figure 19.

1. Ability to anticipate surprises and crisis
2. Flexibility to react to change
3. Mechanisms to identify new opportunities
4. Identification of key problem areas
5. Tools for managerial motivation
6. Means to generate new ideas
7. Ability to communicate top management expectations down the line
8. Management control tools
9. Fostering organizational learning
10. Ability to communicate line management to upper management
11. Ability to integrate diverse functions and operations
12. As a basis for enhancing innovation
13. Today's system emphasizes creativity

Figure 19
Key Effectiveness Variables

The analysis of data resulted in a reliability coefficient of 0.871. The authors noted that numbers 1,2,3,6,9,12 and 13 essentially tap the creative aspects of the planning system. The remaining items cluster around the control orientation of the planning system. They treated these as homogenous factors because the two factors were highly and positively correlated.

The next category is Objective Fulfillment which measured on a scale of entirely unfulfilled to entirely fulfilled on six items in Figure 20.

1. Improvement in short term performance
2. Improvement in long term performance
3. Predicting future trends
4. Evaluating alternatives based on more relevant information
5. Avoiding problem areas
6. Enhancing management development

Figure 20
Objective Fulfillment Elements

These items form an appropriate an aggregate conceptualization of fulfillment. These six items combine a balance of intangible objectives. The data analysis resulted in a reliability coefficient of 0.748.

The final category is Relative Competitive Performance. This is a very important construct as it seeks to examine the impact of planning on organizational performance. After all, there is the common feeling that the final measure of one's effectiveness is in the level of organizational performance. The four items measured in this area are shown in Figure 21.

1. Sales growth (student enrollment growth)
2. Earnings growth (tuition revenue growth)
3. Market share change
4. Return on investment (budget surplus)

Figure 21
Organizational Performance Measures

The survey, using the five-point interval scale resulted in a reliability coefficient of 0.953.

Hypothesis

The purpose of this research study is to validate the findings of the original authors along several of their key design and contextual dimensions.

The first statistical hypothesis seeks to relate the concept of the planner versus the non-planner along the effectiveness dimension.

$H_0$1: There is no statistical difference between colleges classified as formal planners and colleges classified as non-planners when compared to the variables in the effectiveness dimension.

The second hypothesis seeks to relate the variables in the contextual and design dimensions of the planner and non-informal planner.

$H_0$2: There is no statistical difference between colleges classified as formal planners and non-planners when compared to the variables within the contextual and design dimension.

The third hypothesis seeks to relate the size of colleges to the effectiveness dimension.

$H_0$3: There will be no statistical difference between large colleges and small colleges along the variables in the effectiveness dimension.

Colleges have been classified by large and small enrollments. The method used to determine this was based on what is accepted in colleges in Texas. This was determined through interviews with college leaders in the positions surveyed for the research. The original, or base, theory discriminated on size based on the Fortune 500 categories.

Data Collection

The survey instrument has been modified from the work of Ramanujam and Venkatraman work and from a more recent dissertation on this topic (Gilbertson, 1989). This research is directed to the higher education community within Texas. The population consists of the segmentation shown in Table 3.

Table 3
Population Environment

42	private colleges and universities
4	state technical colleges
109	comprehensive community colleges
35	public universities
190	total

Since the research is focused on the perceptions within higher education, not specific types of colleges, three top-level administrators were contacted at each institution. The survey was formatted for distribution through the U.S. mail. Several methods for determining the sample size follow. The first method is shown in Table 4.

Table 4
Estimated Number of Usable Surveys

(Colleges) x (contacts) x (return rate) = n

(190) (3) (18%) = 102 to

(190) (3) (25%) = 142.

A range of 102 to 142 useable survey returns is expected.

The actual return rate was 51.9%, much higher than anticipated and much higher than the minimum number required for reliable statistical analysis.

The Sample and Analysis

As noted above, the returns from the sample population was more than sufficient based upon the following examples. The primary statistical tool will be discriminant analysis. In Multivariate Data Analysis, (1995) authors Hair, et al, state, " sample sizes of 100 will detect fairly small R^2 values (10 to 15 percent) with up to 10 independent variables and a significance level of .05".

In Marketing Research, (1987) authors Tull and Hawkins suggest:

$$N= Z^2C^2 / R^2 = 68,$$

where C=0.5 is the coefficient of variation, Z is 1.65 and R=0.1 is the allowable error.

In Discriminant Analysis When Covariances are Unequal and Sample Sizes Moderate, authors Wahl and Kronmal suggest the following data in Table 5.

Table 5
Estimated Number of Survey Needed

Variables	N needed (cumulative)
1 to 4	25
6	50
7	75

Finally, Gilbertson (1989), doctoral student at University of North Texas, used a sample size of 50 when testing the same base theory in the social service sector.

The first part of the analysis of data was to conduct typical descriptive statistics, such as means and frequencies. The more detailed analysis includes the use of discriminant analysis to determine the significance of differences for the dimensions of the study. Cronbach Alpha analysis was employed to determine the reliability of the dimensions. Comparisons of these values are made to the original data sets from the first theorists.

Chapter IV

ANALYSIS AND PRESENTATION OF FINDINGS

Results

This chapter shall review the nature of the research and the sample population. The chapter commences with a description of the defined population and its fundamental characteristics. The next section shall examine the nature of the survey and its reliability. This section will also provide comparisons to the original authors work as well as with some other research conducted with other populations.

Survey Population and Sample Characteristics

The population for this research represented colleges and universities within the state of Texas. This included both public and private institutions at the two and four year level as well as technical colleges. The contact information for each institution was obtained through the Internet, at the Texas Higher Education Coordinating Board Web site. This source provided very accurate contact information regarding addresses, titles and names. Contacts for survey administration in each institution were the president, Chief Academic Officer and the Finance Officer. The purpose for the multiple contacts was to provide more than one perspective for the data submission. Each of these officials have a strategic institutional view which is fundamental for this research.

The total number of institutions in Texas is 190. The sample taken from the population was 165. The survey was mailed to each person in the positions noted above. The web site provided the contact information, by name, so that each mailed survey was appropriately addressed. A survey was mailed to the three institutional officers. This resulted in a mailing of 495 surveys.

The number or returned surveys was 257, resulting in a 51.9% return rate. This far exceeded this authors initial expectation. Several key points are thought to have contributed to the high return rate. First, this research topic is one that is one the minds of top level administrators. Second, the surveys were mailed using the proper name and title, to campus officials aiding the delivery process.

After discarding thirteen surveys due to their incompleteness, the net number (n) of usable surveys is 237, or 48% of the original mailing.

Table 6 provides an overview of the relative sizes of the respondent's campus.

Table 6
Respondent Enrollment Characteristics

Enrollment	Percentage of Respondents
Less than 1,000	8.4
5,000	65.4
>10,000	26.2

Table 7 provides an overview of the type of institutions that were included in the survey and those which where part of the analysis. Even though the author is including this information as part of the research or hypotheses, it does provide a perspective about the data, as well as potential follow-up research.

Table 7
Respondent Institute Type

Institution	Percentage of Respondents
2 Year Institution	48.4
4 Year	37.7
Research based	13.9

Questionnaire Reliability

Although the same basic questionnaire was used in this research as the original authors, it was imperative that this author perform a test of the reliability of the survey. This was done in much the same manner that was used by the originals authors. Table 8 indicates the measures used.

Table 8

Cronbach Alpha Values
On
System Dimensions

Dimension	Alpha	Alpha From Original Study
Resistance	.572	.614
Resources	.721	.597
Attention/Internal Envir.	.855	.540
Objective Fulfillment	.854	.748
Attention/External Envir.	.525	.613
System Capability	.793	.871
Techniques Used	.764	.834 (n= 237)

This study has been conducted on a different population from the original authors work. Therefore, it is reasonable to assume that Cronbach's reliability coefficients for these constructs would be different. Reliability measures the internal consistency of the constructs above, indicating the level at which they have a common latent construct. The threshold for acceptance is two-fold. For exploratory research, levels at the .5 level are acceptable. Research conducted with an expectation to make management decisions is set at the .7 level. (Hair, Anderson, et al,

1995: Nunnally, 1978) In this study, five of the seven values exceeded the .7 threshold and the remaining two exceeded the .5 threshold.

Planners versus Informal Planners

The survey items distinguished the sample between planners and informal planners. The definition relates to one's length in looking forward for planning issues (Odom-Boxx, 1988) by at least three years. The results of this analysis appear in Table 9.

Table 9

Planners and Informal Planners

Group	n	%
Planner	200	84
Informal Planner	37	16

It is apparent, but not surprising, that a very large percentage of respondents to this survey are considered to be planners. This could be influenced by planners having a greater tendency to respond to this type (content) of survey.

Satisfaction was also measured. A cross tabulation indicates that a large percentage of the planner category are either satisfied or very satisfied with their current planning system. Table 10 summarizes this outcome.

Table 10

Satisfaction of Planners with their Planning System

Response	n	%
Satisfaction	140	70
Unsatisfied	25	12
Unsure	35	18

Another critical aspect of planning is the time one has to devote to the planning function. This analysis considered all respondents. As table 11 indicates, more respondents believe there is insufficient time to adequately plan. Additionally, if one considers those that responded as neither satisfied or unsatisfied, a full 60% respondent found time to be a significant barrier in developing strategic plans.

Table 11
Time To Plan

Sufficient Time Commitment	n	%
Agree	95	40
Disagree	107	45
Unsure	35	15

Closely related to this is the constraint of having sufficient resources available for the activity. As Table 12 indicates, a majority believed there were sufficient resources at hand to carry out the planning process.

Table 12
Availability of Resources
Sufficient

Resources Available	n	%
Agree	133	56
Disagree	62	26
Unsure	42	18

A further interesting aspect of the nature of planning is the internal attitude toward the planning activity. The first perspective of this is the emphasis for long term planning on one's campus. As table 13 indicates, there was an overwhelming positive attitude toward the planning function.

Table 13
Positive Campus Emphasis on Planning

Response	n	%
Agree	163	69
Disagree	40	17
Unsure	34	14

Closely related to this aspect is the level of resistance to the planning function on one's campus. The results of this analysis is consistent with the data above.

Table 14 indicates a pervasive feeling that resistance to planning is not widely observed.

Table 14
Resistance to Planning Exists

Response	n	%
Agree	32	14
Disagree	169	71
Unsure	36	15

The concept of uncertainty or change is a major consideration in the planner's system. As noted in chapter two, this aspect is believed to be a key reason for many people not committed to a long term plan. (Hertzberg, 1988) Table 15 supports the thought that uncertainty is a considerable force to deal with.

Table 15
External Change Is Unpredictable

Response	n	%
Agree	192	81
Disagree	16	7
Unsure	29	12

Disriminant analysis was performed to test the assumption that long term planners were correctly classified by the actual survey data. The results of this analysis, shown in Table 16, indicates that a very high level of accuracy was measured, well above what one would expect from mere chance, 50%.

Table 16
Categorization Results of Planner and Non-Planner

Planner	Planner	Informal Planner
Yes	73%	27%

Seventy-three percent of the original grouped cases were correctly classified along the lines of Planners and Informal Planners.

H01: There is no statistical difference between colleges classified as formal planners and colleges classified as Informal Planners when compared to the variables in the effectiveness

Discriminant analysis was used to study the predictive values of the variables within the effectiveness dimension. Table 17 indicates the top three variables when correlated with the effectiveness dimension.

Table 17
Planning Effectiveness

Variable	Correlation Factor Planner
Improve long term performance	.965
Trend analysis	.784
Evaluate alternatives	.611
Identify problem areas	.537

These variables are ordered by their absolute correlation size as provided through discriminant analysis. It is apparent that the category of planners find long term performance of

the college to be the major factor in their planning system. Secondly, their ability to plan for and recognize future trends is greatly enhanced in their long term planning. The third variable, evaluating alternatives, indicates a correlation that aids the planner in evaluating alternative courses of action. The fourth variable, identifying problem areas, shows a weak correlation.

Group Statistics analysis indicates that of the 17 variables in this dimension, only six were found to be significantly more important for planners than Informal Planners, as shown in Table 18.

Table18
Six Significant Variables For Planners Versus Non-Planners

Variable	Planner	Informal Planner
Improve innovation and creativity	3.78	2.94
Improve long term performance	3.83	3.03
Create new ideas	4.23	3.44
To measure progress towards goals	3.97	3.19
To predict future trends	3.60	2.94
To improve short term performance	3.80	3.22

The next statistical test run was a classification of results based on the predicted versus actual classification. The results are summarized in Table 19.

Table 19
Classification of Planner and Informal Planner

Category	Planner	Informal Planner
Planner	77.9%	22.1%
Informal Planner	40.5%	59.5%

Classification analysis was performed for this hypothesis to determine the accuracy of classifying planners and informal planners. This analysis indicates a classification rate, 78%, which is significantly higher than mere chance, 50%

The test for equal population covariance matrices, as shown below, for Box's M was not significant enough to reject the hypothesis. This implies that the test failed to reject the null hypothesis. The results are summarized in Table 20.

Table 20
Discriminant Analysis Results Of Classification

Box's M	Approximate F	D.F.
90.517	3.68	12278.577

H02: There is no statistical difference between colleges classified as formal planners and Informal Planners when compared to the variables within the contextual and design dimension.

This analysis contained seven variables for the dimension. Of the seven, four were found to be significant, as indicated in Table 21.

Table 21
Mean Scores

Variable	Planner	Informal Planner
Strong emphasis on planning	3.90	2.97
Necessary resources provided for the planning effort	3.44	2.73
Board of Directors readily accepts long term plans	3.98	3.24
College is resistance to planning	2.05	2.68

The first three variables above fit the model as one would expect. One would suppose that planners would find a receptive environment to do their work. Additionally, an environment that supports the planning function is likely to provide the needed resources.

While the analysis of the fourth item above is in the expected direction, I would have expected a larger gap in the means of the Planner and the informal planner. The standard deviations for these were also quite similar. The remaining variables did not contribute any further significance to the analysis.

Analysis of the discriminant function and the relative usefulness of each variable was accomplished through the Structured Matrix method. This provides within-group correlations of each predictor variable. The top four variables are indicated in Table 22.

Table 22
Variables and Coefficients

Variable	Structure Matrix Coefficient
Board of Directors accepts plans	.810
Strong emphasis on planning	.791
Adequate resources provided	.608
Resistance to planning	-.568

Classification analysis was performed for the second hypothesis. Predicted group membership, shown in Table 23, was run to determine if the results were better than mere chance, 50%.

Table 23
Predicted Group Membership

Group	Planner	Informal Planner
Planner	73.1	26.9
Informal Planner	29.7	70.3

As indicated above, the discriminant analysis correctly predicted the planner 73.1% of the time. A slightly lower value was obtained for the informal planner, at 70.3% of the time. In both cases, the results are far better than mere chance of 50%

Box's M statistics tests the null hypothesis of equal population covariance matrices. Table 24 indicates that the significant level was not large. Therefore, the test for equal population covariance matrices, as shown below, for Box's M was significant enough to accept the hypothesis. However, the interpretation is ambiguous since the test results could be due to small difference in covariances with a large sample size, or because the data may be non-normal. Discriminant analysis may be informative, but one must consider if the results carry high confidence.

Table 24
Discriminant Analysis Results Of Classification

Box's M	Aproximate F	D.F.	Significance
65.4	1.068	13,581	.034

H03: There will be no statistical difference between large colleges and small colleges along the variables in the effectiveness dimension.

A cross tabulation of the planner versus satisfaction indicates that a full 70% of the group classified as Planners are either satisfied or very satisfied with their planning system as shown in Table 25. This compares to a mere 35% of those categorized as Informal Planners that are either satisfied or very satisfied with their planning system.

Table 25
Respondent Satisfaction with Current Planning System

Variable	Planner	Informal Planner
Satisfaction	70%	35%

With planning system

A cross tabulation of satisfaction with the current planning system and college size reveals little statistical difference, as noted in Table 26.

Table 26
Enrollment and Satisfaction Levels

Variable	Large	Small
Satisfied	50%	60%

From the seventeen variables in the effectiveness dimension, only the four shown in Table 27 appear to be useful as indicated through Group Statistics analysis.

Table 27
Effectiveness Variable Scores

	Mean Scores (5)	
Variable	Small college	Large college
Improve short term performance	3.35	3.51
Improve long term performance	3.20	3.61
Develop alternatives	3.25	3.60
Evaluate future trends	3.35	3.30

There is very little difference between the mean scores, as noted above.

The Structure Matrix analysis indicates approximately four significant within-group correlations for the usefulness, shown in Table 28.

Table 28
Structure Matrix Values

Variable	Planner	Informal Planner
Ability to anticipate change/crisis	.755	-.044
Improve short term performance	.705	.359
Identify problem areas	.644	.324
Predict future trends	.570	.038

Box's M statistic indicates that the null hypothesis should not be rejected.

Table 29
Discriminant Analysis Results Of Classification

Box's M	Approximate	D.F.	Significance
80.92	1.307	9617.39	.062

Summary

The various statistical tests used and analyses result in support of most hypothesis. In some cases, it became apparent that several variables contributed little to no support of the overall theory. As in the other studies done with this theory, the analysis of size of the organization offers little separation to distinguish between dimensions.

CHAPTER V

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

Summary

Generally, this research supports many of the aspects of the work of the original authors, Ramanujam and Venkatraman. While not all the variables in all dimensions were statistically significant, there were four that did test to be significant. These results are consistent with past studies of the model.

The first hypothesis, which tests for a difference between the planner and non-planner along the lines of organizational effectiveness, was accepted. This is consistent with the original author's model. Only four of the six variables in this dimension were significant. The classification test for this dimension was quite accurate with approximately 80 percent of the cases being properly categorized as planners. Past research indicated a rate of approximately 50 to 60 percent.

The second hypothesis was a test of the relationship between a planner and the non-formal planner within the contextual and design dimensions. There are seven variables in the dimension but only four were found to add support to the original model. One finding that surprised this author was a lack of a statistical difference or gap between the planner and the non-planner with respect to the variable indicating resistance to the planning effort at the campus. Earlier studies found this gap to be more distinctive. An organization that offered little resistance was also categorized as a planner. The opposite was also true in their study, those organizations that displayed high resistance to

planning falls into the non-planner category. These results may reflect the spread and acceptance of formal strategic planning into smaller universities and colleges.

There was a notable gap between those colleges and universities classified as planners and the amount of emphasis placed upon the planning effort. The relationship of the planner and the emphasis placed on planning within the college was a direct relationship. While this may seem to be intuitively obvious, it is consistent with one of the important findings. Ramanujam and Venkatraman (1987) also considered this finding to be important.

The third and final hypothesis tested the effectiveness dimension between large and small colleges. An analysis of the effectiveness variables over large and small colleges resulted in little distinction. The research was unable to provide the statistical difference or distinction that Ramanujam and Venkatraman (1987)and others obtained within their sample population. This was unexpected.

Respondents also reported on their level of satisfaction with the current planning system on the campus. There proved to be little statistical difference between the large and small college when reporting their level of satisfaction with their current planning system. Past research also failed to distinguish between firm size.

Without a distinction to college size, the planner is by far the most prevalent respondent in this study. Overall, respondents fit into the planning category by 84 percent. This rate is higher than past studies. Also, reporting at a greater rate is the satisfaction level of the respondents. It was surprising to this author that the responses by planners indicate, approximately 70 percent were satisfied with their current planning

model on their campus. Only 18 percent reported they were unsure of their level of satisfaction.

Another perceived constraint to the planning effort is the time one has to devote to the effort. This has consistently been noted in research literature as a detraction from one's planning work. Therefore, the author would have thought that time to plan would be reported here as an important variable. However, it did not turn out to be statistically significant. In fact, just looking at this variable by itself, the respondents were almost evenly split over sufficient time available for the planning effort. This may lend support to the idea that the issue of time is sometimes used as a pseudo-constraint.

Another variable the original authors included was a business unit having sufficient resources available to support the planning effort. Surprisingly, approximately 56 percent of the respondents felt there were sufficient resources to accomplish their planning work. One would expect this to have been higher, especially when a majority of respondents were classified as a large college or university and would have greater access to resources. Past studies found that larger organizations tended to have greater access to resources. While these results were unexpected, they might reflect the spread and acceptance of formal strategic planning into smaller colleges and universities.

Surprisingly only four variables contributed to the overall dimension of planning effectiveness. This is also consistent with past research. The significant variables are, improvement in long term performance, analysis of important trends, ability to study alternatives and last, identification of problem areas.

One variable in the model evaluated the level of use of scientific techniques a firm may use in their planning work. This variable also determined the variety of such

techniques one may use in their work. Analysis of this variable indicated a lower level of sophistication and variety than expected from higher education institutions. One would have expected this population to use more formal methods in their. This leaves significant room for further work to find more relevant variables for this dimension.

Under the Contextual and Design Dimension, the top four contributing variables were, the acceptance of plans by the Board of Directors, a strong emphasis on planning, sufficient resources being provided and the amount of institutional resistance to the planning work. The presence of these four variables appears to be rational as one thinks about the context each college campus has and the aspects of their planning model design.

Conclusions

First, the research has expanded and added to the base theory by bringing in a new and different type of sample population. This expansion provides more support for the original model. It also lends credibility to the base theory. The lack of importance from several variables in this study will aid future research in determining more appropriate variables.

The response rate to the survey was very good. The high response rate to the survey was assumed to have been motivated by two factors. First, there is interest in the research topic by contemporary college administrators. Limited resources coupled with many public institutions under scrutiny make this topic one of current interest. Private colleges are under similar constraints as they try to keep cots and tuition increases as low as possible. Second, the author used the Internet to prepare the mailings to the

institutions. The Internet was useful in finding current names, titles and addresses for mailing to each administrator. This solid base of respondents adds to the credibility of this research since the useable responses were far above the calculated theoretical minimum required for reliable analysis.

Several of the variables in each dimension did not lend support to the theory. This is not in contradiction with past research as others also found some inconclusive results. One would also expect that the universality of a theory at some point lessens when tested on new populations.

An overall conclusion that is supported here is the original premise of Ramanajum and Venkatraman that strategic planning must be considered as multi-dimensional. This was a major break in the long tradition of assumptions within the field of strategic planning. Earlier research assumed strategic planning to be uni-dimensional and simply attempted to find if strategic planning really paid for the firm.

Limitations

While the magnitude of respondents was very high, the homogeneity of some opinions found throughout colleges and universities within a single state or geographic location may influence the results. In fact, a large percentage of respondents in this study, 78 percent, were classified as planners at the outset.

Respondents to the survey involved three top-level executives on each campus. The study did not intend to determine if disparate opinions existed on individual campuses. Therefore, data collected were not categorized by administrative position or by specific college name or type of institution.

Recommendations

First, additional research should be done to improve upon the variables within each dimension. This would include finding those variables that are excluded from analysis because they do not contribute to the model. Once the variables that did not contribute to the model are removed research can seek out new, more relevant variables. This will also provide an increase in the reliability within each dimension of the complete model.

Second, the idea of change and uncertainty in one's business is one that can be exploited in this theory. This is an emerging area of concern and provides significant challenges for many businesses and for the higher education community.

Third, additional study should be done to include institutions from across the U.S. to see if the reliability of the study increases when the population is less homogeneous from what may find by studying institutions in a single geographic area.

APPENDIX A

Please indicate your level of agreement with the following statements about your general elements of planning.

Scale:1 = strongly disagree; **2** = disagree; **3** = neither Disagree nor agree; **4** = agree; **5** = strongly agree.

	Circle your response				
1. As an executive, I have ample time for formal long-term planning.	1	2	3	4	5
2. Program deans or other mid-level managers are very involved in formal long-term planning.	1	2	3	4	5
3. Staff members, such as accountants, are very involved in formal long term planning.	1	2	3	4	5
4. The board of directors is very involved in formal long-term planning.	1	2	3	4	5
5. Necessary resources such as materials, time, or consultants are provided for formal, long-term planning.	1	2	3	4	5
6. There is a strong emphasis on formal, long-term planning in our college.	1	2	3	4	5
7. The board of directors readily accepts the results of the long-term planning process.	1	2	3	4	5
8. Overall, our college is resistant to planning.	1	2	3	4	5
9. There are forces or circumstances that threaten the likelihood of long term formal planning.	1	2	3	4	5
10. When planning we examine the college's strengths and weaknesses.	1	2	3	4	5
11. When planning, we examine reasons for past failures and success.	1	2	3	4	5
12. When planning, we assess staff members' areas of professional expertise.	1	2	3	4	5
13. When planning, we evaluate the college's present organizational structure.	1	2	3	4	5
14. When planning, we review the college's current performance.	1	2	3	4	5
15. The recourses we need to attain our goals are difficult to obtain.	1	2	3	4	5

16. There are many parts of the environment external to our college that we have to consider when planning.	1	2	3	4	5
17. The parts or sectors of the external environment that we have to consider when planning are constantly changing.	1	2	3	4	5
18. The changes that are taking place in the environment external to our college are not predictable.	1	2	3	4	5

Consider the following statements in light of your *current* planning system and the role it plays in your college
Use the same scale of **1** = strongly disagree, **2** = disagree, **3** = neither disagree nor agree, **4** = **agree**, and **5** = strongly agree.

	Circle your response				
"Our present planning systems allows us..."					
19. To anticipate surprises and/or crises.	1	2	3	4	5
20. To be flexible to adapt to unanticipated changes.	1	2	3	4	5
21. To identify new opportunities.	1	2	3	4	5
22. To identify key problem areas.	1	2	3	4	5
23. To stimulate managerial motivation.	1	2	3	4	5
24. To generate new ideas.	1	2	3	4	5
25. To communicate top management's expectations down the line.	1	2	3	4	5
26. To measure progress toward goals	1	2	3	4	5
27. To communicate line management's concern to top management.	1	2	3	4	5

28. To integrate diverse functions and operations.	1	2	3	4	5
29. To enhance innovation and creativity.	1	2	3	4	5
30. To improve short-term performance.	1	2	3	4	5
31. To improve long-term performance.	1	2	3	4	5
32. To predict future trends.	1	2	3	4	5
33. To evaluate alternatives based on more relevant information.	1	2	3	4	5
34. To avoid problem areas.	1	2	3	4	5

The following are a variety of techniques used to improve one's decision making process. Please indicate the level of importance, for each technique, each one plays in your planning process. **1**= very important, **2**= important, **3**= little importance, **4**= not important. Use a number 5 to indicate "not applicable".

	Circle your response				
35. Brainstorming	1	2	3	4	5
36. Zero based budgeting	1	2	3	4	5
37. Trend impact analysis	1	2	3	4	5
38. Econometric models	1	2	3	4	5
39. Use of staff specialists to investigate and write reports on major decisions.	1	2	3	4	5
40. Operations research techniques such a linear programming and simulations	1	2	3	4	5

41. Stakeholder analysis (single interest groups which place demands on the college	1	2	3	4	5
42. Judgement and experience	1	2	3	4	5
43. Scenario building	1	2	3	4	5
44. Project management techniques (PERT/CPM)	1	2	3	4	5
45. Delphi or nominal group technique	1	2	3	4	5

Yes = 1 No = 2

46. Does your college prepare a written plan covering one year or more? If 'no' please go to number 49	1	2
47. Does your plan include specific goals?	1	2
48. Does your plan specify programs, budgets, and responses required to meet specific goals?	1	2
49. Does your college prepare a written long- range plan covering at least three years? if no, go to number 51.	1	2

Yes = 1 No = 2

50. Does your long-range plan include a plan of action for accomplishing the long range goals?	1	2

51. Type of college: A: 2 year b: 4 year c: 4 Yr/Research

52. Are you satisfied with your present planning system? Scale: 1 = very dissatisfied; 2 = dissatisfied; 3 = neither dissatisfied nor satisfied; 4 = satisfied; 5 = very satisfied.	1	2	3	4	5

APPENDIX B

SURVEY LETTER

Dear Dr. :

As an experienced leader in higher education, I ask for your help by completing the enclosed survey. I am a graduate student completing the requirements for a doctorate in management science.

My dissertation is a study of strategic planning in higher education. This study will evaluate the efficacy and key components found in strategic planning for colleges and universities in Texas.

This research will not identify any specific person or institution, public or private, but will study the influence of strategic planning found within the population.

The survey should take less than 10 minutes to complete. Again, all data and institutions shall be kept confidential. My interest is to study the population as a group, not on an individual basis.

Thank you in advance for your participation. If you would like a copy of the data, please enclose a business card, or other appropriate contact information.

Sincerely,

Timothy Staley

Enclosure (1)

STALEY_DAL@YAHOO.COM

APPENDIX C

SURVEY VARIABLES

Variable	Type
X_1: Attention to Internal Facets	Independent/metric
X_2 : Attention to external Facets	Independent/metric
X_3 : Functional Coverage	Independent/metric
X_4 : Techniques Used	Independent/metric
X_5 : Resources Provided	Independent/metric
X_6 : Resistance to Planning	Independent/metric
X_7 : Size of College	Dependent/no-metric
X_8 : Objective Fulfillment	Dependent/metric
X_9 : Relative Competitive Position	Dependent/metric
X_{10} : System Capability	Dependent/metric

APPENDIX D

VARIABLE AND QUESTION LINKAGE

VARIABLES: TYPE AND RELATION TO SURVEY INSTRUMENT

VARIABLE	TYPE	SURVEY QUESTION #
X_1: Attention to Internal Facets	Independent/metric	10,11,12,13,14
X_2 : Attention to external Facets	Independent/metric	15,16,17,18
X_3 : Techniques Used	Independent/metric	35,36,37,38,40, 41,42,43,44,45
X_4 : Resources Provided	Independent/metric	1,2,3,4,5,39
X_5 : Resistance to Planning	Independent/metric	6,7,8,9
X_6 : Size of College	Dependent/no-metric	51
X_7 : Objective Fulfillment	Dependent/metric	31,32,33,34
X_8 : System Capability	Dependent/metric	19,20,21,22,23,24,25, 26,27,28,29,30,42

VARIABLES	CATEGORY
1,2,3	System Design Dimensions
4,5	Contextual Dimensions
6	College Type
7,8	Effectiveness Dimensions

APPENDIX E

TABULAR DATA

Time	Mid-Level	Staff level	BOD	Resources	Str. Emphasis	BOD Accept	Res. To Pln	Forces agnst
2	3	5	2	5	4	3	2	8
1	2	2	4	2	3	3	3	4
4	5	5	4	4	5	4	2	2
3	4	4	3	4	4	3	2	1
2	3	3	4	3	4	4	2	4
5	4	3	5	4	4	4	3	2
3	2	4	4	3	3	4	2	4
2	4	4	4	4	5	5	1	3
4	4	4	3	2	4	3	2	2
4	4	4	5	4	4	4	2	2
2	4	4	5	4	4	3	2	3
1	1	1	1	1	1	5	1	4
3	4	4	5	4	5	4	1	2
4	5	4	4	4	5	4	2	2
2	4	4	3	5	5	5	1	2
2	5	4	5	2	4	4	1	4
4	5	3	5	4	4	4	4	1
4	3	1	3	4	5	5	1	1
2	4	4	2	4	5	5	1	4
5	5	2	3	1	5	5	1	1
2	4	2	3	2	2	4	2	4
3	4	2	4	4	5	5	2	1
2	2	2	4	4	4	4	2	4
2	4	3	1	4	4	1	3	4
3	2	2	2	2	1	5	3	4
4	5	4	5	4	4	5	1	2
2	4	4	3	2	4	4	2	2
2	5	4	3	2	5	4	3	4
1	4	2	5	2	2	2	3	2
4	3	3	5	3	5	5	1	2
1	4	4	4	2	5	5	2	4
5	5	3	5	4	5	5	1	4
4	5	2	5	2	4	4	1	2
2	5	5	4	5	5	4	1	4
3	5	4	5	5	5	5	1	2
3	4	4	3	3	4	4	1	1
4	4	4	5	5	5	5	1	2
4	3	3	4	4	4	4	1	2
4	5	5	5	4	5	3	2	2
4	3	2	3	3	4	4	3	2
5	5	4	3	5	5	5	1	2
4	4	4	5	4	4	4	1	3
5	5	4	4	4	4	4	2	2
4	4	3	5	5	5	5	1	2
2	5	4	4	4	5	5	1	3
5	5	5	4	4	4	4	2	2
4	4	2	3	4	4	5	2	2
2	4	4	1	3	3	4	2	3
4	4	4	3	4	2	4	4	5
5	4	4	5	4	5	5	1	1
2	5	2	5	4	5	4	1	1

Stren/Weak	Pst failures	Stff exper	Org Structure	Current Perf	Res not av	Ext envir	Ext envirchan	Unpredic.
4	4	4	4	4	3	5	5	4
4	2	4	3	4	5	4	5	5
4	3	5	5	5	2	5	4	2
4	4	2	5	5	2	4	4	2
5	5	5	4	4	2	4	4	2
4	3	3	4	4	2	4	2	2
4	4	3	4	4	3	4	4	3
5	4	4	4	5	1	5	5	3
4	4	4	4	4	3	4	4	3
5	5	4	4	5	2	4	4	2
4	4	4	4	4	2	4	4	2
5	5	1	5	1	5	5	5	1
5	4	4	4	5	3	4	4	3
4	4	4	4	4	4	4	4	4
5	5	4	4	5	5	5	5	4
5	5	5	5	5	4	5	2	4
3	1	1	4	2	3	1	3	3
4	4	4	4	4	1	4	3	2
5	5	4	4	4	4	4	2	4
5	1	2	2	2	5	5	5	4
5	5	4	4	4	5	4	4	3
4	4	2	4	4	3	5	5	3
4	4	4	4	4	4	4	4	3
4	4	4	4	4	4	5	5	4
2	3	3	4	3	4	4	4	3
5	4	5	5	5	4	5	5	4
4	2	2	4	4	4	5	4	4
4	4	4	3	4	5	4	4	3
4	4	3	4	4	5	4	4	4
4	4	4	3	5	2	5	5	2
5	5	4	4	4	5	5	5	5
5	4	3	4	4	4	4	5	4
4	4	4	4	4	3	5	4	4
5	5	5	5	5	4	5	5	2
5	5	4	4	5	2	5	3	2
4	4	4	4	4	5	4	3	3
4	4	4	4	4	2	5	4	2
4	3	4	4	4	2	5	2	2
5	4	4	4	5	5	5	5	5
4	2	2	2	2	5	4	5	4
5	4	2	4	4	4	4	4	2
4	4	4	4	4	4	4	4	3
4	4	4	5	4	2	4	3	3
5	5	5	5	5	4	4	5	3
5	3	4	4	5	4	2	5	2
5	5	4	4	4	4	4	4	3
5	5	4	5	3	4	5	3	2
5	5	4	3	5	4	4	4	3
4	4	4	4	4	4	4	4	4
5	5	4	5	5	2	5	5	4
5	5	5	4	5	5	5	5	4

Chng/crisis	Flexible	New Oppor	Key Prob	ManMotiva	New Ideas	Expec Down	Plot progr	Upward Comr
2	2	4	5	4	4	3	4	4
4	4	2	2	5	5	5	2	5
2	2	5	2	3	3	3	4	2
3	4	5	5	4	5	4	5	4
4	4	4	3	2	3	5	5	2
4	4	4	4	3	4	4	4	4
3	3	4	4	2	3	3	4	3
3	4	5	5	4	4	4	5	4
3	4	4	4	4	4	5	4	2
4	4	5	5	5	5	5	5	4
2	4	4	4	4	4	4	4	4
5	5	5	5	5	5	5	5	5
2	3	4	4	4	5	4	4	3
4	4	4	4	4	4	4	4	4
4	4	4	4	3	5	4	4	5
4	4	5	4	2	4	4	5	4
1	1	4	4	1	4	3	4	3
5	5	5	5	5	5	4	4	4
2	4	4	4	4	4	4	4	4
3	3	5	3	3	4	4	4	2
2	4	4	4	4	4	4	4	4
4	4	4	4	4	4	5	4	2
4	4	4	4	3	4	4	4	4
3	3	4	4	4	4	4	3	3
3	3	3	2	4	3	3	4	3
4	4	5	5	3	4	5	4	4
3	3	2	4	4	4	4	3	3
4	4	4	4	3	4	4	4	4
3	2	2	4	3	4	4	3	2
4	5	5	4	4	4	4	5	4
4	4	4	4	5	5	5	4	3
4	5	4	4	3	4	4	4	4
4	4	4	4	4	4	3	4	4
4	4	5	4	4	4	4	4	5
4	4	5	4	4	5	5	4	4
3	4	4	4	4	4	4	4	4
4	4	4	4	4	4	4	4	4
3	4	4	4	4	4	4	5	2
5	5	5	5	5	53	5	4	5
3	4	4	4	4	4	4	3	4
4	4	4	4	4	4	5	5	4
4	4	4	4	4	5	4	4	4
4	4	5	4	4	4	4	4	4
4	4	4	5	4	5	5	5	4
4	4	5	4	3	5	5	5	4
4	4	4	4	4	4	4	5	4
3	4	4	4	3	4	2	2	4
3	4	4	4	3	4	1	4	1
2	3	4	4	4	4	4	4	4
4	4	4	4	4	4	4	4	4
4	5	5	5	4	5	5	5	4

Diverfunc	Innov/creat	ST Perf	LT Perf	Fut Trends	Alternative	Prob areas	Brainst	Zero Based
4	3	4	5	4	4	4	5	3
5	4	3	2	4	4	4	2	4
1	1	1	5	3	3	4	1	2
5	4	4	4	4	5	2	1	5
3	3	4	4	4	4	2	4	4
3	3	4	4	2	2	3	3	2
4	4	4	4	3	4	3	3	3
3	4	4	4	4	3	4	4	2
4	5	5	4	3	4	4	4	1
4	4	4	4	4	4	4	1	2
2	4	4	3	4	3	2	2	5
5	5	5	5	5	5	5	1	4
4	4	4	4	3	4	4	2	3
4	4	4	4	4	4	4	2	3
3	4	4	4	3	5	4	2	3
4	4	4	3	4	4	2	2	4
1	1	1	1	1	4	2	3	2
4	5	5	5	5	5	5	2	2
4	4	4	4	4	4	2	2	4
2	4	3	3	3	3	3	3	3
4	4	4	4	3	4	3	1	2
4	5	4	5	4	4	4	1	2
4	4	4	4	4	4	4	2	3
4	4	4	4	4	4	3	1	5
3	3	4	3	3	2	2	2	4
4	4	4	5	4	5	4	1	4
4	5	4	4	3	3	2	4	2
4	3	3	5	4	4	4	2	2
2	2	3	4	3	4	3	3	4
3	4	5	4	4	3	4	5	3
3	4	4	4	5	5	3	1	5
4	5	3	3	4	3	2	1	3
4	4	4	4	3	3	4	4	2
4	4	4	4	4	5	4	1	4
4	5	4	4	4	4	3	4	4
3	4	4	4	3	4	3	2	3
4	4	4	4	4	4	4	2	4
4	3	4	4	4	4	4	4	3
5	5	5	4	5	3	3	1	5
4	4	3	3	4	4	3	2	2
3	4	4	4	4	4	4	2	5
4	5	4	4	4	4	4	1	2
4	4	4	4	4	4	4	1	2
4	5	4	5	5	5	4	1	3
4	4	4	3	4	4	2	4	2
4	4	4	4	4	4	4	2	1
4	3	5	4	4	3	4	2	4
2	3	5	4	3	5	4	4	1
4	4	4	3	2	3	3	1	5
4	4	4	4	4	4	4	4	4
4	4	4	4	4	4	2	2	4

Trend	Econom	Stff Special	Op. Res	Stakeholer	Scenario	PERT CPM	Delphi	1 yr Goals
3	4	4	1	2	5	3	2	1
1	1	1	1	2	3	2	1	1
1	1	1	2	1	1	2	1	1
4	3	2	3	3	1	1	2	2
4	4	3	3	4	4	4	2	3
3	3	3	2	3	3	3	4	4
4	3	2	2	2	4	3	3	3
3	1	2	2	2	4	4	3	1
2	2	2	3	2	1	1	3	3
2	5	3	2	3	1	1	2	2
3	3	5	5	2	1	2	3	5
1	4	4	4	1	1	1	2	4
2	3	3	3	2	2	2	2	3
2	3	2	3	2	2	2	2	3
2	3	3	2	3	2	3	3	2
1	2	4	1	2	2	2	2	2
2	1	4	2	3	2	3	4	2
1	2	4	3	2	2	2	2	2
2	2	2	2	4	2	2	5	5
3	4	4	4	4	1	3	3	4
2	3	3	3	2	1	2	3	4
3	3	2	2	3	1	3	5	5
2	3	2	3	3	1	2	3	2
2	2	2	5	1	2	2	5	2
2	1	4	4	3	1	2	4	4
2	2	3	2	2	1	2	2	2
3	3	4	2	3	4	4	1	1
1	4	3	4	1	2	2	3	3
2	1	2	4	1	1	1	3	4
5	5	2	4	4	2	3	5	1
2	2	2	5	2	2	1	3	5
1	2	4	2	1	2	2	3	3
4	2	2	2	3	4	4	2	2
2	2	4	3	2	1	2	2	3
4	3	3	3	4	5	4	3	3
3	2	3	3	2	2	2	3	2
2	4	2	4	4	1	1	4	4
5	3	3	1	4	5	4	3	2
1	1	2	2	5	1	2	2	5
2	4	3	4	1	1	2	4	4
2	4	4	4	3	2	2	4	2
2	2	2	2	2	1	2	2	2
2	2	2	5	2	2	5	5	5
2	2	1	2	1	1	1	2	3
4	3	4	4	3	4	4	4	3
2	3	2	2	2	2	2	2	3
1	3	2	4	5	1	2	4	5
2	2	2	2	3	5	5	4	3
2	2	2	5	2	1	2	3	5
4	4	4	4	3	4	4	4	4
1	2	3	2	2	1	2	4	4

Goals	Prog/Budgets	3 Yr Plans	Pln Action	Col Type	Enrll	Satisfac		53
1	2	1	1	2	2	3	4	
1	2	2	1	2	3	3	4	
1	1	1	1	3	4	3	3	
1	1	1	2	2	1	5	3	
1	1	1	1	1	2	2	4	
1	1	1	1	2	2	4	2	
1	1	1	1	1	2	3	4	
1	1	1	1	1	2	4	4	
1	1	1	1	1	2	3	4	
1	1	1	1	1	2	4	2	
1	1	1	1	1	2	4	2	
1	1	1	1	1	2	3	5	
1	1	1	1	1	2	2	4	
1	1	2	1	2	1	2	4	
1	2	2	1	1	2	3	4	
1	1	1	1	1	1	2	4	
1	1	1	2	2	3	3	4	
1	1	1	1	1	2	2	1	
1	1	1	1	1	1	2	4	
1	1	2	1	1	3	3	4	
1	1	2	1	1	1	2	4	
1	1	1	1	1	2	2	4	
1	1	2	1	1	1	3	4	
1	1	1	1	1	1	2	4	
1	2	2	1	1	1	1	2	
1	1	1	1	1	3	2	4	
1	1	2	1	2	2	3	3	
1	1	1	1	1	2	2	4	
2	2	2	2	2	2	2	2	
1	1	1	1	1	2	3	4	
1	1	1	1	1	2	2	4	
1	1	1	2	2	1	2	5	
1	1	1	2	2	1	2	4	
1	1	1	1	1	2	3	4	
1	1	1	1	1	1	2	4	
1	1	1	1	1	1	2	4	
1	1	1	1	1	3	2	4	
1	1	1	1	1	2	3	4	
1	1	1	1	1	2	2	4	
1	1	1	1	2	2	1	3	
1	1	1	1	2	1	2	4	
1	1	1	1	1	1	2	4	
1	1	2	1	1	1	2	4	
1	1	1	1	1	1	2	5	
1	1	1	1	1	1	3	4	
1	1	1	2	2	1	2	4	
1	1	1	1	1	2	2	4	
1	1	1	1	2	1	2	4	
1	1	1	1	2	2	2	3	
1	1	1	1	1	1	2	1	
1	1	1	1	1	3	2	4	

References

Ackerman, R. W. (1970). Influence of integration and diversity on the investment process. Administrative Science Quarterly, 15(3), September, pp.341-352.

Aharoni, Y. (1966). The foreign investment decision process. Cambridge: Harvard University.

Allen, Michael (1985). Strategic management hits its stride. Planning Review, 13.#15.

Allison, G. T. (1970). Essence of decision. Boston: Little, Brown.

Andrews, K. R. (1971). The concept of corporate strategy. Homewood, Illinois: Dow Jones-Irwin.

Ansoff, H. Igor. (1965). Corporate strategy. New York: McGraw Hill.

Ansoff, H. Igor (1987). Strategic management of technology. Journal of Business Strategy, 7 (3):83-43

Ansoff, H. Igor (1991). Critique of Henry Mintzberg's "The design school: Reconsidering the basic premises of strategic management." Strategic Management Journal, 12:449-461.

Ansoff, H. Igor, Brandenberg, R., Portner, F. & Radosevich, R., (1970). Does planning pay? The effect of planning success in acquisitions in American firms. Long Range Planning, 3, 2-7.

Ansoff, H. Igor, & Sullivan, P. A., (1993). Optimizing profitability in turbulent environments: A formula for strategic success. Long Range Planning, 26, 53-68.

Anthony, R. N. (1985). Planning and control systems: A framework for analysis. Division of Research, Boston, MA: Harvard Business School.

Aram, J. D., & Cowen, S.S. (1990). Strategic planning for increased profit in small business. Long Range Planning. 23:63-70.

Armstrong, J. S. (1982). The value of formal planning for strategic decisions. Strategic Management Journal, 3, pp. 197-211.

Armstrong, J. S (1991). Strategic planning improves manufacturing performance. Long Range Planning, vol. 24,127-129.

Atkinson, R & McCrindell (1997). Strategic planning in turbulent times. Long Range Planning, 1, (2):33-49.

Baker, T. & Smith, H. (1997). Strategic planning: Evolution of a model. Journal of Innovative Higher Education, v21, n4.

Bamford, R. & Phelps, B. (1996). The first international conference on the dynamics of strategy. Surrey European Management School, University of Surrey.

Barker, T. & Smith, H. (1997). Strategic planning: Evolution of a model. Innovative Higher Education. Summer.

Barry, B.(1998, April). Surrey European Management School, University of Surrey.

Bates, D. & Dillard, J. (1992). Wanted: A strategic planner for the 1990's. Journal of General Management, 18(1).

Bettis, R. A. & Hitt, M. A. (1995). The new competitive landscape. Strategic Management Journal, v16, 7-19.

Boston, J. & Pallot, J. (1997). Linking strategy and performance; Developments in the New Zealand public sector. Journal of Policy Analysis, v16, n, 382-405.

Bourgeois, L.J. & Bodwin, D.R. (1984). Strategic implementation: Five approaches to an elusive phenomenon. Strategic Management Journal., 5:241-264.

Bourgeois, L. J. & Eisenhardt, K.M. (1988). Strategic decision processes in high velocity environments: Four cases in the microcomputer industry. Management Science, 34:816-835.

Bower, J. (1970). Managing the resource allocation process. Boston, MA. Graduate School of Business Administration.

Brown, T. (1997). The essence of strategy. Management Review, April v86 n4 p8(6).

Bruderl, J. & Schussler, R. (1990). Organizational mortality: The liabilities of newness and adolescence. Strategic Management Journal, 7:503-522.

Burgelman, R. A. (1991). Intra-organizational ecology of strategy making and organizational adaptation: Theory and field research. Organization Science, 2(3):239-262.

Burgelman, R. A. & Grove, A. S. (1996). Strategic dissonance. California Management Review, Winter, v38, n2 p8 (21).

Butler, R. Davies, L., Pike, R., & Sharp, J. (1991). Strategic investment decision-making: Complexities, politics and processes. Journal of Management Studies, 28:4.

Cameron, K. (1986). A study of organizational effectiveness and its predictors. Management Science, Jan. Vol 32, #1

Camillus, J.C. (1997, Feb.). Shifting the strategic management paradigm. European Management Journal, 1(15):1-7.

Camillus, J. C. (1975, June). Evaluating the benefits of formal planning systems. Long Term Planning, p. 33.

Camillus, J. C. & Venkatraman, N. (1984, August). Dimensions of strategic choice. Planning Review, 12,(1), 26-31, 46.

Campbell, J. P. (1977). On the nature of organizational effectiveness. In Goodman, P., Pennings, J. & Associates (eds.), New perspectives in organizational effectiveness: pp. 68-77. San Francisco: Jossey-Bass.

Capon, N., Farley, J. U. & Hulbert, J. M. (1994). Strategic planning and financial performance: More evidence. Journal of Management Studies, 31(1), pp.105-111.

Carter, E. E. (1971). The behavioral theory of the firm and top level corporate decisions. Administrative Science Quarterly, 16, pp. 413-428.

Cartwright, T. J. (1991). Planning and chaos theory. Journal of American Planning Association, 57(1), 44.

Chandler, A. (1962). Strategy and structure. Cambridge, MA, MIT Press.

Chakravarthy, B. S. (1982). Adaptation: A promising metaphor for strategic management. Academy of Management Review, 7; 35-44.

Chakaravarthy, B. (1997). A new strategy framework for coping with turbulence. Sloan Management Review, Winter 38 (2);69.

Chakravarthy, B. S. & Doz, Y. (1992). Strategy process research: Focus on corporate self-renewal. Strategic Management Journal, 13;5-14.

Chase, H. W. (1977). Public issues management: The new science. Public Relations Journal, 33 (5), p.25.

Collins, J & Ruefli, T. (1992). Strategic risk: An ordinal approach. Management Science. 38(12), 1707-1731, Dec.

Cray, D., Mallory, G., Butler, R., Hickson, D. & Wilson, D. (1991). Explaining decision processes. Journal of Management Studies., 28:3.

David, F. (1993). Strategic management. (4th ed.). New York: MacMillian.

Dean, J. W. & Sharfman, M. P. (1996). Does decision process matter? A study of strategic decision making effectiveness. Academy of Management Journal, v39 n2, pp368-396.

Dess, G. G. & Robinson, R.R. (1984). Measuring organizational performance in the absence of objective measures. Strategic Management Journal, 5:265-273

Diffenbach, J. (1983). Corporate analysis in large U.S. corporations. Long Range Planning, pp.107-110.

Drucker, P. (1954). The practice of management. New York , Harper & Row.

Drucker, P. (1990). The emerging theory of manufacturing. HBR, 68(3). 94-102.

Elenkov, D. (1997, April). Strategic uncertainty and environmental scanning. Strategic Management Journal. 18(4):287-302.

Emery, R and Trist, E (1965). The causal texture of organizational environments. Human Relations, 18: 21-32.

Enid, M. (1986). Detroit vs. Japan: Now what's the problem. Business Week, pps. 72-73.

Eppink, J. (1978). Planning for strategic flexibility. Long Range Planning, vol. 11, 9-15.

Fiegener, M. (1997, Spring). The control of strategy in dynamic versus stable environments. Journal of Management Issues. 9(1):72-85.

Fredrickson, J. W. (1984). The comprehensiveness of strategic decision processes: Extension, observations, future directions. Academy of Management Journal, 27:445-466.

Fredrickson, J. W. & Iaquinto, A. L. (1989). Inertia and creeping rationality in strategic decision processes. Academy of Management Journal, 32:516-542.

Fredrickson, J. W. & Mitchell, T. R. (1984). Strategic decision processes: Comprehensiveness and performance in an industry with an unstable environment. Academy of Management Journal, 27:399-423.

Fulmer, R.M. & Rue, L.W. (1974). The practice and profitability of long range planning. Managerial Planning, 22(6):1-7.

Galpin, T. (1997). Making strategy work. Journal of Business Strategy. 18(1).

Gershefski, G. (1970). Corporate Models-The state of the art. Management Science, 16(6):B-303-312.

Gilbertson, D. (1989). Trends in strategic planning in the private social service agencies: A test of the Ramanujam and Venkatraman planning model. University of North Texas. Denton.

Gilmore, F.T. (1971). Formulating strategy in smaller companies. Harvard Business Review, 49(3),pp. 71-81.

Goold, M. & Quinn, J. (1990, Jan). The paradox of strategic controls. Strategic Management Journal, 11(1), 43-57.

Glueck, W. & Jauch, L. (1984). Business policy and strategic management. NY: McGraw-Hill.

Grant, R. M. (1996). Toward a knowledge-based theory of the firm. Strategic Management Journal, vol. 17.

Grant, J. H. & King, W.R. (1982). The logic of strategic planning. Boston: Little Brown.

Grinyer, P.H., Al-Bazzaz, S. and Yasai-Ardekani, M. (1986). Towards a contingency theory of comparative planning. Strategic Management Journal, 7:3-28.

Gross, G. D. (1992). Strategic management in higher education. DAI. Vol.53-01A, 216-303.

Hage, J. & Aiken, M. (1969). Routing technology, social structure and organizational goals. Administrative Science Quarterly, 368-379.

Hair, J. Anderson, R., & Tatum, R. (1987). Multivariate data analysis. NY: MacMillam.

Hall, W. K. (1977). The impact of managerial behavior on planning effectiveness. Managerial Planning. 26(2), pp. 19-23.

Hambrick, D, Schecter, S. (1983). Turnaround strategies for mature industrial-product business units. Academy of Management Journal, 21, 591-610.

Hamel, G; Doz, Y. & Prahalad, CK (1988, May/June). Strategic intent. HBR, 67(3), 63-76.

Hamilton, R.T. & Shergill, G.S. (1992). The relationship between strategy-structure fit and financial performance in New Zealand: Evidence on generality and validity with enhanced controls. Journal of Management Studies, 29:1, 95-113.

Hampton, W. (1987). Detroit share keeps getting smaller. Business Week, p. 71.

Hank, J. & Reitsch, A. (1995). Business forecasting. Englewood, N.J.: Prentice Hall.

Hart, S. L. & Branbury, C. (1994). How strategy-making processes can make a difference. Strategic Management Journal, 15:251-269.

Hart, S.L. & Quinn, R.E. (1993). Poles executives play: CEOs behavioral complexity and firm performance. Human Relations, 46,5,543-547.

Hasperlaugh, P. (1982). Portfolio planning: Uses and limits. Harvard Business Review, 60 (1), pps. 58-73.

Hax, A. C. & Majluf, N. S. (1984). Strategic management: An integrative approach. Prentice Hall, Englewood Cliffs, N. J.

Henderson, B. (1997). Hard questions. Barron's. April 21.

Henry, H. W. (1979). Strategic management: A new view of business policy and planning. Little, Brown & Company. In D.E. Schendel and C. Hofer (eds).

Herold, D. M. (1990). Long range planning and organizational performance: A cross-validation study. Academy of Management Journal, 14, 91-102.

Herold, D. M. (1972). Long-range planning and organizational performance: A cross validation study. Academy of Management Journal.15, pp. 91-104.

Hiam, A. (1993, March/June). Strategic planning unbound. Journal of Business Strategy. 14(2) 46-52.

Higgins, J., & Vincze, J, W. (1989). Strategic management. Dryden Press. New York.

Hill, T. & Westbrook, R. (1997). SWOT analysis: It's time for a product recall. Long Range Planning, vol. 30, 1.

Hitt, M. A. & Tyler, B.B. (1991). Strategic decision models: Integrating different perspectives. Strategic Management Journal, 12:327-351.

Hitt, M. A., Ireland, R. A. & Palia, K.A. (1980). Industrial firms' grand strategy and functional importance: Moderating effects of technology and structure. Academy of Management Journal, 25, pp.265-298.

Ittner, C.; Larcker, D. (1997). Quality strategy, strategic control systems and organizational performance. Accounting Organization and Society, 22(3,4).

Jennings, D.; Seaman, S. (1994). High and low levels of organizational adaptation: An empirical analysis of strategy, structure and performance. Strategic Management Journal, 15(6).

Johnson, M. (1997, April). PTC 2005: Pulaski technical college's strategic plan for serving central Arkansas. ERIC # ED409045, Clearinghouse # JC970360.

Kanter, R., & Summers, D., (1987). Doing well while doing good: Dilemmas of performance measurements in non-profit organizations and the need for multiple-constituency approach.

Koch, S. J. (1976). Non-democratic non-planning. Policy Science, no. 7.

Kodama, F. (1993). Japanese innovation strategy: Technical support for business visions. Center for Science and International Affairs, Harvard University.

Krogh, G. Von, Roos, J. & Slocum, K. (1994). An essay on corporate epistemology. Strategic Management Journal. V 15. 53-71.

Krogh, G. Von , Roos, G. (1994) Powell, W. (ed.). The nonprofit sector. 154-165. New Haven: Yale University Press.

Kukalis, S. (1991). Determinate of strategic planning systems in large organizations: A contingency approach. Journal of Management Science., 28:143-160.

Kudla, R. J. (1980). The impact of strategic planning on common stock returns. Academy of Management Journal. 23, pp. 5-20.

Latham, D. (1984). The appraisal system as a strategic control, in C. Frombrun, N. M. Tichy and M. A. Devonna (eds), Strategic Human Resource Management., Wiley, N.Y.

Leontiades, M. & Tezel, A. (1980). Planning perceptions and planning results. Strategic Management Journal, 1, 65-75.

Lorange, P. & Vancil, R. (1977). Strategic planning systems. Englewood Cliffs, NJ: Prentice-Hall.

Lyles, M. (1990). A research agenda for strategic management in the 1990's. Journal of Management Studies, 27:4,363-375.

Lyles, M. A. & Lenz, R. T. (1982). Managing the planning process: A field study of the human side of planning. Strategic Management Journal. 3, pp. 105-122.

Malik, Z.A. & Karger, D.W. (1975). Does long range planning improve company performance? Management Review, 64 (9):26-31.

McCrindell, J., Atkinson, A. (1997). Strategic performance measurement in government. Cost and Management., 71(3), 20-23.

McConkey, D. (1988). Planning in a changing environment. Business Horizons, 31(5), 64-72.

McDonald, J. (1996). Redesigning school: Lessons for the 21st century. San Francisco, Ca. Jossey-Bass.

Merchant, K. A. (1984). Control in business organizations. Boston, MA, Pitman.

Miller, C.C. & Cardinal, L. B. (1994). Strategic planning and firm performance: A synthesis of more than two decades of research. The Academy of Management Journal, 1994, Vol. 37, 1649-1665.

Miller, D. & Friesen, P. (1982). Innovation in conservative and entrepreneurial firms: Two models of strategic momentum. Strategic Management Journal, 3 (1):1-25.

Mintzberg, H. (1991). Learning 1, planning 0: Reply to Igor Ansoff. Strategic Management Journal, 12:463-466.

Mintzberg, H., & McHugh, A. (1985). Strategy formulation in an adhocracy. Administrative Science Quarterly, 30, 160-197.

Mintzberg, H. (1990). The design school. Reconsidering the basic premises of strategic management. Strategic Management Journal, 11. 171-195.

Mintzberg, H. (1993). The pit falls of strategic planning. California Management Review, Vol.36. No.1. pps 32-47.

Mintzberg, H. (1994). That's Not "turbluence", chicken little, it's really opportunity. Planning Review, Nov-Dec, V22, n6.

Odom, R, & Boxx, W. (1988). Environment, planning processes, and organizational performance of churches. Strategic Management Journal, 9 (2): 197-205.

Oliva, T., Day, D. & DeSarbo, W. (1987). Strategy maps: A spatial representation of intra-industry competitive strategy. Management Science, 33(12):1534-1551.

Ottensmeyer, E. & Dutton, J. (1989). Strategic issue management systems: Forms, functions and control. AMR, 12(2), 355-365.

Ouchi, W. (1979). A conceptual framework for the design of organizational control mechanisms. Management Science, 25:833-848.

PCT (1997). Long range plan: Pennsylvania College of technology: Two Year strategic planning. ERIC # ED413013, Clearinghouse # JC970569.

Pearce, J. A., Freeman, E.B., & Robinson, R.B. (1987). The tenuous link between formal strategic planning and financial performance. Academy of Management Review, 12:658-675

Porter, M. E. (1980). Competitive strategy. New York, Free Press.

Pearce, J. & & Robinson, R. (1987). A measure of CEO social power in strategic decision-making. Strategic Management Journal, 8 (3): 297-304.

Prahalad, C.K. & Hamel, G. (1991). Corporate imagination and expeditionary marketing. Harvard Business Review. 69,81-92.

Prahalad, C.K. & Hamel, G. (1994). Strategy as a field of study. Why search for a new paradigm? Strategic Management Journal, vol. 15,(5).

Quinn, J. (1981, Winter). Formulating strategy one step at a time. Journal of Business Strategy.

Rajagopalan, N, Rasheed, A. & Datta, D. (1993). Strategic decision processes: Critical review and future directions. Journal of Management, 19(2): 349-384.

Ramanujam, V. & Venkatraman, N. (1987). Planning and performance: A new look at an old question. Business Horizons, May/June, pp.19-25.

Ramanujam, V. , Venkatraman, N., & Camillus, J. (1986). Multi-objective assessment of effectiveness of strategic planning: A discriminant analysis approach. Academy of Management Journal. 29 (2): 347-372.

Reed, R. & Buckley, M. R. (1988). Strategy in action-Techniques for implementing strategy. Long Range Planning, v21, pp.67-74.

Richards, M. (1986). Setting strategic goals and objectives. West, p. 22.

Riely, J. B. (1997). Doing effective strategic planning in a higher education environment. **ERIC** #ED409955. Clearinghouse # JC970419. April

Robert, M. M. (1985). Strategic thrust, environment alignment and performance. DAI, v43-04A, pp. 1222-1825.

Robinson, R. B. & Pearce, J.A. (1983). Research thrusts in small firm strategic planning. Academy of Management Review, 9, pp. 128-137

Rossotti, C. & Kosnik, T. (1991). Creativity behind the scenes: Personal insights on innovation in the software industry. Design Management Journal, Summer, 14-18.

Rothschild, W.E. (1979). Competitor analysis: The missing link in strategy. Management Review, pps. 22-27.

Rhyne, L. (1987). Contrasting planning systems in high, low, medium and low performance companies. Journal of Management Studies, 24 (4): 363-385.

Rumelt, R., Schendel, D., & Teece, D. (1991). Strategic management and economics. Strategic Management Journal, 12:5-29.

Rumelt, R., Schendel, D., Teece, D. & Fleming, L.(1996). Fundamental issues in strategy: A research agenda. Administrative Science Quarterly, vol. 41(1).

Sampson, C. (1995, June). Vision 2000: A strategic plan for college of the redlands. ERIC # ED396805, Clearinghouse # JC960442.

Sawy, O. (1984). Understanding the process by which chief executives identify strategic threats and opportunities . Academy of Management Proceedings, pps. 37-412.

Schendel, D. E. & Hofer, C. W. (1979). Strategic management: A new view of policy and planning. Boston, MA ;Little, Brown and Co.

Schiemann, W. & Lingle, J. (1997). Seven greatest myths of measurement. Management Review 86(5): 29-32.

Schmidheiny, S. (1992). Changing course. MIT Press, Cambridge, Ma.

Schilit, W. K. & Paine, F.T. (1987). An examination of the underlying dynamics of strategic decisions subject to upward influence activity. Journal of Management Studies, 24, 161-187.

Schon, D. & Nutt, P. (1974). Endemic turbulence: The future for planning education. Amsterdam: Institute for Planners.

Schulze, W.S. (1994). Environmental and organizational determinants of firm conduct: A test of resource-base theory at the business-level. DAI, v 65-03A, pp. 1025-1345.

Segars, A. H. (1994). Strategic information systems planning: The coalignment of planning system design, its relationship with organizational context, and implications for planning system success. DAI, v55-07A, pp.2049-2329.

Shank, John. K., Niblock, E., & Sandall, W. T. (1973). Balance, creativity and practicality in formal planning. Harvard Business Review, 51(1), pp. 87-95

Simons, Robert (1994). How new top managers use control systems as levers of strategic renewal. Strategic Management Journal. Vol. 15, #3.

Shrader, C., Taylor, L. & Dalton, D. (1984). Strategic planning and organizational performance: A critical appraisal. Journal of Management, vol. 10, 149-171.

Shrivastava, P., & Grant, J. (1985). Empirically derived models of strategic decision making processes. Strategic Management Journal, 6, pps. 97-113.

Spender, J. C., Grant, R. (1996). Knowledge and the firm: Overview. Strategic Management Journal, 17:5-9.

Sproull, L. & Kiesler, S. (1991). Making connections. Employee Relations Today, 18(1):53-70.

Stacy, R. (1993). Strategy as order emerging from choas. Long Range Planning, 26: 110-129.

Stalk, G. and Hout, T. (1990). Competing against time. The Free Press, N.Y.

Steiner, G. (1979). Strategic planning. NY: The Free Press.

Stevenson, H.H. (1976). Defining corporate strengths and weaknesses. Sloan Management Review, 17(3), pp. 51-68.

Summer, C., Bettis, R., Durhaime, Grant, John, Hambrick, D. & Snow, Charles (1990). Doctoral education in the field of business policy and strategy. Journal of Management, 16(2), 361-398.

Taylor, B. Massy, W. F. (1996). Strategic indicators for higher education. Vital benchmarks and information to help your institution's performance. ERIC # 412818, Clearinghouse # HE030608.

Thomas, B. (1980). Canonical correlation analysis: Uses and interpretations. Sage University, Beverly Hills and London.

Thune, Stanley S. & Robert J. House. (1970). Where long range planning pays off. Business Horizons, XIII, 81-87.

Tull, D. & Hawkins, D. (1987). Marketing research: Measurement and method. MacMillan, N.Y.

Vinzant, D. H. (1994). Toward a theory of implementation of strategic management in public organizations. DAI, Vol. 56-09A, pps. 3739-3991.

Veliyath, R. (1992). Strategic planning: Balancing short run performance and longer term prospects. Long Range Planning, 25(3) 86-97.

Veliyath, R., & Shortell, S. (1993). Strategic orientation, strategic planning systems characteristics and performance. Journal of Management Studies. May, v30.

Venkatraman, N., & Ramanujam, V. (1987). Planning system success: A conceptualization and an operational model. Management Science, 33, p.6, 687-705

Wahl, PW. & Kronmal, W. (1977). Discrimination when covariances are unequal. Biometrics, 33. 479-484.

Wallace, R. (1998). University of Missouri-Columbia: MU Strategic Planning & Mission Enhancement. University of Missouri, University Affairs. October, 16.

Whittaker, C. (1996). Context-based strategic planning. California Management Journal. V70,n8.

Wooldridge, B. & Floyd, S. W. (1990). Strategy process, middle management involvement and organizational performance. Strategic Management Journal, 11, 231-242.

Wood, D. Robley, L. & LaForge, R. L. (1979). The impact of comprehensive planning on financial performance. Academy of Management Journal, 22:516-526.

Wood, D. & LaForge, R.L. (1981). Toward the development of a planning scale: An example from the banking industry. Strategic Management Journal. 2, pp. 209-216.

Yasi-Ardekani, M. & Haug, R.S. (1997). Contextual determinants of strategic planning processes. Journal of Management Studies, v34,729-768.

BIBLIOGRAPHY

Ackerman, R. W. (1970). Influence of integration and diversity on the investment process. Administrative Science Quarterly, 15(3), September, pp.341-352.

Aharoni, Y. (1966). The foreign investment decision process. Cambridge: Harvard University.

Allen, Michael (1985). Strategic management hits its stride. Planning Review, 13.#15.

Allison, G. T. (1970). Essence of decision. Boston: Little, Brown.

Andrews, K. R. (1971). The concept of corporate strategy. Homewood, Illinois: Dow Jones-Irwin.

Ansoff, H. Igor. (1965). Corporate strategy. New York: McGraw Hill.

Ansoff, H. Igor (1987). Strategic management of technology. Journal of Business Strategy, 7 (3):83-43

Ansoff, H. Igor (1991). Critique of Henry Mintzberg's "The design school: Reconsidering the basic premises of strategic management." Strategic Management Journal, 12:449-461.

Ansoff, H. Igor, Brandenberg, R., Portner, F. & Radosevich, R., (1970). Does planning pay? The effect of planning success in acquisitions in American firms. Long Range Planning, 3, 2-7.

Ansoff, H. Igor, & Sullivan, P. A., (1993). Optimizing profitability in turbulent environments: A formula for strategic success. Long Range Planning, 26, 53-68.

Anthony, R. N. (1985). Planning and control systems: A framework for analysis. Division of Research, Boston, MA: Harvard Business School.

Aram, J. D., & Cowen, S.S. (1990). Strategic planning for increased profit in small business. Long Range Planning. 23:63-70.

Armstrong, J. S. (1982). The value of formal planning for strategic decisions. Strategic Management Journal, 3, pp. 197-211.

Armstrong, J. S (1991). Strategic planning improves manufacturing performance. Long Range Planning, vol. 24,127-129.

Atkinson, R & McCrindell (1997). Strategic planning in turbulent times. Long Range Planning, 1, (2):33-49.

Babbie, E. (1992). The practice of social research. Belmont, Ca.,Wadsworth.

Baker, T. & Smith, H. (1997). Strategic planning: Evolution of a model. Journal of Innovative Higher Education, v21, n4.

Bamford, R. & Phelps, B. (1996). The first international conference on the dynamics of strategy. Surrey European Management School, University of Surrey.

Barker, T. & Smith, H. (1997). Strategic planning: Evolution of a model. Innovative Higher Education. Summer.

Barry, B.(1998, April). Surrey European Management School, University of Surrey.

Bates, D. & Dillard, J. (1992). Wanted: A strategic planner for the 1990's. Journal of General Management, 18(1).

Bettis, R. A. & Hitt, M. A. (1995). The new competitive landscape. Strategic Management Journal, v16, 7-19.

Boston, J. & Pallot, J. (1997). Linking strategy and performance; Developments in the New Zealand public sector. Journal of Policy Analysis, v16, n, 382-405.

Bourgeois, L.J. & Bodwin, D.R. (1984). Strategic implementation: Five approaches to an elusive phenomenon. Strategic Management Journal., 5:241-264.

Bourgeois, L. J. & Eisenhardt, K.M. (1988). Strategic decision processes in high velocity environments: Four cases in the microcomputer industry. Management Science, 34:816-835.

Bower, J. (1970). Managing the resource allocation process. Boston, MA. Graduate School of Business Administration.

Brown, T. (1997). The essence of strategy. Management Review, April v86 n4 p8(6).

Bruderl, J. & Schussler, R. (1990). Organizational mortality: The liabilities of newness and adolescence. Strategic Management Journal, 7:503-522.

Burgelman, R. A. (1991). Intra-organizational ecology of strategy making and organizational adaptation: Theory and field research. Organization Science, 2(3):239-262.

Burgelman, R. A. & Grove, A. S. (1996). Strategic dissonance. California Management Review, Winter, v38, n2 p8 (21).

Butler, R. Davies, L., Pike, R., & Sharp, J. (1991). Strategic investment decision-making: Complexities, politics and processes. Journal of Management Studies, 28:4.

Cameron, K. (1986). A study of organizational effectiveness and its predictors. Management Science, Jan. Vol 32, #1

Camillus, J.C. (1997, Feb.). Shifting the strategic management paradigm. European Management Journal, 1(15):1-7.

Camillus, J. C. (1975, June). Evaluating the benefits of formal planning systems. Long Term Planning, p. 33.

Camillus, J. C. & Venkatraman, N. (1984, August). Dimensions of strategic choice. Planning Review, 12,(1), 26-31, 46.

Campbell, J. P. (1977). On the nature of organizational effectiveness. In Goodman, P., Pennings, J. & Associates (eds.), New perspectives in organizational effectiveness: pp. 68-77. San Francisco: Jossey-Bass.

Capon, N., Farley, J. U. & Hulbert, J. M. (1994). Strategic planning and financial performance: More evidence. Journal of Management Studies, 31(1), pp.105-111.

Carter, E. E. (1971). The behavioral theory of the firm and top level corporate decisions. Administrative Science Quarterly, 16, pp. 413-428.

Cartwright, T. J. (1991). Planning and chaos theory. Journal of American Planning Association, 57(1), 44.

Chandler, A. (1962). Strategy and structure. Cambridge, MA, MIT Press.

Chakravarthy, B. S. (1982). Adaptation: A promising metaphor for strategic management. Academy of Management Review, 7; 35-44.

Chakaravarthy, B. (1997). A new strategy framework for coping with turbulence. Sloan Management Review, Winter 38 (2);69.

Chakravarthy, B. S. & Doz, Y. (1992). Strategy process research: Focus on corporate self-renewal. Strategic Management Journal, 13;5-14.

Chase, H. W. (1977). Public issues management: The new science. Public Relations Journal, 33 (5), p.25.

Collins, J & Ruefli, T. (1992). Strategic risk: An ordinal approach. Management Science. 38(12), 1707-1731, Dec.

Cray, D., Mallory, G., Butler, R., Hickson, D. & Wilson, D. (1991). Explaining decision processes. Journal of Management Studies., 28:3.

David, F. (1993). Strategic management. (4th ed.). New York: MacMillian.

Dean, J. W. & Sharfman, M. P. (1996). Does decision process matter? A study of strategic decision making effectiveness. Academy of Management Journal, v39 n2, pp368-396.

Delaney, J.T., & Huselid, M.A.. (1996). The impact of human resource management practices on perceptions of organizational performance. Academy of Management Journal. 39:949-969.

Dess, G. G. & Robinson, R.R. (1984). Measuring organizational performance in the absence of objective measures. Strategic Management Journal, 5:265-273

Diffenbach, J. (1983). Corporate analysis in large U.S. corporations. Long Range Planning, pp.107-110.

Drucker, P. (1954). The practice of management. New York , Harper & Row.

Drucker, P. (1990). The emerging theory of manufacturing. HBR, 68(3). 94-102.

Dyer, J.H. & Singh, H. (1998). The relational view: Cooperative strategy and sources of International competitive advantage. Academy of Management Review, 23:660-679.

Elenkov, D. (1997, April). Strategic uncertainty and environmental scanning. Strategic Management Journal. 18(4):287-302.

Emery, R and Trist, E (1965). The causal texture of organizational environments. Human Relations, 18: 21-32.

Enid, M. (1986). Detroit vs. Japan: Now what's the problem. Business Week, pps. 72-73.

Eppink, J. (1978). Planning for strategic flexibility. Long Range Planning, vol. 11, 9-15.

Fiegener, M. (1997, Spring). The control of strategy in dynamic versus stable environments. Journal of Management Issues. 9(1):72-85.

Fredrickson, J. W. (1984). The comprehensiveness of strategic decision processes: Extension, observations, future directions. Academy of Management Journal, 27:445-466.

Fredrickson, J. W. & Iaquinto, A. L. (1989). Inertia and creeping rationality in strategic decision processes. Academy of Management Journal, 32:516-542.

Fredrickson, J. W. & Mitchell, T. R. (1984). Strategic decision processes: Comprehensiveness and performance in an industry with an unstable environment. Academy of Management Journal, 27:399-423.

Fulmer, R.M. & Rue, L.W. (1974). The practice and profitability of long range planning. Managerial Planning, 22(6):1-7.

Galagan, P. (April,1997). Strategic planning is back. Training and Development.

Galpin, T. (1997). Making strategy work. Journal of Business Strategy. 18(1).

Gershefski, G. (1970). Corporate Models-The state of the art. Management Science, 16(6):B-303-312.

Gilbertson, D. (1989). Trends in strategic planning in the private social service agencies: A test of the Ramanujam and Venkatraman planning model. University of North Texas. Denton.

Gilmore, F.T. (1971). Formulating strategy in smaller companies. Harvard Business Review, 49(3),pp. 71-81.

Goold, M. & Quinn, J. (1990, Jan). The paradox of strategic controls. Strategic Management Journal, 11(1), 43-57.

Glueck, W. & Jauch, L. (1984). Business policy and strategic management. NY: McGraw-Hill.

Grant, R. M. (1996). Toward a knowledge-based theory of the firm. Strategic Management Journal, vol. 17.

Grant, J. H. & King, W.R. (1982). The logic of strategic planning. Boston: Little Brown.

Grinyer, P.H., Al-Bazzaz, S. and Yasai-Ardekani, M. (1986). Towards a contingency theory of comparative planning. Strategic Management Journal, 7:3-28.

Gross, G. D. (1992). Strategic management in higher education. DAI. Vol.53-01A, 216-303.

Hage, J. & Aiken, M. (1969). Routing technology, social structure and organizational goals. Administrative Science Quarterly, 368-379.

Hair, J. Anderson, R., & Tatum, R. (1987). Multivariate data analysis. NY: MacMillam.

Hall, W. K. (1977). The impact of managerial behavior on planning effectiveness. Managerial Planning. 26(2), pp. 19-23.

Hambrick, D, Schecter, S. (1983). Turnaround strategies for mature industrial-product business units. Academy of Management Journal, 21, 591-610.

Hamel, G; Doz, Y. & Prahalad, CK (1988, May/June). Strategic intent. HBR, 67(3), 63-76.

Hamilton, R.T. & Shergill, G.S. (1992). The relationship between strategy-structure fit and financial performance in New Zealand: Evidence on generality and validity with enhanced controls. Journal of Management Studies, 29:1, 95-113.

Hampton, W. (1987). Detroit share keeps getting smaller. Business Week, p. 71.

Hank, J. & Reitsch, A. (1995). Business forecasting. Englewood, N.J.: Prentice Hall.

Hart, S. L. & Branbury, C. (1994). How strategy-making processes can make a difference. Strategic Management Journal, 15:251-269.

Hart, S.L. & Quinn, R.E. (1993). Poles executives play: CEOs behavioral complexity and firm performance. Human Relations, 46,5,543-547.

Hasperlaugh, P. (1982). Portfolio planning: Uses and limits. Harvard Business Review, 60 (1), pps. 58-73.

Hax, A. C. & Majluf, N. S. (1984). Strategic management: An integrative approach. Prentice Hall, Englewood Cliffs, N. J.

Henderson, B. (1997). Hard questions. Barron's. April 21.

Henderson, L. (January,1997). Thinking about tomorrow. Telephony.

Henderson, A. (1999). Firm strategy and age dependence: A contingent view of the liabilities of newness , adolescence, and obsolescence. Administrative Science Quarterly, 44:281-314.

Henry, H. W. (1979). Strategic management: A new view of business policy and planning. Little, Brown & Company. In D.E. Schendel and C. Hofer (eds).

Herold, D. M. (1990). Long range planning and organizational performance: A cross-validation study. Academy of Management Journal, 14, 91-102.

Herold, D. M. (1972). Long-range planning and organizational performance: A cross validation study. Academy of Management Journal.15, pp. 91-104.

Hiam, A. (1993, March/June). Strategic planning unbound. Journal of Business Strategy. 14(2) 46-52.

Higgins, J., & Vincze, J, W. (1989). Strategic management. Dryden Press. New York.

Hill, T. & Westbrook, R. (1997). SWOT analysis: It's time for a product recall. Long Range Planning, vol. 30, 1.

Hill, C.W. (1995). National institutional structures, transaction cost economizing and competitive advantage: The case of Japan. Organization Science, 6:119-131.

Hitt, M.A., Hoskisson, R.E., Johnson, R.A., & Moesel, D.D. (1996). The market for corporate control and firm innovation. Academy of Management Journal, 39:1084-1119.

Hitt, M. A. & Tyler, B.B. (1991). Strategic decision models: Integrating different perspectives. Strategic Management Journal, 12:327-351.

Hitt, M. A., Ireland, R. A. & Palia, K.A. (1980). Industrial firms' grand strategy and functional importance: Moderating effects of technology and structure. Academy of Management Journal, 25, pp.265-298.

Hoskisson, R.E., Johnson, R.A., & Moesel, D.D. (1994). Corporate divestiture intensity in restructuring firms: Effects of governance, strategy, and performance. Academy of Management Journal, 37:1207-1251.

Huff, A. (2000). Presidental address: Changes in organizational knowledge production. The Academy of Management Review 25:288-293.

Huselid, M. (1995). The impact of human resource management practices on turnover, profitability, and corporate financial performance. Academy of Management Journal. 38:635-672.

Ittner, C.; Larcker, D. (1997). Quality strategy, strategic control systems and organizational performance. Accounting Organization and Society, 22(3,4).

Jennings, D.; Seaman, S. (1994). High and low levels of organizational adaptation: An empirical analysis of strategy, structure and performance. Strategic Management Journal, 15(6).

Johnson, M. (1997, April). PTC 2005: Pulaski technical college's strategic plan for serving central Arkansas. ERIC # ED409045, Clearinghouse # JC970360.

Kanter, R., & Summers, D., (1987). Doing well while doing good: Dilemmas of performance measurements in non-profit organizations and the need for multiple-constituency approach.

Koch, S. J. (1976). Non-democratic non-planning. Policy Science, no. 7.

Kodama, F. (1993). Japanese innovation strategy: Technical support for business visions. Center for Science and International Affairs, Harvard University.

Kotha, S., Nair, A. (1995). Strategy and environment as determinants of performance: Evidence from the Japanese automobile manufacturers. Strategy Discovery. New York. Wiley

Krogh, G. Von, Roos, J. & Slocum, K. (1994). An essay on corporate epistemology. Strategic Management Journal. V 15. 53-71.

Krogh, G. Von , Roos, G. (1994) Powell, W. (ed.). The nonprofit sector. 154-165. New Haven: Yale University Press.

Kukalis, S. (1991). Determinate of strategic planning systems in large organizations: A contingency approach. Journal of Management Science., 28:143-160.

Kudla, R. J. (1980). The impact of strategic planning on common stock returns. Academy of Management Journal. 23, pp. 5-20.

Latham, D. (1984). The appraisal system as a strategic control, in C. Frombrun, N. M. Tichy and M. A. Devonna (eds), Strategic Human Resource Management., Wiley, N.Y.

Leontiades, M. & Tezel, A. (1980). Planning perceptions and planning results. Strategic Management Journal, 1, 65-75.

Liff, A. (1997). Avoiding eight pitfalls of strategic planning. Association Management.

Lorange, P. & Vancil, R. (1977). Strategic planning systems. Englewood Cliffs, NJ: Prentice-Hall.

Lyles, M. (1990). A research agenda for strategic management in the 1990's. Journal of Management Studies, 27:4,363-375.

Lyles, M. A. & Lenz, R. T. (1982). Managing the planning process: A field study of the human side of planning. Strategic Management Journal. 3, pp. 105-122.

Malik, Z.A. & Karger, D.W. (1975). Does long range planning improve company performance? Management Review, 64 (9):26-31.

McCrindell, J., Atkinson, A. (1997). Strategic performance measurement in government. Cost and Management., 71(3), 20-23.

McConkey, D. (1988). Planning in a changing environment. Business Horizons, 31(5), 64-72.

McDonald, J. (1996). Redesigning school: Lessons for the 21st century. San Francisco, Ca. Jossey-Bass.

Merchant, K. A. (1984). Control in business organizations. Boston, MA, Pitman.

Miller, C.C. & Cardinal, L. B. (1994). Strategic planning and firm performance: A synthesis of more than two decades of research. The Academy of Management Journal, 1994, Vol. 37, 1649-1665.

Miller, D. & Friesen, P. (1982). Innovation in conservative and entrepreneurial firms: Two models of strategic momentum. Strategic Management Journal, 3 (1):1-25.

Mintzberg, H. (1991). Learning 1, planning 0: Reply to Igor Ansoff. Strategic Management Journal, 12:463-466.

Mintzberg, H., & McHugh, A. (1985). Strategy formulation in an adhocracy. Administrative Science Quarterly, 30, 160-197.

Mintzberg, H. (1990). The design school. Reconsidering the basic premises of strategic management. Strategic Management Journal, 11. 171-195.

Mintzberg, H. (1993). The pit falls of strategic planning. California Management Review, Vol.36. No.1. pps 32-47.

Mintzberg, H. (1994). That's Not "turbluence", chicken little, it's really opportunity. Planning Review, Nov-Dec, V22, n6.

Odom, R, & Boxx, W. (1988). Environment, planning processes, and organizational performance of churches. Strategic Management Journal, 9 (2): 197-205.

Oliva, T., Day, D. & DeSarbo, W. (1987). Strategy maps: A spatial representation of intra-industry competitive strategy. Management Science, 33(12):1534-1551.

Ottensmeyer, E. & Dutton, J. (1989). Strategic issue management systems: Forms, functions and control. AMR, 12(2), 355-365.

Ouchi, W. (1979). A conceptual framework for the design of organizational control mechanisms. Management Science, 25:833-848.

PCT (1997). Long range plan: Pennsylvania College of technology: Two Year strategic planning. ERIC # ED413013, Clearinghouse # JC970569.

Pearce, J. A., Freeman, E.B., & Robinson, R.B. (1987). The tenuous link between formal strategic planning and financial performance. Academy of Management Review, 12:658-675

Peng, M.W. & Heath, P.S. (1996). The growth of the firm in planned economies in transition: Institutions, organizations, and strategic choice. Academy of Management Review, 21:492-528.

Porter, M. E. (1980). Competitive strategy. New York, Free Press.

Potgieter, M. (1992). Strategic management in schools. Management Association Institute.

Powell, T.C. (1992). Strategic planning as competitive advantage. Strategic Management Journal, 13:551-558.

Pearce, J. & & Robinson, R. (1987). A measure of CEO social power in strategic decision-making. Strategic Management Journal, 8 (3): 297-304.

Prahalad, C.K. & Hamel, G. (1991). Corporate imagination and expeditionary marketing. Harvard Business Review. 69,81-92.

Prahalad, C.K. & Hamel, G. (1994). Strategy as a field of study. Why search for a new paradigm? Strategic Management Journal, vol. 15,(5).

Quinn, J. (1981, Winter). Formulating strategy one step at a time. Journal of Business Strategy.

Rajagopalan, N, Rasheed, A. & Datta, D. (1993). Strategic decision processes: Critical review and future directions. Journal of Management, 19(2): 349-384.

Ramanujam, V. & Venkatraman, N. (1987). Planning and performance: A new look at an old question. Business Horizons, May/June, pp.19-25.

Ramanujam, V. , Venkatraman, N., & Camillus, J. (1986). Multi-objective assessment of effectiveness of strategic planning: A discriminant analysis approach. Academy of Management Journal. 29 (2): 347-372.

Reed, R. & Buckley, M. R. (1988). Strategy in action-Techniques for implementing strategy. Long Range Planning, v21, pp.67-74.

Richards, M. (1986). Setting strategic goals and objectives. West, p. 22.

Riely, J. B. (1997). Doing effective strategic planning in a higher education environment. **ERIC** #ED409955. Clearinghouse # JC970419. April

Robert, M. M. (1985). Strategic thrust, environment alignment and performance. DAI, v43-04A, pp. 1222-1825.

Robinson, R. B. & Pearce, J.A. (1983). Research thrusts in small firm strategic planning. Academy of Management Review, 9, pp. 128-137

Rossotti, C. & Kosnik, T. (1991). Creativity behind the scenes: Personal insights on innovation in the software industry. Design Management Journal, Summer, 14-18.

Rothschild, W.E. (1979). Competitor analysis: The missing link in strategy. Management Review, pps. 22-27.

Rhyne, L. (1987). Contrasting planning systems in high, low, medium and low performance companies. Journal of Management Studies, 24 (4): 363-385.

Rumelt, R., Schendel, D., & Teece, D. (1991). Strategic management and economics. Strategic Management Journal, 12:5-29.

Rumelt, R., Schendel, D., Teece, D. & Fleming, L.(1996). Fundamental issues in strategy: A research agenda. Administrative Science Quarterly, vol. 41(1).

Sampson, C. (1995, June). Vision 2000: A strategic plan for college of the redlands. ERIC # ED396805, Clearinghouse # JC960442.

Sawy, O. (1984). Understanding the process by which chief executives identify strategic threats and opportunities . Academy of Management Proceedings, pps. 37-412.

Schendel, D. E. & Hofer, C. W. (1979). Strategic management: A new view of policy and planning. Boston, MA ;Little, Brown and Co.

Schiemann, W. & Lingle, J. (1997). Seven greatest myths of measurement. Management Review 86(5): 29-32.

Schmidheiny, S. (1992). Changing course. MIT Press, Cambridge, Ma.

Schilit, W. K. & Paine, F.T. (1987). An examination of the underlying dynamics of strategic decisions subject to upward influence activity. Journal of Management Studies, 24, 161-187.

Schon, D. & Nutt, P. (1974). Endemic turbulence: The future for planning education. Amsterdam: Institute for Planners.

Schulze, W.S. (1994). Environmental and organizational determinants of firm conduct: A test of resource-base theory at the business-level. DAI, v 65-03A, pp. 1025-1345.

Segars, A. H. (1994). Strategic information systems planning: The coalignment of planning system design, its relationship with organizational context, and implications for planning system success. DAI, v55-07A, pp.2049-2329.

Shank, John. K., Niblock, E., & Sandall, W. T. (1973). Balance, creativity and practicality in formal planning. Harvard Business Review, 51(1), pp. 87-95

Simons, Robert (1994). How new top managers use control systems as levers of strategic renewal. Strategic Management Journal. Vol. 15, #3.

Shrader, C., Taylor, L. & Dalton, D. (1984). Strategic planning and organizational performance: A critical appraisal. Journal of Management, vol. 10, 149-171.

Shrivastava, P., & Grant, J. (1985). Empirically derived models of strategic decision making processes. Strategic Management Journal, 6, pps. 97-113.

Spender, J. C., Grant, R. (1996). Knowledge and the firm: Overview. Strategic Management Journal, 17:5-9.

Sproull, L. & Kiesler, S. (1991). Making connections. Employee Relations Today, 18(1):53-70.

Stacy, R. (1993). Strategy as order emerging from choas. Long Range Planning, 26: 110-129.

Stalk, G. and Hout, T. (1990). Competing against time. The Free Press, N.Y.

Steiner, G. (1979). Strategic planning. NY: The Free Press.

Stevenson, H.H. (1976). Defining corporate strengths and weaknesses. Sloan Management Review, 17(3), pp. 51-68.

Summer, C., Bettis, R., Durhaime, Grant, John, Hambrick, D. & Snow, Charles (1990). Doctoral education in the field of business policy and strategy. Journal of Management, 16(2), 361-398.

Taylor, B. Massy, W. F. (1996). Strategic indicators for higher education. Vital benchmarks and information to help your institution's performance. ERIC # 412818, Clearinghouse # HE030608.

Thomas, B. (1980). Canonical correlation analysis: Uses and interpretations. Sage University, Beverly Hills and London.

Thune, Stanley S. & Robert J. House. (1970). Where long range planning pays off. Business Horizons, XIII, 81-87.

Tull, D. & Hawkins, D. (1987). Marketing research: Measurement and method. MacMillan, N.Y.

Tyre, M.J. & von Hippel, E. (1997). The situated nature of adaptive learning in organizations. Organizational Science, 8:71-83.

Vinzant, D. H. (1994). Toward a theory of implementation of strategic management in public organizations. DAI, Vol. 56-09A, pps. 3739-3991.

Veliyath, R. (1992). Strategic planning: Balancing short run performance and longer term prospects. Long Range Planning, 25(3) 86-97.

Veliyath, R., & Shortell, S. (1993). Strategic orientation, strategic planning systems characteristics and performance. Journal of Management Studies. May, v30.

Venkatraman, N., & Ramanujam, V. (1987). Planning system success: A conceptualization and an operational model. Management Science, 33, p.6, 687-705

Wahl, PW. & Kronmal, W. (1977). Discrimination when covariances are unequal. Biometrics, 33. 479-484.

Wain, L. (1995). Strategic response to change and uncertainty: A study of american banking. DAI,. Vol. 56.

Wall, S. & Wall, S. (1995). The evolution (not death) of strategy. Organizational Dynamics.

Wallace, R. (1998). University of Missouri-Columbia: MU Strategic Planning & Mission Enhancement. University of Missouri, University Affairs. October, 16.

Whittaker, C. (1996). Context-based strategic planning. California Management Journal. V70,n8.

Wooldridge, B. & Floyd, S. W. (1990). Strategy process, middle management involvement and organizational performance. Strategic Management Journal, 11, 231-242.

Wood, D. Robley, L. & LaForge, R. L. (1979). The impact of comprehensive planning on financial performance. Academy of Management Journal, 22:516-526.

Wood, D. & LaForge, R.L. (1981). Toward the development of a planning scale: An example from the banking industry. Strategic Management Journal. 2, pp. 209-216.

Yasi-Ardekani, M. & Haug, R.S. (1997). Contextual determinants of strategic planning processes. Journal of Management Studies, v34,729-768.

Youndt, M., Dean, J. & Lepak, D. (1996). Human resource management, manufacturing strategy, and firm performance. Academy of Management Journal. 39:836-866.

Zach, M. (Spring,199). Developing a knowledge strategy. California Management Review. Vol. 41, no. 3.